Written Comments Received

No.	Received	Commenter	Agency/Individual
1	10/06/11	Pilling, George	Individual
2	10/12/11	Peck, Stephen	Peck Planning and Development, LLC
3	10/16/11	Bluestein, Ken and Laurie	Individual
4	10/17/11	Stewart, Joan	California Native Plant Society
5	10/18/11	Marks, Anne	Individual
6	10/18/11	Nipp, Gordon L.	Sierra Club Kern Kaweah Chapter
7	10/18/11	Breckenridge, Sara	Shute, Mihaly & Weinberger, LLP
8	10/18/11	Glanter, Tamara S.	Shute, Mihaly & Weinberger, LLP
9	10/19/11	Kendall, Roy J.	Individual
10	10/19/11	Schwaller, Greg	Individual
11	10/19/11	Schwaller, Laurie	Individual
12	10/19/11	Ooley, Leon	Individual
13	10/19/11	Brodfuehrer, Kara	California Rural Legal Assistance, Inc.
14	10/19/11	Jackson, James and Ericka	Jim Jackson Family Farms
15	10/19/11	Keenan, Bob	Home Builders Association
16	10/19/11	Clum, Peter	Individual
17	10/19/11	Clum, Carole	Individual
18	10/21/11	Combs, Carole K.	Tulare Basin Wildlife Partners11/1
19	10/24/11	Huber, Ann	Individual
20	10/27/11	Schwaller, Greg and Laurie	Individual
21	10/31/11	Pugh, Paul F.	Sequoia Valley Resource Corporation
22	11/08/11	Schwaller, Greg and Laurie	Individual
23	11/09/11	Peck, Stephen	Peck Planning and Development, LLC
24	11/12/11	Adest, Gary	River Ridge Ranch
25	11/13/11	Mayer, Jean	Individual
26	11/13/11	Gregg, Mignon	Individual
27	11/13/11	Selph, Mona Fox	Individual
28	11/13/11	Bullene, Dan and Sharon	Sequoia River Dance Bed & Breakfast
29	11/14/11	Mutch, Linda	Individual
30	11/14/11	Robillard, Sylvie and Gordon, Mary A.	Southern Sierra Archaeological Society
31	11/15/11	McMillan, Mehmet	Individual
32	11/15/11	Watts, Bruce	Individual
33	11/15/11	Winters, Sue	Individual
34	11/15/11	Schwaller, Greg and Laurie	Individual
35	11/16/11	Pensar, Bill	Individual
36	11/16/11	Bodner, Karen	Individual
37	11/16/11	Schwaller, Laurie	Individual
38	11/16/11	Gunther-Seligman, Kathleen	Individual
39	11/16/11	Campe, Sarah	Individual
40	11/16/11	Quevedo, Jesus	Asociacion de Gente Unida Por El Agua
41	11/16/11	Clum, Peter and Carole	Sierra Club Kern Kaweah Chapter
42	12/14/12	Peck, Stephen	Peck Planning and Development, LLC
43	12/27/12	Cid, Amparo	California Rural Legal Assistance, Inc.
44	01/28/12	Clum, Peter and Carole	Individual
45	02/24/12	Clum, Peter and Carole	Sierra Club Kern Kaweah Chapter
46	03/27/12	Clum, Peter and Carole	Individual
47	04/19/12	Clum, Peter and Carole	Individual
48	06/14/12	Clum, Peter and Carole	Individual
49	06/04/12	Norris, Julie	CalEMA
50	06/07/12	Michaels, Ralph	Orange Cove Fire District
51	06/08/12	Real, Chuck	CA Dept. of Conservation
52	06/12/12	Castrillo,Dennis	CalEMA
53	08/17/12	Hulse, David	NAVFAC

George Pilling 1535 S. Grant St. Visalia CA 93277
559-901-6676 gppilling@gmail.com www.georgepilling.com



David Bryant
Division Manger - Special Projects
5961 S. Mooney Blvd.
Visalia, CA 93277

October 4, 2011

(I tried to submit this on the web page but could not make it work.)

Items I would like the general plan to address:

Creating a pedestrian and bicycle friendly environment by creating new bike ways and connecting them with existing trails in Visalia and the county.

Preserving the scenic corridor from Hwy 99 in to Visalia and enhancing it. Improving the scenic corridor on both east and west side of Visalia.

Protecting and enhancing the existing creeks and ditches to create natural looking waterways system through parks and scenic corridor areas.

Consider closing Rocky Hill Road to through traffic by car.

Sincerely,

George Pilling

Peck Planning and Development, LLC
Planning Development Economics

Stephen Peck, AICP
President
1850 S. Maselli St.
Visalia, CA 93277
559 731-5778
stephen_peck@sbcglobal.net

October 12, 2011

Dave Bryant, Senior Planner
Nancy Pitigliano, Planning Commission Chair
Mike Ennis, Board of Supervisors Chair
County of Tulare
2800 West Burrel Avenue
Visalia, CA 93291

Re: Inclusion of Travis Property (APNs 119-110-015, -016 and -017)
as Commercial in County General Plan Update.

We represent Bill Travis, owner of the subject property located at the southeast corner of Caldwell and SH 99.

Over the past 8 years the County has been working on its General Plan Update. A key element of that update is the inclusion of policies that will augment the County's finances, and provide for additional economic development. The County's' Growth Corridor policies clearly provide for the development of intersections that are regional in nature for non-agricultural uses. Other counties have capitalized on this approach to the benefit of their residents.

We are writing you to request that the subject property (Figure 1) be included in the General Plan update for commercial development in conformance with those policies. Your policies call for the development of a "Corridor Plan" for these parcels, followed by Special Use Permit for individual properties. However, it is important that the actual sites be designated at this stage of the planning process because:

1. It makes it clear that this was an intended candidate site for the County's Corridor Growth policies. The project site has been the first choice of major regional retail developers over the years, including the Outlet Mall (now in Tulare), and a more recent 1.3 million square foot super regional shopping center (Figure 2).

2. Designation of the site conforms to the Growth Corridor policies and the Work Plan/Implementation Measures contained in Section 2.2 of the Corridors Framework Plan in the following ways:

    - Located within ¼ mile of a highway intersection
    - Within 1/8 mile of an existing local road

- Qualification under the RVLP requirements under Policy C-1.6
- Availability of infrastructure
- Absence of major frontage roads
- Separation criteria for uses (to be part of Special Use Permit)
- Demonstrable cohesive circulation plan
- Proximity of public safety services
- Perpendicular road (Caldwell) to the corridor
- Nodal concentration
- Quality development (as part of Special Use Permit)
- Special environmental review (as part of Special Use Permit)
- Fiscal review (as part of Special Use Permit)

3. State General Plan Law requires that there be a Land Use Diagram as part of the Land Use Element. This diagram must have enough specificity to illustrate the policies of the plan in a clear and unambiguous manner. While such a diagram does not have to follow the precise configuration of individual parcels, it must at least follow or identify a finite, well-defined geographic area so that future decision makers and the public can properly interpret and implement the plan. Designating this parcel or this intersection's parcels for development under the Growth Corridor policies fulfills that requirement of General Plan Law.

4. The staff will be consumed with the numerous details of implementing the General Plan over the next years, and it is unlikely that a Regional Corridor Growth Plan will be developed any time soon, let alone in the 2010-2015 timeline called for in the Work Plan/Implementation Measures. The staff will have Community Plans and other regulations to update that are higher priorities. While developing "a plan" for this concept, as called for by proposed General Plan Policies C 1.4 and C 1.7, sounds deliberate and prudent, there are few actual sites that comply with the policies, are near population centers, and are feasible from a development standpoint. An overall plan for that purpose is not necessary. All of the requirements that a plan may include can be (and are required to be) implemented through the required Special Use Permit.

5. Regional Transportation Plans, State Transportation Improvement Plans, and other programming documents are based on traffic projections associated with land uses that are actually shown on an approved Land Use Diagram. Since the Caldwell/99 interchange is slated for improvement in 2015 according to the General Plan, the basic traffic assumptions need to be established now, not later. Designating a specific site or sites will allow that planning to take place so the needed intersection facilities will not be undersized.

6. The project site is one of the few that comply with the airport compatibility criteria. There is approximately 1,500 to 1,800 feet of frontage depth along SR 99 south of Caldwell that is outside of the restrictive airport zones.

Considering the importance of the development of these sites for the County and Tulare County's communities, we believe that the Land Use Diagram should be modified prior to adoption to show commercial development on this site. Although the County's General Plan EIR does not currently quantify the impacts of the development of such sites, it can "programmatically" show such sites

for development with a "reserve" or other such designation. It would have been more consistent with your draft plan to consider the impacts of development of on such sites in the General Plan EIR; however, since it is a programmatic EIR, and the policies are considered to prospectively mitigate impacts resulting from the implement of the policies, you are not precluded from designating it at this time as long as there is some future discretionary action. Since the development of the property will require a Special Use Permit and the associated subsequent environmental reviews, designation of the site for some form commercial development is not inconsistent with CEQA, and is most consistent with State Planning Law and the County's proposed General Plan development policies.

Thank you for your consideration of this matter.

Sincerely,

Stephen J. Peck, AICP

Xc: William Travis
Bob Dowds

Attachments:

	Figure 1	Project Site
	Figure 2	Conceptual Regional Retail Site Plan
	Figure 3	Airport Zones

Map Changes Received by the County

Number	Name	Agency	Location/Type	Date Received
1*	Soto Family	Private Citizen	Waekena, Boundary	2/16/07
2	Collins and Shoettler	Strathmore Union Elementary School District	Strathmore, Boundary	1/17/08
3	Keller & Wegley	Poplar Community Service District	Poplar, Boundary	2/26/07
4	Keller & Wegley	Strathmore Improvement District	Strathmore, Boundary	1/17/07
5*	Machado Family	Private Citizen	Waekena, Boundary	2/16/07
6*	Storm Family	Private Citizen	Waekena, Boundary	2/16/07
7*	Phillips	Allensworth Community Service District	Allensworth, Boundary	1/19/07
8	Antione Bechara	Private Citizen	Strathmore, Corridor	4/18/2008
9	Barbera and James Gibbs	Private Citizen	FGMP, Zone	12/18/06
10	Fred & Megan Hohenfeld	Private Citizen	FGMP, Zone	12/18/06
11	James Jackson	Private Citizen	North of Traver, Corridor	10/11/2010
12	James Winton	Agent	N. Porterville, RVLP	5/7/2008
13	Bill Travis	Private Citizen	Visalia, Corridor	10/12/2011

Oct 11, 2011

* Comments addressed in the GP 2030 Update and included within the Hamlet development boundary in 2007.

FORESTER, WEBER & ASSOCIATES, LLC
Licensed by the
Board of Professional Engineers and Land Surveyors
1620 W. Mineral King Ave. Suite B
Visalia, California 93291
TEL (559) 732-0102, FAX (559) 732-8479

TO: David Bryant
Division Manager
Special Projects
Tulare County-RMA

DATE: 11 Oct 2010

FROM: Fred Weber

SUBJECT: General Plan Update

Dear Dave,

Acting as the agent for James Jackson who is purchasing the subject property from Walter H. Jensen Cattle Co. Inc., I am requesting consideration on Parcel 2 of the attached Tentative Parcel Map (PPM 10-028) to change the zoning from AE-20 to C-3.

This letter is in response to our conversation on Thursday, 7 Oct 2010.

Sincerely,

Fred Weber, PLS 5531
Agent for James Jackson

CC: James Jackson

TENTATIVE PARCEL MAP

BEING PORTIONS OF THE SE 1/4 OF SEC. 36 AND PORTIONS OF SW 1/4 OF SEC. 31, ALL OF T.16 S., R.23 E., M.D.M. AND A PORTION OF THE NW 1/4 OF SEC. 6, T.17 S., R.23 E., M.D.M., ALL IN THE COUNTY OF TULARE, STATE OF CALIFORNIA.

APRIL 2010

OWNERS: WALTER H. JENSEN, CATTLE CO. INC.
P.O. BOX 1333
PEBBLE BEACH, CA 93953

APPLICANT: JAMES JACKSON
P.O. BOX 90
KINGSBURG, CA 93631

SURVEYOR: FORESTER, WEBER & ASSOCIATES, LLC
1820 W. Minarets Way Ave., Suite B
Fresno, California 93711
(559) 732-0102

NOTES:

EXISTING PROPERTY USE:	AG/RES
PROPOSED PROPERTY USE:	SAME
A.P.N.:	028-200-17, 070-230-17
ZONING:	AE20
WATER:	WELL
SEWAGE:	SEPTIC SYSTEM
FLOOD ZONE:	"C"

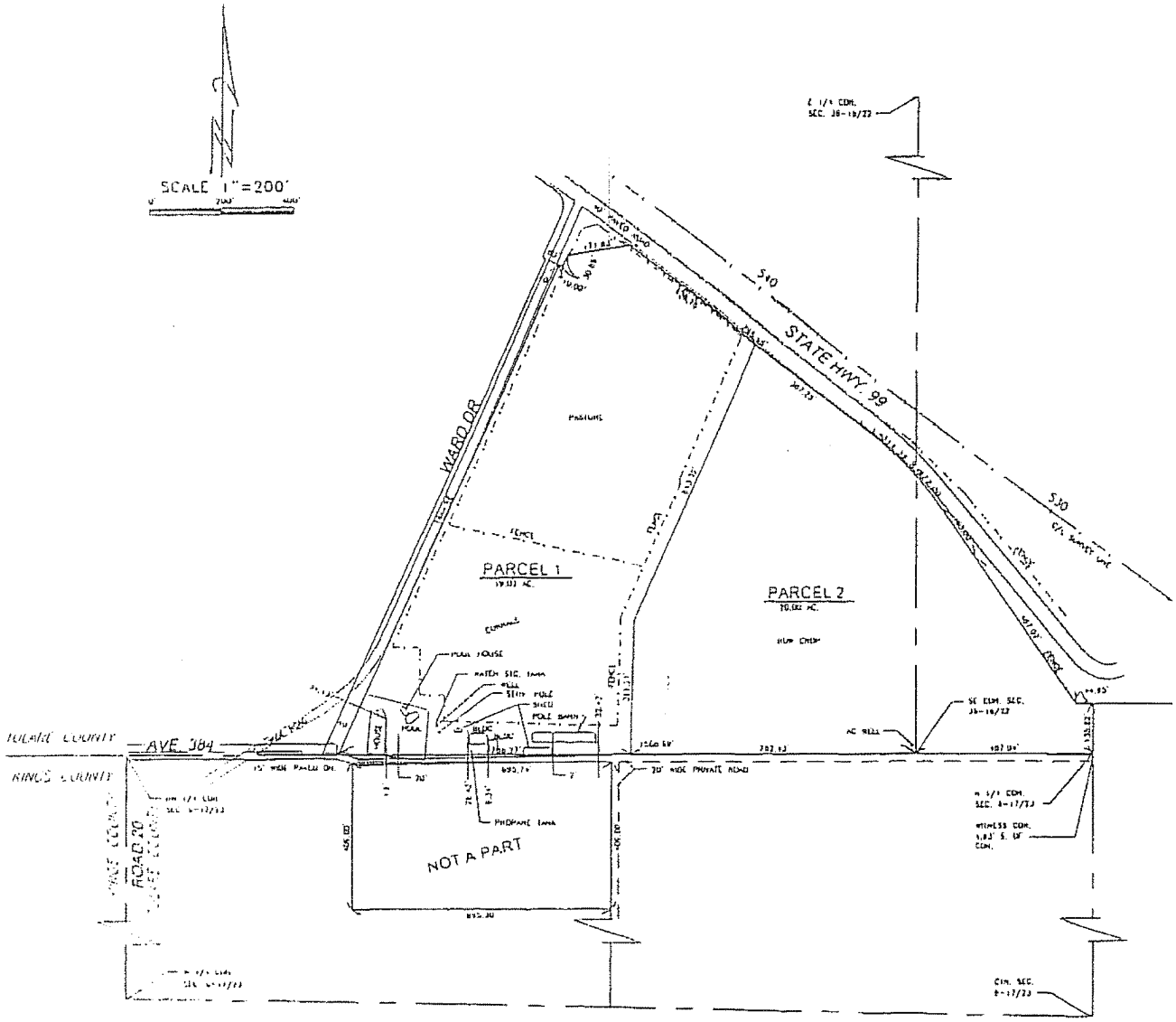
NO IMPROVEMENTS OR PUBLIC UTILITIES AT THIS TIME.
PROPERTY IS NOT WITHIN 1320 FEET OF A COMMUNITY SEWER SYSTEM.
PROPERTY IS NOT WITHIN AN URBAN AREA BOUNDARY.
PROPERTY IS NOT WITHIN AN URBAN DEVELOPMENT BOUNDARY.
REQUEST WAIVER OF CEQ-HYDRO REPORT

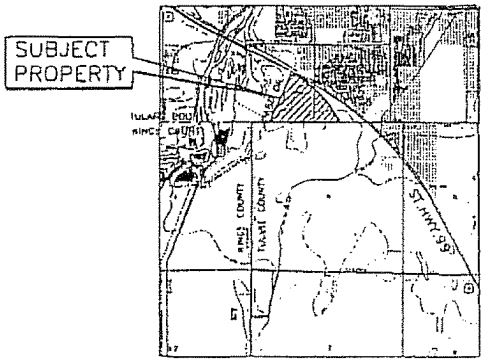
WE HEREBY APPLY FOR APPROVAL OF THE DIVISION OF REAL PROPERTY SHOWN ON THIS MAP, AND CERTIFY THAT WE ARE THE OWNERS OF SAID PROPERTY, THAT SAID PROPERTY IS NOT PART OF AN AGRICULTURAL PRESERVE, OR UNDER THE WILLIAMSON ACT, AND THAT THE INFORMATION SHOWN HEREON IS TRUE AND CORRECT TO THE BEST OF OUR KNOWLEDGE AND BELIEF. WE ALSO DESIGNATE FORESTER, WEBER AND ASSOCIATES, LLC AS OUR AUTHORIZED AGENT FOR THIS PROJECT, INCLUDING ANY ASSOCIATED PERMITS SUCH AS, ZONE VARIANCE, USE PERMIT, ETC.

WALTER H. JENSEN, CATTLE CO. INC.

WALTER H. JENSEN — DATE

CARLEATA JENSEN — DATE





Vicinity Map

NO SCALE

ONE SHEET ONLY

DENNIS R. KELLER
JAMES H. WEGLEY
CONSULTING ENGINEERS

DENNIS R. KELLER
CONSULTING CIVIL ENGINEER, INC.
JAMES H. WEGLEY
CONSULTING CIVIL ENGINEER, INC.
JAMES A. BLAIR, R.C.E.
B. MICHEAL CATES, R.C.E.
EDWARD D. GLASS, JR., R.C.E.

209 SOUTH LOCUST STREET
P.O. BOX [illegible]
VISALIA, CALIFORNIA 93279-0911
PHONE 559 732-7935
FAX 559 732-7937
KELWEG1@AOL.COM

September 26, 2007

SEP 2[illegible] 2007

Miss Theresa Szymanis
Resource Management Agency
County of Tulare
5961 South Mooney Boulevard
Visalia, CA 93277

RE: URBAN DEVELOPMENT BOUNDARY
POPLAR COMMUNITY SERVICES DISTRICT

Dear Theresa:

We have reviewed the Poplar-Cotton Center Urban Development Boundary (UDB) shown as Figure 2.2-12, "Public Draft Goals and Policies Report," November, 2006. Based on our review of the proposed Urban Development Boundary (UDB), it was found that a portion of the Poplar Community Services District's (District) existing service area is outside of the proposed UDB. It was also discovered that several parcels of land that are a part of a current annexation effort are also outside of the proposed UDB. Attached ,as Figure 1, is the existing UDB, the Local Agency Formation Commission (LAFCO) Sphere of Influence (SOI), the existing District boundary and the areas proposed for annexation.

On behalf of the District, we request that the County consider an adjustment to the proposed UDB to include the District's existing service area and the parcels presently under consideration for annexation.

If you have any questions regarding this request, please contact the undersigned or Mr. James Blair.

Very truly yours,

Dennis

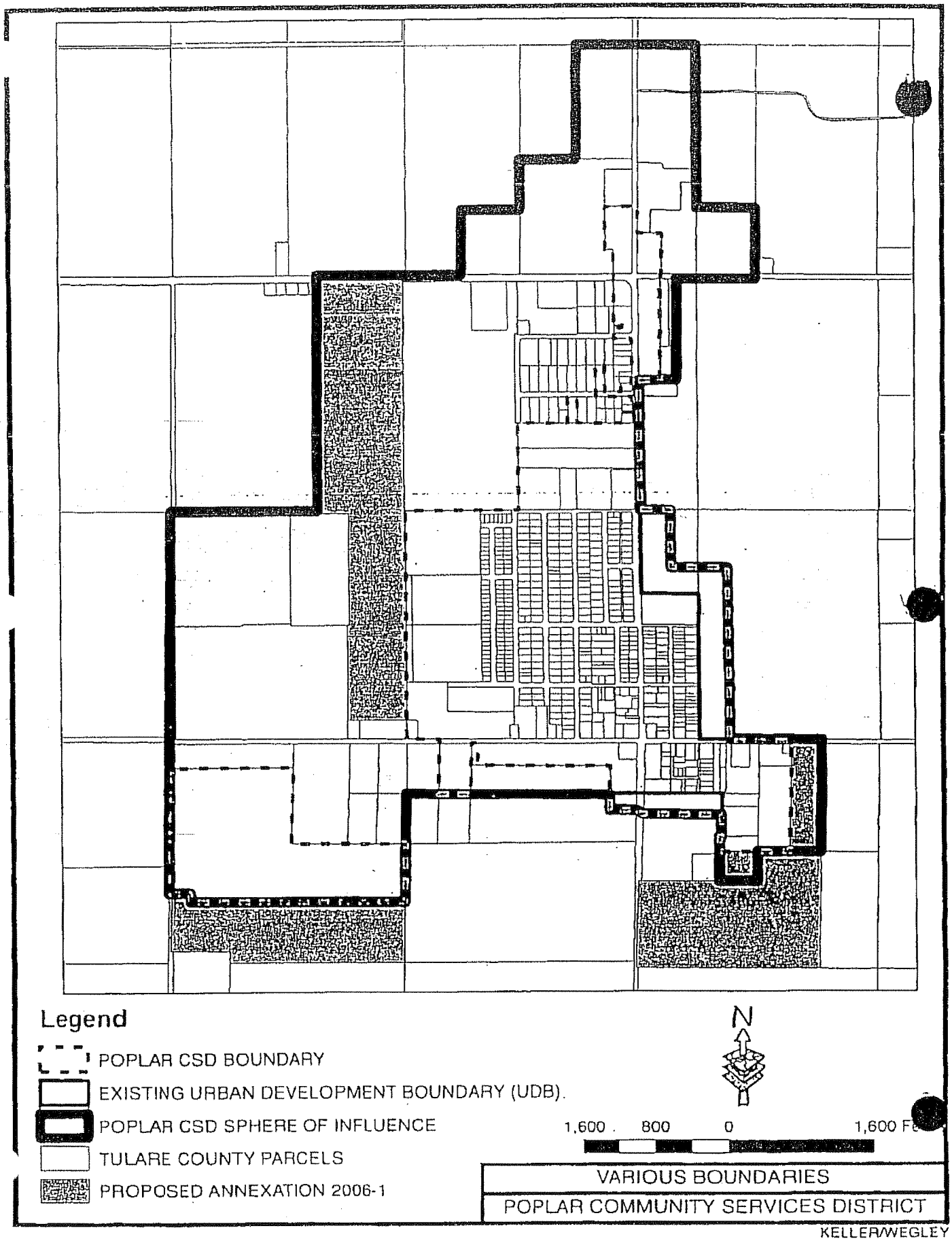
Dennis R. Keller
Consulting Civil Engineer

DRK:mc

Enclosure

cc: Poplar Community Services District, w/enclosures
Mr. J. Patrick Sullivan, Attorney at Law, w/enclosures

FIGURE 1



KELLER/WEGLEY

Jack C. Phillips Ranch
P.O. Box 548
Delano, CA 93216-0548
Phone: (661) 725-1231 - Fax: (661) 725-3688

April 7, 2008

County of Tulare
Resource Management Agency
59641 So. Mooney Blvd.
Visalia, CA 93277-9394

Attention: David P. Bryant

Dear Mr. Bryant:

I, Jack C. Phillips along with an outside interest would appreciate Tulare County General Plan to consider modification of the Hamlet Development Boundaries of Allensworth and accept our request for an expansion to include Tract 9, Tract 12, Tract 14 and Tract 15 of the California Colony Home Promoting Ass'n., to be part of the Allenworth Hamlet Development Boundaries.

At the present time land for infill has become limited for future development of any size for an outside interest. This has the possibility of being very beneficial to HDB future success in development of the Allensworth community by providing adequate land. Also the Allensworth Cemetery is in Tract 15 in which some of the early settlers were buried. This is not prime farmland because this land was subdivided into small partial during the early 1900's and some lots are still own by the heirs of the original purchasers. This makes farming difficult and not economical to farm land in between these partials.

The outside interest has the possibility for funding and resources to be a positive influence for the community. They would like to continue with the dreams and wishes of the late Lieutenant Colonel Allensworth to be able to establish a community that would honor Lieutenant Colonel Allensworth. Their ideas for future development would be beneficial to the Allensworth Historical State Park and the community and has the possibility to bring in more visitors and other outside interest to the area which could also be an asset to the community's growth and development. Their plans for future development includes building 3,000 to 6,000 homes, creating industries, establishing a college and also other future ideas of a golf course, and a entertainment center.

Please consider our request for modification and expansion of Allensworth Hamlet Development Boundaries. If you require further information please call me at 661-725-1231.

Sincerely,

Jack C. Phillips

Jack C. Phillips Ranch

P.O. Box 548
Delano, CA 93216-0548
Phone: (661) 725-1231
Fax: (661) 725-3688

Fax

To: Tube Co

Attn: David Bryant

From: Jack Phillip

Pages: 3

Fax: 559-730-2653

Phone: 559-733 6291 Ext 4323

Re:

Date: 4-9-2008

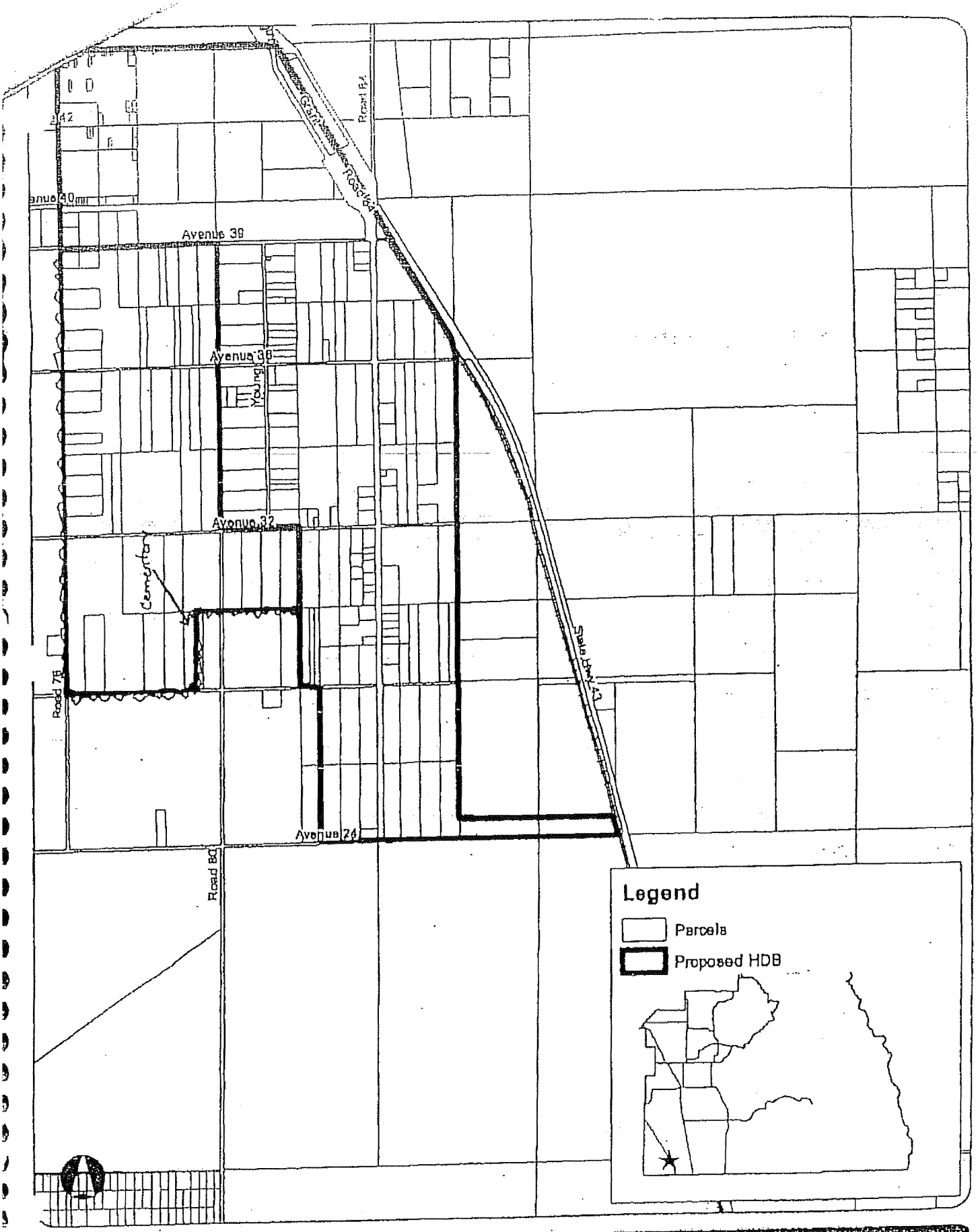
☐ Urgent ☐ For Review ☐ Please Comment ☐ Please Reply

• Comments:

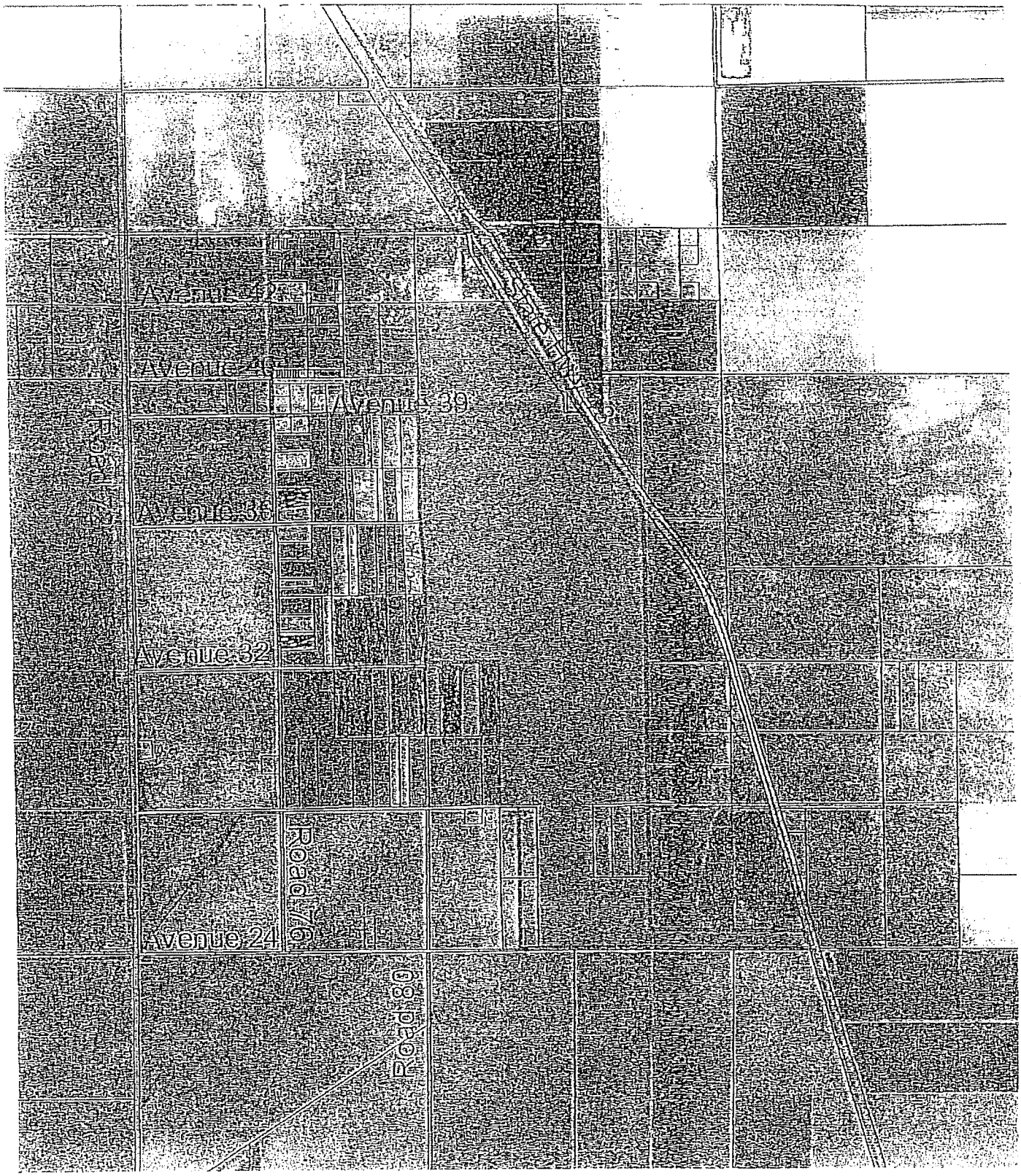
Please Call

Thank You

Jack



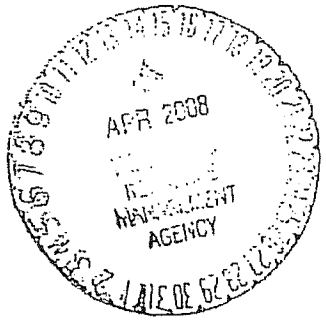
Allensworth Hamlet Development Boundary | Figure 2.3-2



J. C. P. RANCH PROPERTIES, INC
P.O. BOX 548
DELANO, CA. 93216

PH. 661 725-1231
FAX 725-3688

ANTOINE BECHARA
P. O. Box 1268
Porterville, CA 93258
Telephone: 559.782.1357
Cell: 559.350.3979



The County of Tulare
Resource Management Agency
5961 South Mooney Blvd.,
Visalia, CA 93277

We, the undersigned, are requesting your consideration of a General Plan Amendment from the current Agricultural Designation to Rural Residential. We would appreciate your response and the applications necessary to proceed.

This is to advise you that the property owners who have signed the attached page, have asked me to represent them in this matter. Please address and send all your letters and/or documents relating to this project to me, Antoine Bechara at P. O. Box 1268, Porterville, CA 93258. Should you wish to call me, my phone numbers are: Office: 559.782.1357, and Cell: 559.350.3979.

Thank you for your courtesy and prompt attention to this request.

Sincerely,

Antoine Bechara

Attachment: As above

may be a request to include
as a request for UB adjustment
for Pville Area Plan. Thanks Dj

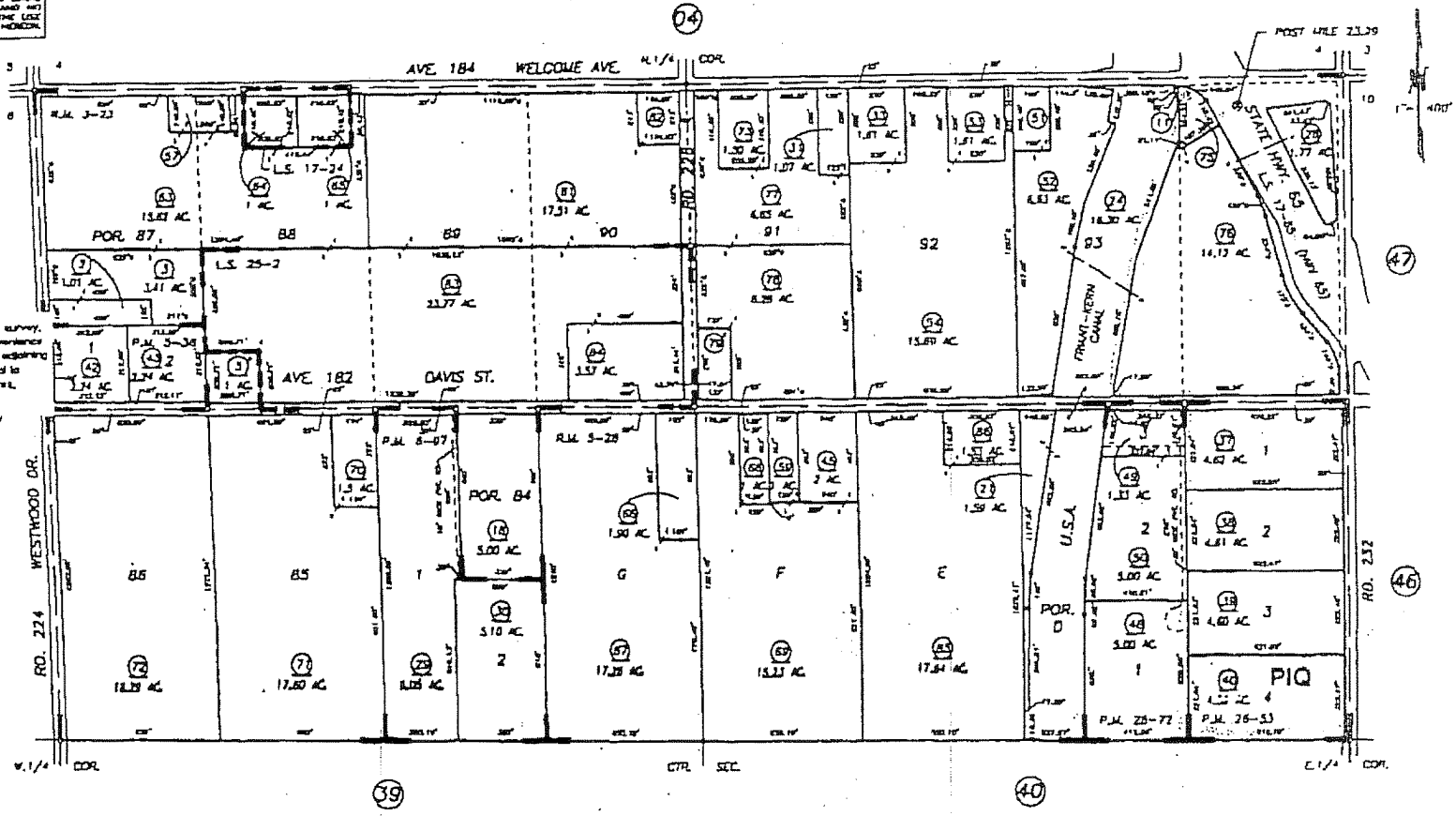
350-3979

DISCLAIMER

THIS MAP WAS PREPARED FOR LOCAL PROPERTY ASSESSMENT PURPOSES ONLY AND THE PARCELS SHOWN HEREON MAY NOT COMPLY WITH STATE AND LOCAL SUBDIVISION ORDINANCES, AND NO LIABILITY IS ASSUMED FOR THE USE OF THE INFORMATION SHOWN HEREON.

N. 1/2 SEC. 9, T.21S., R.27E., M.D.B.& M.

Tax Area Code 243–09
139–005



IMPORTANT: This plat is not a survey. It is merely furnished for a convenience to locate the land in relation to adjoining streets and other lands, and not to guarantee dimensions, distances, bearings or acreage.

POR. PIONEER LD. CO. 2ND SUB., R.M. 3–23
POR. SUB. LT. 78, PIONEER LD. CO. 2ND SUB., R.M. 5–28
PARCEL MAP 436, P.M. 5–36
PARCEL MAP 597, P.M. 6–97
PARCEL MAP 2552, P.M. 26–53
PARCEL MAP 2771, P.M. 28–72
RECORD OF SURVEY, L.S. 17–24
RECORD OF SURVEY, L.S. 17–85 (HWY 65)
RECORD OF SURVEY, L.S. 25–2

NOTE: Assessor's Block Numbers Shown in Ellipses
Assessor's Parcel Numbers Shown in Circles

VICINITY OF STRATHMORE
ASSESSOR'S MAPS BK. 243, PG. 09.
COUNTY OF TULARE, CALIF.

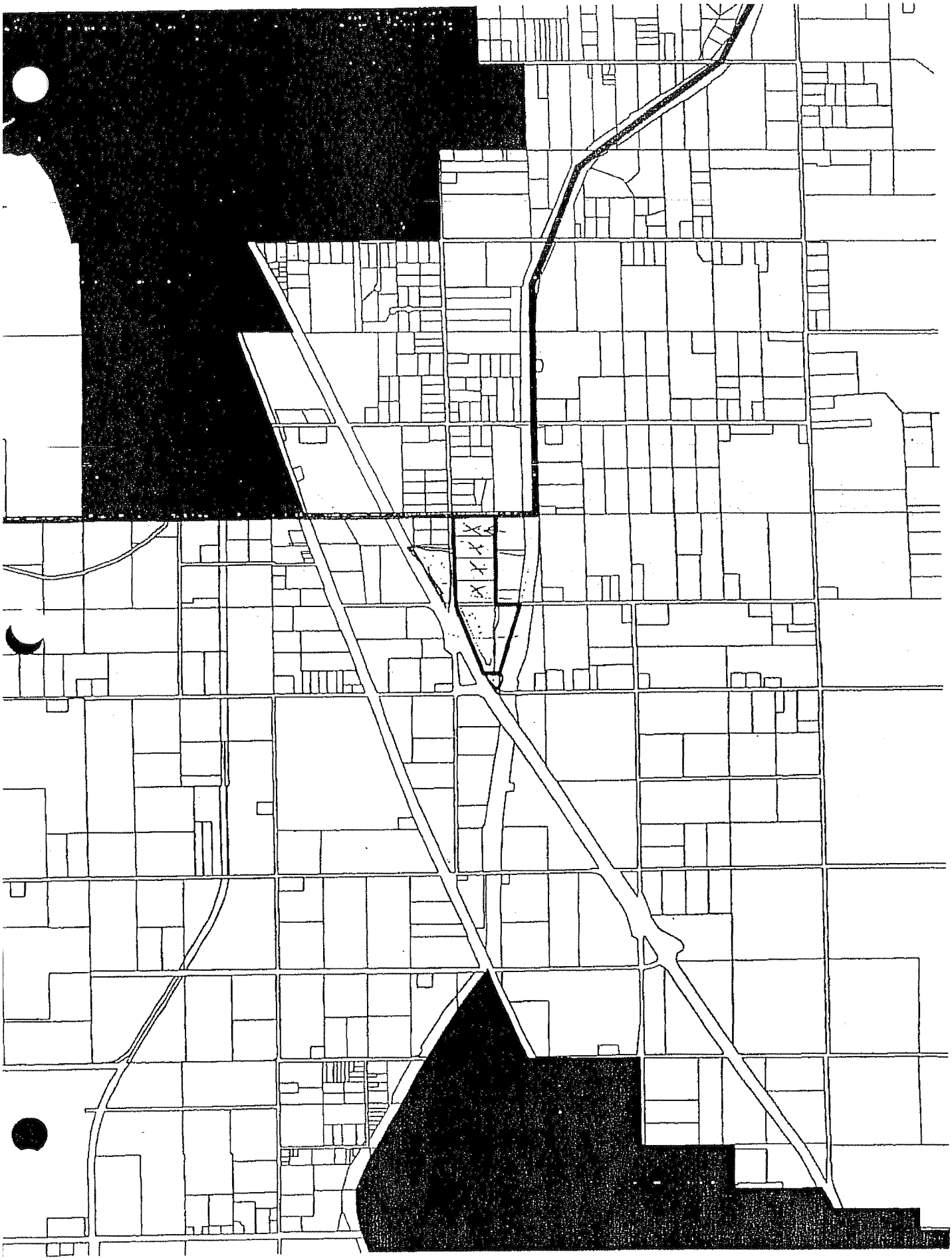
AUG 07 2002

97/98

TO: The Tulare County RMH
Current Planning
5961 South Mooney Blvd.
Visalia, California 93277

We, the undersigned are requesting your consideration of a General Plan Amendment from the current Agricultural Designation to Rural Residential. We would appreciate your response and the applications necessary to proceed.

Name:	Address & Phone No.	APN Number
Chammout, Talal Signed: Talal Chammout	943 W Westfield Suite A Fowler CA 93625 559 784-8030	243 090 037 243 090 039
Ilyas, Muhammad & Rukhsana Signed: _____		243 090 038
Bechara, Antoine Signed: _____	P.O. Box 1268 Porterville CA 93258 (559) 782-1357	243 090 076
Monabella Properties LLC Signed by: _____		243 090 040
Polk, William & Janet Signed: _____	23101 Ave 182 Strathmore CA 782-9284	243-090-048
Acevedo, Jose M. & Maria G. Signed: Jose Acevedo	23061 - Ave 182 18185 Road 232	243-090-050
Garibay, Michael K. Signed: _____		243 046-032



FAX 733-6720

DECEMBER 18, 2006

TULARE COUNTY RESOURCE MANAGEMENT
5961 SOUTH MOONEY BLVD.
VISALIA, CA 93277
ATTN: THERESA SZYMANIS/ VIA FAX

RE; GENERAL PLAN UPDATE PLANNED DEVELOPMENT CORRIDER
COMMENT LETTER

WE WOULD LIKE TO MAKE A COMMENT ABOUT THE GENERAL PLAN UPDATEAS WE WOULD LIKE TO HAVE THE DENSITY LIMIT BE LOOKED AT..

WE OWN A PROPERTY, WITH MY SON AND HIS SISTERS AT 31171 SUCCESS VALLEY DR, THAT IS IN THE FOOTHILL DEVELOPMENT CORRIDER. WE WANTED TO SEPARATE THE EXISTING GUEST HOUSE AND BUILD ANTOHER SMALL HOUSE IN THE FRONT OF THE LOT WHERE CITRUS ONCE GREW, BETWEEN THE LARGE ROCK FORMATIONS.

WE INQUIRED WITH THE COUNTY AND WE WERE TOLD THE PROPERTY IS IN THE ZONE OF PDFM, LIKE THE ADJACENT AND NEARBY PROPETIES AND COULD BE SPLIT, BUT BECAUSE IT IS PDFM 217 IT MUST STAY AT 217,000 SQUARE FEET (APPROXIMATELY FIVE ACRES).

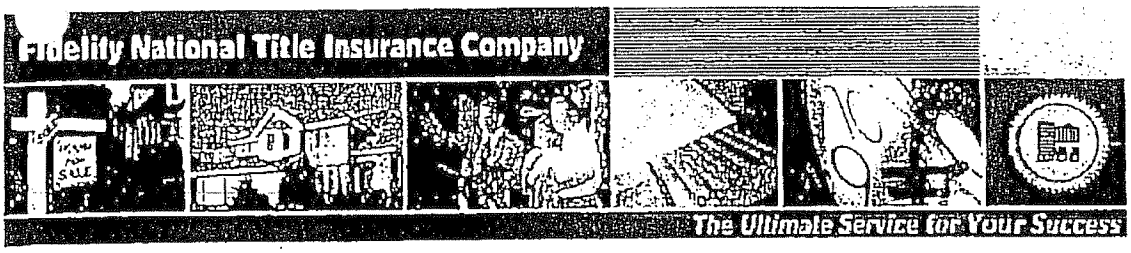
THE PROPERTY WAS FARMED IN CITRUS AT ONE TIME, BUT THE PREVIOUS OWNERS LET THE TREES DIE AS THEY COULD NOT MAKE A PROFIT GROWING THEM. THERE ARE SEVERAL LARGE ROCK FORMATIONS ON THE PROPERTY THAT ALSO MAKE IT NOT SUITED FOR FARMING.

MY HUSBAND AND I LIVE AT 31900 SUCCESS VALLEY DRIVE ON THIRTY FIVE ACRES AND WE UNDERSTAND THE PROPERTY OWNERS IN THE AREA WANT TO KEEP THE AREA FOR FARMING OF CITRUS AND WE AGREE WITH THAT, BUT WE FEEL A FEW EXCEPTIONS COULD BE MADE THAT WOULD ALLOW A FEW SMALL HOUSES TO BE BUILT THAT WOULN'T INTERFERE WITH THE FARMING AND RURAL ATMOSPHERE.

SINCERELY,

Barbara Gibbs

BARBARA AND JAMES GIBBS (559)783-8513 OR 781-9919



Primary Owner: GIBBS JAMES C
Secondary Owner:
Mail Address: 31171 SUCCESS VALLEY DR
PORTERVILLE CA 93257
Site Address: 31171 SUCCESS VALLEY DR
PORTERVILLE CA 93257
Assessor Parcel Number: 284-400-015
Phone: 559-781-5121
Census Tract: 0027.00
Housing Tract Number:
Lot Number: 15
Page Grid:
Legal Description: Lot: 15 Map Ref: MAP 284 PAGE 40

Property Characteristics:

Bedrooms : 3	Year Built : 1983	Square Feet : 2,244 SF
Bathrooms : 3.0	Garage : Carport 2	Lot Size : 5.540 AC
Total Rooms : 6	Fireplace : 1	Number of Units : 1
Zoning :	Pool : P	Use Code : Single Family Residential
No of Stories: 2	Latitude: 36.0798	Longitude: -118.8797

Sale & Loan Information

Transfer Date : 02/28/2005	Seller : JOO, SUNG K	
Transfer Value : $372,500	Document # : 2005-0021123BK-PG: -	Cost/Sq. Feet : $166
First Loan Amount : $300,000	Lender : WELLS FARGO BANK NA	

Assessment & Tax Information

Assessed Value : $379,950	Percent Improvement : 65.10%	Homeowner Exemption :
Land Value : $132,600	Tax Amount : $2,158.88	Tax Rate Area : 64-003
Improvement Value : $247,350	Tax Account ID :	Tax Status : Current
Market Improvement Value :	Market Land Value :	Market Value:

Data Deemed Reliable, But Not Guaranteed.
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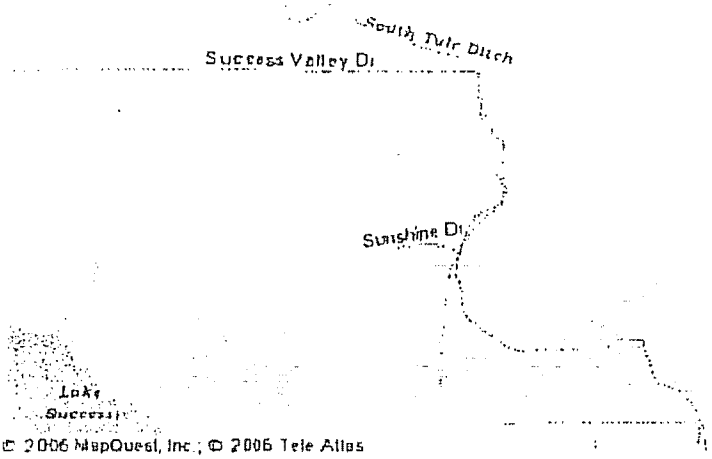
MAPQUEST

300m
900ft



© 2006 MapQuest, Inc.; © 2006 Tele Atlas

2 LOTS TO WEST OF [illegible]
Same SIZE

3 Separate houses on same ?

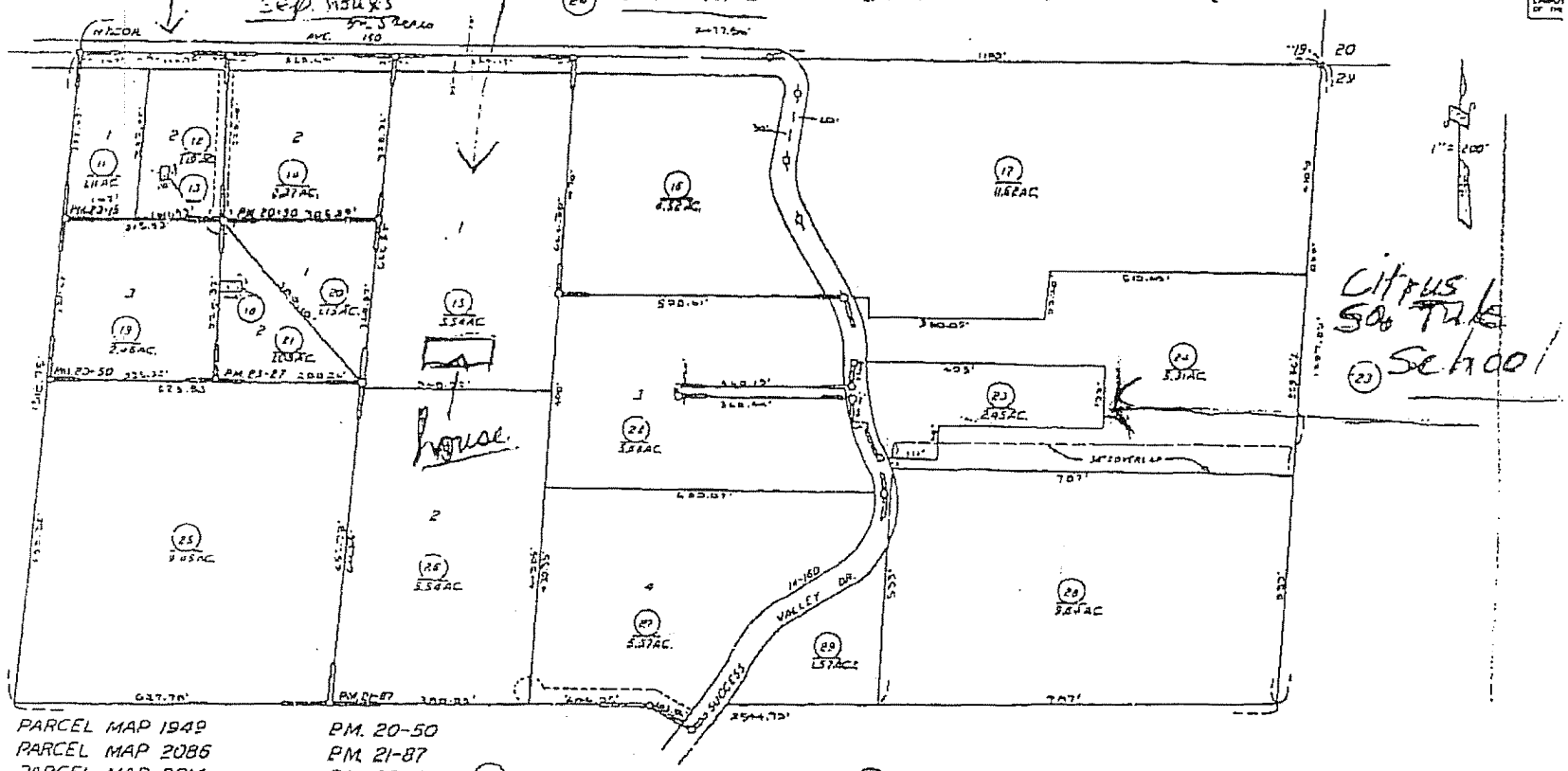
N½ OF NE¼ SEC. 30, T.21S., R.29E., M.D.B.&M.

TAX CODE AREA 284-40
64-001
64-003

3 1171 Success Valley Dr.

Sep. houses on same

(24) 5 ACRES - ONE house allowed



PARCEL MAP 1949 P.M. 20-50
PARCEL MAP 2086 P.M. 21-87
PARCEL MAP 2214 P.M. 23-15
PARCEL MAP 2226 P.M. 23-27

(48) (45)

ASSESSOR'S MAPS BK. 284 PG.40
COUNTY OF TULARE, CALIF.

NOTE—ASSESSOR'S BLOCK NUMBERS SHOWN IN ELLIPSES
ASSESSOR'S PARCEL NUMBERS SHOWN IN CIRCLES

JANUARY 15, 2007

TULARE COUNTY RESOURCE MANAGEMENT
5961 SOUTH MOONEY BLVD.
VISALIA, CA 93277
ATTN: THERESA SZYMANIS/ RE; GENERAL PLAN UPDATE PLANNED DEVELOPMENT CORRIDER
COMMENT LETTER

RE: DENSITY LIMIT ON PDFM ZONE DESIGNATION (PDFM217) (REQUIRES CERTAIN FIVE ACRES MINIMUM LOT

MY COMMENT ABOUT THE ZONING DESIGNATION OF PDFM 217, (MINIMUM FIVE ACRE LOTS) (THAT IS ON THIS PROPERTY THAT WE OWN) IS IT IS UNFAIR AND ARBRITARY COMPARED TO PDFM ZONING IN THE AREA AND GENERAL PLAN.

I TRULY FEEL, IN ALL FAIRNESS THE DENSITY LIMIT ON THE ZONING DESIGNATION SHOULD BE LOOKED AT IN OUR AREA. I THINK TWENTY YEARS AGO, WHEN THIS PDFM VS PDFM217 WAS PUT IN THE GENERAL PLAN WAS BECAUSE THE PEOPLE IN THE AREA WANTED THIS AREA TO REMAIN IN AGRICULTURE AND I WOULD HOPE THAT IT WILL, AND I DON'T THINK DROPPING THE DENSITY LIMIT ON THE PDFM ZONE WILL AFFECT THAT. MY WIFE AND I LIVE ON THIRTY FIVE ACRES ON "AGRICULTURE ZONE" LAND AT 31900 SUCCESS VALLEY DR.

I AM ENCLOSING PICTURES OF THE PROPERTY AT 31171 SUCCESS VALLEY SO YOU CAN GET AN IDEA OF WHAT I AM TALKING ABOUT. THIS HOUSE WAS BUILT AT THE BACK OF THE FIVE ACRES BECAUSE THE FRONT WAS ORANGE TREES. THE PREVIOUS OWNERS PULLED THEM OUT WHEN THEY COULDN'T AFFORD TO MAINTAIN THEM, OR GET ANYONE TO PICK THE ORANGES. AS YOU CAN SEE FROM THE PICTURES THIS AREA IS ALSO HEAVILY DOTTED WITH LARGE BOULDERS, THAT INTERFERE WITH GENERAL AGRICULTURE PRACTICES, ESPECIALLY ON SMALL PIECES..

THE TWO EXACT SAME LOTS TO THE WEST OF OUR PROPERTY WERE SPLIT INTO THREE SEPARATE UNITS FOR HOUSING, WE FEEL WE SHOULD BE ABLE TO AT LEAST SPLIT OURS IN HALF TO ALLOW A HOUSE IN FRONT, WHAT WE HAVE NOW IS FIVE ACRES, TWO ACRES FOR THE HOUSE AND BARN AND THREE ACRES OF WEEDS. WE WOULD APPRECIATE YOUR DEPARTMENT TO LOOK INTO THIS, POSSIBLY MEET US IN THE AREA TO VIEW WHAT THERE IS NOW AND TALK ABOUT WHAT COULD IMPROVE

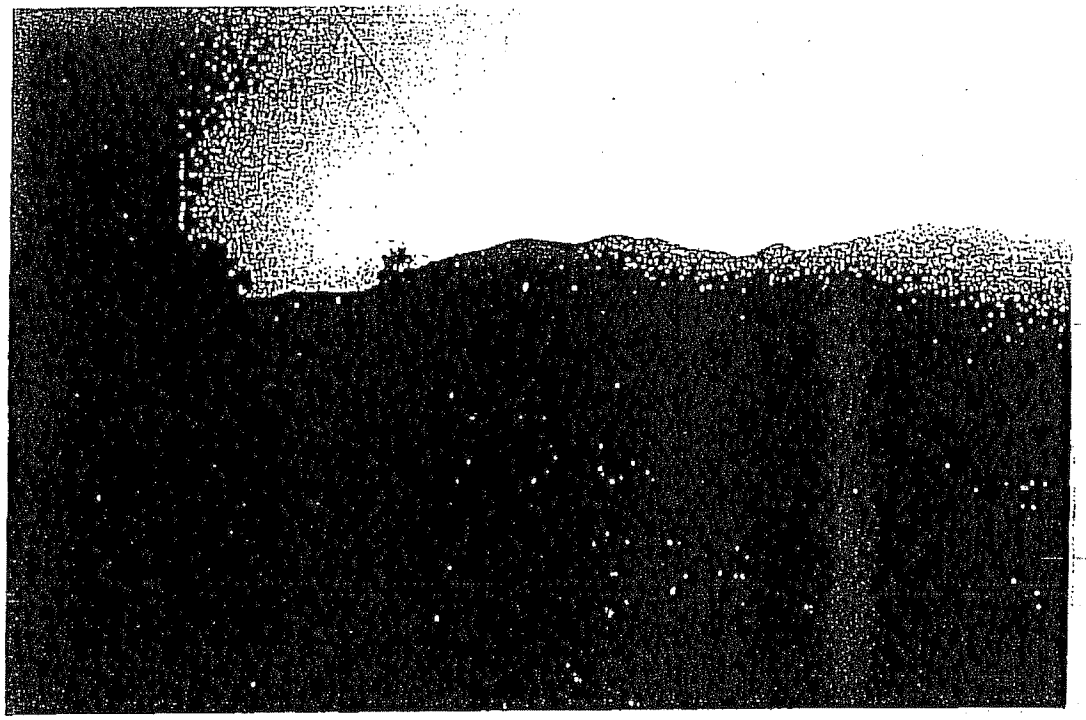
THE AREA, BY PROVIDING FOR A LITTLE MORE MUCH-NEEDED HOUSING IN THE AREA. I AM SURE YOU ARE AWARE THAT THE CITRUS SOUTH TULE SCHOOL WAS ALMOST CLOSED A COUPLE OF YEARS AGO DUE TO LOW ENROLLMENT. THIS IS ON THE LIST AS ONE OF THE TOP GRAMMAR SCHOOLS IN ALL OF CALIFORNIA, I THINK IT WAS NUMBER FIVE.

Thank you,

SINCERELY,
James Gibbs
JAMES GIBBS
31900 SUCCESS VALLEY DR.
(559)783-8513

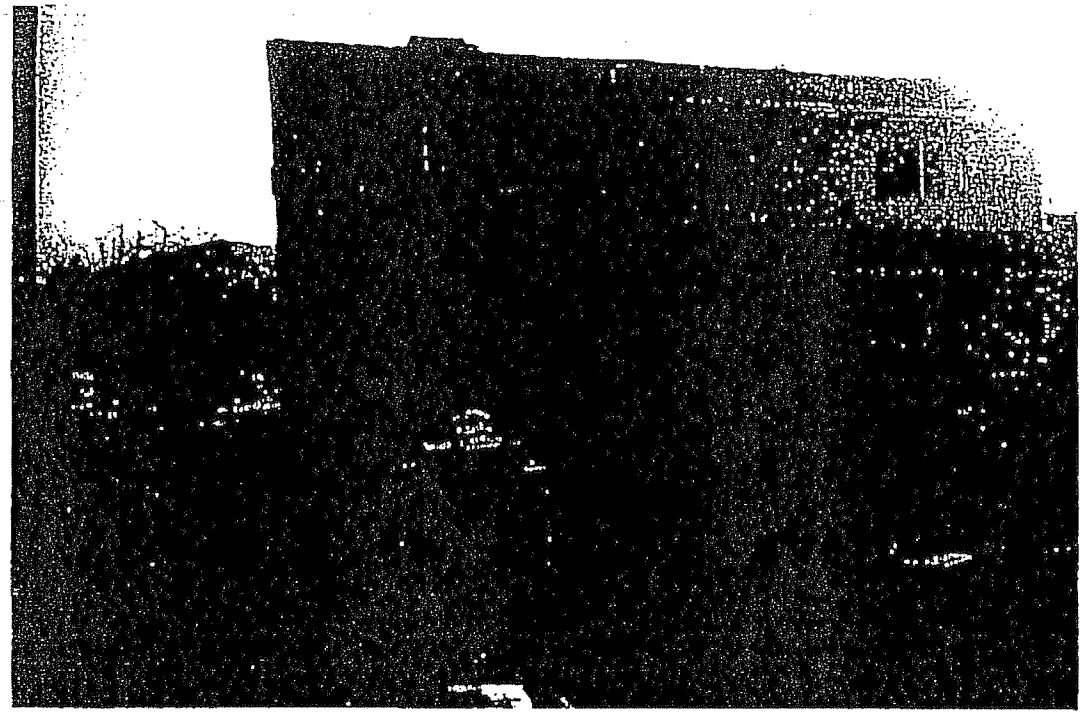


Citrus South Tule School

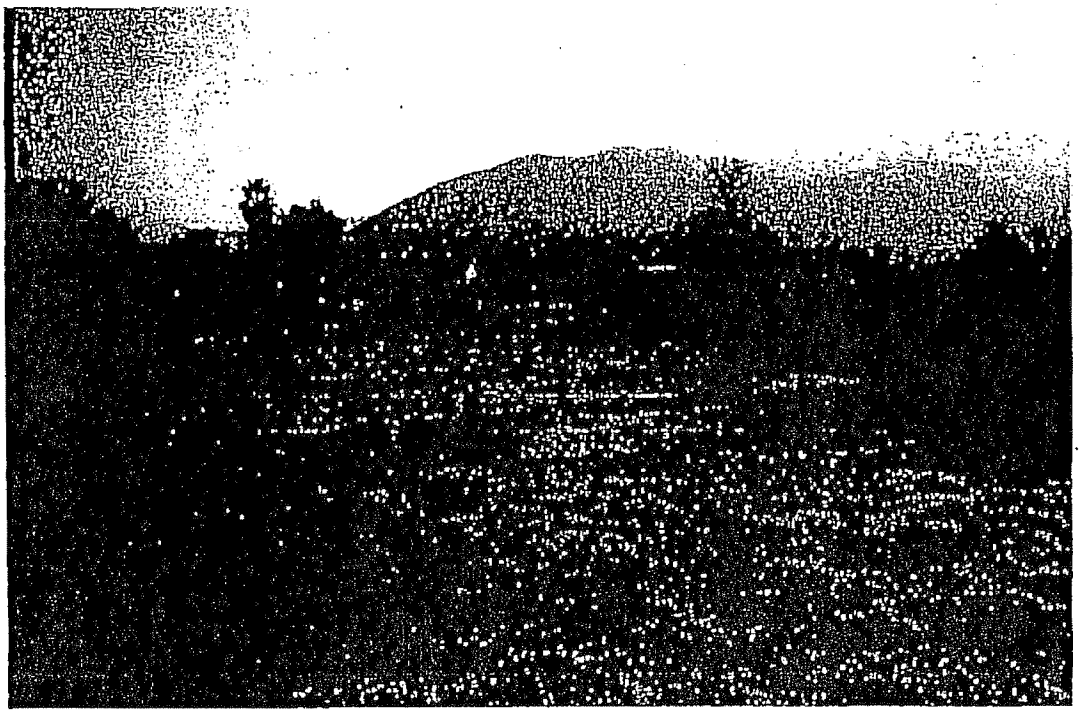


House in back - (BOULDERS) - IN FRONT.
31171 Success Valley Dr.
5 Acres - ZONE PDFM 217 - IN "Planned Foothill" Growth Corridor





EXISTING HOUSE



DECEMBER 18, 2006

TULARE COUNTY RESOURCE MANAGEMENT
5961 SOUTH MOONEY BLVD.
VISALIA, CA 93277
ATTN: THERESA SZYMANIS/ RE; GENERAL PLAN UPDATE PLANNED DEVELOPMENT CORRIDER
COMMENT LETTER

WE WOULD LIKE TO MAKE A COMMENT ABOUT THE GENERAL PLAN UPDATE AS WE WOULD LIKE TO HAVE THE DENSITY LIMIT BE LOOKED AT IN OUR AREA.

WE OWN A PROPERTY, WITH MY PARENTS AND SISTERS AT 31171 SUCCESS VALLEY DR THAT IS IN THE FOOTHILL DEVELOPMENT CORRIDER WHERE WE LIVE. WE WANTED TO SEPARATE THE EXISTING GUEST HOUSE AND BUILD ANOTHER SMALL HOUSE IN THE FRONT OF THE LOT WHERE CITRUS ONCE GREW, BETWEEN THE LARGE ROCK FORMATIONS.

WE INQUIRED WITH THE COUNTY AND WE WERE TOLD THE PROPERTY IS IN THE ZONE OF PDFM, LIKE THE ADJACENT AND NEARBY PROPERTIES AND COULD BE SPLIT, BUT BECAUSE IT IS PDFM 217 IT MUST STAY AT 217,000 SQUARE FEET (APPROXIMATELY FIVE ACRES).

THE PROPERTY WAS FARMED IN CITRUS AT ONE TIME, BUT THE PREVIOUS OWNERS LET THE TREES DIE AS THEY COULD NOT MAKE A PROFIT GROWING THEM. THERE ARE SEVERAL LARGE ROCK FORMATIONS ON THE PROPERTY THAT ALSO MAKE IT NOT SUITED FOR FARMING.

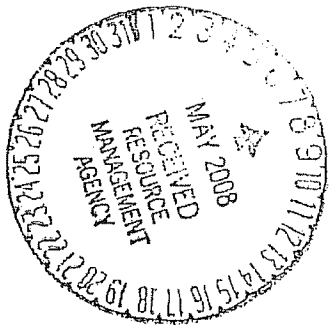
WE FEEL A FEW EXCEPTIONS COULD BE MADE THAT WOULD ALLOW A FEW SMALL HOUSES TO BE BUILT THAT WOULN'T INTERFERE WITH THE FARMING AND RURAL ATMOSPHERE AND WE ARE HOPING THE UPDATE OF THE GENERAL PLAN FOR OUR AREA WILL LOOK AT THIS. OUR SON ATTENDS CITRUS SO TULE SCHOOL. AND WE WERE TOLD BEFORE WE MOVED HERE THE AUTHORITIES WERE LOOKING AT CLOSING THE SCHOOL BECAUSE THERE WERE NOT ENOUGH STUDENTS. THAT WOULD BE A SHAME.

SINCERELY,
FRED AND MEGAN HOHENFELD

JAMES WINTON & ASSOCIATES
CIVIL ENGINEERING • PLANNING • LAND SURVEYING

150 West Morton Ave.
Porterville, CA 93257

(559) 781-2700
Fax (559) 781-2689



May 7, 2008

Dave Bryant
Tulare County RMA
5961 S. Mooney Blvd
Visalia, CA 93277

RE: General Plan Amendment

Dear Mr. Bryant,

The property owners located in the area of Avenue 182 and Highway 65, North of Porterville, have asked me to request your consideration of a land use designation in the Tulare County General Plan Amendment that would facilitate zoning consistent with the present RA-43 zone designation.

It is my understanding that a letter from the owners of the property in the subject area was submitted to the County in May of 2003 and there has been no response to that correspondence.

The details that we feel justify the designation of the subject area for rural residential use are as follows:

The area is triangular shape and extends from Avenue 184 to a quarter mile South of Avenue 182. The area is bounded on the West by the Friant Kern Canal and on the East by State Highway 65. The Southerly boundary of the subject area is the base of the triangle and is adjacent to property currently zoned RA-43. The subject area has about 3,000 feet of frontage on State Highway 65 with access at Avenue 182. The area contains 16 individual parcels within a total area of about 56.5 acres. The largest individual parcel is 8.8 acres. There are seven (7) parcels less than 2 acres.

Based upon the physical barriers on the East and West, the existing RA-43 zoning to the South, and the parcel sizes being smaller than the minimum 10 acres considered necessary for viable agricultural use, it appears that the extension of a Low Density Residential designation would be consistent with the adjacent land use and does not conflict with agricultural uses to the North, East and West.

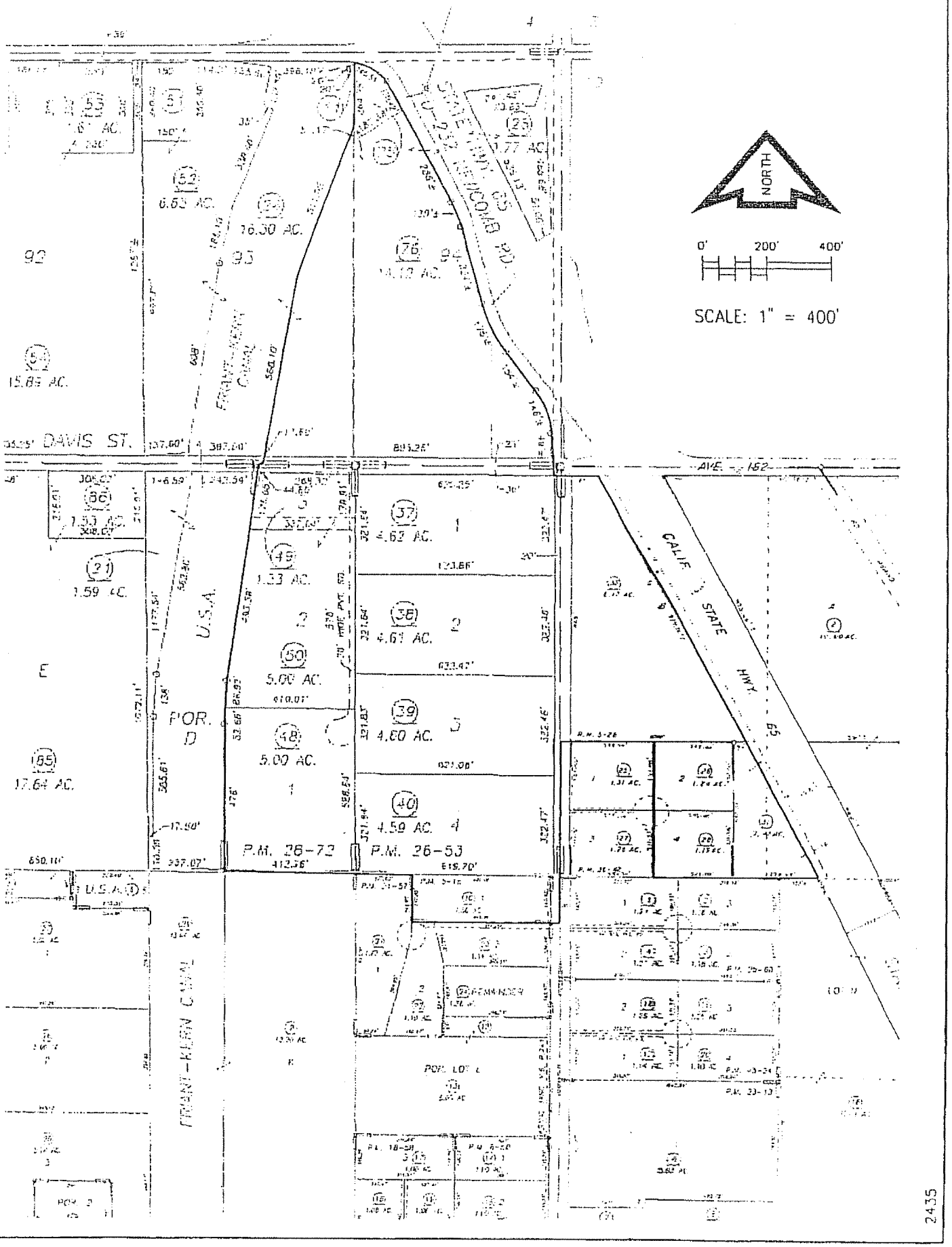
Enclosed are copies of maps indicating the subject area.

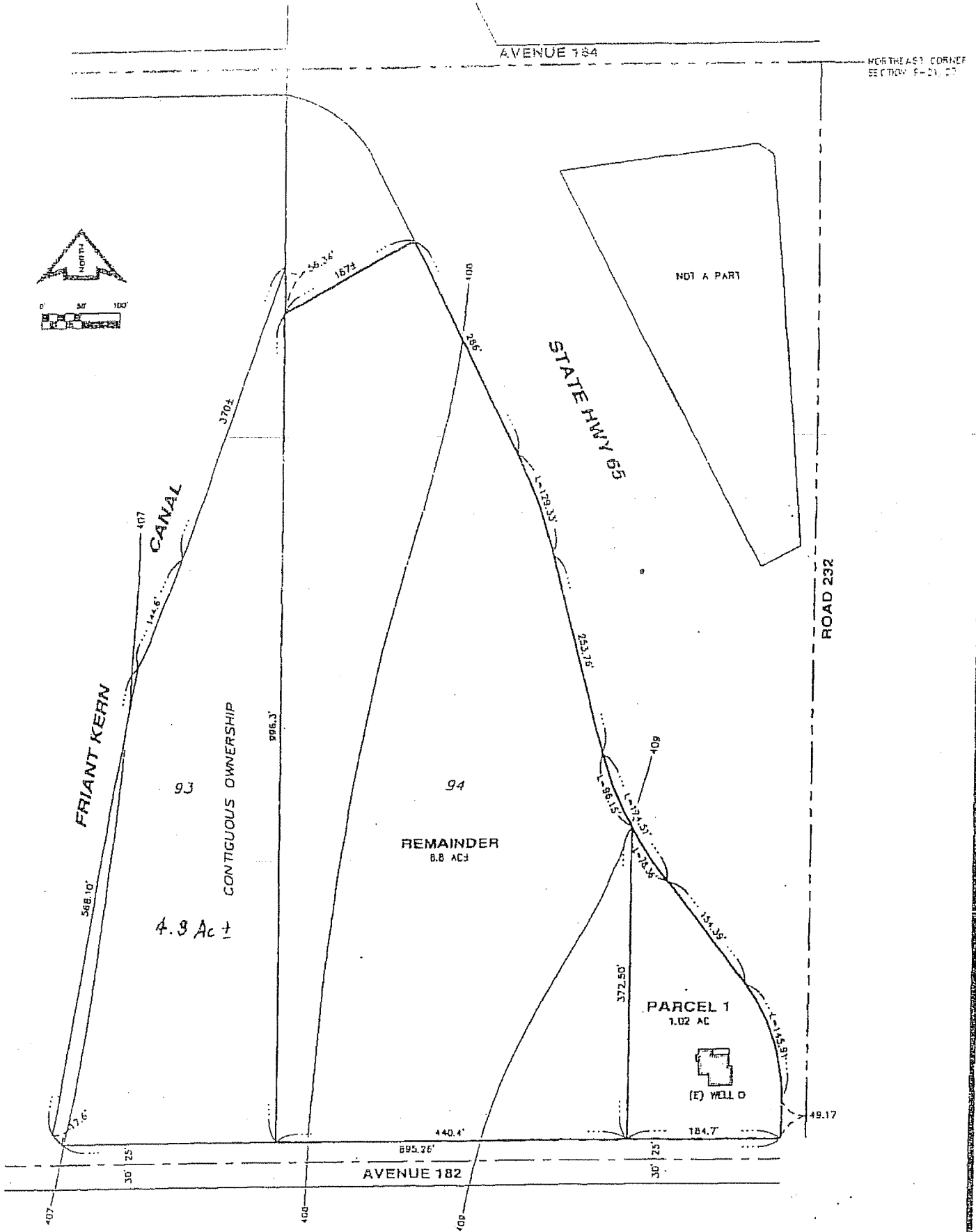
We will appreciate your consideration of this request.

Very Truly Yours,

James S. Winton
Civil Engineer

JSW/bg
Encls.


NORTH
0'
200'
400'
SCALE: 1" = 400'
DAVIS ST.
AVE. 152
CALIF. STATE HWY. 65
U.S.A.
FRIANT-KERN CANAL
P.M. 26-72
P.M. 26-53
POR. D
POR. LOT L
REMAINDER
6.63 AC.
16.30 AC.
14.12 AC.
1.77 AC.
15.89 AC.
1.53 AC.
1.59 AC.
17.64 AC.
1.33 AC.
5.00 AC.
5.00 AC.
4.62 AC.
4.61 AC.
4.60 AC.
4.59 AC.
2435



Parcel Map
PPM 07-114

Figure 1

Travis Property Site Area

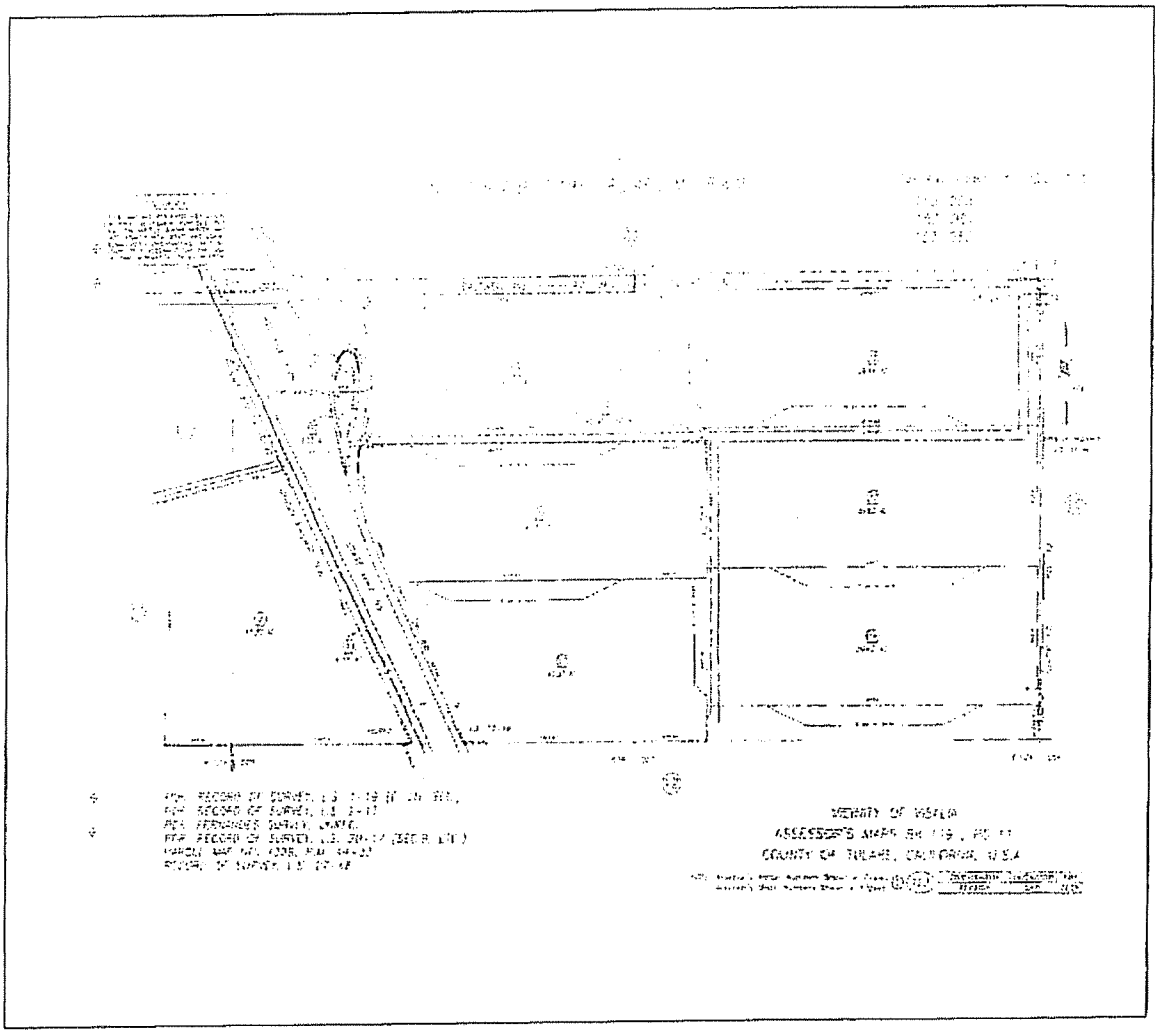


Figure 2

Potential Site Plan

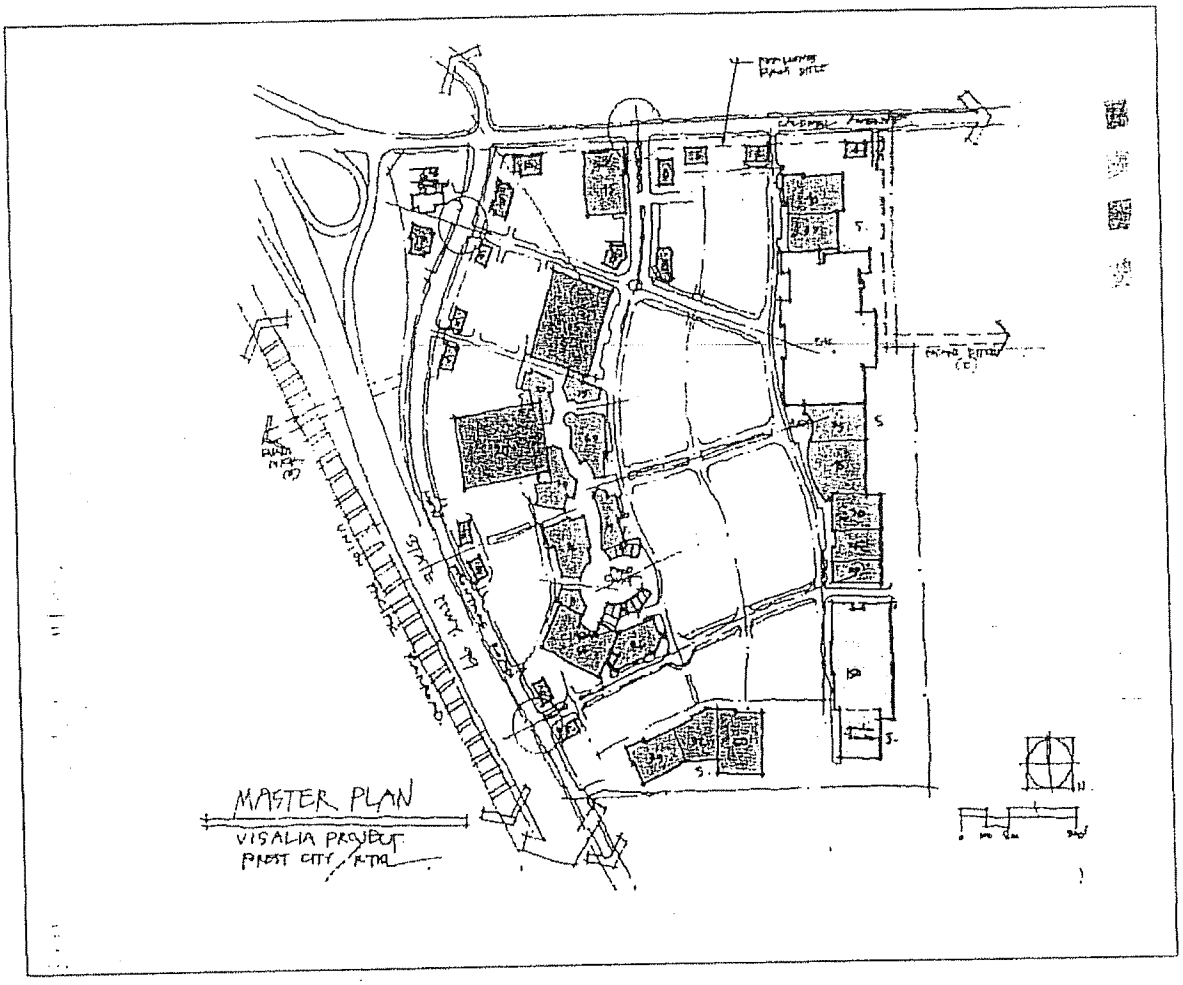
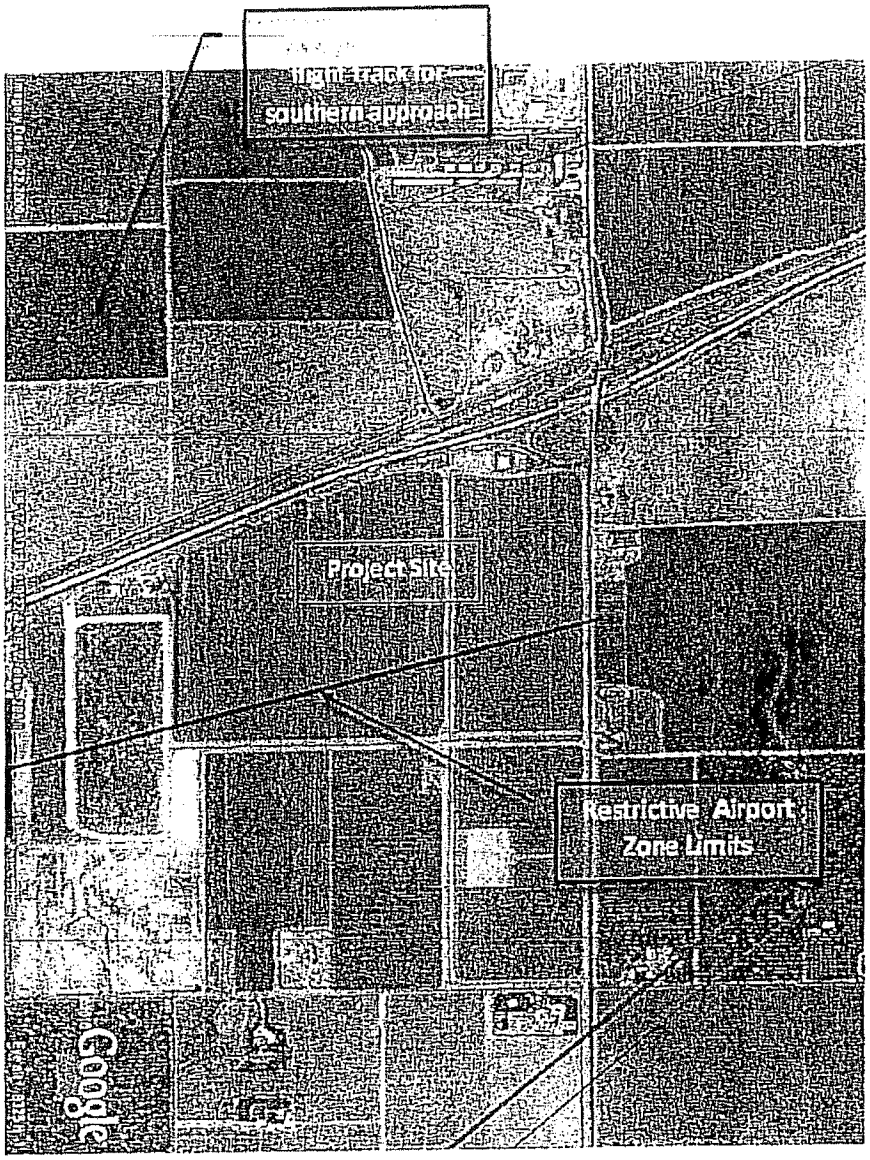


Figure 3

Project Site and Airport Zones



From: George Finney
To: Theresa Szymanis
Date: 2/20/2007 3:58 PM
Subject: Barbara Gibbs Request--FGMP

CC: Jason Waters

Ms Gibbs has called a couple of times now about her letter(I believe you have it) asking about changing the 5 ac. parcel size designation in the FGMP for the Success Valley area south of Lake Success. All that I've told her to date is that it appears to be a legitimate issue for the GP Update since there is a focus on promoting more growth in the foothills whenever possible. She believes the nature of the Success Valley has changed since the FGMP was adopted as the resident population has aged and the citrus groves are starting to be removed. She also believes there is a need to provide for more growth in order to support the local elementary school. She will be calling in as to the status of her request either Thursday or Friday.

From: "Bluestein" <lblue@ocsnet.net>
To: <MCFlores@co.tulare.ca.us>
Date: 10/16/2011 3:06 PM
Subject: Comments on General Plan Update for Meeting 10/19/2011

October 16, 2011

Dear Planning Commissioners,

We support the environmentally superior Healthy Growth Alternative proposed by TCCRG; we urge you to also support this proposal. We are concerned about urban sprawl and feel that it damages and destroys rangeland, farmland, and the foothills. Tulare County is noted for its extremely poor air quality. Development will further degrade the air quality through increased traffic and grading. The air quality issues have resulted in increased incidence of asthma (1 in 5 children in the Central Valley) and other respiratory conditions. We feel that it is responsible to upgrade and remodel in existing development boundaries rather than destroy open space. We also support development that is contiguous to existing urbanized areas to minimize carbon footprint.

Sincerely,

Ken and Laurie Bluestein

Mailing Address: PO Box 846, Springville, CA 93265

Physical Address: 35261 James Avenue, Springville, CA 93265

(559) 539-3031 - (559) 539-3039 Fax

California Native Plant Society



Comments submitted from CNPS , Proposed FRDEIR, 14 October, 2011.

We, the Board of Alta Peak Chapter in Tulare County, have read and considered the Responses 1-13, in the recently released Final EIR, to our Comments on the previous document. Individual, separate, responses 1-13 are noted. and the relevant portions of Master # 3,4,5,9 considered as pertinent. These Responses, both Individual and Master, are undoubtedly technically adequate, and generally quite beyond our familiarity with the referenced information, leaving us able only to repeat some of the more general views about our concerns.

I 15-3 centers on use of the terms shall, should, and your reference to the need for flexibility.

I 15-4 speaks of the programmatic nature of the RDEIR, and the question of implementation and enforceability of policies. Again specific details about our concerns are not, perhaps cannot be?, addressed.

I 15-8, we emphasize, and repeat here from the paragraph...summary of impacts {Chapter/Section 3.11-31}. We can only hope that Tulare County is truly concerned, willing, to utilize all possible means of "protection and preservation" as primary priorities in their role as land planners.

To conclude, again as in our May 2010 Comments, we find little in the County documents to 'make long term protection/preservation ..for native plant diversity actually happen if the present Plan is adopted and used for the next 20-or so years. Enlarging and connecting protected areas, areas that are kept natural with biodiversity intact, and buffered from surrounding more developed areas, is not at present spelled out in the County plan as high priority and therefore it is difficult to anticipate how the County will meet its goal of "protecting and preserving" biological resources if the proposed Updated General Plan is to be our guide in coming years.

Submitted, October 14, 20ll, from:

Joan Stewart, President
Alta Peak (Tulare County) Chapter
California Native Plant Society

Joan G. Stewart

From: A Marks <marxx_a@yahoo.com>
To: "MCFlores@co.tulare.ca.us" <MCFlores@co.tulare.ca.us>
Date: 10/18/2011 2:39 PM
Subject: draft for 2030

Attn: Tulare County Planning Commissioners
Re: The 2030 plan

As a resident of this beautiful county I strongly support the environmentally superior Healthy Growth Alternative as proposed by TCCRG, and I urge you to support it as well. Please, as you sight your vision upon the future horizon, take a moment to contemplate how the TCCRG's perspective brings to the plan aspects that will insure our children's children enjoyment of this part of the country we all call home. I trust every Commissioner will be giving this matter the attention it deserves and I appreciate that very much. Thank you for your service. Anne Marks, Lemon Cove, Calif.

SIERRA CLUB
KERN-KAWEAH CHAPTER

P.O. Box 3357
Bakersfield, CA 93385
October 18, 2011

VIA ELECTRONIC MAIL

Mr. David Bryant, Special Projects Manager
Tulare County Resource Management Agency
5961 South Mooney Boulevard
Visalia, California 93277

Re: Tulare County General Plan Update and FEIR

Dear Planners:

Having just received several attachments, including Attachment 3A dated October 12, 2011, we protest that we have not been given enough time to digest these documents and comment on them. We note, however, that Attachment 3A, a "Public Policy Comment Matrix", lists only 128 of the thousands of comments received and, of these 128, the County acceded to the commentors recommendations in only 3 instances. Even in these three instances, the changes to which the County assented were very minor. We cannot help but conclude that the County has not taken public comments seriously and does not value public input.

We wish to submit a partial catalog of replies to the County's responses in order to supplement our previously submitted comments. These replies should not be interpreted as de-emphasizing other issues not addressed in this letter or as otherwise agreeing with the County's responses to our several earlier submissions. The numbering scheme below corresponds to that of responses to comments in the FEIR.

THE COUNTY'S RESPONSE TO COMMENT I11-190
This response is evasive and has not addressed many of the questions and issues raised in this comment. We have recommended a number of performance criteria for farmland loss mitigation, and the County has not responded to these recommendations. For example,

- The Plan should include a performance standard that specifies the ratio of preserved mitigation farmland to converted farmland.
- The Plan should include a performance standard that specifies the quality of the preserved replacement mitigation land.
- The Plan should include a policy that requires that a need for the project be demonstrated and that substantial evidence for this need demonstration be given when farmland is converted to urban use.

These and other recommendations and questions in this section have been ignored. This lack of response is a violation of CEQA. "The written response shall describe the disposition of significant environmental issues raised (e.g., revisions to the proposed project to mitigate anticipated impacts or objections). In particular, the major environmental issues raised when the Lead Agency's position is at variance with recommendations and objections raised in the comments must be addressed in detail giving reasons why specific comments and suggestions were not accepted. There must be good faith, reasoned analysis in response. Conclusory statements unsupported by factual information will not suffice." (Guidelines, §15088(c)). Failure to adequately respond to public comments is an *abuse of discretion.*

Policy AG-1.6, even with the minor changes, remains so vague as to be meaningless. To say "The County may develop an Agricultural Conservation Easement Program (ACEP)" leaves open the real possibility that the County may not develop an ACEP. CEQA requires, "A public agency shall provide that measures to mitigate or avoid significant effects on the environment are fully enforceable through permit conditions, agreements, or other measures." (Public Resources Code, §21081.6(b)). Policy AG-1.6 is *not enforceable.* It is established CEQA policy that a mitigation measure is legally inadequate if it is so undefined that it is impossible to gauge its effectiveness. Policy AG-1.6 is so vague that neither the public nor the decision-makers can understand their effect, and the EIR should not consider it to be effective mitigation for the General Plan's adverse significant impact on agricultural resources.

We note that many other responses that follow refer back to the County's response to this comment, compounding the evasiveness and ambiguity of this response.

THE COUNTY'S RESPONSE TO COMMENT I11-191

Agricultural Preservation Policy AG-1.6 and Agricultural Implementation Measure #15 violate CEQA's *prohibition against deferral.* CEQA prohibits deferral of mitigation measures unless it can be shown that practical considerations prevent formulation of mitigation measures, in which case the agency can satisfy CEQA by (1) committing to eventually devising such measures, and (2) articulate specific performance criteria at the time of project approval. (San Joaquin Raptor Rescue Center v. County of Merced (2007) 149 Cal.App.4th 645, 670). As noted above, Policy AG-1.6 neither commits the County to developing an ACEP nor does it contain specific performance criteria. As we noted in comment I11-190, it is clearly feasible and practical to formulate specific performance criteria to guide conversion of farmland to urban use since other agencies have done so and since individual development projects elsewhere have agreed to such mitigation. *Without specific performance criteria*, it is impossible for the public and the decision-makers to evaluate the effectiveness of this policy. The General Plan should contain a detailed ACEP with specific performance criteria and implementation measures that commit the County to these performance criteria.

A "program" or "first tier" EIR is expressly not a device to be used for deferring the analysis of significant environmental impacts. *Stanislaus Natural Heritage Project v. County of Stanislaus* (1996) 48 Cal. App. 4th 182, 199. It is instead an opportunity to

analyze impacts common to a series of smaller projects, in order to avoid repetitious analyses.

THE COUNTY'S RESPONSE TO COMMENT I11-192

Policy AG-1.17 relating to preservation of agricultural water resources is very important to the County's economy and way of life. The public deserves to be able to judge the effectiveness of this policy, and it cannot do so without more information as to how the policy will be implemented. *The County has not addressed the questions and issues in this comment.* For example, on page 3.4-16 of the RDEIR, the County admits that global warming could "lead to more frequent water shortages." The County does not address the effect of global warming on the implementation of Policy AG-1.17.

THE COUNTY'S RESPONSE TO COMMENT I11-193

In referring the questions in this comment to Master Response 1, the County seems to be replying that these questions "do not address environmental issues or CEQA concerns" and need not be answered in the FEIR. To the contrary, these questions and issues are meant to help determine the *internal consistency* of the General Plan, a well-litigated CEQA issue. In *not answering these questions*, the County has violated CEQA.

THE COUNTY'S RESPONSE TO COMMENT I11-196

This response admits, "the analysis of specific ranchette development was not conducted for the agricultural analysis of the RDEIR", and continues," As limited information is currently available as to the number, location, and extent of any proposed ranchette developments, the inclusion of this analysis is considered speculative." A primary reason that analysis of ranchette development may be speculative is that Policy AG-1.12 is so vague as to be ineffective. The FEIR should include performance criteria for Policy AG-1.12 so that analysis of the impact of proposed and future ranchette development would be firmer. The FEIR is deficient in *not having included performance criteria* and in not having analyzed ranchette development.

The County has *not addressed the questions and issues in this comment.* For example, the FEIR should address the American Farmland Trust ranchette development policy proposal referenced in this comment. CEQA Guidelines require that comments be, "addressed in detail giving reasons why specific comments and suggestions were not accepted. There must be good faith, reasoned analysis in response. Conclusory statements unsupported by factual information will not suffice." (Guidelines, sec. 15088(c)) The FEIR is deficient in this regard.

The Land Use Element allows one dwelling unit per ten acres, with minimum lot sizes of 10-80 acres, on land designated "Valley Agricultural" (Table 4.1 of the General Plan), allowing ranchette development while Policy AG-1.12 requires the County to "discourage the creation of ranchettes in areas designated Valley Agriculture and Foothill Agriculture." This is another instance of *internal inconsistency* of the General Plan. The response to comment I21-31 on this issue is evasive.

THE COUNTY'S RESPONSE TO COMMENT I11-198

This response is evasive and has not addressed the many questions and issues raised in this comment. We have recommended a number of performance criteria for farmland loss mitigation, and the County has not responded to these recommendations. Policy FGMP-5.1 is so vague as to be meaningless, and our comment has pointed out *internal inconsistencies*. Questions and other recommendations in this section have been ignored. For example, the County did not respond to the potential inconsistency of FGMP Implementation Measure #19 and Policy FGMP-9.1. This lack of response is a violation of CEQA.

THE COUNTY'S RESPONSE TO COMMENT I11-204

In part, this response states, "The commenter did not reference the context or location of the terms consistent and reasonable mitigation therefore no further response on this question is possible." The reference to consistent and reasonable mitigation comes from Policy AQ-1.5, a policy statement contained in our letter and referenced in the County's own response I11-203. This response is, at best, in *error* and may be an attempt to evade the issue.

We suggested in this comment that the County require as a mitigation measure that new development participate in an Emissions Reductions Program, through which developers contract with the SJVAPCD to completely offset the emissions associated with their project through onsite design features and offsite pollution reduction projects. We noted that such a program was feasible since a number of developers in the southern San Joaquin Valley have participated in such a program. *Without presenting evidence*, the County replies, "The suggested mitigation measure is considered infeasible." CEQA Guidelines require that comments be, "addressed in detail giving reasons why specific comments and suggestions were not accepted. There must be good faith, reasoned analysis in response. Conclusory statements unsupported by factual information will not suffice." (Guidelines, sec. 15088(c)) The County should present substantial evidence for the infeasibility of this potential mitigation measure. The FEIR is deficient in this regard.

THE COUNTY'S RESPONSE TO COMMENT I11-206

The County *erroneously responds* that this comment refers to Policy AQ-1.5, while the heading for this comment clearly lists reference to Policies AQ-2.2, AQ-4.2, AQ-4.3, and AQ-4.4.

Existing SJVAPCD rules should be baseline for the significant impact of the Plan on air quality. CEQA requires mitigation of significant impacts to the extent feasible. As noted in our comments I11-204 and I11-207, in addition to existing SJVAPCD rules, there are a number of *additional measures* the Plan could adopt or strengthen that would help address the significant impact of the Plan on air quality. The FEIR is deficient in not addressing these issues in detail.

THE COUNTY'S RESPONSE TO COMMENT I11-207

In referring the issues in this comment to Master Response 1, the County seems to be replying that these comments "do not address environmental issues or CEQA concerns" and need not be addressed in the FEIR. It is established CEQA policy that a mitigation measure is legally inadequate if it is so undefined that it is impossible to gauge its effectiveness. The policies referenced in this comment are so vague that neither the public nor the decision-makers can understand their effect, and the EIR should not consider these policies to be effective mitigation for the General Plan's adverse significant impact on air quality. The FEIR is deficient in not addressing these issues in detail.

The response states, "The EIR does not take quantitative emission reduction credit for the measures that use of the term "encourage."" The County is admitting that our assertion in this comment that the EIR should not consider these policies to be effective mitigation for the General Plan's adverse impact on air quality is correct. As noted above, there are a number of *additional measures* the Plan could adopt or strengthen that would help address the significant impact of the Plan on air quality. The FEIR is deficient in not addressing these issues in detail.

THE COUNTY'S RESPONSE TO COMMENT I11-209

In referring the issues in this comment to Master Response 1, the County seems to be replying that these comments "do not address environmental issues or CEQA concerns" and need not be addressed in the FEIR. It is established CEQA policy that a mitigation measure is legally inadequate if it is so undefined that it is impossible to gauge its effectiveness. The policies referenced in this comment are so vague that neither the public nor the decision-makers can understand their effect, and the EIR should not consider these policies to be effective mitigation for the General Plan's adverse significant impact on air quality. CEQA requires, "A public agency shall provide that measures to mitigate or avoid significant effects on the environment are fully enforceable through permit conditions, agreements, or other measures." (Public Resources Code, §21081.6(b)) The FEIR is deficient in not addressing these issues in detail.

THE COUNTY'S RESPONSE TO COMMENT I11-210

In referring the issues in this comment to Master Response 1, the County seems to be replying that these comments "do not address environmental issues or CEQA concerns" and need not be addressed in the FEIR. It is established CEQA policy that a mitigation measure is legally inadequate if it is so undefined that it is *impossible to gauge its effectiveness*. The implementation measures referenced in this comment are so vague that neither the public nor the decision-makers can understand their effect, and the EIR should not consider these measures to be effective mitigation for the General Plan's adverse significant impact on air quality. CEQA requires, "A public agency shall provide that measures to mitigate or avoid significant effects on the environment are fully enforceable through permit conditions, agreements, or other measures." (Public Resources Code, §21081.6(b)) The FEIR is deficient in not addressing these issues in detail.

The County ignores CEQA's prohibition against *deferral of the implementation program* unless it can be shown that practical considerations prevent formulation of mitigation measures, in which case the agency can satisfy CEQA by (1) committing to eventually devising such measures, and (2) articulate specific performance criteria at the time of project approval. (San Joaquin Raptor Rescue Center v. County of Merced (2007) 149 Cal.App.4th 645, 670. The proposed Land Use Implementation Measure #24 fails under this standard in part because it does not include "specific performance criteria".

A "program" or "first tier" EIR is expressly not a device to be used for deferring the analysis of significant environmental impacts. *Stanislaus Natural Heritage Project v. County of Stanislaus* (1996) 48 Cal. App. 4th 182, 199. It is instead an opportunity to analyze impacts common to a series of smaller projects, in order to avoid repetitious analyses.

THE COUNTY'S RESPONSE TO COMMENT I11-211

The FEIR does not quantify construction emissions, but nevertheless concludes without substantiation that, because of SJVAPCD regulations, construction related air pollution impacts would be less than significant. The FEIR is deficient in this regard.

A "program" or "first tier" EIR is expressly not a device to be used for deferring the analysis of significant environmental impacts. *Stanislaus Natural Heritage Project v. County of Stanislaus* (1996) 48 Cal. App. 4th 182, 199. It is instead an opportunity to analyze impacts common to a series of smaller projects, in order to avoid repetitious analyses.

THE COUNTY'S RESPONSE TO COMMENT I11-212

The County admits that "specific or individual project [air pollution] sources were not modeled" and attempts to justify underestimating this critical impact by saying this is "consistent with the programmatic nature of the RDEIR." The "programmatic" nature of the RDEIR is no excuse for its lack of detailed analysis. Indeed, the RDEIR grossly misconstrues both the meaning and requirements of a "program" EIR by referring to it as a document that "assesses and documents the broad environmental impacts of the program with the understanding that a more detailed site-specific analysis may be required to assess future projects implemented under the program." RDEIR at 1-6. This approach is flawed, at the outset, because CEQA requires that a program EIR provide the in-depth analysis of a large project, looking at effects "as specifically and comprehensively as possible." CEQA Guidelines § 15168(a), (c)(5). Because it looks at the big picture, a program EIR must provide "more exhaustive consideration" of effects and alternatives than can be accommodated by an EIR for an individual action, and must consider "cumulative impacts that might be slighted by a case-by-case analysis." CEQA Guidelines § 15168(b)(1)-(2). The FEIR is deficient in not addressing these issues in detail.

THE COUNTY'S RESPONSE TO COMMENT I11-213
This response is evasive and has not addressed the issue raised in this comment. New research indicates that dairies are responsible for a far greater portion of ozone production than previously thought. The EIR should use the new information in the referenced article to incorporate ROG emissions from livestock feed into Tulare County emissions totals, or it should give substantial evidence that this is unnecessary.

THE COUNTY'S RESPONSE TO COMMENTS I11-214, I11-215, I11-216
CEQA requires mitigation of significant impacts to the extent feasible. As noted in our comments I11-204, I11-207, I11-215, and I11-216, there are a number of *additional feasible measures* the Plan could adopt or strengthen that would help address the significant impact of the Plan on air quality. The FEIR is deficient in not addressing these measures in detail.

THE COUNTY'S RESPONSE TO COMMENT I11-218
The County references a Climate Action Plan in order to reduce VMT. The County has not adopted a Climate Action Plan, and they have only committed to "consider" the adoption of such a Plan at some unspecified time in the future. The General Plan Update contains no Climate Action Plan nor does it contain specific feasible standards and implementation measures to reduce VMT. CEQA requires, "A public agency shall provide that measures to mitigate or avoid significant effects on the environment are fully enforceable through permit conditions, agreements, or other measures." (Public Resources Code, §21081.6(b)) As an SB 375 goal, VMT reduction is an important component in air pollution reduction. The FEIR should contain measures to reduce VMT.

THE COUNTY'S RESPONSE TO COMMENT I11-219
In a settlement with the Sierra Club and the California Attorney General, the City of Stockton agreed to monitor VMT as a key indicator of growth and jobs/housing goals and to keep the increase in VMT to an annual rate less than the population growth rate. The County responds that we have not provided a methodology to implement such a requirement. We would suggest that the County contact the City of Stockton to learn about their methodology and then address this potential additional mitigation measure for reducing the Plan's significant adverse impact on air quality in the FEIR.

The County's response that "The suggest (sic) requirement is therefore considered to be legally infeasible" is counterindicated by the above-mentioned agreement involving the California Attorney General.

THE COUNTY'S RESPONSE TO COMMENT I11-220
In referring the issues in this comment to Master Response 1, the County seems to be replying that these comments "do not address environmental issues or CEQA concerns" and need not be addressed in the FEIR. It is established CEQA policy that a mitigation measure is legally inadequate if it is so undefined that it is *impossible to gauge its effectiveness*. The goal and policies referenced in this comment are so vague that neither the public nor the decision-makers can understand their effect, and the EIR

should not consider these measures to be effective mitigation for the General Plan's adverse significant impact on air quality. The FEIR is deficient in *not having included performance criteria* and in not addressing these issues in detail.

THE COUNTY'S RESPONSE TO COMMENT I11-221

This response is evasive and has not addressed the many questions and issues raised in this comment. In referring the issues in this comment to Master Response 1, the County seems to be replying that these comments "do not address environmental issues or CEQA concerns" and need not be addressed in the FEIR. It is established CEQA policy that a mitigation measure is legally inadequate if it is so undefined that it is *impossible to gauge its effectiveness*. The goal and policies referenced in this comment are so vague that neither the public nor the decision-makers can understand their effect, and the EIR should not consider these measures to be effective mitigation for the General Plan's adverse significant impact on air quality. The FEIR is deficient in *not having included performance criteria* and in not addressing these issues in detail.

THE COUNTY'S RESPONSE TO COMMENT I11-223

While we agree with the CEQA reference in this response that "an increase in traffic, by itself, is not necessarily an indicator of a potentially significant environmental impact" because other mitigating factors such as "restriping to provide bicycle lanes or creating dedicated bus lanes" may be at play, we can find no such actual commitments to other mitigating factors in the General Plan Update. The County has not recognized that the CEQA Guidelines 2009 Statement of Reasons continues with, "Even in such cases, however, any potential adverse air quality or other impacts would still have to be addressed as provided in other sections of the checklist." The County should specify what other mitigating factors offset the impacts of increased traffic, should quantify the effects of these other mitigating factors, and address the remaining adverse impacts.

The CEQA Guidelines 2009 Statement of Reasons states, "the lead agency has discretion to choose its own metric of analysis" of traffic impacts. This does not give the County discretion to choose traffic policies without regard to the impacts of these policies, as the County seems to imply in this response. It only allows the County to choose its own metric, in this case the Level of Service metric.

THE COUNTY'S RESPONSE TO COMMENT I11-224

In referring the issues in this comment to Master Response 1, the County seems to be replying that these comments "do not address environmental issues or CEQA concerns" and need not be addressed in the FEIR. It is established CEQA policy that a mitigation measure is legally inadequate if it is so undefined that it is *impossible to gauge its effectiveness*.

As they stand, the policies referenced in this comment are so vague and ineffectively worded and implemented that neither the public nor the decision-makers can understand or judge their effectiveness as traffic mitigation. Were they to be strengthened so as to be effective, their implementation could serve as feasible mitigation measures for reducing Traffic Impact 3.2-1. The FEIR is defective in not

requiring strong enforceable performance standards and in *not evaluating the effectiveness and feasibility of strengthening and implementing these policies.* References to various other responses seem to be evasive and irrelevant to the thrust of this comment.

THE COUNTY'S RESPONSE TO COMMENT I11-225
This comment refers to Policy TC-1.18. The County's response focuses in error on Policy TC-1.8.

THE COUNTY'S RESPONSE TO COMMENT I11-226
In referring the issues in this comment to Master Response 1, the County seems to be replying that these comments "do not address environmental issues or CEQA concerns" and need not be addressed in the FEIR. It is established CEQA policy that a mitigation measure is legally inadequate if it is so undefined that it is *impossible to gauge its effectiveness.*

This response is evasive and has not addressed the questions raised in this comment. In order to evaluate the effectiveness of Policies TC-1.18 and TC-1.19, we asked for more specifics regarding the policies' "balanced" approaches, and the County has not responded. This lack of response is a violation of CEQA.

THE COUNTY'S RESPONSE TO COMMENT I11-228
The response states, "The RDEIR has included all feasible measures which could minimize the significant adverse impacts of the proposed project on global climate change as required by CEQA (Pub. Res. Code §21002.1(b); (CEQA Guidelines §15126.4)." To the contrary, there are there are *a number of feasible mitigation measures not included in the RDEIR*, many of which are listed in our comment I11-229. It should be noted that many of these potential mitigation measures are feasible since they are in effect elsewhere; e.g., several projects in Bakersfield (BLI, Stockdale Ranch) have agreed to a transfer fee requirement, funding going to SJVAPCD for GHG emission reduction projects; others have agreed to fund retrofit projects for existing structures (Bakersfield Commons).

The County refers to response A8-11, in which they state, "While some policies contain needed flexibility, other policies and implementation measures throughout the General Plan typically use the word "shall"", this in reference to Policy LU-6.3 which reads, "The County shall encourage school districts to locate new schools in areas that allow students to safely walk or bike from their homes." While inclusion of the word "shall" directs the County to take action, the action they must take is only to "encourage" an outcome, hardly enough to warrant confidence in any expected outcome. It is established CEQA policy that a mitigation measure is legally inadequate if it is so undefined that it is *impossible to gauge its effectiveness.*

THE COUNTY'S RESPONSE TO COMMENT I11-229
CEQA requires that "public agencies should not approve projects as proposed if there are feasible alternatives or feasible mitigation measures available which would

substantially lessen the significant environmental effects of such projects." There are there are *a number of feasible mitigation measures not included in the RDEIR*, many of which are listed in this comment. It should be noted that many of these potential mitigation measures are feasible since they are in effect elsewhere; e.g., several projects in Bakersfield (BLI, Stockdale Ranch) have agreed to a transfer fee requirement, funding going to SJVAPCD for GHG emission reduction projects; others have agreed to fund retrofit projects for existing structures (Bakersfield Commons).

Section 15183.5 of the CEQA Guidelines requires the County to "specify measures or a group of measures, including performance standards, that substantial evidence demonstrates, if implemented on a project-by-project basis, would collectively achieve the specified emissions level." We included a list of potentially feasible mitigation measures to help address the significant adverse impact of the project on global warming. While it is clear that, in applying these recommendations to specific projects under the General Plan, there will be some that are not applicable, many nevertheless could be applied. The County should commit itself to a list of specific mitigation measures and choose among these based on performance criteria on a project-by-project basis to reduce the General Plan's impact on global warming. The list we have provided should be evaluated in this context. Such evaluation should follow CEQA Guidelines. "The written response shall describe the disposition of significant environmental issues raised (e.g., revisions to the proposed project to mitigate anticipated impacts or objections). In particular, the major environmental issues raised when the Lead Agency's position is at variance with recommendations and objections raised in the comments must be addressed in detail giving reasons why specific comments and suggestions were not accepted. There must be good faith, reasoned analysis in response. Conclusory statements unsupported by factual information will not suffice." (Guidelines, sec. 15088(c))

This response contains a list of policies and implementation measures that purportedly would "implement or support the measures recommended by the Attorney General for addressing global warming in general plans." As we noted in comments I11-190, 193, 205, 206, 207, 208, 209,210, 221, and others, most of the policies reputed to mitigate the impact are weakened by the use of words like "encourage" and " consider" and are unenforceable. CEQA requires, "A public agency shall provide that measures to mitigate or avoid significant effects on the environment are fully enforceable through permit conditions, agreements, or other measures." (Public Resources Code, §21081.6(b)) Because these policies are so vague and feeble, neither the public nor the decision-makers can understand their effect, and the EIR should not consider these policies to be effective mitigation for the General Plan's impact on global climate change.

THE COUNTY'S RESPONSE TO COMMENT I11-230

According to the RDEIR on page 3.4-32, CO_2e emitted in Tulare County will increase from 5.2 million tons per year in 2007 to 6.1 million tons per year in 2030, an increase of 897,420 metric tons per year. This 17% greenhouse gas (GHG) increase is in stark contrast to the massive and difficult statewide reductions necessary to address the

impact of global warming and to meet 2020 and 2050 goals. The RDEIR admits that this increase "places the proposed project in conflict with the (2020) goal of the State to reduce up to 174 million metric tons CO2e/yr." As noted in previous comments, there are feasible mitigation measures that Tulare County can adopt in order to help the State reach these goals. Inexplicably and without substantial supporting evidence, the response states, "The RDEIR has included all feasible measures which could minimize the significant adverse impacts of the proposed project on global climate change". To the contrary, *the County has not presented a good faith, reasoned analysis* of its rejection of the many potential and feasible mitigation measures suggested in our comment I11-229. The FEIR is deficient in not addressing these issues in detail.

THE COUNTY'S RESPONSE TO COMMENT I11-231

In referring the issues in this comment to Master Response 1, the County seems to be replying that these comments "do not address environmental issues or CEQA concerns" and need not be addressed in the FEIR. It is established CEQA policy that a mitigation measure is legally inadequate if it is so undefined that it is *impossible to gauge its effectiveness*.

The County does not respond to the suggestion that it implement the California Solar Initiative and the Million Solar Roofs Bill, statewide climate change initiatives included in the CARB Scoping Plan (see page 3.4-7 of the RDEIR), the sort of solutions to which AQ-1.7 commits the County. The Plan should contain specific measures that would implement these statewide climate change solutions.

THE COUNTY'S RESPONSE TO COMMENT I11-232

Policies contained in the DEIR and the CAP are vague and unenforceable. See our comment I11-233. The General Plan should contain specific, enforceable performance criteria for mitigating its impact on global warming.

The County refers to response A8-11, in which they state, "While some policies contain needed flexibility, other policies and implementation measures throughout the General Plan typically use the word "shall"", this in reference to Policy LU-6.3 which reads, "The County shall encourage school districts to locate new schools in areas that allow students to safely walk or bike from their homes." While inclusion of the word "shall" directs the County to take action, the action they must take is only to "encourage" an outcome, hardly enough to warrant confidence in any expected outcome. It is established CEQA policy that a mitigation measure is legally inadequate if it is so undefined that it is *impossible to gauge its effectiveness*. In addition, the response A8-11 contains a list of policies and implementation measures that purportedly would "implement or support the measures recommended by the Attorney General for addressing global warming in general plans." As we noted in comments I11-190, 193, 205, 206, 207, 208, 209,210, 221, and others, most of the policies reputed to mitigate the impact are weakened by the use of words like "encourage" and " consider" and are unenforceable. CEQA requires, "A public agency shall provide that measures to mitigate or avoid significant effects on the environment are fully enforceable through permit conditions, agreements, or other measures." (Public Resources Code,

§21081.6(b)) Because these policies are so vague and feeble, neither the public nor the decision-makers can understand their effect, and the EIR should not consider these policies to be effective mitigation for the General Plan's impact on global climate change.

THE COUNTY'S RESPONSE TO COMMENT I11-233
The County refers this comment to Master Response #10 which does not address the issues raised in this comment.

The RDEIR contains a long list of proposed General Plan policies and implementation measures that purport to mitigate the Plan's impact on global climate change. In addition, Chapter 5 of the draft Climate Action Plan contains 86 of these proposed General Plan policies that purport to fulfill "many sustainability and greenhouse gas reduction objectives." Of these 86, 33 are compromised by the use of the word "encourage", 12 are weakened by the use of the word "support", 9 commit the County only to "work with" other agencies in some nonspecific way, and 21 others are diluted by the use of phrases like "consider", "strive", "promote", "seek opportunities", "coordinate", "where feasible", "as appropriate", "develop", "create", and "examine the feasibility". Of the remaining few, several only commit the County to follow existing laws and regulations (e.g. utilize design standards required by the Streets and Highways code, comply with the California Fire Code).

CEQA requires, "A public agency shall provide that measures to mitigate or avoid significant effects on the environment are fully enforceable through permit conditions, agreements, or other measures." (Public Resources Code, §21081.6(b)). Because these policies are so vague and unenforceable, neither the public nor the decision-makers can understand their effect, nor should the EIR consider these policies to be effective mitigation for the General Plan's adverse significant impact on global climate change.

THE COUNTY'S RESPONSE TO COMMENT I11-235
The response to comment I11-73 *does not address the issues* raised in this comment.

The County says that it is "preparing an update to the Animal Confinement Facilities Plan (ACFP) that will provide an examination of all potential impacts in a comprehensive manner", and it is apparently revising the draft SEIR for the ACFP to comply with the Attorney General's request that dairies address global warming. CEQA case law has held that deferral of the specifics of mitigation is permissible where the lead agency commits itself to mitigation and, in the mitigation measure, either describes performance standards to be met in future mitigation or provides a menu of alternative mitigation measures to be selected from in the future (*California Native Plant Society v. City of Rancho Cordova* (2009) 172 Cal.App.4th 603 [the details of exactly how the required mitigation and its performance standards will be achieved can be deferred pending completion of a future study]; *Endangered Habitats League Inc. v. County of Orange* (2005) 131 Cal.App.4th 777, 793 [deferred mitigation acceptable when performance standards are included]". We find no commitment to mitigation of the impact that dairies

have on global warming nor do we find performance standards or a menu of alternative mitigation measures. *Such deferral is a violation of CEQA.*

THE COUNTY'S RESPONSE TO COMMENT I11-240
The County refers to Master Response #10, which does not address the specific issue raised in this comment. Section 15183.5 of the CEQA Guidelines requires the County to present "substantial evidence" for the 26% GHG emissions level, "below which the contribution to greenhouse gas emissions from activities covered by the plan would not be cumulatively considerable". The CAP and the FEIR are defective in that no such evidence has been presented.

CEQA requires significance determination to be made by comparing the project's impact to existing conditions, conditions that, in the case of global climate change, do not allow the atmosphere to absorb additional greenhouse gasses without risking catastrophic long-term consequences. Even small GHG emissions should be considered cumulatively significant.

THE COUNTY'S RESPONSE TO COMMENT I11-241
The County refers to Master Response #10. Responses are general and vague and not directed at the specific issues raised in this comment.

THE COUNTY'S RESPONSE TO COMMENT I11-242
The County refers to Master Response #10. Responses are general and vague and not directed at the specific issues raised in this comment.

THE COUNTY'S RESPONSE TO COMMENT I11-243
Without presenting substantial evidence, the FEIR considers Impact 3.4-1 (The proposed project could result in the wasteful, inefficient, or unnecessary consumption of energy by residential, commercial, industrial, or public uses associated with increased demand due to anticipated population growth in the County) to be less than significant. Most of the policies meant to mitigate this impact are weakened by the use of words like "encourage" and " consider". Because these policies are so vague and feeble, neither the public nor the decision-makers can understand their effect, nor should the EIR consider these policies to be effective mitigation for the General Plan's impact on energy conservation. The FEIR is deficient in not presenting substantial evidence for its insignificance conclusion for Impact 3.4-1.

THE COUNTY'S RESPONSE TO COMMENT I11-244
It is established CEQA policy that a mitigation measure is legally inadequate if it is so undefined that it is impossible to gauge its effectiveness. The goal and policies referenced in this comment are so vague that neither the public nor the decision-makers can understand their effect, and the EIR should not consider these policies to be effective mitigation for the General Plan's impact on energy conservation. The FEIR is deficient in not committing to specific performance standards to indicate how effectively this impact will be mitigated.

THE COUNTY'S RESPONSE TO COMMENT I11-245

Without presenting substantial evidence, the FEIR considers Impact 3.4-2 (The proposed project could result in the wasteful, inefficient, or unnecessary consumption of energy in the construction and operation of new buildings) to be less than significant. Most of the policies meant to mitigate this impact are weakened by the use of words like "encourage" and " consider". It is established CEQA policy that a mitigation measure is legally inadequate if it is so undefined that it is impossible to gauge its effectiveness. Because these policies are so vague and feeble, neither the public nor the decision-makers can understand their effect, nor should the EIR consider these policies to be effective mitigation for the General Plan's adverse impact on energy conservation. The FEIR is deficient in not presenting substantial evidence for its insignificance conclusion for Impact 3.4-2 and in not committing to specific performance standards to indicate how effectively this impact will be mitigated.

Thank you for your consideration and for the opportunity to comment.

Sincerely,



Gordon L. Nipp. Ph.D.
Vice-Chair
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Date: 10/18/2011 3:43 PM
Subject: Tulare County General Plan Update Final EIR
Attachments: Tulare County General Plan FEIR Comment Letter (Council of Cities).pdf; Exhibits to Council of Cities FEIR Letter (Exhibits 1-5).pdf

Please find attached a comment letter from the Tulare County Council of Cities regarding the Final Environmental Impact Report prepared for the Tulare County Revised Draft General Plan 2030 Update. Also attached as a separate document are Exhibits 1-5 to the comment letter. An original will follow by FedEx overnight delivery.

If you have any problems opening the attachments, please contact me at the number below, or via e-mail. Thank you.

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October 18, 2011

Via E-Mail and FedEx

David Bryant
Project Planner
Tulare County Resource
Management Agency
Government Plaza
5961 South Mooney Boulevard
Visalia, CA 93277

Re: Tulare County General Plan Update Final EIR

Dear Mr. Bryant:

On behalf of the Tulare County Council of Cities[1], the law firm of Shute, Mihaly & Weinberger LLP submits these comments on the Final Environmental Impact Report ("FEIR") prepared for the Tulare County Revised Draft General Plan 2030 Update ("General Plan" or "Project").

The Council of Cities submitted extensive comments on both the 2008 Draft EIR and 2010 Revised Draft EIR for the Project. These comments expressed the Cities' grave concern that the General Plan's new policies would permit sprawling growth throughout the County, and would undermine—if not eliminate—any coordination and cooperation between the County and its incorporated Cities in ensuring smart, city-centered growth. City-centered growth would limit the conversion of agricultural land to urban uses, a goal of both the County and Cities. The Cities' concerns were echoed by a wide range of commenters with diverging interests, including the California Office of the Attorney

[1] The Council of Cities consists of the cities of Exeter, Farmersville, Porterville, Tulare, Visalia, and Woodlake (collectively referred to herein as "the Cities").

General, the American Farmland Trust, and numerous environmental and community organizations.

The FEIR's response to these concerns is, lamentably, denial. Rather than revise the General Plan's policies, including those that would allow massive conversion of the County's productive agricultural lands, or analyze the true environmental cost of full build-out under the proposed Plan, the FEIR argues that the size and diversity of the County prevented any better planning or analysis. The County's response to the public's concerns about the difficulty in accessing information caused by the design of the General Plan —which requires the public and decisionmakers to piece together more than eighty separate sub-plans to determine what kind of growth can occur in which locations—is not to remedy the flaw but to justify it. As with previous drafts, the Cities' concerns about the impacts on their public services caused by the County's overlapping and inconsistent land use jurisdiction are rejected out of hand. Moreover, , the County has refused to provide the document that describes changes made to the proposed General Plan policies, even though that document was "incorporated by reference" into the FEIR. This obscures changes to the Project, making meaningful review by the public exceedingly difficult and thereby undermining one of CEQA's primary informational objectives.

Furthermore, the FEIR does not remedy the internal inconsistencies of the FEIR or the General Plan policies themselves, and still lacks a land use map that complies with the California Planning and Zoning Law. In short, the FEIR fails to remedy the deficiencies of the RDEIR. It also fails to respond adequately to the Cities' comments on the RDEIR. As a result, we conclude, once again, that the County would violate state law were it to certify this fatally flawed FEIR and approve the legally insufficient General Plan.

I. The General Plan Still Fails to Contain a Valid Land Use Element.

In their previous comments on the General Plan, the Cities noted that the proposed Land Use Element was inadequate for several reasons, including that: (1) it is so convoluted (incorporating scores of local plans by reference) that it cannot serve as an adequate guide for development within the County; and (2) it lacks land use designations and building intensities for various areas throughout the County. Letter from Shute, Mihaly & Weinberger LLP to David Bryant Re: Tulare County Revised Draft General Plan 2030 Update and Recirculated Draft Environmental Impact Report for Tulare County General Plan ("SMW Ltr.") (May 26, 2010) at 3.

Rather than clarify the proposed Land Use Element by consolidating the many local plans and ensuring that all areas of the County have land use designations and building intensities, the FEIR offers up an excuse for the confusion: the County is just too big. *See generally* FEIR 4-13 through 4-29 (Master Response #5). The County includes over 3,000,000 acres (4,840 square miles), we are told, covering agricultural lands in the valley, as well as mountainous areas to the east. *Id.* at 4-15. The size and diversity of the County make it impossible to provide any level of detail, according to the FEIR. *Id.*

This argument is unpersuasive for at least two reasons. First, as the FEIR also notes, only approximately 170 square miles (out of 4,840 total) require any level of planning at all. *See* FEIR at 4-15. The remainder of the land is either "state or federal lands" (outside the County's planning jurisdiction), land within the County's incorporated cities (same), or agricultural and open space lands where development is not contemplated. *Id.* Thus, the County's obligation to create an adequate planning document was much more manageable than the FEIR suggests.

Second, other counties have prepared adequate Land Use Elements—including land use designations and building intensities for all land within them—despite similar geographic scope. For example, Yolo County, which includes over 1,000 square miles, managed to adopt a comprehensive and detailed general plan. *See* SMW Ltr. Exh. 3. So did San Diego County, despite its 2.9 million acres.[2] *See* San Diego County General Plan Update EIR, August 2011, at 1-4, excerpts attached as Exhibit 1. These counties did not find it necessary to rely upon eighty separate subplans to plan for growth within their boundaries, nor did they abdicate all planning responsibility by designating vast areas for "mixed-use development."

The County can, and must, do better. As the FEIR repeatedly emphasizes, the County's population will increase over the next twenty years. Contrary to the FEIR's suggestion, however, the County can direct where that growth occurs. By engaging in a coordinated planning effort—with input from the Cities—for the 170 square miles where development is currently anticipated, the County can achieve the city-centered growth it claims to want. To do that, however, and to comply with State Planning and Zoning Law, the County must significantly revise the proposed General Plan. It must not only work with the Cities to direct growth towards city centers consistent with city general plans,

[2] Indeed, a review of all counties in the State shows Tulare County as fairly average-size, especially among the southern counties. *See, e.g.*, http://geology.com/county-map/california.shtml.

but it must ensure adequate services and infrastructure exist to support the urban land use designations.

II. The FEIR Does Not Remedy the Deficiencies of the RDEIR.

A. The FEIR Fails to Analyze the Potential Environmental Impacts Resulting from the Development Permitted by the General Plan Update and Inadequately Responds to Comments.

For the first time in the many-year history of this Project, the FEIR provides the public with some information about the scope of development permitted by the General Plan Update. As the Cities anticipated, the numbers are staggering.

According to the FEIR, the proposed Project would permit dense, urban, mixed-use development on approximately 205.6 square miles, or 160,384 acres, of unincorporated area. FEIR at 4-25 (Master Response #5). Much of this newly designated land is, according to the FEIR, "vacant land available for development." *Id.* (indicating that 46% of acreage within Community UDBs and MSCs, and 26% of acreage within HDBs, is "vacant land available for development").[3] Using this information, together with information about the existing distribution of residential, commercial, and industrial uses throughout the County, the FEIR provides the following estimates:

- The proposed General Plan would permit more than 580,000 new residential units, 4,400 FAR acres of new commercial development, and 6,000 acres of new industrial development in existing Communities (without adopted community plans), Hamlets, and MSCs.

The FEIR also estimates potential build-out of "existing urban areas," including existing Communities (with adopted community plans) and Development Corridors:

- The proposed General Plan would permit another 1,800,000 new residential units or 21,000 FAR acres of commercial and industrial development (or some combination thereof) in "existing urban areas," including Communities (with plans) and the Development Corridor.

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[3] The Final EIR does not specify whether all vacant land was assumed to be "available for development," or whether some other criteria were used to define that category of lands.

The FEIR then estimates the "Area Plan Build-Out" for Agricultural and Open Space Areas, based on existing land use designations and permitted development densities.

- The proposed General Plan would permit approximately 105,000 new residential units on agricultural and open space areas.

FEIR at 4-28 through 4-29.

In total, these estimates indicate that, County-wide, the General Plan would permit millions of new residential units and thousands of acres of commercial and industrial development.

As remarkable as these estimates are, they likely still underestimate the potential impact of the proposed General Plan, which will not only permit mixed-use development on "vacant" lands, but will also permit higher-density mixed use development on land that has already been developed with lower density uses. *See, e.g.*, FEIR at 4-25 (noting an average residential density of 2.58 units per acre for existing uses, even though mixed-use designation would allow up to 30 units per acre or commercial or industrial uses).

Despite having developed these estimates, however, the FEIR fails to analyze the potential environmental impacts that would inevitably flow from such development. Instead, the FEIR calls its own estimates "speculative," because "it is impossible to anticipate all the circumstances that can affect development." FEIR at 4-26.

The FEIR has it backwards. Because the General Plan allows for this extensive development, the EIR for the General Plan must analyze the potential environmental impacts resulting from it. As the Court of Appeal held in *Christward Ministry v. Superior Court of San Diego County*, 184 Cal.App.3d 180, 194 (1986):

> Even if a general plan amendment is treated merely as a "first phase" with later developments having separate approvals and environmental assessments, it is apparent that an evaluation of a "first phase-general plan amendment" must necessarily include a consideration of the larger project, i.e., *the future development permitted by the amendment.* Only then can the ultimate effect of the amendment upon the physical environment be addressed.

Id. (emphasis added); *see also City of Redlands v. County of San Bernardino*, 96 Cal.App.4th 398, 409 (2002) (quoting same). Thus, in its environmental impacts analysis, the EIR must use population and growth assumptions that reflect the massive

development permitted by the General Plan amendments, not the Tulare County Association of Government's population projections, which have no relation to the new growth allowed by the proposed General Plan. If the County does not wish to have to analyze these impacts, it should adopt different land use designations that permit less development. As it is, however, the EIR is inadequate because it is not a study of the "project" that is actually proposed by the County.

The FEIR further fails to complete analysis of all growth permitted by the proposed General Plan by stating that it is "highly unlikely" that all of this growth will actually occur. FEIR at 4-26. Thus, the FEIR suggests, the EIR need only analyze the impacts associated with TCAG's projected population growth, even though the General Plan actually allows much more development to occur.

According to this reasoning, it would make no difference what the General Plan proposed—adopting tight restrictions on development or allowing high-density development on every square inch of privately owned land within the County—the environmental impacts of the General Plan would be the same because the population growth projections would be the same. This reasoning deeply misconstrues the purpose and power of a general plan, which will guide development within the jurisdiction.[4] It also makes a mockery of CEQA, allowing for an analysis of environmental impacts that does not reflect the Project before the County. And the excessive amount of land designated for development is a formula for sprawl, greatly threatening agriculture.

The Placer County Superior Court rejected similar arguments in *Sierra Watch v. Placer County*, Case No. SCV 16652 (Decision Granting Writ of Mandamus) (May 3, 2005), attached hereto as Exhibit 2. In that case, the petitioners challenged the environmental review conducted for a community plan that was to govern development

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[4] The Land Use Element in particular must "designate[] the proposed general distribution and general location and extent of the uses of the land for housing, business, industry, . . . agriculture, . . . and other categories of public and private uses of land." Gov. Code § 65302(a). Moreover, the Land use element must contain information regarding the standards for population density and building intensity for the various districts and other territory covered by the plan. *Id.*; *see also Twain Harte Homeowners Association v. Tuolumne County* (1982) 138 Cal. App. 3d 664, 699. These standards establish the holding capacity of the area and serve as a blueprint for all future development in the plan area. *See Koster v. County of San Joaquin* (1996) 47 Cal. App. 4th 29, 41-42.

in the Martis Valley, just north of the Tahoe Basin. Like the EIR for this project, the EIR prepared for the Martis Valley Community Plan analyzed the impacts of developing only a fraction of residential units and commercial space actually permitted by the community plan. So, while the community plan allowed 19,000 residential units and up to 5 million square feet of commercial space, the EIR only evaluated the project based on estimates of approximately 9,000 residential units and 1.1 million square feet of commercial space. *Id.* at 3. The County attempted to support these reduced numbers by pointing to a study suggesting that, on average, only 80% of permitted development was likely to actually occur. *Id.* at 7.

The court found this analysis inadequate, holding "the time to study the likely [e]ffects of specific and cumulative impacts [caused by the community plan] is at the time that the potential for development is known, whether or not that development actually occurs." *Id.* at 13. The court then described the result of the EIR's failure to analyze full build-out:

> Petitioners are correct in their assertion that the EIR failed to study the full scope of *permissible development and construction* under the [community plan]. This failure resulted in artificially limited studies of environmental impacts. . . . Flowing from this inadequacy are the mitigation measures proposed in the [community plan] which naturally fail to study and address the true nature and scope of the environmental consequences of the plan as adopted. Because of these combined failures, the Board of Supervisors was not provided with the real and potential magnitude of the environmental impacts of the proposed Community Plan. Accordingly, the County has not proceeded in a manner required by law . . . .

Id. at 15 (emphasis added).

Save Round Valley Alliance v. County of Inyo, 157 Cal.App.4th 1437 (2007), is not to the contrary. In *SRVA*, the challenged project was a tentative tract map that permitted the subdivision of one 74-acre parcel into 27 parcels for the purpose of developing 27 single family homes. *Id.* at 1443. While general state law external to the County's actions would have potentially permitted second units to be developed (*id.* at 1449), the County's approval of the subdivision itself contemplated only 27 units. In rejecting petitioners' argument that the EIR for this project should have considered not only the environmental impacts of the 27 units but also the potential for the development of second units on each lot, the court held: "[T]he record in the present case does not suggest the challenged approval was a necessary first step to the building of second units

by future owners. To the contrary, the record is clear that the objective of the project is to create lots for single family residences only." *Id.* at 1453.

Here, however, the purpose and objective of the proposed General Plan is to establish the framework for future growth in the County by designating how and where that growth may occur. Thus, the proposed Project is a necessary first step for future development at the densities and in the locations designated in the General Plan.

As a result, the situation here is much more akin to those at issue in *Christward Ministry* and *City of Redlands*, which involved challenges to the environmental review for general plan amendments. In both cases, the local governments argued (as the FEIR does here) that more detailed environmental review was unnecessary because (a) future development allowed by the general plan was not certain to occur and (b) future development projects would undergo their own CEQA review. *See Christward Ministry*, 184 Cal.App.3d at 194; *City of Redlands*, 96 Cal.App.4th at 409. The court rejected the first argument, as noted above, holding that a proper CEQA analysis of a general plan amendment must analyze "the future development permitted by the amendment," regardless of whether that development is certain to occur. *See Christward Ministry*, 184 Cal.App.3d at 194. The court rejected the second argument, too, as contradicting the basic CEQA policy that a lead agency must "evaluate the environmental effects of a project at the earliest possible stage in the planning process. *City of Redlands*, 96 Cal.App.4th at 410; *see also Christward Ministry*, 184 Cal.App.3d at 194. The County cannot avoid informing the public of the potential environmental consequences of its ill-advised plan by asserting that, no matter how poor the policies, growth in the County will be limited to the population projections.

Finally, the FEIR suggests that no more detailed environmental review is necessary at this time because this EIR is only a "programmatic EIR," and that more specific analysis will be conducted in connection with future, project-level environmental review. *See, e.g.*, FEIR at 4-11–13, 5-496, 5-496 (Master Response #4; Responses to Comments I21-152 & I21-155).[5] Under CEQA, however, whether a lead agency prepares

[5] This response to the Cities' repeated requests for more detailed analysis is as pervasive as it is wrong. For example, in response to our request that the RDEIR evaluate the ability of the County to provide adequate public services and utilities to support buildout of the General Plan, the FEIR declares that it would be "largely speculative" to analyze these impacts. Response I21-145 at 5-493. The FEIR also makes no attempt to analyze the impacts of its land use policies and similarly refuses to provide a detailed assessment of the Plan's impact on biological resources, agricultural resources, (footnote continued)

a "program" EIR or a "project-specific" EIR, the requirements for an *adequate* EIR remain the same. Guidelines § 15160. "Designating an EIR as a program EIR also does not by itself decrease the level of analysis otherwise required in the EIR." *Friends of Mammoth v. Town of Mammoth Lakes Redevelopment Agency*, 82 Cal.App.4th 511 (2000). Even a program-level EIR must contain "extensive detailed evaluations" of a general plan's effects on the existing environment. *See Envt'l Planning and Info Council*, 131 Cal.App.3d at 358. *See also Kings County Farm Bureau*, *supra*, 221 Cal.App.3d at 723-24 (where the record before an agency contains information relevant to environmental impacts, it is both reasonable and practical to include that information in an EIR).

The FEIR's reliance on future, project-level environmental review is also misplaced. *See* FEIR at 5-496 (Response to Comment I21-155). Again, CEQA's policy favoring early identification of environmental impacts does not allow agencies to defer analysis of a general plan's impacts to some future EIR for specific projects contemplated by that plan. *See Bozung v. Local Agency Formation Comm'n*, 13 Cal.3d 263, 282-84 (1975); *Christward Ministry*, 184 Cal.App.3d at 194; *City of Redlands*, 96 Cal.App.4th at 409. Moreover, there is no guaranty that such future, detailed environmental review will happen. The FEIR states only that "[f]uture individual projects subsequent to the draft General Plan *may* be required to undergo additional environmental review." FEIR at 5-497 (emphasis added). Several CEQA Guidelines suggest that the County would have to conduct no further environmental review for specific future projects that are consistent with the General Plan. *See, e.g.*, CEQA Guidelines § 15183. Thus, the time to analyze the potential environmental impacts caused by future development permitted by the proposed General Plan is now.[6]

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transportation, air quality, climate change, and water supply. *See* Responses I21-34, I21-50, I21-58, I21-96, I21-113, I21-131 and I21-137.

[6] This lack of commitment to future, project-specific environmental review also distinguishes the County's General Plan and EIR from the environmental review conducted in *Rio Vista Farm Bureau Center v. County of Solano*, 5 Cal.App.4th 351, 372 (1992). *See id.* ("Repeated commitments are made in both the Plan and the FEIR for preparation of future CEQA documents prior to approval . . . of any hazardous waste management facilities.").

B. The FEIR Fails to Adequately Analyze and Mitigate the General Plan's Land Use Impacts and Inadequately Responds to Comments.

Instead of substantively responding to the Cities' comments requesting that the EIR analyze the proposed General Plan's land use impacts (e.g., conflicts with the Cities' existing plans, weakening of existing County policies, interference with the Cities' ability to provide adequate infrastructure and public services), the FEIR's first tact is to simply refer the reader to policies from the proposed General Plan itself. FEIR Response I21-72 at 5-463. This response is illogical because, as discussed in our letter on the RDEIR, many of the General Plan's policies would, upon implementation, actually *cause* the land use and associated environmental impacts the County insists they alleviate. For example, policies PF-1.2, PF-4.13 and PF-4.24 would essentially abandon the existing annexation referral policy that presently calls for referral of proposals for development projects within city urban development boundaries (UDB) to affected cities for potential annexation and development. We thoroughly described the serious implications associated with the County's proposed approach and provided extensive evidence, including detailed case studies, demonstrating the environmental harm that would result from the County's proposed policies. Rather than actually address the Cities' concerns and propose solutions, the FEIR merely invokes the County's mantra that the General Plan's "policies have been designed to foster a cooperative planning environment between the County and each city..." Response I21-72 at 5-464. The FEIR also directs the reader back to the RDEIR itself, yet it is these EIR analyses—or more accurately the lack thereof —that prompted our comments in the first place. The RDEIR simply does not do what the FEIR claims and certainly does not provide the information and analysis CEQA demands.

Apparently conceding that the General Plan will in fact result in conflicts with the Cities' plans, the FEIR further suggests that the County will ultimately update its zoning to be consistent with the proposed General Plan and to "incorporate measures into the zoning code to eliminate the potential for incompatible development." Response I21-72 at 5-463. Are the Cities to believe that after the Plan is approved, the County will then take seriously the potential problems caused by the Plan? The time to identify these land use conflicts and incompatibilities is now, during the development of the General Plan itself. If zoning changes would eliminate incompatible development, the County must identify the specific zoning that will achieve this end. This analysis and mitigation must occur now, not after Project approval.

Nor does the FEIR resolve the numerous inconsistencies between the County Adopted City General Plans (CACGP) and the Cities' general plans. For example, the CACGP and the Cities' general plans contain differing plan boundaries and land use

designations. *See* Comments 121-72 through 121-78. Once again, the FEIR refuses to tackle these serious problems. Instead, it summarily concludes that these inconsistencies represent existing conditions and the General Plan 2030 Update will address future conditions. FEIR at 5-464. This makes no sense as it is the proposed General Plan itself that is causing the inconsistencies with the City's existing General Plans. The County must either revise the General Plan to avoid such inconsistencies or analyze and identify this land use impact as significant. The FEIR's cavalier treatment of these serious issues ill-serve the Cities and blatantly defies CEQA and State Planning and Zoning Law.

Finally, the FEIR improperly concludes that the General Plan's land use impacts would be less than significant and therefore fails to identify mitigation measures. For the reasons set forth in our letter on the RDEIR, the land use conflicts would be significant and the County therefore has a duty to mitigate these effects.

C. The FEIR Fails to Adequately Analyze and Mitigate the General Plan's Impacts to Agricultural Resources and Inadequately Responds to Comments.

The EIR's failure to analyze the environmental impacts of the full build-out permitted by the General Plan is perhaps most glaring in its analysis of the Plan's impacts to agricultural resources. Although the proposed General Plan would permit ranchette-style development (1 unit per 10 acres) throughout the Rural Valley Lands Plan ("RVLP") area, the EIR refuses to analyze the impact of such development. The EIR also refuses to analyze the impact of new planned communities, which could essentially be proposed anywhere within the RVLP area. The FEIR attempts to justify this failure to analyze by stating that "at the present time, the County is not aware of a proposed new town or planned communities within the Rural Valley Lands Plan area and it would be considered speculative to identify impacts associated with these types of projects without specific information regarding their possible location, composition, or timing." FEIR at 5-457. Again, this EIR must analyze the potential environmental impacts associated with the development that is permitted by the proposed General Plan, regardless of whether there are "at the present time" any concrete proposals for such development. The EIR's failure to do so renders it inadequate.

With respect to the EIR's analysis of the proposed Williamson Act Contract policies, which would *require* the County to serve non-renewal notices on parcels that are smaller than a certain threshold size, the FEIR simply restates these policies without any analysis of their potential environmental impact, or any explanation of the basis for these policies. FEIR at 5-460 through 462. As such, the FEIR's response to the Cities detailed comment on the potential environmental impacts of such policies is inadequate.

Contrary to the FEIR's assertion, the County has not adopted all feasible mitigation for the substantial loss of farmland that will result from this proposed General Plan. FEIR at 5-461 through 462. Policy-AG 1.6 simply states that the County *may* develop a program requiring mitigation (conservation easements or in-lieu fees) for conversion of farmland to urban uses. Again, the County could actually develop such a program—perhaps with a 2:1 mitigation structure to ensure more complete mitigation for the loss of finite agricultural lands—as part of the proposed General Plan. Indeed, that is essentially what the Department of Conservation urged the County to do in its comment letter. *See* FEIR at 3-16. By failing to do so, and by merely indicating that the County "may" adopt such a program in the future, the County has failed to adopt all feasible mitigation for this significant environmental impact.

D. The FEIR Fails to Adequately Analyze and Mitigate the General Plan's Transportation Impacts and Inadequately Responds to Comments.

Our comments on the RDEIR identified several flaws in the analysis of, and mitigation for, the proposed General Plan's transportation impacts. The FEIR inadequately responds to these comments and fails to rectify the deficient impact analysis. For example, we explained that the General Plan's failure to specifically describe the location, type and intensity of development on the County's lands made it all but impossible to evaluate the Plan's effect on the County's transportation system. RDEIR Letter at 40. We further explained that rather than use a land use-based approach to transportation impact analysis, the RDEIR relies on a regional travel demand forecast model created by the Tulare County Association of Governments ("TCAG") and that the RDEIR lacked any evidence that the model actually analyzed the impacts of the General Plan rather than some other scenario. *Id.*

Rather than explain how the TCAG model accurately accounts for the transportation impacts that would arise from the General Plan's land use scenario, the FEIR simply asserts that "the TCAG data and model is [sic] considered an appropriate methodology to evaluate impacts of the proposed project associated with traffic" and "the model uses information related to the number of households and number of employees per traffic analysis zone." Responses I21-48 and I21-92 at FEIR at 5-452, 5-469. These vague statements do not provide any indication—let alone the evidence necessary to demonstrate—that the TCAG model evaluates the General Plan's transportation impacts. Simply mentioning that the model takes into account households, employees and traffic analysis zones is not sufficient to determine how the County's roadway network would operate under the proposed General Plan. As the RDEIR acknowledges, "transportation and circulation needs are closely tied to the location and distribution of land uses" (at 3.2-

21); therefore, the EIR must show how the location and distribution of land uses was incorporated into the TCAG travel demand model.

Other land use agencies have demonstrated that it is feasible to: (1) modify a regional travel demand model to reflect a jurisdiction's land use plan; and (2) describe in the environmental analysis the steps that were undertaken to accurately model the transportation impacts of the plan. Yolo County, like Tulare County, relied on a regional travel demand model to evaluate the transportation effects of its proposed General Plan Update. It explained in its EIR how the model was modified to ensure that it accurately estimated traffic volumes from the land uses proposed in the General Plan Update. *See* Yolo County 2030 General Plan Update EIR beginning at 238 and Appendix C (showing that the forecasting travel demand model relies on 2030 Yolo County General Plan land use forecasts and that these land use forecasts are allocated by traffic analysis zones), attached as Exhibit 3. Of critical importance, Yolo County's planning exercise actually included a detailed accounting of existing and proposed land uses by Community Area (*see* Appendix B, Land Use Tables) that were used as inputs to the travel demand model. We can find no indication that Tulare County actually conducted this fundamental land use planning exercise.

Moreover, by Tulare County's own admission, such a detailed land use accounting was not conducted because the County's planning area is simply too large and diverse and it would therefore be speculative to attempt such an analysis. *See* Master Response 5. Consequently we question how the County can claim that the TCAG model accurately accounts for the land use projections of the proposed General Plan (and therefore adequately analyzes the General Plan's transportation impacts) while simultaneously claiming that it is not capable of conducting this analysis. The County cannot have it both ways.

The FEIR also fails to analyze the effect that the proposed General Plan would have on vehicle miles traveled ("VMT"), despite our request for this analysis. *See* Comments 121-130. Such an analysis is particularly important for several reasons. First, the General Plan purports to promote city-centered growth. One of most expedient methods of measuring whether development is occurring in and around urbanized areas is to evaluate the rate of change in VMT.[7] Second, the General Plan includes myriad

[7] Growth in travel, and especially vehicle travel, is due in large part to urban development patterns. A decentralized land use pattern almost always requires the use of a car as the primary mode of travel. With this automobile dependence, the number of (footnote continued)

policies with the express intent of reducing VMT.[8] Third, transportation is a major contributor to air emissions and these emissions increase with an increase in VMT.[9] Fourth, increases in VMT result in increased energy consumption. *See* RDEIR at 3.4-20. Finally, other transportation-related impacts can be exacerbated with a Project's increase in VMT. For example, as discussed in our letter on the RDEIR, pavement deterioration is a serious problem in the County. Poor pavement condition causes all sorts of problems (e.g., public safety risk due to increased accidents, adverse impacts to the agricultural industry that rely on County roads for farm-to-market trips, and air quality impacts as

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vehicle trips and the length of trips (i.e., VMT) increase while walking and public transit use decline.

[8] LU-6.3 Schools in Neighborhoods; LU-7.3 Friendly Streets; AQ-2.2 Indirect Source Review; AQ-2.3 Transportation and Air Quality; AQ-2.4 Transportation Management Associations; AQ-2.5 Ridesharing; TC-1.6 Intermodal Connectivity; TC-1.18 Balanced System; TC-2.1 Rail Service; TC-2.4 High Speed Rail (HSR);TC-3.7 Multi-modal Development; TC-4.2 Determine Transit Needs; AQ-3.3 Street Design; AQ Implementation Measure #1; AQ Implementation Measure #8; HS-9.1 Healthy Communities; HS-9.2 Walkable Communities; HS Implementation Measure #24; FGMP-8.16 Proximity to Transportation; FGMP-8.17 Reduce Vehicle Emissions; FGMP Implementation Measure #1; TC-4.3 Support Tulare County Area Transit; TC-4.4 Nodal Land Use Patterns that Support Public Transit; TC-4.7 Transit Ready Development; TC Implementation Measure #8; TC Implementation Measure #18; TC Implementation Measure #19; LU-1.1 Smart Growth and Healthy Communities; LU-1.2 Innovative Development LU-1.4 Compact Development; LU-1.8 Encourage Infill Development; LU-3.1 Residential Developments; LU-3.2 Cluster Development; LU-3.3 High Density Residential Locations LU-4.1 Neighborhood Commercial Uses; LU Implementation Measure #3; LU Implementation Measure #7;LU Implementation Measure #8; LU Implementation Measure #9; LU Implementation Measure #10; LU Implementation Measure #14;PF-1.2 Location of Urban Development; PF-1.3 Land Uses in UDBs/HDBs; PF-3.4 Mixed Use Opportunities; PF Implementation Measure #21; AQ-3.1 Location of Support Services; AQ-3.2 Infill Near Employment; AQ-3.6 Mixed Land Uses; AQ Implementation Measure #11; PFS-8.3 Location of School Sites; FGMP-3.1 Innovative Residential Design. *See* RDEIR at 3.4-27, 28.

[9] According to the California Air Resources Board, in California, transportation is responsible for about 38 percent of greenhouse gas emissions (GHG) emissions and is also a major contributor to other forms of air pollution such as ozone and carbon monoxide. (CARB, Climate Change Inventory, September 2008).

inadequate funding for maintenance results in some roads reverting to gravel roads). *See* Tulare County Background Report 5-39 through 5-43.

Consequently, without an assessment of the General Plan's potential to increase travel (i.e., VMT), and an analysis of the implications associated with this increase, it is not possible to evaluate whether the Project will achieve its own objectives or to evaluate the Project's environmental effects. In response to our request for this analysis, the FEIR states:

> VMT data from TCAG, and emission factors from CARB's EFAC2007 model, are used as an analytic tool to evaluate on-road emissions from all motor vehicle classifications. The RDEIR appropriately summarizes the technical data from these model runs, and includes the data in Appendix D of the RDEIR. This organization of the RDEIR, summarizing technical data in the primary document or EIR and placing technical data and analyses in an appendix, is consistent with CEQA Guideline §15147. RTC 121-48 at 5-452.

We appreciate the County now referring to Appendix D since the RDEIR itself never identifies VMT figures. However, inasmuch as Appendix D reveals that VMT is estimated to increase by more than 70 percent by 2030, the EIR must actually analyze the relevance of and environmental impacts associated with this substantial increase. In addition, we question the accuracy of the VMT figure itself since it was arrived at by using the TCAG model in 2007. Again, because the RDEIR fails to explain the relationship between the TCAG model and the location, type and density of land uses proposed by the General Plan, it is simply not possible to determine if the TCAG model accurately estimated the increase in VMT attributable to the proposed General Plan.

We again recommend that the County undertake an analysis of VMT-related impacts similar to the one Yolo County conducted in the context of its General Plan Update. Recognizing the direct relationship between VMT and decentralized development patterns, Yolo County extensively analyzed the implications associated with increased VMT levels resulting from its proposed development patterns. Most important, Yolo County identified mitigation measures that would effectively reduce VMT-related impacts. *See* measures CI-1a and C-I-1b, Yolo County General Plan Update EIR at 249-251, attached as Exhibit 3. These mitigation measures include VMT targets per household for specific development projects. *Id.* The measures also include performance standards and additional actions that would be required in the event that the development does not achieve its VMT target. *Id.* We urge Tulare County to evaluate the feasibility of adopting similar or even identical measures to those included in the Yolo County EIR.

In addition, in response to our comment that the RDEIR may understate the Project's traffic impacts because it assumes the implementation of twelve roadway projects that may not be built within the General Plan's 2030 horizon, the FEIR merely asserts that these roadway projects are part of the proposed project. *See* Comment and Response 121-95 at 5-470 and 471. We can find no evidence, however, that these projects are included in the proposed General Plan's Transportation and Circulation Element.

In fact, the RDEIR itself explains that these roadway projects are not part of the Project at all but are instead mitigation for the General Plan's transportation impacts. *See* RDEIR at 3.2-24 ("as a result of this analysis, it was determined that the following roadways (with several outside the immediate jurisdiction of the County) would require future improvements (mitigation in the form of widening, additional lanes, etc.)" and "a number of roadway improvements are identified that would improve roadway level of service conditions resulting from implementation of development anticipated under the proposed project." RDEIR at 3.2-24 and 3.2-31. Thus, the EIR fails in four substantive ways: (1) it does not contain a consistent description of the Project; (2) it does not provide an adequate analysis of the Project's transportation impacts because it is unclear if these roadway projects are or are not included in the analysis of Project impacts; (3) it leaves decisionmakers in the dark as to the Project's actual and specific traffic impacts because it fails to determine which of these roadway projects would even be built within the General Plan's 2030 horizon; and (4) it fails to analyze the environmental impacts of the roadway improvements, including any impacts on agricultural and biological resources. Despite the extensive magnitude of these twelve projects, the traffic impact analysis is minimal, comprising only four sentences, and provides no analysis of the improvement's other non-traffic related impacts. RDEIR at 3.2-26.

The FEIR fails to correct the myriad other problems in the transportation impact analysis. For example, the FEIR does not include a detailed analysis of the General Plan's impact on freeway interchanges, does not evaluate traffic impacts during peak periods, and does not adequately evaluate the Project's impact on pavement conditions. Nor does the FEIR identify and analyze feasible and effective mitigation measures, including those that we described in our letter on the RDEIR. For instance, although we requested an analysis of a measure that would reduce automobile use and especially single-occupant vehicle automobile trips, the FEIR fails to conduct this evaluation. Instead the document dismisses the need for such efforts asserting that the County has no direct control over VMT and that trip generation is ultimately controlled by the will of the individual. Response I21-110 at 5-479. We of course understand that the County has no direct control over individual drivers but it absolutely has land use planning authority. The

County has a remarkable opportunity in this General Plan Update to re-envision land use and transportation so that sprawling patterns of land use and its associated automobile dependence will not be irreversibly established.

E. The FEIR Fails to Adequately Analyze and Mitigate the General Plan's Air Quality Impacts and Inadequately Responds to Comments.

This Firm's letter on the RDEIR identified several deficiencies in the document's air quality analysis. These deficiencies include the EIR's failure to: 1) accurately depict the impact on air pollution that would result from the proposed General Plan because it relies on the TCAG travel demand model rather than the Plan's land use assumptions; 2) analyze the health effects that would occur as a result of the Plan's increase in air pollutants; 3) adequately analyze the General Plan's effect on the region's air quality plan; and, 4) identify feasible mitigation measures for the General Plan's significant air quality impacts. In response to these and other comments on the legally inadequate air quality analysis, the FEIR adds no new information to the EIR, but rather insists that the analysis in the RDEIR is adequate. *See* Response to Comments 121-112, 113.

The FEIR suggests that the RDEIR's air quality analysis is adequate merely because it is in conformance with the air quality requirements contained in AB 170. *See* Response to Comment I8-4 at 5-52 and I21-112. The FEIR fails to explain the relevance of AB 170 or draw any connection whatsoever between AB 170 and CEQA's requirements. AB 170 generally requires cities and counties in the San Joaquin Valley to incorporate strategies to improve air quality in their general planning efforts. *See* AB 170 Requirements for General Plans, attached as Exhibit 4. Compliance with AB 170, however, does not excuse the County from complying with CEQA's mandate to analyze the actual impacts of the General Plan on air quality and public health.

The California Attorney General weighed in on a similar approach by the San Diego Association of Governments' (SANDAG) in connection with the EIR for its Regional Transportation Plan/Sustainable Communities Plan (SANDAG Plan). In its comments on the draft EIR for the SANDAG Plan, the Attorney General criticized SANDAG for substituting a determination of whether certain federal laws are met for SANDAG's obligation under CEQA to conduct a thorough analysis of the actual effects on the air and public health that will result from SANDAG's Plan. *See* letter from Susan Durbin, California Attorney General to Honorable Jerome Stocks, SANDAG Board of Directors, September 16, 2011, attached as Exhibit 5. As the Attorney General explained, "even if conformity with federal standards in state-approved plans were an appropriate benchmark for significance under CEQA, the DEIR does not contain a quantitative analysis, using the most recent available air quality measures as the baseline, to

determine whether the federal air quality standards will actually be met, and what the public health consequences will be of adding the expected pollutant load from the RTP/SCS to existing conditions." AG letter at 3 (footnote 5). As we explained in our letter on the RDEIR, the Tulare County EIR suffers from the exact same flaws: it fails to analyze the actual and specific effects on air quality that will result from the proposed General Plan. Consequently, the County cannot rely on the analysis' alleged compliance with AB 170 to meet CEQA's requirements.

Coincidentally, the Attorney General weighed in on other deficiencies identified in its review of the SANDAG Plan EIR that we too identified in the Tulare County General Plan RDEIR's analysis. For example, just as we requested that the General Plan RDEIR examine the health effects resulting from exposure to the Plan's increase in pollutants, the Attorney General criticized SANDAG for its failure to analyze how the health of the residents would be affected by SANDAG's Plan. *See* AG Letter at 4. The Attorney General also found fault with SANDAG for its failure to adequately analyze the General Plan's effect on San Diego's regional air quality plan. As we explained, the Tulare County EIR does nothing more than state that growth resulting from the General Plan *could make it more difficult* to attain the air quality standard by the air quality plan's attainment date. *See* Comments I21-120 – 122 at FEIR 3-1505, 3-1506 and RDEIR at 3.3-24 (emphasis added). Yet, as the Attorney General Plan explained to SANDAG, it is important that the EIR provide a "full analysis" in order to determine whether the region would be expected to achieve the federal and state air quality standards during the life of the Plan and what the Plan's contribution to current or future violations of that standard will be. AG Letter at 3.

The Attorney General's criticism of SANDAG's approach to mitigation for its Plan's significant air quality impacts also echo the concerns raised in our letter to the County. While the Attorney General found that SANDAG's measures lacked certainty and were incomplete (AG Letter at 6), we too explained that the County's proposed measures were unlikely to be effective because they were vague and otherwise unenforceable. The County is obligated to identify feasible and enforceable mitigation measures to reduce the Plan's significant air quality impacts. The FEIR, like the RDEIR, fails to adequately perform this important exercise.

F. The FEIR Fails to Adequately Analyze and Mitigate the General Plan's Climate Change Impacts and Inadequately Responds to Comments.

Notwithstanding our request that the RDEIR include the detail, methodology and assumptions to determine whether the greenhouse gas (GHG) analysis actually evaluates the land use projections in the General Plan, the FEIR fails to provide this critical

information. Here too, the FEIR directs the reader to several other documents including the Background Report and Appendix E - GHG Inventory, but these documents do not contain the information we requested. The GHG Inventory simply asserts that the complete emission inventory for Tulare County includes the emissions generated from activities occurring in unincorporated county land and that the inventory includes all reasonably discoverable emissions generated within that geographical boundary, generated by both public and private sources. *See* GHG Inventory at E-5. The phrases "activities occurring in unincorporated county" and "all reasonably discoverable emissions" do not provide the necessary detail to allow for verification that the GHG inventory is in fact based on the General Plan's proposed land uses. In the absence of this rudimentary information, the analysis of climate change impacts remains legally inadequate and the EIR does not serve its fundamental purpose as an informational document. CEQA Guidelines § 15121 (a).

Nor does the FEIR correct the deficiencies in the mitigation measures identified to reduce GHG emissions from the proposed General Plan. Numerous members of the public including the California Attorney General criticized the EIR for not considering and imposing feasible and enforceable GHG mitigation measures. *See* letters from to Deputy Attorney General Susan S. Fiering to Tulare County dated April 14, 2008 and May 27, 2010. The Attorney General, along with this firm, explained that many of the General Plan policies are voluntary, flexible, and unenforceable in nature and consequently will be ineffective in mitigating the Plan's GHG impacts.

G. The FEIR Continues to Dodge an Adequate Analysis of the General Plan's Water Supply Impacts and Inadequately Responds to Comments.

Vineyard Area Citizens for Responsible Growth, Inc. v. City of Rancho Cordova, 40 Cal.4th 412, 431-32 (2007) clearly sets out the analysis a lead agency must conduct in analyzing the water supply impacts of any proposed project, including a proposed General Plan. "If the uncertainties inherent in long-term land use and water planning make it impossible to confidently identify the future water sources, an EIR may satisfy CEQA if it acknowledges [1] the degree of uncertainty involved, [2] discusses the reasonably foreseeable alternatives—including alternative water sources and the option of curtailing the development if sufficient water is not available for later phases—and [3] discloses the significant foreseeable environmental effects of each alternative, as well as mitigation measures to minimize each adverse impact." *Id.* at 434. The Supreme Court did not retreat from this holding in *In re Bay-Delta Programmatic Environmental Impact Report Coordinated Proceedings*, 43 Cal.4th 1143 (2008); rather, it found that the EIS/R at issue had conducted the required analysis. *Id.* at 1173. *See also Watsonville Pilots*

Ass'n v. City of Watsonville, 183 Cal.App.4th 1059, 1092 (2010) (applying *Vineyard*'s requirements to analysis of water supply impacts of general plan).

Here, contrary to the FEIR's assertion (FEIR at 5-491), while the EIR acknowledges a great deal of uncertainty surrounding water supply in the County, it does not analyze the environments effects of supplying water to the development permitted by the proposed General Plan, even in "general terms." *See* FEIR at 5-491 (quoting *In re Bay-Delta*, 43 Cal.4th at 1173). For example, the EIR notes that the project could increase groundwater extraction as the County converts agricultural lands to urban uses, but provides no indication of the environmental damage that could be caused by this increase. *See* RDEIR at 3.9-47. The EIR also lists a variety of proposed policies that would purportedly address the plan's water supply impacts, including the development of new infrastructure and public facilities. *Id.* However, the EIR fails to discuss any of the potentially significant environmental impacts of these policies, such as further conversion of agricultural lands and growth-inducing impacts.

Moreover, the EIR concedes that "Tulare County lacks a comprehensive water supply assessment and approach, and implementation strategy to address complex, regional water supply issues." RDEIR at 3.9-47. Of course, the drafting of a General Plan Update provides the perfect opportunity for the County to consider and adopt a strategy for dealing with the serious limitations on the County's water supply. In failing to do so, the County has once again abdicated its obligation to engage in serious planning for the future development of its jurisdiction.

H. The FEIR Fails to Adequately Analyze and Mitigate Impacts Relating to Public Services and Inadequately Responds to Comments.

The EIR's analyses of the impacts of demand for public services are essentially non-existent. The EIR considers the various types of services for which the General Plan will increase demand but never considers the effect that meeting this demand would have on the physical environment.

For example, as we explained in our prior letter, the RDEIR's analysis of and mitigation for the Project's impact on wastewater service is particularly deficient. Because the RDEIR does not correlate the County's planned growth with its particular wastewater demand, there is no indication that the wastewater demand projections are even based on the development levels contemplated by the General Plan. *See* Comment I21-146 through I21-149 at 3-1518 through 3-1520. Moreover, by the RDEIR's own admission, numerous wastewater treatment providers would have deficient capacity in 2030, yet the EIR never explains how these deficiencies would be rectified. *Id.*

Most importantly, the EIR's approach—considering the increased demand itself to be the impact—completely misses the point of this CEQA analysis. CEQA looks at physical changes to the environment. See CEQA § 21065 (defining "project" to mean activity that may cause a physical change in the environment); CEQA Guidelines § 15126.2(a) (EIR must analyze physical changes in the environment). The EIR therefore must consider the physical changes that will result from the efforts to meet the new demand. In other words, to accommodate the anticipated growth provided for in the General Plan—even accepting the FEIR's underestimate of 6.6 million units anticipated to be built within the County (Table 4-9 at FEIR 4-29)—sanitary service providers will need to build new treatment facilities or expand existing facilities. Such activities will, of course, have environmental impacts. Moreover, if insufficient wastewater treatment capacity exists in the future, treatment facilities may unintentionally or even intentionally discharge untreated wastewater to the region's waterways, posing an immediate threat to water quality, fish and other aquatic life. *These* are the impacts that the EIR's analysis should focus on. Yet, the FEIR, like the RDEIR, fails to provide this critical analysis.

Nor does the FEIR correct the deficiencies relating to mitigation proposed for the numerous significant impacts relating to the provision of public services. We faulted the RDEIR for its reliance on optional, directory, or otherwise unenforceable policies to reduce the General Plan's significant public services-related impacts. Certainly a fresh look at these policies is in order inasmuch as the EIR determines that the Plan's policies would not be sufficient to reduce impacts on water supply, wastewater treatment utilities and solid waste services to a less than significant level. RDEIR at 3.9-50, 54 and 56.The FEIR's failure to incorporate adequate, enforceable, and feasible mitigation measures into General Plan policies does not by itself make the Project's impacts unavoidable; to the contrary, if the FEIR had proposed and analyzed adequate mitigation measures as required under CEQA, some of those impacts might have been avoided.

I. The FEIR Fails to Address Cumulative Impacts and Inadequately Responds to Comments.

The FEIR, like the RDEIR, fails to analyze the cumulative impacts of this Project together with other projects in the area, as CEQA requires. The cumulative impacts concept recognizes that "[t]he full environmental impact of a proposed . . . action cannot be gauged in a vacuum." *Whitman v. Board of Supervisors*, 88 Cal.App.3d 397, 408 (1979). The requirement of a cumulative impact analysis of a project's regional impacts is considered a "vital provision" of CEQA. *Bozung v. LAFCO*, 13 Cal.3d 263, 283 (1975). The analysis of cumulative impacts is particularly important in the context of long-range planning documents because the growth allowed under general plans is often substantial and because they set forth the policies that will guide the development of

future, individual projects for many years. A program-level EIR for planning documents must provide a more thorough analysis of cumulative impacts than is required for individual projects. *See* CEQA Guidelines § 15168(b)(2).

To be adequate under CEQA, the discussion of cumulative impacts must include a summary of the expected environmental effects to be produced by those projects, a reasonable analysis of the cumulative impacts, and full consideration of all feasible mitigation measures that could reduce or avoid any significant cumulative effects of a proposed project. *See* CEQA Guidelines §§ 15126.4(a)(1) and 15130(b)(3). Here, the RDEIR fails to adequately undertake any of these tasks and the FEIR fails to correct these deficiencies.

First and foremost, the cumulative impacts analysis is deficient because it used as its basis for analysis of the County's General Plan the summary of projections provided by the TCAG model, rather than the full build-out under the Plan. *See* FEIR at 5-495. This approach is wholly unacceptable under CEQA because it grossly underestimates cumulative impacts.

Second, as we explained in our comments on the RDEIR, the EIR fails to actually examine the effect of the General Plan, together with other projects in the region. The cumulative impacts section largely describes the Project itself and then summarizes the Project-specific environmental impacts. Rather than respond to this comment by providing the required analysis, the FEIR asserts, once again, that the level of detail in its cumulative impact analysis is appropriate. FEIR at 5-496. Contrary to the FEIR's claims, the County has not bothered to gather the actual data that would necessarily provide the basis for a cumulative impact analysis as required by CEQA. California courts are clear on this issue: information regarding the project's impacts must be "painstakingly ferreted out." *Environmental Planning and Information Council of Western El Dorado County v. County of El Dorado,* 131 Cal.App.3d 350, 357 (1982) (finding an EIR for a general plan amendment inadequate where the document did not make clear the effect on the physical environment).

The County certainly could have, for example, identified the number of acres of agricultural lands that are projected to be converted to development from all projects in the County's study area, including the loss of agricultural land caused by the proposed Project, and determined whether the impact would be cumulatively considerable. The FEIR, like the RDEIR, simply does not do this necessary exercise and thus does not provide decisionmakers with any objective measure of the General Plan's cumulative impacts. Thus, while the EIR is undoubtedly correct to conclude that the Project's impact on agricultural resources would be cumulatively considerable, a conclusion of

significance cannot take the place of description and analysis of the impact. *See Stanislaus Natural Heritage Project v. County of Stanislaus*, 48 Cal. App. 4th 182 (1996) (invalidating EIR that had failed to adequately analyze water supply impacts but found them to be significant and unavoidable).

Finally, as we explained previously, the EIR does not identify mitigation measures despite the document's conclusion that there would be numerous significant cumulative impacts. When an EIR concludes that a project will have a significant impact, as it does here, CEQA requires the lead agency to adopt all feasible mitigation, even if this mitigation will not reduce the impact to a level of insignificance. CEQA Guidelines section 15126.4(a). Here, the EIR's failure to provide any measures to mitigate the General Plan's significant environmental impacts epitomizes the County's failure to meet CEQA's core requirements.

J. The FEIR Fails to Identify and Analyze a Reasonable Range of Alternatives and Inadequately Responds to Comments.

Under CEQA, a proper analysis of alternatives is essential to comply with the Act's mandate that significant environmental damage be avoided or substantially lessened where feasible. Pub. Res. Code § 21002; CEQA Guidelines §§ 15002(a)(3), 15021(a)(2), 15126(d); *Citizens for Quality Growth v. City of Mount Shasta*, 198 Cal.App.3d 433, 443-45 (1988). As stated in *Laurel Heights Improvement Association v. Regents of University of California*, "[w]ithout meaningful analysis of alternatives in the DEIR, neither the courts nor the public can fulfill their proper roles in the CEQA process . . . . [Courts will not] countenance a result that would require blind trust by the public, especially in light of CEQA's fundamental goal that the public be fully informed as to the consequences of action by their public officials." 47 Cal.3d 376, 404 (1998). The discussion of alternatives must focus on alternatives to the project or its location that are capable of avoiding or substantially lessening any significant effects of the project, even if these alternatives would impede to some degree the attainment of the project objectives, or would be more costly. CEQA Guidelines § 15126.6(b).

Here, the EIR fails to heed these basic mandates. Although the RDEIR identifies four alternatives, the document's perfunctory comparative analysis of the alternatives fails to adequately distinguish the environmental impacts of each option, to the extent there are differences. Indeed, each of the General Plan's alternatives would have virtually identical environmental impacts. *See* Table 4-3.

The analysis of alternatives is not simply a bureaucratic hurdle that must be jumped over. By the EIR's own admission, implementation of the Plan would result in

significant and unavoidable impacts to every environmental impact category except one.[10] Consequently, since the General Plan would result in extensive environmental harm, the EIR is obligated to identify an alternative that results in a substantive environmental improvement compared to the General Plan. Therefore, the EIR's identification of alternatives that do very little to lessen the Project's environmental impacts, does not satisfy CEQA's mandate that an EIR discuss a reasonable range of alternatives that "offer substantial environmental advantages over the project proposal." *Citizens of Goleta Valley,* 52 Cal.3d at 566.

As we explained in our comments on the RDEIR, perhaps if the EIR had adequately examined the alternatives, the City-Centered alternative would in fact result in a substantive improvement over the proposed Project. Yet, the RDEIR's vague and uninformative analysis makes it impossible to determine the extent that this alternative would reduce the Project's significant environmental impacts. As we explained, the RDEIR identifies the Confined Growth Alternative as environmentally superior but arrives at this conclusion because it underestimates the benefits of the City-Centered Alternative. SMW Ltr. at 76. While we provided a substantive explanation as to why the City-Centered Alternative would appear to be equally, if not more, effective at reducing the Project's significant environmental impacts, the FEIR fails to provide any substantive response to the points raised in our comments. Instead, the FEIR merely states that the Cities' "support" for the City-Centered Alternative would be forwarded to County decision makers for their considerations. Response I21-164, FEIR at 5-500. In the absence of an objective and thorough analysis of each of the alternatives however, the decision makers will not have the information necessary to make an informed decision. Nor does the FEIR respond to our comments regarding the legal failings of the alternatives analysis. These serious flaws in the EIR's consideration of alternatives makes the EIR of little utility to the public and decision makers, who are left with no reasonable, less damaging option for the County's lands.

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[10] Implementation of the General Plan would result in significant and unavoidable impacts to land use, transportation and circulation, air quality, energy and climate change, noise, hydrology, water quality and drainage, hazardous materials and public safety, public services, recreation resource and utilities, agricultural resources, biological resources, and cultural resources. RDEIR at ES-12 through ES-24. The only impact category that would be mitigated to a less than significant level is geology and soils. *Id.*

III. The EIR Must be Revised and Recirculated.

CEQA requires recirculation of an EIR when significant new information is added to the document after notice and opportunity for public review was provided. CEQA § 21092.1; CEQA Guidelines § 15088.5. *Laurel Heights Improvements Assn. v. Regents of the University of California* (1993) 6 Cal. 4th 1112, 1130.

As this letter explains, the FEIR contains substantial new information, including previously un-released estimates of the true, potential build-out under the proposed General Plan. Because these estimates indicate that the proposed General Plan will have new or more severe substantial environmental impacts, the EIR must be revised and recirculated.

In addition, the FEIR refers to two documents identified as the "General Plan 2030 Update Correctory Table" and "Summary of Changes," which, according to the FEIR, contain changes to the proposed General Plan and are "incorporated by reference into" the FEIR. FEIR at 2-1. However, these documents were not included in any of the Appendices to the EIR, nor otherwise made available to the public during the comment period on the FEIR, as CEQA requires. *See* CEQA Guidelines §§ 15087(c)(5) & 15150(b). On October 10, 2011, you provided us with a draft version of the "Correctory Table," while informing us in a letter from the Tulare County Counsel's office that the "Correctory Table" was merely a "first version" of the document and that the "Summary of Changes" document has not yet been completed and would not be available to the public until October 12, 2011, just one week before the scheduled Planning Commission hearing on the proposed General Plan.[11]

Even a cursory review of the draft "Correctory Table," however, shows significant changes to the proposed General Plan policies. These changes require additional environmental review and time for public comment. For example, the Table shows that the County now intends to eliminate Policy PF-2.3's requirement that the County "*shall work with* special districts, school districts, and other service providers when evaluation the expansion of a Community's UDB," replacing it with the much weaker requirement that the County provide these entities with notice and an opportunity to comment on such projects. As the Cities noted in their previous comments on this

[11] *See* Email from David Bryant to Laurel L. Impett dated October 10, 2011 re Requested Information-Clum and attachment to such letter dated September 29, 2011 from Linda Weirick to J. Peter Clum.

proposed General Plan, a lack of planning coordination between the County and the Cities has, in the past, resulted in serious environmental impacts. *See* SMW Ltr. at 32-39. By eliminating any mandatory planning coordination with these other government entities, the County has opened the door to similar adverse environmental impacts in the future. *See City of Redlands*, 96 Cal.App.4th at 412-14 (finding potentially significant environmental impacts resulting from elimination of general plan policies requiring coordinated planning).

In short, the public must have an adequate opportunity to review and comment on the final "Correctory Table" and "Summary of Changes" document before the County takes up the question of whether the environmental analysis is adequate. For this reason as well, the County must recirculate the EIR for additional public review and comment with the final "Correctory Table" and "Summary of Changes" attached.

Very truly yours,

SHUTE, MIHALY & WEINBERGER LLP

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Supervisor Pete Vander Poel
Tulare County Planning Commission
Jean Rousseau, Tulare County Administrative Officer
Jake Raper, Tulare County Resource Management Agency Director
Council of Cities

Exhibit List

Exhibit 1: San Diego County General Plan Update EIR, August 2011, excerpts.

Exhibit 2: *Sierra Watch v. Placer County*, Case No. SCV 16652 (Decision Granting Writ of Mandamus) (May 3, 2005).

Exhibit 3: Yolo County 2030 General Plan Update EIR, excerpts.

Exhibit 4: AB 170 Report Requirements for General Plans.

Exhibit 5: Letter from Susan Durbin, California Attorney General to Honorable Jerome Stocks, SANDAG Board of Director, September 16, 2011.

EXHIBIT 1

San Diego County General Plan Update

Final Environmental Impact Report

EIR # 02-ZA-001 | SCH # 2002111067 | Program EIR



August 2011

County of San Diego | Dept. of Planning and Land Use
5201 Ruffin Road, Suite B | San Diego, California 92123

CHAPTER 1.0 PROJECT DESCRIPTION, LOCATION, AND ENVIRONMENTAL SETTING

1.1 Introduction

The County of San Diego General Plan Update is the first comprehensive update of the General Plan since the 1970s. The General Plan Update, which applies to all unincorporated portions of San Diego County, will direct population growth and plan for infrastructure needs, development, and resource protection. The General Plan Update will guide the growth and development of the unincorporated County of San Diego using innovative planning principles designed to create livable communities and balance environmental objectives with the needs of adequate infrastructure, housing, agriculture, and economic viability. The update will focus population growth in the western areas of the County where infrastructure and services are available thereby reducing the potential for growth in the eastern areas. The objectives of this population distribution strategy are to: 1) facilitate efficient, orderly growth by containing development within areas potentially served by the San Diego County Water Authority (SDCWA) and in proximity to existing infrastructure; 2) protect natural resources through the reduction of population capacity in sensitive areas; 3) reduce overall vehicle miles traveled and the associated greenhouse gas emissions that contribute to Climate Change; and 4) retain or enhance the character of communities within the unincorporated County.

1.2 State Requirements

The requirement for a General Plan is established by State law requiring jurisdictions to "adopt a general plan for the physical development of the county..." (Government Code Section 65300). State guidelines provide direction regarding the preparation and content of the General Plan. There are seven mandatory elements for general plans, which are Land Use, Circulation (Mobility), Housing, Conservation, Open Space, Noise, and Safety. The proposed General Plan Update contains six elements because the Conservation and Open Space components have been combined into one element. The General Plan is part of a regulatory framework that includes federal and State laws, regional and inter-regional plans, community plans, and other County policies and ordinances.

1.3 Project Objectives

The General Plan Update is based on a set of ten interrelated principles (objectives) that provide guidance for accommodating future growth while retaining and enhancing the County's rural character, economy, and unique communities, as well as minimizing the environmental impacts of future development. These principles serve as the proposed project objectives.

The proposed General Plan Update would:

1. Support a reasonable share of projected regional population growth.

2. Promote sustainability by locating new development near existing infrastructure, services, and jobs.

3. Reinforce the vitality, local economy, and individual character of existing communities while balancing housing, employment, and recreational opportunities.

4. Promote environmental stewardship that protects the range of natural resources and habitats that uniquely define the County's character and ecological importance.

5. Ensure that development accounts for physical constraints and the natural hazards of the land.

6. Provide and support a multi-modal transportation network that enhances connectivity and supports community development patterns.

7. Maintain environmentally sustainable communities and reduce greenhouse gas (GHG) emissions that contribute to climate change.

8. Preserve agriculture as an integral component of the region's economy, character, and open space network.

9. Minimize public costs of infrastructure and services and correlate their timing with new development.

10. Recognize community and stakeholder interests while striving for consensus.

1.4 Regional Location and Characteristics

1.4.1 Location

As shown in Figure 1-1, the County of San Diego is located in the southwestern corner of California and encompasses approximately 2.9 million acres. The County includes 18 incorporated cities and the remainder of the County is unincorporated. The unincorporated County encompasses approximately 2.3 million acres. It is bordered by Riverside and Orange Counties to the north; Imperial County to the east; the Country of Mexico to the south; and 18 incorporated jurisdictions and the Pacific Ocean to the west. The incorporated cities within the County include the following: Carlsbad, Chula Vista, Coronado, Del Mar, El Cajon, Encinitas, Escondido, Imperial Beach, La Mesa, Lemon Grove, National City, Oceanside, Poway, San Diego, San Marcos, Santee, Solana Beach, and Vista. The unincorporated portion of the County is divided into 24 planning areas, as shown in Figure 1-2. Fifteen of the planning areas are referred to as Community Planning Areas (CPAs) and nine areas are called Subregional Planning Areas (Subregions). The CPAs are Alpine, Bonsall, County Islands, Fallbrook, Julian, Lakeside, Pendleton/De Luz, Pepper Drive/Bostonia, Rainbow, Ramona, San Dieguito, Spring Valley, Sweetwater, Valle de Oro, and Valley Center. The nine Subregions are Central Mountain, Crest/Dehesa/Harbison Canyon/Granite Hills, Desert, Jamul/Dulzura, Mountain Empire, North County Metropolitan (Metro), North Mountain, Otay, and Pala/Pauma Valley. Pepper Drive/Bostonia will be merged into the Lakeside CPA with the adoption of the General Plan Update to reduce the total to 23 planning areas. For the purpose of this EIR, Pepper Drive/Bostonia is included in the Lakeside CPA. In some cases, Subregions are further divided by planning sponsor group areas where a group has been formed pursuant to County policy to represent a specified area. These CPAs and Subregions are described in detail in Section 2.1, Aesthetics, and Section 2.9, Land Use.

The northwest and southwest areas of the unincorporated County are more developed than the eastern areas and most new development is directed toward these more developed areas. Northwest CPAs and Subregions include Pala/Pauma Valley Subregion, Fallbrook CPA, Rainbow CPA, Pendleton/De Luz CPA, Valley Center CPA, North County Metro Subregion, Bonsall CPA, and San Dieguito CPA. Southwest CPAs and Subregions include Ramona CPA, Lakeside CPA, Spring Valley CPA, Sweetwater CPA, Valle de Oro CPA, Alpine CPA, Crest/Dehesa/Harbison Canyon/Granite Hills Subregion, Jamul/Dulzura Subregion, Otay Subregion, and County Islands CPA. The backcountry, or remaining area in the eastern portion of the unincorporated County, is predominantly undeveloped and is subject to more environmental constraints to development. The backcountry includes the Julian CPA and the Central Mountain, Desert, Mountain Empire, and North Mountain Subregions.

1.4.2 Area Characteristics

The common characteristics of the land, from topography to infrastructure, are key factors that determine what development patterns are most appropriate for particular portions of the San Diego region. On average, the unincorporated areas of the County are more highly constrained, with more rugged terrain, more occurrences of sensitive species, and less opportunities to provide essential services. A majority of the land in the unincorporated County is open space or undeveloped, while the majority of land in the incorporated cities is developed. In addition, several large federal, State, and regional parks encompass much of the eastern portion of the unincorporated County.

San Diego County is a diverse region with a dramatic coastline, mountains, and desert. The County's sunny weather allows people to spend much of their time outside throughout the year. For this reason, people come from all over the world to enjoy the County's resources. The County is rich in natural open space, unique topographic features, and other natural resources. Its varied topography, semi-arid (Mediterranean) and arid (desert) climates, and geology make it one of the most biologically diverse regions in the continental United States (U.S.). San Diego County has three distinctive geographic regions that are, from west to east, the low-lying Coastal Plain, the mountainous Peninsular Range, and the desert Salton (Imperial) Basin. The unique resources and land uses of each of these regions are described in greater detail in the context of the environmental topics discussed in Chapter 2.0, including Sections 2.1 (Aesthetics), 2.4 (Biology), and 2.9 (Land Use).

1.4.3 Technical, Economic, and Environmental Characteristics

The General Plan Update is a comprehensive plan covering approximately 807,000 acres of privately owned unincorporated land within 23 CPAs and Subregions. Therefore, many technical aspects were considered in developing the General Plan Update elements, including existing land use patterns and intensity, circulation needs, potential hazards and safety risks, natural resources and visual features, housing needs, and potential noise sources.

Economic considerations for the proposed project included development of a land use map for the County that is designed to encourage unique and thriving communities. As described above in Section 1.3, one of the project objectives of the General Plan Update is to reinforce the vitality, local economy, and individual character of existing communities while balancing housing, employment, and recreational opportunities. Central to the land use concept for unincorporated San Diego County is a development pattern that balances the land requirements

of residential growth with those of commerce, agriculture, recreation, and wildlife habitats. This development pattern concept directs future growth to areas where existing or planned infrastructure and services can support growth and to locations within or adjacent to existing communities.

1.5 Environmental Setting

According to Section 15125 of the CEQA Guidelines, an EIR must include a description of the existing physical environmental conditions in the vicinity of the proposed project to provide the "baseline condition" against which project-related impacts are compared. Normally, the baseline condition is the physical condition that exists when the NOP is published. The NOP for the General Plan Update EIR was published on April 28, 2008. However, the CEQA Guidelines and applicable case law recognize that the date for establishing an environmental baseline cannot be rigid. Physical environmental conditions vary over a range of time periods; thus the use of environmental baselines that differ from the date of the NOP is reasonable and appropriate when conducting the environmental analysis. The environmental topic sections rely on a variety of data to establish an applicable baseline. In sections such as agricultural resources, biological resources, cultural resources, mineral resources, and population and housing, available data was months and sometimes several years old and, therefore, assumptions in how those conditions might have changed since the data was prepared are also discussed. Table 1-13 provides the environmental baseline for each issue analyzed in this EIR. The environmental setting for each environmental issue is further explained in the beginning of each section of Chapter 2.0 and in the corresponding technical reports.

1.6 Summary of Proposed Project Components

The proposed project includes an update of the General Plan, as well as several other components described below, all of which address future growth and development in the unincorporated County and are evaluated in this EIR. The General Plan Update will replace the existing General Plan, including all of the elements, a corresponding proposed land use map (Figure 1-3), and a Mobility Element roadway network map (Figures 1-4 through 1-6). Updates to all community and subregional plans are also part of the proposed project. An Implementation Plan has been prepared as a component of the proposed project that sets forth an action plan by which the goals and policies of the General Plan Update will be implemented. Additionally, the proposed project includes adjustments to CPA boundaries and identifies items that must be changed within a reasonable timeframe following plan adoption to maintain consistency between the General Plan and County ordinances or policies. Other project components include items that must be updated such as specific plans; the San Diego County Zoning Ordinance; County of San Diego Code of Regulatory Ordinances Sections 86.601-86.608, Resource Protection Ordinance (RPO); other County ordinances; and Board of Supervisor's (BOS) policies. Agricultural preserves will also be modified to include only lands under Williamson Act Contracts, as described in Section 2.2, Agriculture Resources. Additional information regarding the updated General Plan land use map and elements is described in Section 1.7. The additional components of the proposed project are described further in Section 1.8.

EXHIBIT 2

FILED
PLACER COUNTY
SUPERIOR COURT OF CALIFORNIA

MAY 03 2005
JOHN MENDES
EXECUTIVE OFFICER & CLERK
By _____ Deputy

SUPERIOR COURT, STATE OF CALIFORNIA

IN AND FOR THE COUNTY OF PLACER

SIERRA WATCH, a nonprofit public benefit Corporation; LEAGUE TO SAVE LAKE TAHOE; MOUNTAIN AREA PRESERVATION FOUNDATION; SIERRA CLUB; and PLANNING & CONSERVATION LEAGUE, a 501(c)(4) nonprofit organization. **Petitioners,** **v.** **PLACER COUNTY; BOARD OF SUPERVISORS OF PLACER COUNTY, et. al.** **Defendant**	**No. SCV 16652** **DECISION GRANTING WRIT OF MANDAMUS**

I. INTRODUCTION

This Petition for Writ of Mandamus challenges the adoption of the 2003 Martis Valley Community Plan by the Placer County Board of Supervisors. The action is brought by Petitioners Sierra Watch, League to Save Lake Tahoe, Mountain Area Preservation Foundation, the Sierra Club, and the Planning and Conservation League. They are joined by the Town of Truckee, the National Audubon Society, Sierra Nevada Alliance, and Defenders of Wildlife, all of whom were given leave to file briefs as Amicus Curiae. Respondents are the County of

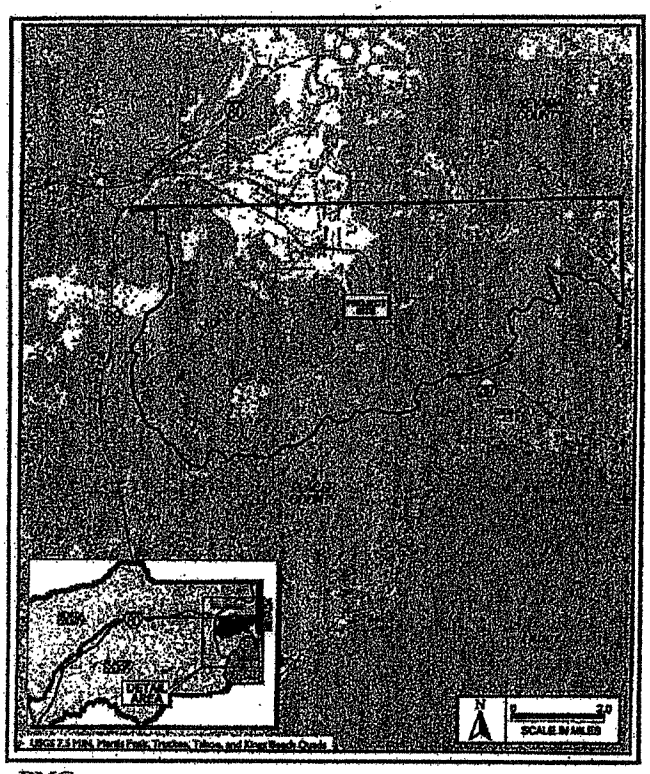
Placer, and interveners East West Partners, Waddle Ranch Investors, Sierra Pacific Industries, DMB/Highlands Group and Martis Valley Associates.

The project under review by this court is the 2003 Martis Valley Community Plan and the related zoning ordinance[1] which implements certain zoning elements of the plan. The 2003 Martis Valley Community Plan[2] replaces the previous Martis Valley General Plan which was adopted in 1975. The MVCP establishes the categories of allowable land uses and sets density standards for each category of land use.

The court's tentative decision was filed in this matter on February 25, 2005. The matter was argued on March 21, 2005 and the matter submitted.

II. DISCUSSION

Martis Valley is an area of approximately 70 square miles situated immediately to the north of the Tahoe Basin. The valley lies in both Placer and Nevada Counties, with approximately 40 square miles situated inside Placer County. The Town of Truckee is situated in the Nevada County portion of the valley, and lies to the immediate north of the Placer-Nevada county line. The valley lies to the east of the Granite



PMC

FIGURE 3.0-1
VICINITY MAP

[1] Ord. No. 5283-B
[2] Hereinafter referred to as the MVCP.

Chief Wilderness area. It is situated south of Interstate 80, east of State Route 89, and is west of the Mount Rose Wilderness area. It is roughly bounded by the Truckee River on the North and West, and the Nevada State Line on the east.[3] The valley is bisected by State Route 267, which is one of the principal routes from the Town of Truckee and Interstate 80 to the North Shore of Lake Tahoe. All parties are in agreement that the valley is an environmentally sensitive region.[4]

After years of study, the Board of Supervisors adopted the MVCP on December 16, 2003. Contemporaneously with the adoption of this Plan, the Board certified the EIR for the project and adopted zoning ordinance No. 5283-B which designated the zoning for the various parcels covered by the plan. The zoning ordinance, along with its attendant maps, set limitations on the number of residential units which would be authorized for each discrete parcel within Martis Valley.

Petitioners contend that the principal fault with the environmental analysis is that the project description was incomplete, inaccurate, and unstable. In this regard the Petitioners assert that by its own terms, the MVCP allows 19,000 residential units[5] within the applicable zoning areas, and up to 5 million square feet of commercial space. The scope of the EIR only evaluates the project based upon residential estimates of approximately 7905 to 9220 residential units and 670,000 to 1,169,586 square feet of commercial space. As a result, the petitioners contend that the entire environmental analysis is flawed because it is based on basic assumptions which are demonstrably false – that the extent of both the potential residential units and commercial building square footage are grossly understated and misleading. Petitioners also assert that the EIR failed to adequately analyze the project impacts to biological resources, traffic conditions, air quality, water and sewer services, affordable housing, and other growth-inducing impacts.

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[3] AR: 8:3185
[4] Opening brief of Petitioners, p1, Responsive brief p2.
[5] The 19,000 figure is exclusive of two properties where residential caps exist: Northstar has a residential cap of 3300, excluding its proposed employee housing, and Martis Ranch, a Sierra Pacific Industries project, which has a cap of 1,320 with an allowance of 160 additional units.

Finally, petitioners assert that the project does not comply with state planning and zoning laws, as it is inconsistent with the Placer County General plan, and is internally inconsistent.

Respondents contend that the MVCP actually reduces the amount of development which was allowable under the 1975 Martis Valley General Plan. They maintain that the residential holding capacity of the area dropped from 12,000 to 8,600 by virtue of the adoption of the MVCP. Respondents contend that the method of calculating the estimated buildout of residential and commercial space was based upon a rational theory, and that as such, the action of the Board in approving the plan must be upheld. Respondents further contend that all of Petitioner's claims depend upon their principal argument that the method of calculating the impacts of total buildout is faulty. Respondents contend that if the Petitioner's main argument fails, all of their arguments must fail.

The court agrees that if the method of environmental analysis adopted by the County is flawed because the extent of the project's potential development was substantially understated, that the project approval did not conform to the law and must be set aside.

A. The project description.

1. Contentions of the Parties.

Petitioners contend that the project description was flawed because it failed to take into account the actual potential for development of the land area covered by the plan. Petitioners arrived at their figures for potential development by multiplying the total acres of land in a particular development category by the density per acre allowable under the appropriate land use designation in Placer County's General Plan. For example, if the plan designated 100 acres as medium density residential, and that land use designation permitted up to 10 units per acre, then petitioners contend that the total units allowable under the project for this area would be a total of 1000 units. Thus calculated, Petitioners contend that the total residential units possible under

the plan consist of gross numbers between 18,569 and 19,373 residential units.[6] Petitioners calculations are included in their "Appendix A" to their brief. That appendix is set forth in full as Attachment 1 to this opinion.

The EIR relied upon a substantially lower figures at probable maximum buildout - between 7,905 to 9,220 residential units. The discrepancy in these numbers depends upon which numbers were used for different portions of the EIR. Petitioners point out in footnote 10 of their brief as follows: "AR 13:006880 (housing analysis utilizes 9,220 units and 1,169,586 square feet of commercial development); 13:006944 (traffic analysis utilizes 9,169 units and 670,000 square feet of commercial development); 10:004819 (air quality analysis utilizes 7,905 units)."

Similarly, Petitioners contend that the project description seriously underestimates the total square footage of commercial building space that is possible under the plan. By using the same method of calculation, Petitioners assert that the MVCP permits between 5,505,984 and 5,627,952 square feet of commercial space. The EIR utilizes a maximum of 1,169,586 square feet as the allowances under the plan.

The lower figures used by the county in their draft EIR are indicated by the following response to comments:

(1) The county applied a reduction factor of 20 percent to the potential for residential development due to the possible loss of land area for roadways, open space, physical land constraints, landscaping, infrastructure and other supporting facilities. The response to comments by the county indicates that the use of a reducing factor of 20 percent "is a common practice by cities and counties in order to estimate actual development potential." The response

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[6] Petitioners are unable to more precisely define the total actual numbers for two reasons: (1) the total acreage designation in the plan differs between the numbers in the community plan versus the findings made by the Board on project approval; and (2) there are two residential limits, or caps on construction, on (a) the "Northstar" property [cap set at 3300 residential units] and the "Martis Ranch" property [cap of 1,360 +/- 160 additional units]. Because the total acreage for these properties was not set out, it is impossible to determine the effect of these "caps", and whether they potentially increase or decrease the total number of residential units permissible under the plan.

also indicates that the 20 percent reduction was not applied to existing developed areas, and those areas in which there were proposed developments. The response also points to the use of the 20 percent reduction factor as being "consistent with factors used by the County the Placer County General Plan (referencing the Placer County General Plan Background Report Volume 1, pages 1-34-39)[7].

Petitioners point to further discrepancies in the County's estimates of buildout potential, based upon the County's selective allocation of density factors for the various land use designations. For example, density factors used for Low Density Residential (LDR) utilize a range of 1-5 dwelling units per acre. Medium Density Residential (MDR) utilizes 5-10 dwelling units per acre. Rather than use the highest density factor for calculating the maximum possible total buildout, the county assumed that the LDR would be 3 dwelling units per acre, and that the MDR would be 6 (60 percent of the highest permissible in each case). Thus the density factors used by the county were not at the high or highest end of the allowable density ranges. The justification for using lower density ranges was that "These lower density ranges were used by the County to reflect current and historic densities that these land use designations buildout at (i.e. 3 dwelling units per acre for LDR and 6 dwelling units per acre for MDR).[8]

According to Petitioners, the residential density estimates by the county ultimately reflected less than 50% of that which was possible under the zoning designations as adopted. The County's estimates of commercial square footage resulting from this project amounted to less than 25% of that which Petitioners claim is possible.

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[7] "Holding capacity is normally expressed as the number of people that could theoretically be accommodated in a planning area if all the land were developed to the maximum potential allowed by the land use designations in the general plan. Buildout is the point at which the land in the planning area is being used to the maximum extent allowed by the plan. Recognizing that the buildout of any planning area to its maximum holding capacity will never occur for a variety of reasons (among which are limitations on the capacities of the resources, infrastructure, and public services necessary to support new development, and choices by individual property owners about the desired extent of development on each parcel), holding capacity is usually expressed as some percentage of the theoretical maximum. Based on the County's past experience with development, the general plan study considered the holding capacity at buildout of the general plan to be 80 percent of the theoretical maximum holding capacity."

[8] AR: 11:005106

As noted previously, the 2003 MVCP is an update of the previous 1975 plan. The 1975 plan allowed the construction of approximately 12,000 residential units. The 1975 plan designated 15,360 acres as the total holding capacity of the plan. By comparison, the MVCP increased the number of acres for holding capacity to 20,467.[9]

The County estimates that the total holding capacity of the MVCP is 8,600 dwelling units. This number is not actually contained in the MVCP, but is based upon the numbers as set by the zoning ordinance. The Plan reflects as follows:

> "The Plan area's holding capacity is the product of the permitted densities specified in the land use district, and the acreage within each district. The County has adjusted this figure to reflect actual densities in those areas that are already fully developed. For those areas that are not fully developed, the County has reduced the theoretical maximum holding capacity by 20%. This reduction reflects the fact that due to market or environmental or other constraints, property rarely develops at the maximum theoretical density afforded by the applicable land use designation. In this fashion, the County calculated that the MVCP has a holding capacity of approximately 8,600 dwelling units."

In the Comments and Responses on the Draft and Revised Draft EIR, the use of a 20 percent reduction for potential buildout was justified by the County because it was a "common practice by cities and counties in order to estimate actual development potential." Additionally, the County relied upon "existing and proposed development densities and patterns. . . ."[10]

Respondents also point to a 2003 Ventura County study[11] which concluded that "on the average", projects approved in the county provided less than 80 percent of the planning capacity. While that study reaches the conclusion that from six specific projects analyzed there was an approximate 80 percent buildout of actual holding capacities, the range of variation in project

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[9] Draft EIR, AR 006803-6804. Maintaining the existing plan was determined to be the "no project" alternative.
[10] Comments and Responses to Comments on the Draft and Revised Draft EIR 3.4.2 AR 11:00-5106-5107.
[11] AR 19:36510 "Smart Growth in Action, Part 2: Case Studies in Housing Capacity and Development from Ventura County, California."

specifics, political attitudes, market conditions, and population patterns makes it difficult to use the study as a guideline for "what normally happens" in other areas.[12]

Respondents maintain that the adoption of zoning maps, contemporaneously with the adoption of the MVGP, effectively cap the new construction at 8,600 units. The Respondents describe the process of calculating the probable number of dwelling units within certain designated mapping "polygons" and calculating the maximum density of each parcel. They conclude that the resulting zoning maps reflect the maximum number of units allowed in terms of units per acre for each designated parcel.[13]

Respondents and Real Parties in interest maintain that the issue of the scope of the project, if based upon a rational decision, and supported by substantial evidence, is within the broad discretion of the Board of Supervisors to determine. They base this position on the fact that the MVCP contains a zoning ordinance within it, and as such this includes "the whole of the project". As such, they maintain that the decision to study the scope of the plan as implemented by the zoning ordinance, is governed by the "substantial evidence" standard.

Petitioners claim that the General Plan is the primary document for the approval or disapproval of planning. The zoning map can be changed to meet the expedience of project proponents, developers, or homeowners by a mere zoning change. Respondents argue that the zoning map is a relevant document because the plan specifically notes that zoning changes would

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[12] Interestingly, the Study focuses upon such variables as the local market, the political makeup of the lead agency, site specifics, aversion to growth, and lack of foresight by NIMBYs (Acronym for "Not in My Back Yard" i.e. Opponents to specific nearby projects who oppose development because of proximity to their own land). The Ventura County study actually belies the County's reliance upon it. Of the six projects selected for analysis, the final approved densities ranged from 45.5% to 100% of general plan buildable density. In terms of the specific plans, the densities were significantly higher: 82%, 45.5%, 100%, 93.9%, 103.2%, 103.3% and 85%. One project approved at 99.8% of the General Plan Density appeared to be at the behest of the Oxnard City Planning Staff, because of the need for planned densities in conformity with local specific plans, the need for affordable housing, and the need to address a local housing shortage. (AR 71:036534). The court realizes that the County only relies on this study to give an example of the validity of selecting a 20 percent reduction in potential buildout. But the study concluded that 80% was an average, and the individual projects studied had large variations in buildout percentage to General Plan limits as noted above. The study actually seems to benefit the Petitioner's viewpoint that ultimate buildout at or near capacity is possible, or in some cases, probable.

[13] The zoning map is found in the administrative record at 77:38885

not be favored, and because zoning changes would require legislative action. Finally, Respondents contend that an application for a rezone to increase density or reduce parcel size would likely trigger an environmental review.

2. Analysis.

An Environmental Impact Report must contain an accurate description of the project under study.[14] "[A]n accurate, stable and finite project description is the *sine qua non* of an informative and legally sufficient EIR." [15] More fundamentally, however, the question which arises in "inadequate description" cases is whether the EIR adequately discussed and dealt with the whole of the future adverse environmental consequences which constitute potential impacts to the environment as a result of adoption of the project.[16] For purposes of environmental analysis, the guidelines define a "project" as the whole of an action which has a "potential for resulting in either a direct physical change in the environment, or a reasonably foreseeable indirect physical change in the environment, and that is any of the following: . . . the adoption and amendment of local General Plans or elements thereof . . . ."[17]

The General Plan is the "constitution" [18] for the future development of the county or region. It sets up the basic parameters for future development and it is the body of law against which proposals for land use must conform. The law places restrictions on the frequency of

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[14] **San Joaquin Raptor / Wildlife Rescue Center v. County of Stanislaus** (1994) 27 Cal.App.4th 714

[15] **County of Inyo v. City of L.A.** (1977) 71 Cal.App.3d 185, 199.

[16] **Laurel Heights Improvement Assn. v. Regents of University of California (1988)** 47 Cal.3d 376, 253 Cal.Rptr. 426.

[17] **Cal. Admin. Code** Title 14, § 15378

[18] "The Legislature has mandated that every county and city must adopt a 'comprehensive, long-term general plan for the physical development of the county or city, and of any land outside its boundaries which in the planning agency's judgment bears relation to its planning.' (Gov.Code, § 65300.) The general plan has been aptly described as the 'constitution for all future developments' within the city or county. (O'Loane v. O'Rourke (1965) 231 Cal.App.2d 774, 782, 42 Cal.Rptr. 283; Friends of 'B' Street v. City of Hayward (1980) 106 Cal.App.3d 988, 997, 165 Cal.Rptr. 514; deBottari v. City Council (1985) 171 Cal.App.3d 1204, 1212-1213, 217 Cal.Rptr. 790.) '[T]he propriety of virtually any local decision affecting land use and development depends upon consistency with the applicable general plan and its elements. (Resource Defense Fund v. County of Santa Cruz (1982) 133 Cal.App.3d 800, 806, 184 Cal.Rptr. 371.) To be sure, the general plan is not immutable, far from it. But it may not be trifled with lightly, as the limitation on the number of amendments to the general plan in any calendar year attests. (Gov.Code, § 65361; deBottari v. City Council, supra, 171 Cal.App.3d at p. 1213, 217 Cal.Rptr. 790.)" **Citizens of Goleta Valley v. Board of Supervisors** (1990) 52 Cal.3rd 553, 570.

amendment to the mandatory elements of General Plans[19] in order to balance the need for both flexibility and stability.[20]

Respondents do not deny that Petitioners' calculation of the maximum buildout figures of 19,000 residential units and 5,000,000 square feet of commercial space are correct.[21] The figures shown for the number of residential units are based upon one of two alternatives, the first based upon the MVCP (19,373), the second based upon the findings (18,569). The difference between these estimates is not significant, since the EIR assumed, for purposes of environmental study, that 9220 residential units was the likely limit on residential development. Similarly, the figures for total commercial space differed slightly between the MVCP estimates (5,627,952 sq.') and the findings (5,505,984 sq.'). Again, the amount utilized by the County for purposes of the study was 670,000 sq.'

The reductions applied by the County to the maximum total buildout of the residential areas and the potential for commercial space took two separate steps: (1) the across-the-board 20 percent reduction, and (2) the reduction attributable to setting density standards in the zoned parcels at less than the LUD in the General Plan. Even if the County's assumption that a 20 percent reduction in the maximum holding capacity for residential units was reasonable, then the EIR should arguably have focused on those reduced numbers - 15,200 for residential units 4,000,000 sq feet for the commercial square footage. However, the second step, that of the assignment of building densities at less than high, or maximum of the LUD, reduced the EIR's assessment of environmental impacts to the far lesser figures of 9,220 units and 670,000 sq. feet.

The significance of adopting development and density criteria in a general plan is to focus the attention of the public, landowners, potential developers, and government officials as to the County's expectations regarding the totality of development in the area covered by the

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[19] **Calif. Govt. Code § 65358**
[20] **DeVita v. County of Napa** (1995) 38 Cal.Rptr.2d 699, 9 Cal.4th 763, 889 P.2d 1019.
[21] Petitioner's methods of calculation are set forth in Attachment A, appended hereto.

General Plan. In this manner, the Government Code requires that the General Plan set forth the standards for population and building density[22] as part of the mandatory land use plan.

The County argues that the scope of the EIR's focus was justifiably reduced by the simultaneous adoption of the MVCP and Ordinance No. 5283-B setting maximum standards on residential and commercial development. They further caution that the plan contains a provision that states that "requests to rezone property to increase density or decrease the minimum lot size should not be supported."[23] The very existence of this language anticipates that requests for zoning changes will be made. The anomaly is that parties requesting zoning changes can increase density over the designated PD zoning and still be in compliance with the MVCP. At best, the language in the MVCP which purports to inhibit zoning changes is precatory – and certainly not binding on any future Planning Commission or Board of Supervisors. As such, the potential for increasing the density of the maximum buildout potential as calculated by the County lies in the discretion of future Planning Commission or Board action.

What is different in this case from those cited by the Respondents is that the MVCP sets density standards which can be reached, but were not studied in the EIR. The bottom line is that the EIR studied the impacts of adopting the Zoning Ordinance which accompanied passage of the MVCP, but it failed to analyze the potential impacts of the MVCP as a separate, independent, and controlling law. The MVCP is the act which triggers the necessity of an EIR, not the zoning

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[22] "The general plan shall consist of a statement of development policies and shall include a diagram or diagrams and text setting forth objectives, principles, standards, and plan proposals. The plan shall include the following elements:
"(a) A land use element that designates the proposed general distribution and general location and extent of the uses of the land for housing, business, industry, open space, including agriculture, natural resources, recreation, and enjoyment of scenic beauty, education, public buildings and grounds, solid and liquid waste disposal facilities, and other categories of public and private uses of land. The land use element shall include a statement of the standards of population density and building intensity recommended for the various districts and other territory covered by the plan. The land use element shall identify areas covered by the plan which are subject to flooding and shall be reviewed annually with respect to those areas. . . ." **Calif. Govt. Code §65302(a).**

[23] "It is not the intent of the Plan to either encourage or support rezoning requests. Therefore, the requests to rezone property to increase density or decrease the minimum lot size should not be supported. The minimum lot size established by precise zoning is believed to reflect the appropriate maximum density for each area." AR 8:3322.

ordinance. It is true that the MVCP, as a general plan, is the pre-eminent legislative act which decides what is, and what is not a permissible level of development in an area. Where the general plan conflicts with a zoning ordinance, the general plan takes precedence.[24]

The contemporaneous enactment of a zoning ordinance which sets maximum density for each individual parcel is an invitation to landowners and developers to seek changes which are consistent with the densities allowable under the MVCP. The County could have enacted the maximum densities for each individual parcel as part of the MCVP. But they did not. The County could have enacted a Community Plan which set an absolute maximum figure for total residential and commercial development in the Martis Valley. But they did not. Instead, the County left the door open to increases in both residential and commercial development in conformity with the MVCP, but beyond the scope of the development described in the EIR.

The MVCP builds in opportunities to create environmental mischief. First, zoning changes are commonplace occurrences in the planning and development world. Given the highly localized nature of a zoning change on a parcel, the change is susceptible of limited environmental review, including the adoption of a negative declaration. Thus, a succession of zoning changes, which still comply with the overall density standards of the MVCP, may work to cause the building densities to exceed those set forth by the County in the companion zoning ordinance. Second, the opportunity for an environmental study which correlates all of the potential impacts of a "maximum buildout" development will have been finessed. The obvious danger to the environment inherent in the County's method of implementing the MVCP is that the public will have precious little opportunity to challenge the cumulative environmental threats which will accrue given the potential for zoning changes. It does little for project opponents to voice objections to the cumulative impacts of a proposed minor zoning change if multiple

[24] **Lesher Communications, Inc. v. City of Walnut Creek** (1990) 52 Cal.3d 531, 541, 277 Cal.Rptr. 1, 802 P.2d 317; "]; **Napa Citizens for Honest Government v. Napa County Bd. of Supervisors** (2001) 91 Cal.App.4th 342, 389, 110 Cal.Rptr.2d 579

projects which have already gained zoning approvals have set the stage for permanent deterioration of environmental conditions. Ultimately, Ordinance 5283-B has the effect of impermissibly deferring environmental review for projects which have the potential for coming into the planning pipeline where the zoning requests exceed the PD zoning designated density, but are still consistent with the MVCP zoning designation. The time to study the likely affects of specific and cumulative impacts is at the time that the potential for development is known, whether or not that development actually occurs.[25]

One must not lose sight of the fragile nature of the area under discussion. The Martis Valley itself is a critically important area for wildlife, habitat, and water resources. Far more importantly, the area encompassed by the MVCP runs along the peaks and rim of the mountains which form the crucible which has forged Lake Tahoe. The valley is the major northern gateway to Tahoe, and as such it is convenient and desirable staging area for travelers to enter the Tahoe Basin. Given the existing and well-known threats to the delicate Tahoe Basin environment[26] increases in traffic, vehicular congestion, deteriorating levels of service and inadequate parking will result in additional deposit of pollutants into the air in the Tahoe Basin. Growth in the Martis Valley will affect Lake Tahoe.

Of particular concern is the impact which the project will have upon traffic and air quality impacts within the Tahoe Basin.[27] The project and each alternative studied conceded

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[25] **Christward Ministry v. Superior Court** (1986) 184 Cal.App.3rd 180, 194; **Bozung v. LAFCO** (1975) 13 Cal.3d 263.

[26] See AR 9:5219-5222, August 19, 2002 letter from TRPA objecting to the project

[27] The court does not understand the County's position as reflected in the FEIR at AR 11:005138 wherein the following is noted: "Specifically in regards to air quality, it is estimated that the Proposed Land Use Diagram could generate up to approximately 2,067 daily trips that would be within the Tahoe Basin. This traffic would contribute to the Tahoe Basin approximately 9.45 pounds per day of ROG, 29.26 pounds per day of NOx and 160.1 pounds per day of PM10 during the summer and 9.95 pounds per day of ROOG, 31.94 pounds per day of NOx and 56.42 pounds per day of PM10 during the winter. ***While the Plan area is not located with (sic) the Tahoe Basin and is not subject to policies and regulations of the Tahoe Regional Planning Agency, these impacts may impede the TRPA's efforts to meet their Environmental Thresholds associated with traffic, noise and air quality. . . .***" (Emphasis added). Does the foregoing mean that although Placer County has 1/3 of the Tahoe shoreline in its jurisdiction that it considers the impacts of their planning decisions in other parts of the county which affect their jurisdiction in the Tahoe Basin not to be subject to TRPA guidelines, thresholds and policies? Cf. **Napa Citizens**

that air pollution levels from the development within Martis Valley could impact the combined abilities of Placer County, Truckee, and the Tahoe Basin to meet mandated air quality standards – including local, state and federal. This impact was highlighted by the Tahoe Regional Planning Agency, which pointedly voiced the concern that the Draft EIR did not address the impacts of development upon the air quality in the basin in general, and traffic conditions within Placer County itself.[28] The recalculation in the FEIR showed that there would be a 27% increase of traffic entering the Tahoe Basin from Highway 267.[29] It appears that the further concerns of TRPA concerning the impacts on parking in the Tahoe Basin were simply not addressed by the county. Despite increasing numbers of vehicles entering the basin, TRPA maintained that there was insufficient parking at beaches and parks for existing levels of traffic, let alone any increases in the traffic generated by the project. This impact appears simply to have remained unaddressed and unmitigated in the FEIR.

This concern is mirrored by the Town of Truckee, which opposes the traffic mitigation plan adopted by the County as having substantial negative consequences upon the quality of local traffic patterns, consistency in local planning, and local character of the town. By approving the MVCP, the County adopted a traffic mitigation plan which is opposed by the Town of Truckee. The mitigation plan provides for signalization of 13 intersections to assist in

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for Honest Government v. Napa County Bd. of Supervisors (2001)91 Cal.App.4th 342, 370 110 Cal.Rptr.2d 579 ["We also do not believe that EIR review can be avoided simply because the project's effect on growth and housing will be felt outside of the project area. Indeed, the purpose of CEQA would be undermined if the appropriate governmental agencies went forward without an awareness of the effects a project will have on areas outside of the boundaries of the project area. That the effects will be felt outside of the project area, however, is one of the factors that determines the amount of detail required in any discussion."]

[28] "The DEIR's 'traffic analysis zone' should include the full extent of the Basin likely to be impacted by traffic associated with development allowed under the updated plan. Primary areas of concern within the Basin include Kings Beach, Tahoe Vista, and Tahoe City. These areas, including their access routes, are presently operating at capacity or in failure mode with respect to transportation issues. Because these areas presently have significant traffic and environmental issues, they are unlikely to accommodate any further congestion or impacts unless significant mitigation measures are provided." Letter, Tahoe Regional Planning Agency, AR 11: 05219. In response to these comments, the FEIR concluded that the increases to peak-hour trips from 3% to Tahoe City and to 9% in Kings Beach, and that these were insignificant increases. Accordingly, no mitigation measures were considered necessary. A later study by the county showed these increases to escalate to 27%.

[29] AR 72:036891

the flow of traffic. Eight of those proposed intersections to be signalized are within the Town of Truckee[30], and given the opposition of the Town to the County's solution, the mitigation plan faces an uncertain and unlikely future.

In the final analysis, Petitioners are correct in their assertion that the EIR failed to study the full scope of permissible development and construction under the MVCP. This failure resulted in artificially limited studies of environmental impacts and consequences to biotic resources, water resources, sewer capacities, wildlife, habitat, traffic and air quality. The insufficiency of the studies has caused a critical failure to analyze the environmental consequences which impact not only the Martis Valley, but the Town of Truckee and the Tahoe Basin as well. Flowing from this inadequacy are the mitigation measures proposed in the MVCP which naturally fail to study and address the true nature and scope of the environmental consequences of the plan as adopted. Because of these combined failures, the Board of Supervisors was not provided with the real and potential magnitude of the environmental impacts of the proposed Community Plan. Accordingly, the County has not proceeded in a manner required by law,[31] and the court will grant the relief prayed for by Petitioners.

The court will proceed below with a cursory analysis of the remaining contentions of the parties. No in-depth analysis will be undertaken as to each contention, however, given that the underlying premise of the Environmental Impact Report, that being the project description fails to properly describe the true potential impacts to the environment as adopted within the MVCP.

B. Biologic Resources

1. Contentions of the Parties

Petitioners allege that the EIR fails to adequately analyze the potential impacts to biologic resources and that the proposed mitigation fails to satisfy CEQA mandates.

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[30] AR 13:006969

[31] **County of Inyo v. City of L.A.** (1977) 71 Cal.App.3d 185, 199-200.

Specifically, Petitioners argue that despite its regional significance of the Martis Valley,[32] the EIR provides only a rote, perfunctory description of the wildlife and plant species which are found therein.[33] Petitioners cite the failure to provide (1) specific information as to the field studies relied on by the EIR,[34] (2) a big picture evaluation of how the resources relate to one another and the relative value of vegetation communities and wildlife habitat,[35] and (3) an adequate analysis of the unlisted plant and wildlife species of Martis Valley. Additionally, Petitioners allege that the EIR's mitigation measures are inadequate in that the EIR merely assumes that the MVCP's own policies justify a finding that no significant impacts will occur, without adequately analyzing the efficacy of the policies themselves.[36] Petitioners allege that other mitigation measures merely provide for temporary protection measures subsequent to project approval. Petitioners maintain that the EIR improperly defers virtually all meaningful mitigation for the MVCP's impacts to the individual project level or to a future date.[37] CEQA discourages such a practice in the context of a general plan approval, for it is at this early stage that the agency has the greatest flexibility to design wide-ranging and effective mitigation measures.[38] Finally, they contend that the County improperly relies on a Habitat Conservation Plan (HCP) that has not yet been implemented.[39]

Respondents counter that the EIR adequately analyzes the impacts to biologic resources for a program-level project. The EIR relies on data from multiple sources to determine the vegetation and wildlife in the Martis Valley and identifies, describes and maps the location of

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[32] AR 13:7208-10; 59:29336
[33] AR 13:7174-80
[34] AR 13:7204
[35] AR 12:6253
[36] AR 13:7210; **San Bernardino Valley Audubon Society v. Metropolitan Water Dist** (1999) 71 Cal.App.4th 382, 400. **Save Our Peninsula Committee v. Monterey County Board of Supervisors** (2001) 87 Cal.App.4th 99, 130.
[37] AR 13:7217; 13:7222; 13:7231; 13:7240; Guidelines §15126.4(a)(1)(B); **Gentry v. City of Murieta** (1995) 36 Cal.App.4th 1359.
[38] Guidelines §15168 (b)(4)
[39] AR 40:22037

plants, animals and habitats, devoting particular attention to special- status species.[40] The Respondents submit that the degree of specificity required in an EIR corresponds to the degree of specificity involved in the underlying project.[41] While a first-tier EIR cannot defer its entire analysis, "it may legitimately indicate that more detailed information may be considered in future project EIRs."[42] Respondents argue that the EIR also identifies common species within the area and concludes the impacts would be insignificant.[43] With respect to the mitigation measures, the County reasonably assumed that future development projects would have to comply with policies aimed at protecting biological resources.[44] Additionally, where the EIR relies on plan policies to mitigate a significant impact, those policies contain specific criteria.[45]. Further, the EIR does not improperly defer mitigation. When site-specific projects are proposed, site-specific surveys for special-status species or habitat are required and the EIR establishes performance criteria and, in some instances, potential avoidance methods applicable to the affected resource.[46] This approach is authorized by CEQA.[47] Finally, Respondents argue that the broad policies of the MVCP establish a plan-wide strategy for protecting resources.[48]

2. Analysis

The EIR references field studies within "key locations" of the project area.[49] However, those field studies were not included in the EIR itself, nor does it identify which locations were

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[40] AR 10:4854-4855; 13:7174-7253; 13:7180-7181; 13:7190-7203; 13:7215-7240; 13:7252-7253
[41] Guidelines §15146(b); **Rio Vista Farm Bureau Center v. County of Solano** (1992) 5 Cal.App.4th 351, 374; **Defend the Bay v. City of Irvine** (2004) 119 Cal.App.4th 1261, 1277; **Al Larson Boat Shop, Inc. v. Bd of Harbor Commissioners** (1993) 18 Cal.App.4th 729,741-742
[42] **Al Larson, supra,** at 746; **Schaeffer Land Trust v. San Jose City Council** (1989) 215 Cal.App.3d 612, 625.
[43] AR 13:7207; 13:7209-7210; 13:7215; 10:4854-4855; 13:7175-7180; 13:7207-7215
[44] **Village Laguna of Laguna Beach v. Orange County Bd of Supervisors** (1982) 134 Cal.App.3d 1022, 1030; **Dry Creek Citizens Coalition v. County of Tulare** (1999) 70 Cal.App.4th 20, 33-34
[45] AR 13:7244-7245
[46] AR 13:7217-7240; 13:6733-6750; 12:6443; 13:7217-7240; 13:6241.
[47] **Pala Band of Mission Indians v. County of San Diego** (1998) 68 Cal.App.4th 556, 577
[48] AR 8:3410-3417
[49] AR 13:7204

studied. Thus, it cannot be determined if the field studies provided adequate information for the conclusions reached in the EIR.

Further, to the extent that the EIR relies on the HCP for mitigation of impacts, such reliance is improper as the HCP has not yet been adopted.

C. Traffic Conditions and Air Quality

1. Contentions of the Parties

In addition to the arguments discussed in detail above with respect to the under-calculation of potential buildout, Petitioners also argue that the EIR fails to adequately analyze traffic impacts associated with the 17,000 acres designated as "Forest" land which designation allows development of skiing and skiing related facilities, including parking. The EIR only analyzes potential skier traffic volume generated by the existing Northstar facilities and the proposed ski facilities for Siller Ranch.[50] In addition to ignoring the potential traffic impact of future ski facilities, the EIR dismisses the top 29 worst winter scenarios and examines the impacts of only the 30th highest winter peak traffic volume.[51] The County's reliance on the American Association of State Highway and Transportation Officials recommendation that the hourly design for rural highways should generally be the 30th highest volume is misplaced.[52] While that may be a valid consideration when designing mitigation measures, CEQA requires that the EIR analyze the whole of the project's impacts, notwithstanding any design standards that might pertain to the choice of mitigation measures.[53] The EIR also failed to consider any traffic impacts other than those on SR 267, despite TRPA's comments that the EIR must also consider the impacts of the project on the segment of SR 89 connecting Highway 80 to Lake

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[50] AR 13:006949
[51] AR 13:6919
[52] AR 11:5147
[53] Guidelines §15378(a); **Citizens to Preserve the Ojai v. Ventura** (1986) 176 Cal.App.3d 421, 431

Tahoe, as that route would serve as the primary alternative to SR 267.[54] Additionally, the EIR fails to address TRPA's conclusion that the project's contribution to traffic entering the Basin at Brockway Summit will cause a violation of TRPA's standards.[55]

Respondents contend that no analysis of impacts from developments which may or may not occur is required.[56] Where additional ski facilities were reasonably foreseeable, the EIR considered their potential impacts.[57] Additionally, using the 30th highest winter weekend peak hour traffic volume to assess the road systems levels of service was appropriate. The County acknowledged that traffic will exceed the systems capacity during certain peak hours, but it also identified and explained the policy reasons for accepting intermittent congestion.[58] Respondents further argue that the EIR adequately analyzed the traffic impacts on SR 89/Donner Pass Rd intersection,[59] the segment of SR 89 south of Donner Pass Road,[60] and trip counts and turning movements for SR 89 south of Interstate 80,[61] as well as traffic volumes along SR 28 east and west of the SR 267 intersection. Finally, with respect to the argument that the EIR does not comply with TRPA standards, the EIR did apply TRPA standards to the SR 267/SR28 intersection, as well as segments of SR 28 east and west of SR 267, and found that the impacts would be less than significant and this finding was based on substantial evidence.[62] The fact that TRPA disagrees does not render the EIR inadequate.[63]

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[54] AR 11:005148, 5150; AR 11:005220-21. **Napa Citizens for Honest Government v. Napa County Bd of Supervisors**, supra, 91 Cal.App.4th 342, 369 (cannot avoid preparing EIR where effects of project will occur outside project area boundaries).
[55] AR 72:36891; Guidelines §15125(d)
[56] **Laurel Heights I, supra,** at 398; **Berkeley Keep Jets Over the Bay Committee v. Board of Port Commissioners ("Berkeley")** (2001) 91 Cal.App.4th 1344, 1357-1363; **Residents Ad Hoc Stadium Committee v. Board of Trustees** (1979) 89 Cal.App.3d 274, 286
[57] AR 1:129; 11: 5148-5149; 13-6949
[58] AR 1:208; 11:5147-5148; **Association of Irritated Residents v. County of Madera ("AIR")** (2003) 107 Cal.App.4th 1383, 1397
[59] AR 13:6919-6928
[60] AR 13:6921; 10:4502-4509
[61] AR 13:6924-6929
[62] AR 13:6933, 13:6939-6941, 13:6969, 13:6975; 12:6507; 12:6502-6568
[63] Guidelines §15151; **AIR, supra,** at 1397

2. Analysis

The EIR's failure to consider the potential traffic impacts of ski facilities allowed by the "Forest" land use designation renders the EIR inadequate. While it is true that potential future development need not be considered in a project level EIR unless that development is a reasonably foreseeable consequence of the project,[64] that is not true in a program-level EIR. The purpose of a program level EIR is to consider all possible impacts of the potential development allowed by the general plan being proposed. By definition, a program-level EIR is speculating on the type and amount of development which could result from the adoption of the proposed general plan. Respondents' argument, if taken to its logical conclusion, would allow counties to completely ignore the potential impacts of projects which had not yet been proposed when adopting a general plan, despite the fact that the general plan allowed future development.

Additionally, the EIR improperly ignores the impacts of the 29 highest peak winter hours of traffic. While the County may chose to design its roads for the 30th highest winter-hour conditions, it may not omit analysis of the worst winter traffic conditions for the purpose of determining the impact of that traffic on air quality.

Finally, while the EIR may have analyzed certain portions of SR 89, it did not analyze the entire SR 89 as requested by TRPA for potential impacts caused by the proposed project.

D. Water and Sewer Services

1. Contentions of the Parties

In addition to the arguments discussed in detail above with respect to the under-calculation of potential buildout, Petitioners also argue that the EIR fails to adequately analyze the availability of the identified alternate water source under the Truckee River Operating

[64] **Berkeley, supra**

Agreement,[65] and the environmental impacts associated with tapping that source.[66] Additionally, Petitioners argue that the EIR fails to adequately analyze the cumulative impacts to sewer services in that it inexplicably concludes that cumulative conditions (including the Plan area, Placer County, Nevada County and Truckee) will only produce 1.15 mgd of wastewater, despite previously concluding that the project itself will produce 1.8 mgd.[67] Finally, Petitioners argue that the EIR fails to analyze the environmental impacts from allowing septic systems on properties in Martis Valley over one acre.[68] The EIR merely states that no analysis was required because all septic systems will be required to meet County and state regulations.[69] This response is inadequate under CEQA.[70] It also ignores the fact that the Lahontan Regional Basin Plan prohibits septic systems, which creates an inconsistency within the MVCP's own policies because it is impossible to allow septic systems and comply with the Lahontan Regional Water Quality Control Board at the same time.[71]

Respondents argue that relying on the 6000 acre-feet of water under the TROA is not speculative as the TROA process has been on-going and the parties have agreed to a "preferred alternative" providing 6,000 acre feet for use in the valley.[72] Additionally, the TROA water is not necessary as the aquifer alone can supply sufficient water.[73] Petitioner's argument regarding the analysis of cumulative flows should be disregarded as it was not raised with the County. However, the argument is flawed as it is based on a misunderstanding. The EIR determined that cumulative flows would increase by 1.15 mgd, not that the cumulative flows

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[65] 6000 acre-feet of surface water may be available following the execution and implementation of the Truckee River Operating Agreement (TROA). AR 13:7108
[66] **Napa Citizens, supra,** at 373.
[67] AR 13:7338, 7342
[68] AR 8:3375
[69] AR 11:5274
[70] **County of Amador v. El Dorado County Water Agency** (1999) 76 Cal.App.4th 931, 948
[71] AR 11:5274; 13:7099
[72] AR 13:7071-7073; 38:21033-21034; 34L18994-19006
[73] AR 13:7107-7109; 11:5125; 37:20683-20693; 35:19586-19675; 11:5204-5205; 11:5124-5127; 52:36582-26588

would total 1.15 mgd.[74] Additionally, as sewer service is provided on a first-come, first-serve basis,[75] and the MVCP requires that new development provide written verification from the Tahoe-Truckee Sanitation Agency that adequate capacity exists before the County will approve the project.[76] Thus, the MVCP provides adequate safeguards against a shortfall of sewage capacity. As to the septic system argument, the MVCP policies prohibit septic systems unless both the County and LRWQCB agree, based on site-specific conditions, that the septic systems can be installed without threatening water quality.[77]

2. Analysis

Since the court has already concluded that the EIR uses an invalid measure of the potential development under the proposed MVCP, it follows that the analysis of the availability of water and sewer services for that development is also flawed. Additionally, the EIR fails to analyze the environmental impacts of utilizing the alternate water source identified in the EIR.[78] However, Petitioners' arguments regarding the cumulative flows and septic systems fail. While the potential cumulative wastewater flows are most likely understated because of the understated amount of development, the EIR does not erroneously conclude that the cumulative flows are less than the flow from the project itself. Additionally, the policies in the MVCP with respect to septic systems are sufficient to protect the water quality.

E. Affordable Housing and Growth Inducing Impacts.

1. Contentions of the Parties.

Petitioners assail the affordable housing element of the plan. Essentially, they contend that it is virtually non-existent. The amicus brief of the Town of Truckee emphasizes the problem:

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[74] AR 13:7342
[75] AR 38:20982
[76] AR 8:3375; 8:3382
[77] **Napa Citizens, supra**, at 374.
[78] **Ibid.** at 374.

> "As the town repeatedly stated throughout the process (citation) and the County conceded, the project will create thousands of new jobs (citation); however, the project will provide no workforce housing.(citation). Rather, the County proposes that the workforce housing impact will be mitigated by an unadopted[79] employee housing ordinance and an unadopted exclusionary housing requirement. (citation)."[80]

The Draft EIR concluded that there is a shortage of affordable housing in the Lake Tahoe Basin and the project area.[81] This problem was categorized as constituting a potentially significant impact.[82] The mitigation suggested in the DEIR was MM4.2.2. which provided for 10% of each approved development to be affordable or low income housing. This mitigation measure, along with the adoption of policy 3.A.4, (requiring new or expanding resorts to provide for 50% of necessary employee housing) was deemed to reduce the cumulative housing impacts to less than significant.[83] In the final EIR, however, MM4.2.2 was deleted. Respondents attribute this deletion to the fact that the policies adopted in the housing plan had "enshrined as policy" the measures provided by MM 4.2.2. The county also called for the drafting of an Employee Housing ordinance and an ordinance setting forth the housing elements of MM 4.2.2. The former ordinance has not been passed, and the latter exempts Martis Valley from its operation. There is no analysis as to how these combined policies will affect the known shortages of low income and affordable housing. Moreover, these mitigation techniques are simply broad statements of policy which do not carry the force of law.

2. Analysis.

The status quo which the court perceives, based upon the briefs of the parties and the administrative record, is that the extent of mitigation for exacerbating the existing affordable

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[79] Respondent's brief concedes as much: "The Housing Element commits the County to adopt an ordinance implementing this policy (citation). At the time the Board approved the plan, the County had made significant progress developing such an ordinance."
[80] Amicus Brief of Town of Truckee, p. 2.
[81] AR 9:3686, 9:3694
[82] AR 9:3702
[83] AR: 9:3710-3712

housing impacts are (1) the adoption of policies which would urge the provision of affordable housing in future development at the rate of 10%, and (2) the policies of adopting ordinances which reflect solutions to the affordable housing shortage. To date the only proposed ordinance dealing with the "inclusionary" affordable housing element specifically exempts the Martis Valley from its operation, and no ordinance has been adopted which relates to employee housing. In short, the adopted plan contains no affordable housing element which mitigates the known increases in demand for affordable housing. This, in and of itself, would be sufficient to set aside the MVCP as not conforming to the law.[84]

F. Failure to Recalculate

1. Contentions of the Parties

Petitioners argue that the EIR must be recirculated because the Final EIR (FEIR) contains significant new information that was not contained in the draft EIR.[85] Specifically, the FEIR deleted the mitigation measure for affordable housing contained in the draft EIR as noted above.[86] Additionally, the County presented significant new information regarding the project's impacts on traffic in the Tahoe Basin.[87] The EIR also failed to include, or respond to comments submitted by the Calif. Dept of Fish and Game (CDFG).

Respondents argue that recirculation is not necessary because (1) the affordable housing mitigation measure was deleted as being redundant because the same requirement had been adopted as a policy[88] (2)the increase in traffic was not new information as it had been included in the draft EIR;[89] and (3) the comments by CDFG were received after the close of the draft EIR

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[84] **Napa Citizens for Honest Government v. Napa County Bd. of Supervisors, supra,** 91 Cal.App.4th 342, 110 Cal.Rptr.2d 579
[85] **Save Our Peninsula, supra,** at 130-31.
[86] AR 11-5144-45
[87] AR 11:5148-5154
[88] Guidelines §15088.5(a))
[89] AR 9:3749-3754, 9:3766-3767; 10:4502-4503; 10:4537

comment period and did not provide data substantiating its concerns or provide information regarding significant new impacts.

2. Analysis

The EIR should have been recirculated. As discussed above in the section on affordable housing, the FEIR improperly deleted a mitigation measure contained in the draft EIR and contains no analysis as to how the policies will affect the known shortages of low income and affordable housing. Additionally, the increase in traffic and the information contained in the comments from CDFG constitute significant new information necessitating the recirculation of the EIR.

The comment letter from the California Department of Fish and Game was dated in 2002, however it is not stamped "received" by the county until 2003. The record contains no adequate explanation for this discrepancy. The county maintains that the letter was received after the comment close of the DEIR period, and so it was not required to comment. This latter position is disingenuous.[90] Lacking an explanation for how the letter was not "received" until after the comment period, the County takes issue with the content of the letter as containing no data or studies. In any event, the County prepared a response to the letter, but public notice or input on CDFG's letter was foreclosed by failing to recirculated.

The California Department of Fish and Game is the trustee agency for the biotic resources which are potentially affected by the MVCP. CDFG holds these resources in trust for

[90] The County does not maintain that the letter was sent too late by CDFG. It maintains that it was "received" by them too late. The County produces no references in the record which would support the conclusion that the date on the letter from CDFG was in error. Nor does the County attempt to explain how a letter dated in 2002 was not received until 2003. It would appear to be incumbent upon the County to explain in the record how this confusion occurred. If the letter is properly dated, but did not come to the County's attention until after the DEIR was circulated, the least the county should have done is inquire of CDFG whether the letter was actually sent in 2002, or if the date was a typographical error. If CDFG admitted to sending the letter too late, then the County has no control over the miscommunication, and the letter would have been, in fact, "too late". Absent this kind of inquiry on the part of the County, however, the court must assume that the letter was properly dated and delivered, but was merely "undiscovered" by the County until 2003 when then stamped it "received". Under this circumstance, the onus should be on the County to fix the problem, which, in this case, would mean a recirculation.

the people of the State of California[91]. The record is replete with references to the fragile nature of the environment, and its importance as a transition link area between the Granite Chief wilderness area and the Tahoe Basin. The importance of the biotic resources in this area cannot be underestimated. Where insufficient or no notice of a project has been given to a relevant trustee agency, a decision approving the project there is a prejudicial abuse of discretion.[92] The failure to consider the comments of the CDFG produces a result identical to the failure to give notice. The letter was not included in the DEIR, and the public's comments regarding CDFG's opposition to the project as proposed were therefore foreclosed. For this reason, a recirculation of the EIR was required.

The MVCP conflicts with the PCGP and is internally inconsistent.

1. Contentions of the Parties

Petitioners assert that the MVCP violates numerous policies in the county-wide Placer County General Plan (PCGP). Specifically, the MVCP's land-use designations promote growth far from existing communities in violation of the PCGP's policy of concentrating new growth within existing communities.[93] Additionally, the MVCP provides for substantial development in the midst of large areas of intact forest,[94] provides for numerous islands of development that will fragment habitat (id), and allows for development in wildlife corridors[95] in violation of the PCGP's policies requiring the protection and restoration of biological resources.[96] Further, the MVCP includes policies which parallel the infill development and natural resource protection

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[91] Guidelines, § 15386.

[92] Fall River Wild Trout Association v. County of Shasta (1999) 70 Cal.App.4th 482 ("The County's failure to send a copy of the mitigated negative declaration to the Department of Fish and Game, a trustee agency, deprived the County of information necessary to informed decision-making and informed public participation. [Kings County Farm Bureau v. City of Hanford, supra, 221 Cal.App.3d at p. 712, 270 Cal.Rptr. 650.]) id. p. 492. in Sierra Club v. State Bd. of Forestry (1994) 7 Cal.4th 1215, 1236.

[93] AR 8:3474; 13:6805

[94] AR 8:3474; 13:6805; 59:29331

[95] Ibid.

[96] AR 19:11211-17

policy of the PCGP, and thus the Land Use Diagram (LUD) is fatally inconsistent with the MVCP' own policies as well.[97] The MVCP is internally inconsistent as well in that the adjusted residential holding capacity listed in the text of the MVCP[98] is inconsistent with the approved residential holding capacity in the LUD.[99]

Respondents argue that in approving the MVCP, the County did not approve any actual development and that regardless of the land use designations in the LUD any future development in Martis Valley must comply with the policies of the PCGP. Additionally, the court is required to give deference to the County's determination that the MVCP is consistent with the PCGP and uphold such finding unless the court determines that it was not "arbitrary, capricious, or entirely lacking in evidentiary support."[100] Moreover, most of the areas designated for development in the LUD are located immediately adjacent to existing communities within Martis Valley. AR 8:3474. Further, the Board had ample reason to find that the LUD was consistent with the policies of the PCGP and the MVCP given that the plan preserves 83 percent of the plan as open space. Petitioners are also barred from challenging the MVCP's designation of certain land east of Hwy 267 for residential development as the 1976 Martis Valley General Plan already designated that same land for development[101] and that Plan was incorporated into the PCGP in 1994. The time for challenging such designation expired 90 days after adoption of the 1976 Martis Valley General Plan.[102] Petitioners may challenge the LUD only to the extent that it changes land use designations.[103] Finally, the MVCP and the new zoning restrictions significantly reduce the amount of development authorized under the 1975 plan.

2. Analysis

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[97] AR 8:3311, 3312, 3414, 3415; 59:29330
[98] AR 8:3326-27
[99] AR 8:3322, 3474; Appendix A
[100] **Mitchell v. County of Orange** (1985) 165 Cal.App.3d 1185, 1191; **Karlson v. City of Camarillo** (1980) 100 Cal.App.3d 789, 798
[101] AR 8:3474 (LUD); 13:6806 (1975 land use map)
[102] Govt Code §65000(c)(1)
[103] **Grant v. City of Riverside** (1991) 2 Cal.App.4th 259, 289; **Napa Citizens, supra,** at 388.

Respondent's argument that the MVCP did not approve any actual development and that any future development must comply with the PCGP's policies is disingenuous at best. As the MVCP is the general plan for Martis Valley, any future development proposed for Martis Valley will be compared to the policies set forth in the MVCP, not to those set forth in the PCGP. Thus, to the extent the policies in the two plans are inconsistent, future development in Martis Valley may be inconsistent with the PCGP. However, it does not appear that the County's determination that the MVCP and the LUD are consistent with the PCGP was arbitrary, capricious or entirely lacking in evidentiary support.

III. CONCLUSION

The Petition is granted. A peremptory writ of mandate shall issue from this court directing the Respondent, County of Placer, to:

1. Set aside its resolution certifying the final environmental impact report and findings;
2. Set aside its resolution adopting the Martis Valley Community Plan;
3. Set aside Placer Co. Ord. No. 5283(b)
4. Suspend all project approvals and activities that could result in any change or alteration to the physical environment which are based upon the Martis Valley Community Plan;
5. File a return to this writ no later than 20 after granting of the writ herein;

Under Public Resources Code section 21168.9(b) this Court will retain jurisdiction over respondent's proceedings by way of a return to this preemptory writ of mandate until the Court has determined that respondent has complied with the provisions of CEQA.

6. Petitioner shall be entitled to their costs of suit.

Dated: May 3, 2005

James D. Garbolino
Superior Court Judge, Assigned

EXHIBIT 3

- Interstate 5 – Widen to provide freeway auxiliary lanes in both directions between County Road 6 and Interstate 505.
- State Route 16 – Widen to a four-lane arterial between County Road 21A and Interstate 505.

The following roadways were identified as needing spot improvements for portions of the identified segment including but not limited to intersection control and lane configuration improvements, passing lanes and/or wider travel lanes and shoulders:

- County Road 89 between State Route 16 and County Road 29A.
- County Road 102 between County Road 13 and Woodland City Limit.
- County Road 102 between Woodland City Limit and Davis City Limit.
- State Route 16 between County Road 78 and County Road 85B.
- State Route 16 between Interstate 505 and County Road 98.

3. Impacts and Mitigation Measures

This section describes the transportation analysis of the Draft General Plan and identifies potential impacts and mitigation measures that would be associated with the adoption of the Draft General Plan. Quantitative roadway impact analysis was conducted for 2030 conditions. A discussion of the transportation analysis methodology is included below, followed by the significance criteria, impact statements, and mitigation measures.

a. Transportation Analysis Methodology. The transportation analysis for the roadway system followed the methodology described below. For other components of the transportation system, the policy framework and implementation program for the Draft General Plan were evaluated against the significance criteria.

A modified version of SACOG's regional SACMET travel demand forecasting (TDF) model was used to forecast future traffic volumes for the Yolo County Draft General Plan. The modifications were specific to Yolo County to ensure that the model accurately estimated traffic volumes and could be used in the analysis process to determine the number of lanes for major roadway segments based on anticipated future population and employment growth. Appendix C includes detailed documentation of the transportation modeling and analysis steps including a detailed summary of the model validation. The following provides a summary of the overall process.

Land use inputs for the SACMET model were developed with County staff based on the land use contained in the *County of Yolo Revised Draft 2030 Countywide General Plan* (January 20, 2009). This version of the SACMET model includes the four Counties of El Dorado, Sacramento, Placer, and Yolo. For the incorporated cities in Yolo County and counties outside of Yolo County, the land use estimates developed by SACOG were used. The modeling also included the planned Cache Creek Casino expansion as described in the *Cache Creek Destination Resort Project Final TEIR (AES, September 2008)*. The 2030 land use for unincorporated Yolo County was developed based on typical SACMET input assumptions and was allocated to traffic analysis zones (TAZs). A map of the SACMET TAZs in Yolo County is contained in Appendix C. The TAZs are geographic polygons used to organize land use input data for the TDF model. The TAZs are defined by natural borders such as roads, waterways, and topography and typically represent areas of homogenous travel behavior.

Appendix C includes the SACMET base year validation results for a.m. and p.m. peak hour conditions.

The land use forecasts for 2030 were input to the modified SACMET TDF model, and the model was run to generate a.m. and p.m. peak hour traffic volume forecasts. The modified SACMET TDF model was initially run using the existing roadway network to identify potential roadway segment deficiencies based on the LOS capacity thresholds shown in Table IV.C-1 and the 1983 General Plan policy threshold of LOS "C" on all County roadways.

Mitigation testing was performed through an iterative process where LOS deficiencies are eliminated by expanding roadway network capacity in the TDF model. The goal of the iterative process is to identify mitigation actions that eliminate identified LOS deficiencies resulting in a list of potential roadway capacity expansion projects for the Draft General Plan. In some cases, eliminating LOS deficiencies was not possible or desirable because the physical roadway expansion necessary to provide an acceptable LOS were considered infeasible because of constraints such as terrain, sensitive habitat, cultural resources, and right-of-way. For these locations, the LOS policy (Policy CI-3.1) in the 2030 Draft General Plan was modified to allow a lower LOS.

b. Significance Criteria. Implementation of the Draft General Plan would have a significant impact on transportation and circulation if it causes any of the following outcomes:

- Result in increased vehicle miles of travel (VMT)
- Result in traffic operations below LOS C for Yolo County roadways, which is minimum acceptable threshold according to the 1983 General Plan
- Result in traffic operations below the minimum acceptable thresholds on roadways outside Yolo County's jurisdiction (i.e., Caltrans, the Yolo County CMA, and the incorporated cities of Davis, West Sacramento, Winters, and Woodland)
- Create demand for public transit unable to be met by planned services and facilities
- Disrupt existing, or interfere with planned, transit services or facilities
- Disrupt existing, or interfere with planned, bicycle or pedestrian facilities
- Result in transportation network changes that would prevent the efficient movement of agricultural vehicles within the County or transport vehicles traveling to and from the Port of Sacramento
- Result in a change in air traffic patterns, including an increase in traffic levels or a change in location that results in substantial safety risks
- Create additional vehicle, bicycle, or pedestrian travel on roadways or other facilities that do not meet current County design standards
- Substantially conflict with applicable plans, policies and regulations of other agencies and jurisdictions where such conflict would result in an adverse physical change in the environment
- Result in new policies that would result in significant adverse physical impacts as compared to the 1983 General Plan policies

creating town centers in each community (Policy CC-4.38) and ensuring that employment is provided concurrently with housing (Policy CC-3.3). Although some travel will likely occur to other major destinations, the policies of the Draft General Plan are intended to reduce the need for longer distance automotive travel.

The majority of planned growth in the Draft General Plan has been identified as Specific Plan areas including the communities of Dunnigan, Knights Landing, Madison, and Elkhorn. The Specific Plan process will allow the opportunity to refine and balance the planned land uses to maximize the reduction of VMT. The following impact and mitigation measure discussion includes a new VMT threshold policy that incorporates the 4D variables as part of the Specific Plan process.

Impact CI-1: Build-out of the Draft General Plan could result in increased vehicle miles of travel. (S)

The Draft General Plan includes new population and employment growth that will generate additional VMT, which will result in increased air pollutant and greenhouse gas emissions as well as additional energy consumption due to vehicle travel. The Draft General Plan includes policies that are expected to reduce the growth of VMT generated per household, but will not eliminate the growth in total VMT.

Based on the average VMT of 83 miles generated per household per weekday under 2005 conditions for the unincorporated area, the existing approximately 6,900 households (as shown in Table IV.C-3) generate 573,000 miles per day. Full service cities in Yolo County such as Davis and Woodland are estimated to have 44 VMT generated per household per weekday by 2035. With the new policies recommended under Mitigation Measure CI-1 below, new growth in Specific Plan areas would be planned and designed to achieve a maximum of 44 VMT generated per household per weekday under the Draft General Plan. As a result, the approximately 21,000 total households in the unincorporated area under the Draft General Plan (as shown in Table IV.C-3) are estimated to generate the following VMT:

- Based on the 44 VMT generated per household per weekday threshold for the Specific Plan communities of Dunnigan, Knights Landing, and Madison, the 10,631 households in the Specific Plan communities would generate 467,800 miles per day.
- Based on the average of 77 VMT generated per household per weekday for the remaining unincorporated areas outside of the Specific Plan communities (consistent with the SACSIM model estimate by 2035), the 10,327 households would generate 795,200 miles per day. The 77 VMT per household estimate may not capture the effect of some Draft General Plan policies such as striving for a minimum jobs/housing balance (Policy CC-2.10) and requiring sustainable design standards as appropriate, including maximum block lengths of 600 feet and incorporation of a grid street network that provides travel for all modes (Policy CC-2.16), in each unincorporated community. Therefore, the actual VMT generated from these areas could be lower.

The total VMT generated under the Draft General Plan for the unincorporated area is estimated to be approximately 1,263,000 miles per day (or a net increase of 690,000 miles per day compared to existing conditions). The resulting average unincorporated area VMT generated per household would be 60 miles per weekday, which represents a reduction of approximately 28 percent in VMT

generated per household compared to 2005 conditions. The estimated VMT under the Draft General Plan takes into account the reduction in existing household travel with more employment and services provided in each Specific Plan area.

To minimize VMT effects of the new growth in the Draft General Plan, a new policy is recommended to establish a maximum threshold of 44 VMT generated per household per weekday in the Specific Plan areas. This threshold is based on what is projected for the Cities of Woodland and Davis by 2035. While larger by comparison to the unincorporated growth areas, they include a land use pattern and transportation system representative of a mature and sustainable community similar to that anticipated in the Draft General Plan. In these communities, residents have multiple choices for travel, such as transit, bicycling, and walking, which is important to note since the VMT threshold is not intended to reduce personal mobility, but instead increase travel choices through both land use and transportation actions.

The SACSIM model estimates that SACOG's Preferred Blueprint Scenario, which is part of the Metropolitan Transportation Plan for 2035, would have an average VMT of 49 miles of travel generated per household per weekday in 2035 for the entire six-County region. Achieving a VMT of 44 miles generated per household per weekday for the unincorporated area Specific Plans of Yolo County by 2035 would be an improvement over the projected VMT generated per household estimated for the regional average under the Preferred Blueprint Scenario.

The Draft General Plan includes policies that focus on reducing VMT for the entire unincorporated area of the County. The proposed VMT threshold can help to reduce the VMT produced by the unincorporated area of the County but would be difficult to apply on a parcel-by-parcel basis versus an area-wide approach. Therefore, the VMT threshold is proposed to be applied to the Specific Plan areas where the majority of planned development would occur and where the proposed land uses can be refined and balanced to reduce VMT through the Specific Plan process. The following mitigation measure is recommended for the Specific Plan areas of the Draft General Plan:

> Mitigation Measure CI-1a: The Draft General Plan shall be amended to include the following new policy in the Circulation Element.
>
> Policy CI-#: The Dunnigan Specific Plan shall incorporate a maximum of 44 vehicle miles of travel (VMT) generated per household per weekday through implementation of all feasible actions including but not limited to specifications contained in Policies CC-3.3 through CC-3.6. As part of the specific plan implementation, the VMT performance shall be monitored at each phase. If VMT performance exceeds the threshold in this policy, then additional actions shall be implemented and may include, but are not limited to, the following types of actions:
>
> - Promote ride sharing programs by, for example, designating a certain percentage of parking spaces for ride sharing vehicles, designating adequate passenger loading and unloading and waiting areas for ride sharing vehicles, and providing a Web site or message board for coordinating rides.

- Provide the necessary facilities and infrastructure to encourage the use of low or zero-emission vehicles (*e.g.*, electric vehicle charging facilities and conveniently located alternative fueling stations).
- Increase the cost of driving and parking private vehicles by, for example, imposing parking fees.
- Build or fund a transportation center where various public transportation modes intersect.
- Provide shuttle service to public transit.
- Provide public transit incentives such as free or low-cost monthly transit passes.
- Incorporate bicycle lanes and routes into street systems, new subdivisions, and large developments.
- Incorporate bicycle-friendly intersections into street design.
- For commercial projects, provide adequate bicycle parking near building entrances to promote cyclist safety, security, and convenience. For large employers, provide facilities that encourage bicycle commuting, including, for example, locked bicycle storage or covered or indoor bicycle parking.
- Create bicycle lanes and walking paths directed to the location of schools, parks and other destination points.
- Work with the school district to create and expand school bus services.
- Institute a telecommute work program. Provide information, training, and incentives to encourage participation. Provide incentives for equipment purchases to allow high-quality teleconferences.
- Provide education and information about public transportation.
- Consider unique transportation incentives such as free bikes, re-charging stations for electric vehicles, alternative fuel filling stations, plug-in hybrid car-sharing, and carpool concierge services.

Achievement of the VMT threshold shall be measured based on the build-out of the plan area phases using a travel demand forecasting model that is sensitive to built environment variables including but not limited to the 4Ds (density, diversity, design, and destination).

Mitigation Measure CI-1b: The Draft General Plan shall be amended to include the following new policy in the Circulation Element.

Policy CI-#: Other Specific Plan areas allowed under the Draft General Plan shall strive to achieve the VMT threshold of 44 miles generated per household per weekday to the extent feasible, using the same methods described above.

Reasonableness checks were performed for the Dunnigan Specific Plan area to determine if the threshold of 44 VMT generated per household could be achieved. Based on the long distance between the Dunnigan Specific Plan area and other regional attractions such as the City of Woodland, approximately 80 percent of trips would need to be internalized to achieve the VMT threshold unless a high level of carpool and transit use occurs for off site trips. Therefore, it is essential that the prescriptive policies in the Draft General Plan for the Specific Plan areas are implemented (Policies CC-3.3 through CC-3.13) to achieve the VMT threshold, especially matching jobs to housing in Policy CC-3.3. To further ensure that jobs are created concurrently with housing, the following mitigation measure is recommended:

> Mitigation Measure CI-1c: Implement Mitigation Measure LU-4c that amends Policy CC-3.3 in regards to achieving a jobs/housing balance in the Specific Plan areas.

The Elkhorn Specific Plan would not include residential development as part of the Draft General Plan. The following mitigation measure would ensure that land uses in the Elkhorn Specific Plan area accommodate workforce housing to reduce total VMT of the Specific Plan area. To further implement the VMT threshold identified in Mitigation Measure CI-1a, it is recommended that the Draft General Plan be amended to include the following new policies and changes to existing policies:

> Mitigation Measure CI-1d: Implement Mitigation Measure LU-4d that amends Policy CC-3.11 for the Elkhorn Specific Plan area.
>
> Mitigation Measure CI-1e: The Draft General Plan shall be amended to include the following new policy in the Circulation Element.
>
> Policy CI-#: Require Specific Plan areas to establish mode split goals for walking, bicycling, and transit trips in development of the required transit plan (per Action CI-A6) for each area. Bi-annual household surveys should be conducted to ensure identified model split goals are being achieved as the Specific Plan areas build out.
>
> While implementation of the policies and actions included in the Draft General Plan and the identified mitigation measures above would reduce VMT generated by new development, the Draft General Plan would still result in an increase in VMT. This impact would remain significant and unavoidable. (SU)

(2) Result in Increased Peak Hour Traffic Volumes. Figures IV.C-10 and IV.C-11 display the a.m. and p.m. roadway segment LOS for the Draft General Plan, respectively. Morning (a.m.) peak-hour LOS is reported for the freeway segments, while evening (p.m.) peak-hour LOS is reported for the major County roadway system. As discussed in the setting, the General Plan transportation analysis is based on the p.m. peak hour because it represents the highest hourly volume during a typical weekday. The one exception to exclusive use of the p.m. peak hour is for freeway segments. Freeways typically have high peaking of directional commuter traffic during the a.m. and p.m. peak hours. In some cases, the existing a.m. peak-hour volumes, which also occur on a regular basis, are higher than p.m. peak-hour volumes. Further, freeway segments are divided where improvements can be made to only one direction if desired. Therefore, analyzing the a.m. peak hour was considered necessary to identify potential freeway impacts that may occur only during this time period.

APPENDIX C

TRANSPORTATION AND CIRCULATION DATA

APPENDIX C
YOLO COUNTY GENERAL PLAN
EXISTING AM PEAK HOUR LOS THRESHOLDS, TRAFFIC VOLUMES, AND LOS

ROADWAY	SEGMENT	JURISDICTION LOS THRESHOLD	CMP LOS THRESHOLD	PEAK HOUR COUNT	LOS[1]
Interstate 5 Northbound					
	1. Colusa County Line to Interstate 505	D	D	700	A
	2. Interstate 505 to County Road 13	D	D	500	A
	3. County Road 13 to State Route 113 (East)	D	D	1,060	A
	4. State Route 113 (East) to County Road 102	D	E	1,520	B
	5. County Road 102 to Sacramento County Line	D	D	1,820	B
Interstate 5 Southbound					
	1. Colusa County Line to Interstate 505	D	D	760	A
	2. Interstate 505 to County Road 13	D	D	640	A
	3. County Road 13 to State Route 113 (East)	D	D	1,130	B
	4. State Route 113 (East) to County Road 102	D	E	1,350	B
	5. County Road 102 to Sacramento County Line	D	D	1,690	B
Interstate 505 Northbound					
	1. Solano County Line to State Route 128	D	D	330	A
	2. State Route 128 to State Route 16	D	D	320	A
	3. State Route 16 to County Road 14	D	D	200	A
	4. County Road 14 to Interstate 5	D	D	200	A
Interstate 505 Southbound					
	1. Solano County Line to State Route 128	D	D	570	A
	2. State Route 128 to State Route 16	D	D	360	A
	3. State Route 16 to County Road 14	D	D	230	A
	4. County Road 14 to Interstate 5	D	D	130	A
Interstate 80 Eastbound					
	1. Solano County Line to Mace Boulevard	E	E	4,110	C
	2. County Road 32A to U.S. 50	E	E	5,160	D
Interstate 80 Westbound					
	1. Solano County Line to Mace Boulevard	E	E	4,120	C
	2. County Road 32A to U.S. 50	E	E	5,280	D
State Route 113 Northbound					
	1. Solano County Line to Covell Boulevard	E	E	1,030	A
	2. Covell Boulevard to Gibson Road	E	D	770	A
	3. Gibson Road to Interstate 5	E	C	430	A
State Route 113 Southbound					
	1. Solano County Line to Covell Boulevard	E	E	2,140	C
	2. Covell Boulevard to Gibson Road	E	D	1,440	B
	3. Gibson Road to Interstate 5	E	C	500	A

Notes:
[1] LOS (Level of Service) based on peak hour roadway segment thresholds developed using the Highway Capacity Manual methodology.

APPENDIX C YOLO COUNTY GENERAL PLAN EXISTING PM PEAK HOUR LOS THRESHOLDS, TRAFFIC VOLUMES, AND LOS					
ROADWAY	SEGMENT	JURISDICTION LOS THRESHOLD	CMP LOS THRESHOLD	PEAK HOUR COUNT	LOS[1]
Chiles Road/County Road 32B					
	1. Mace Boulevard to Webster Road	C		250	C
Clarksburg Road					
	1. State Route 84 to South River Road	C		60	A
County Road 6					
	1. County Road 86 to Interstate 5	C		10	A
County Road 12A					
	1. County Road 85 to Interstate 505	C		10	A
County Road 12A/92/12					
	1. Interstate 505 to County Road 99W	C		10	A
County Road 13					
	1. Interstate 5 to State Route 113	C		110	A
County Road 14					
	1. County Road 85 to Interstate 505	C		40	A
	2. Interstate 505 to Interstate 5	C		90	A
County Road 16A					
	1. Interstate 5 to State Route 113	C		30	A
County Road 17					
	1. State Route 113 to County Road 102	C		110	B
County Road 19					
	1. County Road 87 to Interstate 505	C		70	A
	2. Interstate 505 to County Road 94B	C		60	A
County Road 21A					
	1. County Road 85B to State Route 16	C		150	B
County Road 23					
	1. County Road 85B to County Road 89	C		110	B
County Road 24					
	1. County Road 90 to County Road 95	C		80	A
	2. County Road 95 to County Road 98	C		210	C
County Road 27					
	1. Interstate 505 to County Road 95	C		90	B
	2. County Road 95 to County Road 98	C		110	B
	3. County Road 98 to State Route 113	C		170	B
County Road 28H					
	1. County Road 102 to County Road 105	C		70	A
County Road 29A/92E/29					
	1. Interstate 505 to County Road 95	C		30	A
County Road 29					
	1. County Road 95 to County Road 98	C		60	A
	2. County Road 98 to State Route 113	C	C	140	B
	3. State Route 113 to County Road 102	C	C	400	C
County Road 31					
	1. County Road 93A to County Road 95	C	C	390	C
	2. County Road 95 to County Road 98	C	C	490	C
County Road 32A					

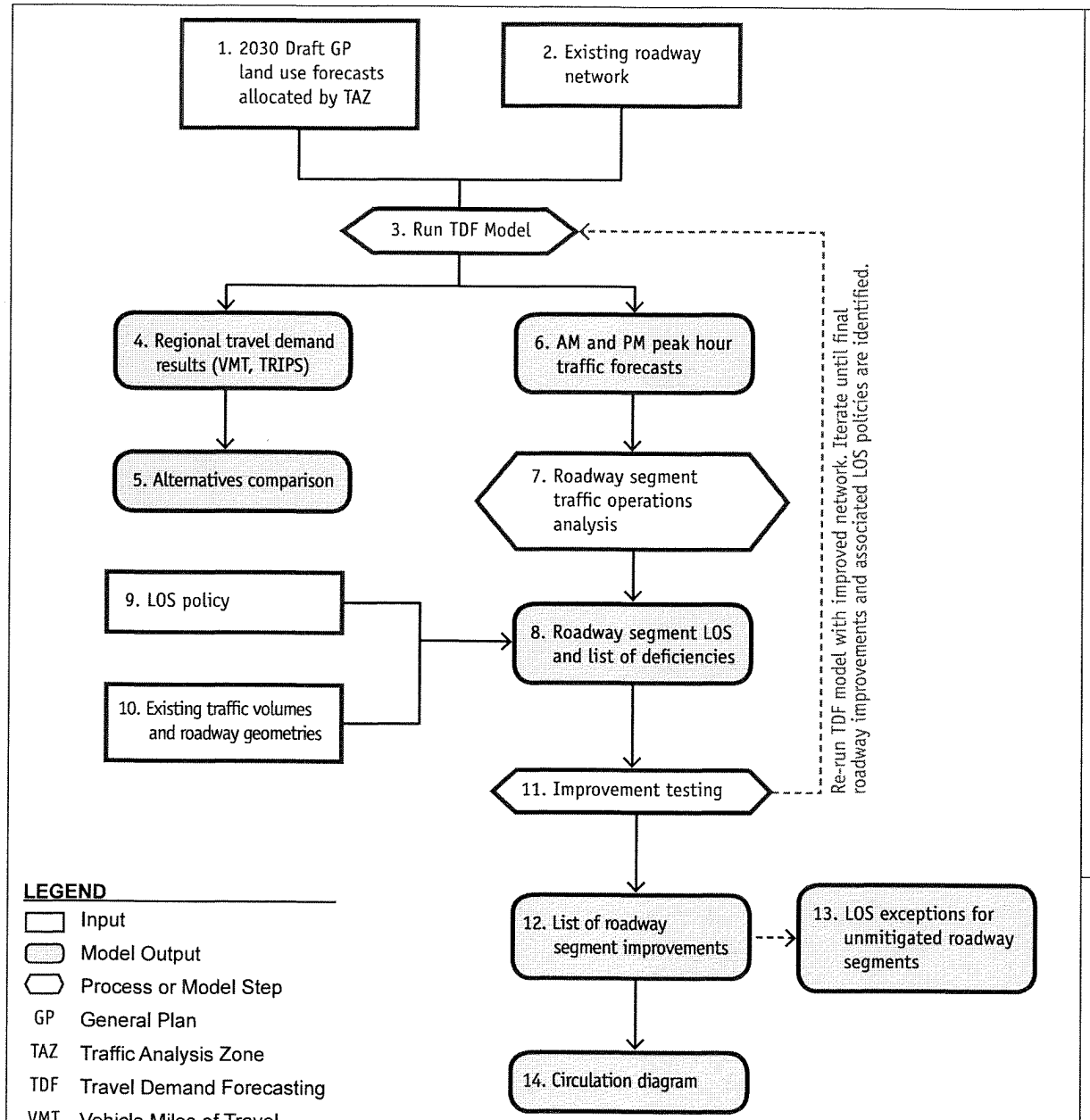
	1. Mace Boulevard to County Road 105	C		180	B
	2. County Road 105 to Webster Road	C		260	C
County Road 85B					
	1. County Road 23 to County Road 21A	C		60	A
	2. County Road 21A to State Route 16	C		200	B
County Road 85					
	1. State Route 16 to County Road 12	C		40	A
County Road 85/8/86					
	1. County Road 12 to County Road 6	C		10	A
County Road 87					
	1. State Route 16 to County Road 14	C		20	A
County Road 89					
	1. County Road 29A to County Road 27	C		110	B
	2. County Road 27 to County Road 24A	C		130	B
	3. County Road 24A to State Route 16	C		100	B
County Road 94B					
	1. State Route 16 to County Road 19	C		60	A
County Road 98					
	1. Solano County Line to County Road 31	C	C	240	B
	2. County Road 31 to County Road 29	C	C	330	C
	3. County Road 29 to County Road 27	C	C	400	C
	4. County Road 27 to County Road 24	C	C	520	C
	5. County Road 24 to State Route 16	D	D	780	C
County Road 99					
	1. County Road 31 to County Road 27	C	C	180	B
	2. County Road 27 to Gibson Road	C	C	310	C
County Road 99W					
	1. County Road 8 to County Road 6	C		110	B
	2. County Road 6 to County Road 2	C		90	A
County Road 101A					
	1. Covell Boulevard to County Road 29	C		240	C
County Road 102					
	1. Covell Boulevard to County Road 29	C	C	650	C
	2. County Road 29 to County Road 27	C	C	560	C
	3. County Road 27 to County Road 24	C	C	490	C
	3. County Road 24 to Interstate 5	D	D	1,190	D
	5. Interstate 5 to County Road 17	C	C	490	C
	6. County Road 17 to State Route 113	C	C	610	C
County Road 105					
	1. County Road 32A to County Road 28H	C		60	A
Covell Boulevard					
	1. County Road 98 to State Route 113	E	D	1,670	D
	2. State Route 113 to County Road 102	E	E	1,820	D
	3. County Road 102 to Mace Boulevard	E	D	1,140	C
East Street					
	1. Gibson Road to Interstate 5	D	D	690	C
Gibson Road					
	1. County Road 98 to State Route 113	D	D	1,710	C
Harbor Boulevard					
	1. U.S. 50 to Reed Avenue	C	C	1,580	C
Jefferson Boulevard					
	1. Gregory Avenue to U.S. 50	D	C	***1,890***	***D***
Mace Boulevard					
	1. County Road 35 to County Road 32D	C		150	B

	2. County Road 32D to Interstate 80	E		2,330	D
Main Street					
	1. County Road 98 to State Route 113	D	D	2,120	D
Old River Road					
	1. County Road 127 to County Road 118	C		390	C
Railroad Avenue					
	1. State Route 128 to Winters City Limits	C	D	470	C
Reed Avenue					
	1. Interstate 80 to Jefferson Boulevard	C		1,470	C
Russell Boulevard					
	1. Interstate 505 to County Road 31	C	C	440	C
	2. County Road 98 to State Route 113	E		1,780	D
South River Road					
	1. Clarksburg Road to Freeport Bridge	C	C	200	C
	2. Freeport Bridge to Burrows Avenue	C		270	C
Willow Point Road					
	1. State Route 84 to South River Road	C		20	A
Interstate 5 Northbound					
	1. Colusa County Line to Interstate 505	D	D	1,040	A
	2. Interstate 505 to County Road 13	D	D	770	A
	3. County Road 13 to State Route 113 (East)	D	D	1,200	B
	4. State Route 113 (East) to County Road 102	D	E	1,280	B
	5. County Road 102 to Sacramento County Line	D	D	1,710	B
Interstate 5 Southbound					
	1. Colusa County Line to Interstate 505	D	D	810	A
	2. Interstate 505 to County Road 13	D	D	670	A
	3. County Road 13 to State Route 113 (East)	D	D	1,220	B
	4. State Route 113 (East) to County Road 102	D	E	1,690	B
	5. County Road 102 to Sacramento County Line	D	D	2,110	C
Interstate 505 Northbound					
	1. Solano County Line to State Route 128	D	D	710	A
	2. State Route 128 to State Route 16	D	D	490	A
	3. State Route 16 to County Road 14	D	D	290	A
	4. County Road 14 to Interstate 5	D	D	270	A
Interstate 505 Southbound					
	1. Solano County Line to State Route 128	D	D	560	A
	2. State Route 128 to State Route 16	D	D	460	A
	3. State Route 16 to County Road 14	D	D	300	A
	4. County Road 14 to Interstate 5	D	D	140	A
Interstate 80 Eastbound					
	1. Solano County Line to Mace Boulevard	E	E	4,320	C
	2. County Road 32A to U.S. 50	E	E	5,540	E
Interstate 80 Westbound					
	1. Solano County Line to Mace Boulevard	E	E	4,420	D
	2. County Road 32A to U.S. 50	E	E	5,110	D
State Route 113 Northbound					
	1. Solano County Line to Covell Boulevard	E	E	2,270	C
	2. Covell Boulevard to Gibson Road	E	D	1,530	B
	3. Gibson Road to Interstate 5	E	C	540	A
State Route 113					

Southbound					
	1. Solano County Line to Covell Boulevard	E	E	1,280	B
	2. Covell Boulevard to Gibson Road	E	D	850	A
	3. Gibson Road to Interstate 5	E	C	420	A
State Route 113					
	4. Interstate 5 to County Road 17	E	D	320	C
	5. County Road 17 to County Road 13	E	D	90	A
	6. County Road 13 to County Road 102	E	D	150	B
	7. County Road 102 to State Route 45	E	D	700	C
State Route 128					
	1. Napa County Line to County Road 86	E	D	160	B
	2. County Road 86 to Railroad Avenue	E	D	700	C
	3. Railroad Avenue to Interstate 505	E	D	930	C
State Route 16					
	1. Arbuckle Road to County Road 78	C	D	120	B
	2. County Road 78 to County Road 85B	D	D	670	C
	3. County Road 85B to County Road 87	D	D	480	C
	4. County Road 87 to County Road 21A	D	D	710	C
	5. County Road 21A to Interstate 505	D	D	840	D
	6. Interstate 505 to County Road 94B	D	D	970	D
	7. County Road 94B to County Road 98	D	D	1,000	D
	8. Main Street to Interstate 5	D	D	460	C
State Route 45					
	1. State Route 113 to County Road 98A	D	D	70	A
State Route 84					
	1. Clarksburg Road to Gregory Avenue	Maintain Only	D	160	B

Notes:
[1] LOS (Level of Service) based on peak hour roadway segment thresholds developed using the Highway Capacity Manual methodology.

Bold italic highlight indicates that LOS exceeds applicable jurisdiction and/or CMP threshold.



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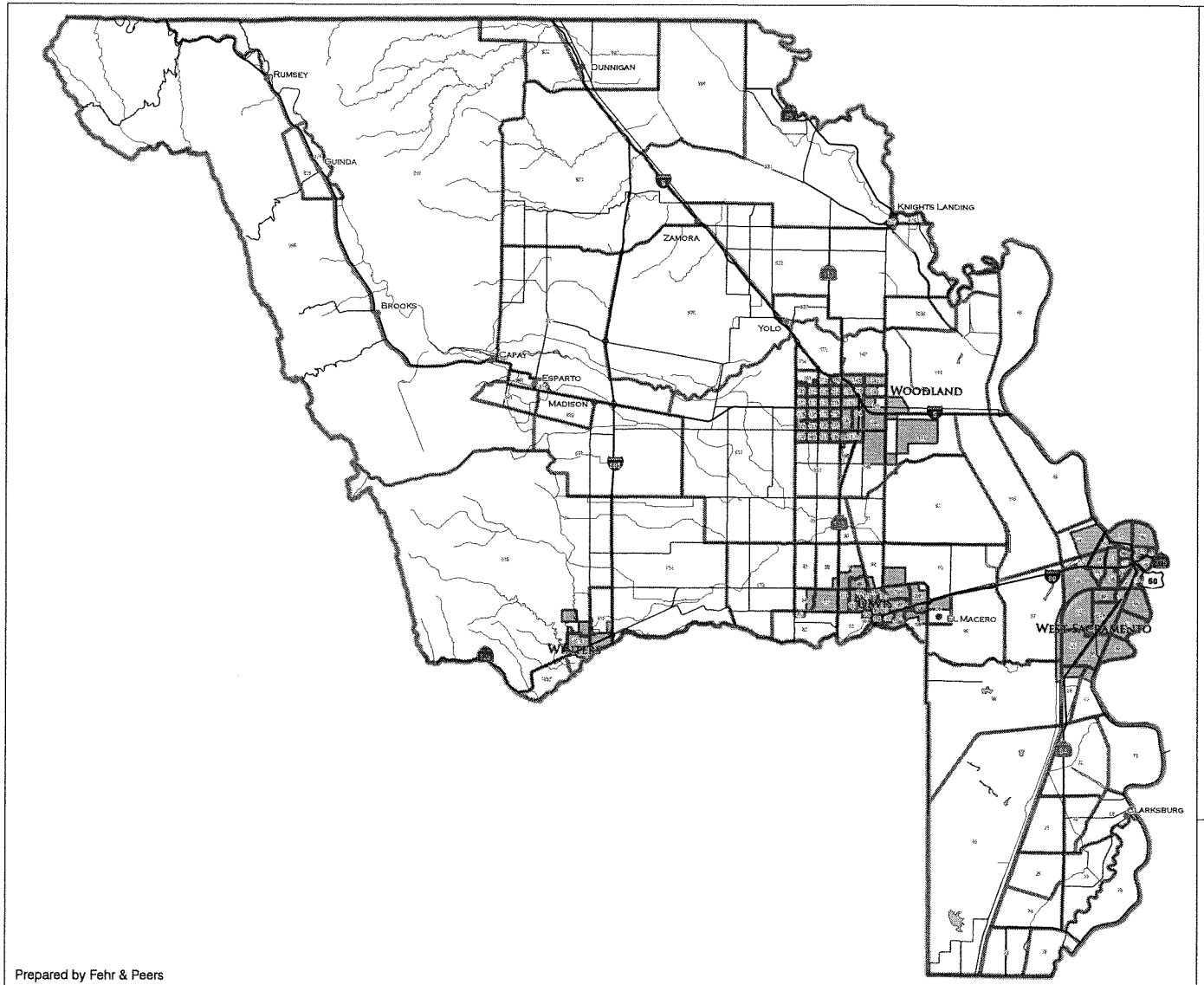
Forecasting Travel Demand and Analysis of Traffic Operations Methodology

YOLO COUNTY GENERAL PLAN



LEGEND

- Unincorporated Cities
- Yolo County Traffic Analysis Zones (TAZ)
- Incorporated Cities
- Yolo County Line

N

NOT TO SCALE

Prepared by Fehr & Peers

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Traffic Analysis Zones

YOLO COUNTY GENERAL PLAN

2005 SACMET V.01 Traffic Model Validation Results - AM Peak Hour (for Counts 200 or Greater)

Iteration 9

AM Peak Hour

number	segment	from	to	2005 Model Forecast	NB/EB 2004 Count	Forecast -Count	Difference Squared	Forecast /Count	Allowable Deviation	Within Deviation
45		County Road 93A	County Road 95	188	228	-40	1,600	0.82	0.60	Yes
46	County Road 31	County Road 95	County Road 98	213	235	-22	484	0.91	0.60	Yes
38		County Road 29	County Road 27	116	165	-49	2,401	0.70	0.60	Yes
37		County Road 27	County Road 24	150	188	-38	1,444	0.80	0.60	Yes
100	County Road 98	County Road 24	State Route 16	161	373	-212	44,944	0.43	0.60	Yes
16		Covell Boulevard	County Road 29	307	259	48	2,304	1.19	0.60	Yes
17		County Road 29	County Road 27	300	203	97	9,409	1.48	0.60	Yes
19		Interstate 5	County Road 17	351	169	182	33,124	2.08	0.60	No
20	County Road 102	County Road 17	State Route 113	157	257	-100	10,000	0.61	0.60	Yes
75		County Road 98	State Route 113	452	459	-7	49	0.98	0.60	Yes
76		State Route 113	County Road 102	642	624	18	336	1.03	0.44	Yes
77	Covell Boulevard	County Road 102	Mace Boulevard	749	580	169	28,561	1.29	0.45	Yes
50	Mace Boulevard	County Road 32D	Interstate 80	430	650	-220	48,400	0.66	0.43	Yes
87	Reed Avenue	Interstate 80	Jefferson Boulevard	770	744	26	676	1.03	0.42	Yes
44		Interstate 505	County Road 31	97	285	-188	35,344	0.34	0.60	No
78	Russell Boulevard	County Road 98	State Route 113	1,118	1,023	95	9,025	1.09	0.37	Yes
4		Colusa County Line	Interstate 505	659	686	-27	729	0.96	0.43	Yes
5		Interstate 505	County Road 13	388	508	-120	14,440	0.76	0.47	Yes
6		County Road 13	State Route 113 (East)	755	1,129	-374	139,502	0.67	0.35	Yes
7		State Route 113 (East)	County Road 102	1,597	1,504	93	8,696	1.06	0.31	Yes
8	Interstate 5	County Road 102	Sacramento County Line	1,767	1,749	18	324	1.01	0.30	Yes
12		Solano County Line	State Route 128	733	403	330	108,900	1.82	0.60	No
11		State Route 128	State Route 16	386	336	50	2,539	1.15	0.60	Yes
10	Interstate 505	State Route 16	County Road 14	286	211	76	5,700	1.36	0.60	Yes
1		Solano County Line	Mace Boulevard	3,259	4,014	-755	570,528	0.81	0.23	Yes
2	Interstate 80	County Road 32A	U.S. 50	4,537	5,552	-1,015	1,030,563	0.82	0.20	Yes
13		Solano County Line	Covell Boulevard	1,339	1,085	254	64,431	1.23	0.36	Yes
3		Covell Boulevard	Gibson Road	1,050	732	318	100,965	1.43	0.42	No
14		Gibson Road	Interstate 5	182	279	-97	9,377	0.65	0.60	Yes
21	State Route 113	County Road 102	State Route 45	173	222	-49	2,368	0.78	0.60	Yes
47		County Road 86	Railroad Avenue	409	337	72	5,232	1.21	0.60	Yes
48	State Route 128	Railroad Avenue	Interstate 505	674	498	176	30,859	1.35	0.60	Yes
32		County Road 78	County Road 85B	182	195	-13	171	0.93	0.60	Yes
27		County Road 87	County Road 21A	217	214	3	9	1.01	0.60	Yes
33		County Road 21A	Interstate 505	323	365	-42	1,722	0.89	0.60	Yes
34		Interstate 505	County Road 94B	215	368	-153	23,278	0.58	0.60	Yes
35		County Road 94B	County Road 98	270	394	-124	15,459	0.68	0.60	Yes
36	State Route 16	Main Street	Interstate 5	32	227	-195	38,025	0.14	0.60	No
				25,634	27,448					

Model/Count Ratio =	**0.93**			
Percent Within Caltrans Maximum Deviation =	**87%**	**>75%**		
Percent Root Mean Square Error =	**35%**	**<40%**	Links Within Deviation =	33
Correlation Coefficient =	**0.98**	**>0.88**	Links Outside Deviation =	5
Average % Error =	**7%**		Total Counts =	38

Summary of Both Directions - AM Peak Hour

Model/Count Ratio =	**0.97**			
Percent Within Caltrans Maximum Deviation =	**87%**	**>75%**		
Percent Root Mean Square Error =	**37%**	**<40%**	Links Within Deviation =	65
Correlation Coefficient =	**0.97**	**>0.88**	Links Outside Deviation =	10
Average % Error =	**3%**		Total Counts =	75

2005 SACMET V.01 Traffic Model Validation Results - AM Peak Hour (for Coun

Iteration 9

number	segment	from	to	2005 Model Forecast	AM Peak Hour SB/WB 2004 Count	Forecast -Count	Difference Squared	Forecast /Count	Allowable Deviation	Within Deviation
45		County Road 93A	County Road 95	169	108	61	3,721	1.56	0.60	Yes
46	County Road 31	County Road 95	County Road 98	153	156	-3	9	0.98	0.60	Yes
38		County Road 29	County Road 27	181	207	-26	676	0.87	0.60	Yes
37		County Road 27	County Road 24	264	277	-13	169	0.95	0.60	Yes
100	County Road 98	County Road 24	State Route 16	209	302	-93	8,556	0.69	0.60	Yes
16		Covell Boulevard	County Road 29	288	212	76	5,776	1.36	0.60	Yes
17		County Road 29	County Road 27	297	168	129	16,641	1.77	0.60	No
19		Interstate 5	County Road 17	350	244	106	11,236	1.43	0.60	Yes
20	County Road 102	County Road 17	State Route 113	376	350	26	676	1.07	0.60	Yes
75		County Road 98	State Route 113	348	315	33	1,089	1.10	0.60	Yes
76		State Route 113	County Road 102	638	707	-69	4,738	0.90	0.42	Yes
77	Covell Boulevard	County Road 102	Mace Boulevard	678	472	206	42,436	1.44	0.60	Yes
50	Mace Boulevard	County Road 32D	Interstate 80	276	306	-30	900	0.90	0.60	Yes
87	Reed Avenue	Interstate 80	Jefferson Boulevard	628	560	68	4,624	1.12	0.45	Yes
44		Interstate 505	County Road 31	74	113	-39	1,521	0.65	0.60	Yes
78	Russell Boulevard	County Road 98	State Route 113	397	353	44	1,936	1.12	0.60	Yes
4		Colusa County Line	Interstate 505	895	796	99	9,801	1.12	0.41	Yes
5		Interstate 505	County Road 13	607	664	-57	3,268	0.91	0.43	Yes
6		County Road 13	State Route 113 (East)	1,057	1,192	-135	18,225	0.89	0.34	Yes
7		State Route 113 (East)	County Road 102	1,893	1,762	132	17,292	1.07	0.30	Yes
8	Interstate 5	County Road 102	Sacramento County Line	2,337	1,724	613	375,360	1.36	0.30	No
12		Solano County Line	State Route 128	1,095	517	578	334,084	2.12	0.47	No
11		State Route 128	State Route 16	435	356	79	6,217	1.22	0.60	Yes
10	Interstate 505	State Route 16	County Road 14	308	214	94	8,899	1.44	0.60	Yes
1		Solano County Line	Mace Boulevard	3,119	4,103	-984	967,272	0.76	0.23	No
2	Interstate 80	County Road 32A	U.S. 50							
13		Solano County Line	Covell Boulevard	1,913	2,233	-320	102,507	0.86	0.27	Yes
3		Covell Boulevard	Gibson Road	1,334	1,211	123	15,191	1.10	0.33	Yes
14		Gibson Road	Interstate 5	178	361	-183	33,306	0.49	0.60	Yes
21	State Route 113	County Road 102	State Route 45	416	355	61	3,721	1.17	0.60	Yes
47		County Road 86	Railroad Avenue	242	157	85	7,282	1.54	0.60	Yes
48	State Route 128	Railroad Avenue	Interstate 505	380	259	121	14,641	1.47	0.60	Yes
32		County Road 78	County Road 85B	259	235	24	576	1.10	0.60	Yes
27		County Road 87	County Road 21A	168	255	-87	7,569	0.66	0.60	Yes
33		County Road 21A	Interstate 505	264	311	-47	2,209	0.85	0.60	Yes
34		Interstate 505	County Road 94B	182	292	-110	12,037	0.62	0.60	Yes
35		County Road 94B	County Road 98	186	376	-190	35,973	0.50	0.60	Yes
36	State Route 16	Main Street	Interstate 5	44	203	-159	25,281	0.22	0.60	No
				22,638	22,423					

Model/Count Ratio =	**1.01**			
Percent Within Caltrans Maximum Deviation =	**86%**	**>75%**		
Percent Root Mean Square Error =	**39%**	**<40%**	Links Within Deviation =	32
Correlation Coefficient =	**0.95**	**>0.88**	Links Outside Deviation =	5
Average % Error =	**-1%**		Total Counts =	37

Summary of Bot

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2005 SACMET V.01 Traffic Model Validation Results - PM Peak Hour (for Counts 200 or Greater)

Iteration 9

PM Peak Hour

number	segment	from	to	2005 Model Forecast	NB/EB 2004 Count	Forecast -Count	Difference Squared	Forecast /Count	Allowable Deviation	Within Deviation
45		County Road 93A	County Road 95	**176**	**157**	19	361	1.12	0.60	Yes
46	County Road 31	County Road 95	County Road 98	**158**	**172**	-14	196	0.92	0.60	Yes
39		County Road 31	County Road 29	**197**	**219**	-22	484	0.90	0.60	Yes
38		County Road 29	County Road 27	**198**	**236**	-38	1,444	0.84	0.60	Yes
37		County Road 27	County Road 24	**301**	**230**	72	5,112	1.31	0.60	Yes
100	County Road 98	County Road 24	State Route 16	**239**	**361**	-122	14,884	0.66	0.60	Yes
16		Covell Boulevard	County Road 29	**348**	**190**	158	24,964	1.83	0.60	No
17		County Road 29	County Road 27	**335**	**277**	58	3,364	1.21	0.60	Yes
18		County Road 27	Interstate 5	**285**	**247**	38	1,444	1.15	0.60	Yes
19		Interstate 5	County Road 17	**497**	**268**	229	52,441	1.85	0.60	No
20	County Road 102	County Road 17	State Route 113	**503**	**430**	73	5,329	1.17	0.60	Yes
75		County Road 98	State Route 113	**411**	**706**	-295	86,730	0.58	0.42	Yes
76		State Route 113	County Road 102	**793**	**932**	-139	19,367	0.85	0.38	Yes
77	Covell Boulevard	County Road 102	Mace Boulevard	**825**	**497**	328	107,584	1.66	0.60	No
84	East Street	Gibson Road	Interstate 5	**173**	**310**	-137	18,701	0.56	0.60	Yes
81	Gibson Road	County Road 98	State Route 113	**624**	**783**	-159	25,281	0.80	0.41	Yes
88	Harbor Boulevard	U.S. 50	Reed Avenue	**468**	**417**	51	2,601	1.12	0.60	Yes
50		County Road 32D	Interstate 80	**353**	**457**	-104	10,816	0.77	0.60	Yes
83	Main Street	County Road 98	State Route 113	**925**	**1,050**	-125	15,708	0.88	0.36	Yes
31	Old River Road	County Road 127	County Road 118	**320**	**233**	87	7,569	1.37	0.60	Yes
87	Reed Avenue	Interstate 80	Jefferson Boulevard	**906**	**863**	43	1,849	1.05	0.39	Yes
44		Interstate 505	County Road 31	**96**	**147**	-51	2,601	0.65	0.60	Yes
78	Russell Boulevard	County Road 98	State Route 113	**586**	**708**	-122	14,884	0.83	0.42	Yes
4		Colusa County Line	Interstate 505	**1,067**	**985**	82	6,724	1.08	0.38	Yes
5		Interstate 505	County Road 13	**736**	**743**	-7	47	0.99	0.42	Yes
6		County Road 13	State Route 113 (East)	**1,179**	**1,194**	-15	235	0.99	0.34	Yes
7		State Route 113 (East)	County Road 102	**2,307**	**1,756**	551	303,821	1.31	0.30	No
8	Interstate 5	County Road 102	Sacramento County Line	**2,636**	**1,794**	842	708,964	1.47	0.30	No
12		Solano County Line	State Route 128	**1,270**	**680**	590	347,707	1.87	0.43	No
11		State Route 128	State Route 16	**513**	**430**	83	6,838	1.19	0.60	Yes
10		State Route 16	County Road 14	**356**	**286**	71	4,970	1.25	0.60	Yes
9	Interstate 505	County Road 14	Interstate 5	**331**	**242**	89	7,862	1.37	0.60	Yes
1		Solano County Line	Mace Boulevard	**3,402**	**4,365**	-963	926,406	0.78	0.22	No
2	Interstate 80	County Road 32A	U.S. 50	**5,885**	**5,571**	314	98,491	1.06	0.20	Yes
13		Solano County Line	Covell Boulevard	**2,249**	**2,207**	42	1,792	1.02	0.27	Yes
3		Covell Boulevard	Gibson Road	**1,668**	**1,317**	351	123,341	1.27	0.32	Yes
14		Gibson Road	Interstate 5	**276**	**336**	-60	3,640	0.82	0.60	Yes
21	State Route 113	County Road 102	State Route 45	**555**	**435**	120	14,400	1.28	0.60	Yes
47		County Road 86	Railroad Avenue	**290**	**302**	-12	136	0.96	0.60	Yes
48	State Route 128	Railroad Avenue	Interstate 505	**465**	**377**	88	7,744	1.23	0.60	Yes
32		County Road 78	County Road 85B	**368**	**366**	2	5	1.01	0.60	Yes
15		County Road 85B	County Road 87	**292**	**226**	66	4,356	1.29	0.60	Yes
27		County Road 87	County Road 21A	**276**	**402**	-126	15,876	0.69	0.60	Yes
33		County Road 21A	Interstate 505	**355**	**407**	-52	2,652	0.87	0.60	Yes
34		Interstate 505	County Road 94B	**241**	**451**	-210	44,160	0.53	0.60	Yes
35		County Road 94B	County Road 98	**262**	**486**	-224	50,027	0.54	0.60	Yes
36	State Route 16	Main Street	Interstate 5	**64**	**243**	-179	32,041	0.26	0.60	No
86	State Route 84	Gregory Avenue	U.S. 50	**844**	**682**	162	26,244	1.24	0.43	Yes
				37,604	36,171					

Model/Count Ratio =	**1.04**			
Percent Within Caltrans Maximum Deviation =	**83%**	**>75%**		
Percent Root Mean Square Error =	**34%**	**<40%**	Links Within Deviation =	40
Correlation Coefficient =	**0.97**	**>0.88**	Links Outside Deviation =	8
Average % Error =	**-4%**		Total Counts =	48

Summary of Both Directions - PM Peak Hour

Model/Count Ratio =	**1.03**			
Percent Within Caltrans Maximum Deviation =	**82%**	**>75%**		
Percent Root Mean Square Error =	**32%**	**<40%**	Links Within Deviation =	78
Correlation Coefficient =	**0.97**	**>0.88**	Links Outside Deviation =	17
Average % Error =	**-3%**		Total Counts =	95

2005 SACMET V.01 Traffic Model Validation Results - PM Peak Hour (for Count

Iteration 9

number	segment	from	to	2005 Model Forecast	PM Peak Hour SB/WB 2004 Count	Forecast -Count	Difference Squared	Forecast /Count	Allowable Deviation	Within Deviation
45		County Road 93A	County Road 95	263	217	46	2,116	1.21	0.60	Yes
46	County Road 31	County Road 95	County Road 98	281	259	22	484	1.08	0.60	Yes
39		County Road 31	County Road 29	138	194	-56	3,136	0.71	0.60	Yes
38		County Road 29	County Road 27	144	223	-79	6,241	0.65	0.60	Yes
37		County Road 27	County Road 24	192	218	-26	650	0.88	0.60	Yes
100	County Road 98	County Road 24	State Route 16	202	353	-151	22,650	0.57	0.60	Yes
16		Covell Boulevard	County Road 29	392	325	67	4,489	1.21	0.60	Yes
17		County Road 29	County Road 27	418	231	187	34,969	1.81	0.60	No
18		County Road 27	Interstate 5	367	198	169	28,561	1.85	0.60	No
19		Interstate 5	County Road 17	414	202	212	44,944	2.05	0.60	No
20	County Road 102	County Road 17	State Route 113	203	249	-46	2,116	0.82	0.60	Yes
75		County Road 98	State Route 113	593	960	-367	134,689	0.62	0.38	No
76		State Route 113	County Road 102	781	943	-162	26,136	0.83	0.38	Yes
77	Covell Boulevard	County Road 102	Mace Boulevard	857	806	51	2,642	1.06	0.40	Yes
84	East Street	Gibson Road	Interstate 5	249	312	-63	3,969	0.80	0.60	Yes
81	Gibson Road	County Road 98	State Route 113	910	927	-17	289	0.98	0.38	Yes
88	Harbor Boulevard	U.S. 50	Reed Avenue	314	492	-178	31,684	0.64	0.60	Yes
50		County Road 32D	Interstate 80	515	663	-148	21,904	0.78	0.43	Yes
83	Main Street	County Road 98	State Route 113	1,007	1,073	-66	4,356	0.94	0.36	Yes
31	Old River Road	County Road 127	County Road 118	150	157	-7	49	0.96	0.60	Yes
87	Reed Avenue	Interstate 80	Jefferson Boulevard	1,300	807	493	243,049	1.61	0.40	No
44		Interstate 505	County Road 31	76	291	-215	46,225	0.26	0.60	No
78	Russell Boulevard	County Road 98	State Route 113	1,317	1,076	241	58,081	1.22	0.36	Yes
4		Colusa County Line	Interstate 505	791	825	-34	1,156	0.96	0.40	Yes
5		Interstate 505	County Road 13	472	625	-153	23,307	0.76	0.44	Yes
6		County Road 13	State Route 113 (East)	1,110	1,168	-58	3,364	0.95	0.34	Yes
7		State Route 113 (East)	County Road 102	1,887	1,820	67	4,543	1.04	0.29	Yes
8	Interstate 5	County Road 102	Sacramento County Line	2,212	2,074	138	18,952	1.07	0.28	Yes
12		Solano County Line	State Route 128	898	515	383	146,817	1.74	0.47	No
11		State Route 128	State Route 16	455	395	60	3,637	1.15	0.60	Yes
10		State Route 16	County Road 14	333	272	61	3,741	1.23	0.60	Yes
9	Interstate 505	County Road 14	Interstate 5	319	200	119	14,161	1.60	0.60	Yes
1		Solano County Line	Mace Boulevard	4,045	4,491	-446	198,619	0.90	0.22	Yes
2	Interstate 80	County Road 32A	U.S. 50							
13		Solano County Line	Covell Boulevard	1,662	1,325	338	113,906	1.25	0.32	Yes
3		Covell Boulevard	Gibson Road	1,367	847	520	270,192	1.61	0.40	No
14		Gibson Road	Interstate 5	216	238	-22	477	0.91	0.60	Yes
21	State Route 113	County Road 102	State Route 45	231	262	-31	961	0.88	0.60	Yes
47		County Road 86	Railroad Avenue	442	395	47	2,240	1.12	0.60	Yes
48	State Route 128	Railroad Avenue	Interstate 505	723	577	146	21,219	1.25	0.45	Yes
32		County Road 78	County Road 85B	344	355	-11	121	0.97	0.60	Yes
15		County Road 85B	County Road 87	272	265	7	49	1.03	0.60	Yes
27		County Road 87	County Road 21A	306	268	38	1,444	1.14	0.60	Yes
33		County Road 21A	Interstate 505	423	515	-92	8,464	0.82	0.47	Yes
34		Interstate 505	County Road 94B	274	515	-241	58,081	0.53	0.47	Yes
35		County Road 94B	County Road 98	366	461	-95	9,025	0.79	0.60	Yes
36	State Route 16	Main Street	Interstate 5	47	192	-145	21,025	0.24	0.60	No
86	State Route 84	Gregory Avenue	U.S. 50	1,335	1,203	132	17,424	1.11	0.33	Yes
				31,613	30,975					

Model/Count Ratio =	**1.02**			
Percent Within Caltrans Maximum Deviation =	**81%**	**>75%**		
Percent Root Mean Square Error =	**29%**	**<40%**	Links Within Deviation =	38
Correlation Coefficient =	**0.96**	**>0.88**	Links Outside Deviation =	9
Average % Error =	**-2%**		Total Counts =	47

Summary of Bot

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APPENDIX B

LAND USE TABLES

Table 1: 1983 Yolo County General Plan Summary[2] of Unincorporated Land Use by Community Area (in acres)

Area	OS	Agric	Rec	R-Rural	R-Low	R-Med	R-High	C-Gen	C-Local	Indus	Public	Mixed	Other	Totals
Community Areas[1]	**971.6**	**142835.4**	**998.5**	**1497.0**	**741.3**	**147.9**	**30.6**	**247.3**	**126.8**	**321.0**	**205.5**	**145.0**		**148268.0**
Capay Valley (Total)	530.9	102199.1	994.2		70.5			0.9	14.4	1.2				103811.2
Capay					16.9				3.5					20.4
Guinda		11.0			53.6				10.9	1.2				76.7
Rumsey								0.9						0.9
Tribal[5]		178.9												178.9
Remainder	530.9	102009.2	994.2											103534.3
Clarksburg (Total)	7.2	34696.1	4.3		81.8	19.6			15.1	121.9				34946.1
Town	7.2	42.4	4.3		81.8	19.6			15.1	121.9				292.4
Remainder		34653.7												34653.7
Dunnigan (Total)		3179.5		332.0		76.0		238.5	22.6	15.1	3.9			3867.6
Town				332.0		76.0		238.5	22.6	15.1	3.9			688.1
Remainder		3179.5												3179.5
Esparto (Total)	181.5	2718.8		34.4	298.5		23.0		49.1	80.2	97.1			3482.6
Town		5.2		34.4	298.5		23.0		49.1	80.2	97.1			587.5
Remainder	181.5	2713.6												2895.1
Knights Landing		3.1			88.6	8.2	7.6		14.9	61.5	18.6	145.0		347.5
Madison		30.3			26.9			2.7	4.3	16.7				80.9
Monument Hills	252.0			1130.6	128.0						85.3			1595.9
Yolo		2.0			32.7	44.1		5.2	6.1	22.8				112.9
Zamora		6.5			14.3				0.3	1.6	0.6			23.3
Other Areas[4]	**1691.8**	**4691.5**	**123.0**	**171.2**	**601.0**	**47.8**		**15.8**	**15.9**	**873.5**	**488.2**			**8719.7**
Outlying	1521.7			123.0					1.8		488.2			2134.7
Cache Creek[3]	1521.7													1521.7
County Airport				123.0							488.2			611.2
Elkhorn									1.8					1.8
Davis Area		4353.1	89.9		601.0	14.2			3.4	386.1				5447.7
Covell/Pole Line										383.7				383.7
Binning Farms					38.1									38.1
No Davis Meadows			89.9		97.6									187.5
Patwin Road					42.2									42.2
UC Davis		4353.1												4353.1
Jury Industrial										2.4				2.4
Royal Oak MHP						14.2								14.2
Willow Bank					78.6									78.6
El Macero					344.5									344.5
Chiles Road									3.4					3.4

Area	OS	Agric	Rec	R-Rural	R-Low	R-Med	R-High	C-Gen	C-Local	Indus	Public	Mixed	Other	Total
Winters Area			33.1			33.6								66.7
El Rio Villa						33.6								33.6
Putah Creek RV			33.1											33.1
Woodland Area	170.1	338.4		48.2				15.8	10.7	487.4				1070.6
Spreckels	167.5									91.0				258.5
North Woodland		338.4						15.8	2.5	111.4				468.1
Willow Oak	2.6			48.2					8.2	11.6				70.6
East Woodland										273.4				273.4
Other[b]													8160.2	8160.2
Unincorporated Remainder Area	58.9	456018.2												456077.1
Totals	2722.3	603544.2	1121.4	1668.2	1342.3	195.8	30.6	263.1	142.6	1194.6	693.7	145.0	8160.2	621224.0[7]

NOTES:
1) Community area boundaries as defined in adopted community and area general plans (excluding the Cache Creek Area Plan, Davis Area Plan, or Woodland Area Plan).
2) Land use categories represent aggregated land use designations based on format used in 1983 Yolo County General Plan Comprehensive Land Use Table.
3) Remaining portions of the Cache Creek Open Space fall into the Capay Valley Area Plan (530.9 ac) and in the Esparto General Plan (181.5 ac). Total OS along Cache Creek 2,234.1 ac.
4) Other non-agriculturally designated areas throughout the County
5) Tribal trust land (housing and casino)
6) Roadways, railroads, highways.
7) Minor differences in total due to rounding.
Source: Yolo County Information Technology Department, Planning and Public Works Department, TSCHUDIN CONSULTING GROUP; June 9, 2008 (corrected Feb 16, 2009)

Table 2: 2030 Yolo County General Plan Summary of Unincorporated Land Use by Community Area (in acres)

Area	OS	Agric	Rec	R-Rural	R-Low	R-Med	R-High	C-Gen	C-Local	Indus	Public	SPlan	Other	Totals
Community Areas[1]	**24055.8**	**117133.3**	**565.5**	**1543.9**	**748.0**	**112.8**	**26.9**	**500.9**	**100.7**	**202.5**	**404.0**	**2936.6**		**148330.9**
Capay Valley (Total)	23853.2	78613.2	300.1	62.6	71.1			116.4	15.2		6.7			103038.5
Capay					23.3				3.5					26.8
Guinda					47.8				11.7		1.8			61.3
Rumsey								0.9			0.3			1.2
Tribal[5]			300.1	62.6				115.5			4.6			482.8
Remainder	23853.2	78613.2												102466.4
Clarksburg (Total)	1.1	34869.0			85.8	1.1			12.5	119.7	37.0			35171.2
Town				45.0	85.8	1.1			12.5	119.7	33.6			297.7
Remainder	1.1	34869.0									3.4			34873.5
Dunnigan (Total)		927.6	0.5		20.8	56.3		324.8	22.8	19.1	5.7	2312.0		4017.1
Town			0.5	327.5	20.8	56.3		324.8	22.8	19.1	5.7	2312.0		3089.5
Remainder		927.6												927.6
Esparto (Total)	47.0	2723.5	1.1		283.3	35.6	23.3	35.0	24.5		152.6			3364.8
Town	47.0	7.4	1.1	38.9	283.3	35.6	23.3	35.0	24.5		152.6			648.7
Remainder		2716.1												2716.1
Knights Landing	6.9		2.2		94.7	4.9	3.6	1.4	12.7	10.0	71.5	211.5		419.4
Madison					21.0	14.0		5.1	6.0	15.5	19.3	413.1		494.0
Monument Hills	147.6		261.6	1069.9	88.8				2.7		99.6			1670.2
Yolo					69.6	0.9		18.2	4.3	23.4	9.4			125.8
Zamora					12.9					14.8	2.2			29.9
Other Areas[4]	**1789.3**		**301.0**	**58.2**	**531.5**	**65.9**		**31.1**	**17.7**	**846.4**	**6589.6**	**348.3**		**10579.0**
Outlying	1709.0				123.0	13.6		15.1			1125.3	348.3		3334.3
Cache Creek	1709.0													1709.0
County Airport					123.0						488.2			611.2
Elkhorn												348.3		348.3
Davis Migrant Cntr						13.6								13.6
DQ University											637.1			637.1
I-505/CR 14								15.1						15.1
Davis Area	11.4		261.8		408.5	19.9			3.4	405.4	5332			6442.4
Covell/Pole Line										383.7				383.7
Binning Farms					36.3						1.7			38.0
No Davis Meadows	9.8		89.9		87.8					19.3	0.6			207.4
Patwin Road					39.1						34.0			73.1
UC Davis											4351.6			4351.6
Jury Industrial										2.4				2.4
Royal Oak MHP						14.4								14.4
Willow Bank	1.6				77.4									79.0
El Macero			171.9		167.9	5.5								345.3

Area	OS	Agric	Rec	R-Rural	R-Low	R-Med	R-High	C-Gen	C-Local	Indus	Public	SPlan	Other	Totals
Chiles Road									3.4					3.4
County Landfill											944.1			944.1
Winters Area	68.9		25.1			32.4								126.4
El Rio Villa						32.4								32.4
Putah Creek RV	68.9		25.1											94.0
Woodland Area			14.1	58.2				16.0	14.3	441.0	132.3			675.9
Spreckels			14.1							160.3				174.4
North Woodland				9.7				16.0	10.6	124.5				160.8
Willow Oak				48.5					3.7	11.6	3.5			67.3
East Woodland										144.6	128.8			273.4
Other[6]													8592.0	8592.0
Unincorporated Remainder Area	26123.8	427590.0									7.4			453721.2
Totals	51968.9	544723.3	866.5	1602.1	1279.5	178.7	26.9	532.0	118.4	1048.9	7001.0	3284.9	8592.0	621223.1

NOTES:
1) Community area boundaries as defined in adopted community and area general plans (excluding the Cache Creek Area Plan, Davis Area Plan, or Woodland Area Plan).
2) Deleted
3) Deleted
4) Other non-agriculturally designated areas throughout the County
5) Tribal trust land (housing and casino)
6) Roadways, railroads, highways.
7) Minor differences in total due to rounding.
Source: Yolo County Information Technology Department, Planning and Public Works Department, TSCHUDIN CONSULTING GROUP; December 22, 2008

Table 3: Comparison of 1983 and 2030 Unincorporated Land Use by Community Area (in acres)

Land Use	Capay Valley	Clarksburg	Dunnigan	Esparto	Knights Landing	Madison	Monument Hills	Yolo	Zamora	Community Totals	Outlying Areas	Davis Area	Winters Area	Woodland Area	Area Totals	Other	Remaining Unincorporated	Total
OS																		
83	531	7	0	182	0	0	252	0	0	972	1522	0	0	170	1692	0	54	2722
30	23853	1	0	47	7	0	148	0	0	24056	1709	11	69	0	1789	0	26124	51969
Diff	+23322	-6	0	-135	+7	0	-104	0	0	+23084	+187	+11	+69	-170	+97	0	+26065	+49247
AGRIC																		
83	102199	34696	3180	2719	3	30	0	2	7	142835	0	4353	0	338	4692	0	456018	603544
30	78613	34869	928	2724	0	0	0	0	0	117133	0	0	0	0	0	0	427590	544723
Diff	-23586	+173	-2252	+5	-3	-30	0	-2	-7	-25702	0	-4353	0	-338	-4692	0	-28428	-58821
REC																		
83	994	4	0	0	0	0	0	0	0	999	0	90	33	0	123	0	0	1121
30	300	0	1	1	2	0	262	0	0	566	0	262	25	14	301	0	0	867
Diff	-694	-4	+1	+1	+2	0	+262	0	0	-433	0	-172	-8	+14	+178	0	0	-254
R-RURAL																		
83	0	0	332	34	0	0	1131	0	0	1497	123	0	0	48	171	0	0	1668
30	63	0	0	0	0	0	1070	0	0	1544	0	0	0	58	58	0	0	1602
Diff	+63	0	-332	-34	0	0	-61	0	0	+47	-123	0	0	+10	-113	0	0	-66
R-LOW																		
83	71	82	0	299	89	27	128	33	11	741	0	601	0	0	601	0	0	1342
30	71	86	21	283	15	21	89	70	13	748	123	409	0	0	532	0	0	1280
Diff	0	+4	+21	-16	+6	-6	-39	+37	-1	+7	+123	-192	0	0	-69	0	0	-62
R-MED																		
83	0	20	76	0	8	0	0	44	0	148	0	14	34	0	48	0	0	196
30	0	1	56	36	5	14	0	1	0	113	0	20	32	0	66	0	0	179
Diff	0	-19	-20	+36	-3	+14	0	-43	0	-35	0	+6	-2	0	+18	0	0	-17
R-HIGH																		
83	0	0	0	23	8	0	0	0	0	31	0	0	0	0	0	0	0	31
30	0	0	0	23	4	0	0	0	0	27	0	0	0	0	0	0	0	27
Diff	0	0	0	0	-4	0	0	0	0	-4	0	0	0	0	0	0	0	-4

Table 3 *Continued*

Land Use	Capay Valley	Clarksburg	Dunnigan	Esparto	Knights Landing	Madison	Monument Hills	Yolo	Zamora	Community Totals	Outlying Areas	Davis Area	Winters Area	Woodland Area	Area Totals	Other	Remaining Unincorporated	Total
C-GEN																		
83	1	0	239	0	0	3	0	5	0	247	0	0	0	16	16	0	0	263
30	116	0	325	35	1	5	0	18	0	501	15	0	0	16	31	0	0	532
Diff	+115	0	+86	+35	+1	+2	0	+13	0	+254	+15	0	0	0	+15	0	0	+269
C-LOCAL																		
83	14	15	23	49	15	4	0	6	0	127	2	3	0	11	16	0	0	143
30	15	13	23	25	13	6	3	4	0	101	0	3	0	14	18	0	0	118
Diff	+1	-2	0	-24	-2	+2	+3	-2	0	-26	-2	0	0	+3	+2	0	0	-25
INDUS																		
83	1	122	15	80	62	17	0	23	2	321	0	386	0	487	874	0	0	1195
30	0	120	20	0	10	16	0	23	15	203	0	405	0	441	846	0	0	1049
Diff	-1	-2	+5	-80	-52	-1	0	0	+13	-118	0	+19	0	-46	-28	0	0	-146
PUBLIC																		
83	0	0	4	97	19	0	85	0	1	206	488	0	0	0	488	0	0	694
30	7	37	6	153	72	19	100	9	2	404	1125	5332	0	132	6590	0	7	7001
Diff	+7	+37	+2	+56	+53	+19	+15	+9	+1	+198	+637	+5332	0	+132	+6102	0	+7	+6307
MIXED																		
83	0	0	0	0	145	0	0	0	0	145	0	0	0	0	0	0	0	145
30	0	0	2312	0	212	413	0	0	0	2937	348	0	0	0	348	0	0	3285
Diff	0	0	+2312	0	+67	+413	0	0	0	+2792	+348	0	0	0	+348	0	0	+3140
OTHER																		
83	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8160	0	8160
30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8592	0	8592
Diff	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	+432	0	+432
TOTAL																		
83	103811	34946	3868	3483	348	81	1590	113	23	148268	2135	5448	67	1071	8720	8160	456077	621224
30	103039	35171	4017	3365	419	494	1670	126	30	148331	3334	6442	126	676	10579	8592	453721	621223
Diff	-772	+225	+149	-118	+71	+413	+74	+13	+7	+63	+1199	+994	+59	-395	+1859	+432	-2356	-1

Source: Yolo County Information Technology Department, Planning and Public Works Department, TSCHUDIN CONSULTING GROUP; December 22, 2008

Table 4: Draft General Plan Area of Effect – Background Information

Land Use Scenario	Residential Acres[3] (A)	Residential Units[3] (B)	Commercial/Industrial Acres[4] (C)	Commercial/ Industrial Jobs[4 1] (D)	Agricultural Commercial/ Industrial Acres[2] (E)	Other[5] Developed Acres (F)	Total Developed Acres (A+C+E+F)
Existing Conditions (1)	2,660.5	7,263	431.3 -66 Airport[15] -6 Watts[15] 359.3	20,818	324.0	16,341[6,12]	19,684.9[8]
1983 General Plan Build-out (2)	624.3 -48 KN[14] 576.3	4,014	1,531.0 - 38 KN[16] -236Airport[15] -16 Watts[15] 1,241.0	13,127	520.0	118[9]	2,455.3
2030 General Plan (added to 83) (3)	1,134.4[10]	10,784	985.0[11]	19,209	334.0	683.7[7]	3,137.0
2030 General Plan (2+3)	1,758.7	14,798	2,516.0	32,336	854.0	801.7	5,592.3
2030 General Plan Buildout (1+2+3)	4,419.2 -48 KN[14] 4,371.2	22,061	2,947.3 - 38 KN[16] -302Airport[15] -22 Watts[15] 2,585.3	53,154	1,178.0	17,142.7	25,277.2[13]

1/ See jobs table
2/ Revised Draft GP, Table LU-7
3/ RR+RL+RM+RH+ res in SP
4/ CG+CL+IN+ comm/ind in SP
5/ PR+PQ (see 2/3/09 email DM to HT)
6/ 840 (2030 developed PR) + 6909 (2030 developed PQ) = 7749 + 8592 (roadways, railroads, and highways). Note: 2030 numbers were used because it reflects the 1983 PR and PQ acreage corrected for what is on-the-ground.
7/ Difference between 3,137 ac impact (Table A) and row 3 acres above (1134.3+985+334=2453.3). Includes 157 PR in SP and 452 PQ in SP.
8/ Includes roadways, railroads, and highways (8592 ac)
9/ 26 (2030 vacant PR) + 92 (2030 vacant PQ) = 118. Note: 2030 numbers were used because it reflects the 1983 PR and PQ acreage corrected for what is on-the-ground.
10/ Includes Dunnigan 1136 res in SP, Knights Landing 71 res in SP, and Madison 125 res in SP.
11/ Includes Dunnigan 450 comm/ind in SP, Knights Landing 38 comm/ind in SP, and Madison 131 comm/ind in SP.
12/ Includes 22 ac of Watts Woodland airport and 302 ac of County airport as comm./ind.
13/ Equates to the sum of the following from 2030 purple chart: 866.5 PR + 1602.1 RR + 1279.5 RL + 178.7 RM + 26.9 RH +532.0 CG + 118.4 CL + 1048.9 IN +7001.0 + 2865 SP (924 comm/ind + 1332 res + 157 PR + 452 PQ) + 8592 (roads, rail, hwy) + 1,178 AG = 25,289. Approx 12 acres of errata between the two numbers.
14/ Already included in KN 71ac in footnote 10.
15/ Already included in acreage in footnote 12.
16/ Already included in KN 38ac in footnote 11.
Source: Tschudin Consulting Group, 2009.

SUMMARY OF LAND USE DESIGNATION CHANGES FROM THE 1983 GENERAL PLAN TO THE 2030 COUNTYWIDE GENERAL PLAN[1]

This appendix provides the following information:
1) General description of land use changes; and
2) Changes noted by APN for each area within the Unincorporated County.

General Description of Land Use Changes

In some areas, the staff has recommended modifications and clarifications to the Draft General Plan land uses as portrayed on the Land Use Map. These changes are consistent with the land use designation categories presented in the September 10, 2008 Draft General Plan, but were not specifically included in the Preferred Land Use Alternative. The primary instances where this occurs are as follows:

- Public lands that are primarily used for natural resource management have been designated as Open Space. This includes Bureau of Land Management forests along the Blue Ridge, the Yolo Bypass Wildlife Area, the Cache Creek Nature Preserve, county parks outside of existing communities, major waterways, and agricultural buffers within communities.

- Government and community facilities have been designated as Public/Quasi-Public. These include airports, fire stations, post offices, schools, cemeteries, road corporation yards, municipal water wells, churches, libraries, utility substations, meeting halls, the University of California at Davis, DQ University, the county Central Landfill, waste water treatment plants, and other city-owned lands.

- County community parks, golf courses, recreational vehicle parks, and private parks have been designated as Parks and Recreation.

Staff has also recommended additional land use changes based on on-the-ground conditions, in order to correctly identify existing land uses in the County Geographic Information System (GIS) data base. This "clean up" will greatly improve the accuracy of the County's land use mapping and analysis. A complete list is provided in Attachment G, Summary of Recommended Land Use Changes. The major land use changes as recommended by staff are summarized as follows.

- **Airport** -- The West Plainfield neighborhood has been changed from Residential Low Density to Rural Residential.

- **Capay** -- Several parcels in the northeast part of town have been changed from Agriculture to Residential Low Density to reflect existing uses.

- **Clarksburg** -- The western portions have been changed from Low Density Residential to Rural Residential. The neighborhood south of Sacramento Street, generally located between Riverview Drive and Center Street has been changed from Residential Medium Density to

[1] Yolo County Planning and Public Works Department, 2009. General Plan Workshop and Acceptance of Revised Draft General Plan, Staff Report to the Board of Supervisors. January 20. Attachment G.

Residential Low Density. Several residential parcels have been changed from Commercial to Residential Low Density.

- **Dunnigan** -- The Hardwood Subdivision has been changed from Residential Low Density to Rural Residential. The Old Town neighborhood has been changed from Residential Medium Density to Residential Low Density. The Ritchie Brothers Auction facility has been changed from Agricultural to Industrial. The area north of County Road 6, between County Roads 89 and 99W has been changed from Public Facility to Commercial Local. The area located around the auto dismantling facility west of County Road 99 and north of County Road 5 has been changed to reflect existing uses.

- **El Macero** -- The Oaks condominium development has been changed from Residential Low Density to Residential Medium Density.

- **Esparto** -- The public housing project has been changed from Residential High Density to Residential Medium Density, as has the neighborhood directly east of the housing project. The area north of Woodland Avenue, between County Road 87 and State Route 16 has been changed from Mixed Use to Commercial General. The area northeast of the intersection of Yolo and Woodland Avenues, and the remainder of the downtown area south of Woodland Avenue, has been changed from Mixed Use to Commercial Local. Similarly, the area generally located north of County Road 21A and south of downtown has been changed from General Commercial to Commercial Local. The bicycle/pedestrian path and detention ponds in the western portion of town have been changed from Residential Low Density to Open Space. The area in the northeast part of town has been changed from Residential Very Low Density to Rural Residential.

- **Guinda** -- A parcel along the southern boundary of the community has been changed from Residential Low Density to Agriculture. Several small parcels have been changed to either Low Density Residential or Commercial Local to reflect existing uses.

- **Knights Landing** -- The Specific Plan area has been expanded to include the Employment Reserve area south of County Road 116, between the eastern edge of town and the wastewater treatment plant. A portion of the Residential High Density neighborhood located at the north end of town has been changed to Residential Medium Density. The waterfront area east of Railroad Street has been changed from Public/Quasi-Public to Parks and Recreation. The senior citizen's facility has been changed from Commercial Local to Residential High Density. The land east of Railroad Avenue and north County Road 116 has been changed from Residential Medium Density to Residential Low Density. The Residential High Density area east of the school has been changed to Residential Low Density.

- **Madison** -- The strip of land between County Road 89 and Railroad Street has been changed from Industrial and Residential Low Density to Commercial Local. The Madison Migrant Center has been changed from Agriculture to Residential Medium Density.

- **North Davis Meadows** -- The Teichert corporation yard (east of North Davis Meadows) has been changed from Agriculture to Industrial.

- **North Woodland** -- The 1983 Woodland Area General Plan designated areas north of the City of Woodland as future areas for residential and commercial development. These areas were generally located south of County Road 19B, between State Route 16 and College Street. The majority of these properties have been changed to Agriculture.

The housing neighborhood that lies along Carter Lane, between State Route 16 and Road 95B, has been change from Agriculture to Rural Residential. Similarly, the area located northwest of the intersection of West Street and Kentucky Avenue has been changed from Agriculture to Commercial Local. The Industrial designation of the area located northeast of Cottonwood and Kentucky Avenues has been changed from Agriculture to Industrial to reflect existing uses.

- **Other** -- The Davis Migrant Center has been changed from Agriculture to Residential Medium Density. The federal and state lands on the western boundary of the County (generally along the Blue Ridge) have been changed from Agriculture to Open Space. Similarly, the Yolo Bypass Wildlife Area has been changed from Agriculture to Open Space.

- **Patwin Road** -- Several small in-holding parcels have been changed form Agriculture to Rural Residential.

- **Rio Villa** -- The housing project has been changed from Agriculture to Residential Medium Density.

- **Tribal Lands** -- The Cache Creek Casino and Resort has been changed from Agriculture to Commercial General. The housing and community center for the Rumsey Band of Wintun Indians has changed from Agriculture to Rural Residential.

- **Yolo** -- The majority of housing in the town of Yolo has been changed from Residential Medium Density to Residential Low Density. Changes have been made along various parcels along the railroad to make them more consistent with existing commercial and/or industrial uses.

- **Zamora** -- Several small parcels located between County Road 99W and Interstate 5 in Zamora have been changed from Agriculture to Industrial.

Changes noted by APN for each area within the Unincorporated County

Airport:

APNs: 040-190-06 and -11; 037-010-02 and -03 from Airport to Public/Quasi-Public (488.1 acres).

APNs: 037-020-18, -24, -26, -27, -28, -30, -31, -32, -33, -40, -41, -42, -43, -44, -45, -46, -47, -48, -49, and -50 from Very Low Density Residential to Rural Residential (125.2 acres).

Binning Farms:

APNs: 036-180-18 and -10 from Low Density Residential to Public/Quasi-Public (1.7 acres).

Blue Ridge:

APNs: 018-260-02, -06, -09, -11, -14, -23, -32, -33, -34, and -35; 018-270-03, -04, -05, -06, -08, -11, -12, -15, -16, and -18; 018-280-01, -02, -04, -05, -06, -07, -08, -09, -10, and -11; 018-290-01, -02, -03, -04, -06, and -08; 018-300-01, -03, -12, and -27; 018-310-07, -09, -10, -11, -13, -28, -29, -30, and -31; 018-320-01, -02, -03, -04, -06, -07, -08, and -10; 018-330-02, -03, -04, -10, -11, and -23;018-340-01, -07, and -30; 018-450-01, -02, -10, -11, and -35; 018-600-10 and -12; 018-610-07 and -09; 030-010-05 and -10; 030-300-02; 030-310-09; 047-030-14; 047-040-14; 047-050-05, -06, -07, -10, and -11; 047-080-01, -08, -09, -10, and -11; 047-090-01, -03, -04, -06, and -07; 047-100-09 and -10; 047-110-09; 047-110-01; from Agriculture to Open Space (29,058.5 acres).

APNs: 047-110-02 and -04 are already shown as Open Space (582.4 acres).

Cache Creek:

The Open Space designation has been extended upstream to the Colusa County line and downstream to the Settling Basin. Acreage and partial APNs unknown.

APNs: 025-350-25; 025-450-11, -12, and -13 from Agriculture to Open Space (71.0 acres).

APN: 025-340-36 from Agriculture to Open Space (38.9 acres).

Capay:

APN: 049-433-97 from Very Low Density Residential to Public/Quasi-Public (0.1 acres).

Partial APNs: 049-432-01 and -05; 049-410-01; 049-433-04; and 049-470-19 from Agriculture to Low Density Residential (8.3 acres).

Chiles Road:

APNs: 033-012-20 and 033-640-06 from Agricultural to Null (16.9 acres).
APNs: 033-640-04, -05, -12, and -23 from Commercial to Commercial General (3.2 acres).

Clarksburg:

APN: 043-240-05; 043-291-12, -13, and -14; 043-293-04, -05, and -06 from Master Plan to Industrial (16.4 acres).

APNs: 043-230-40, -41, -42, -54, and -55; 043-250-09 from Low Density Residential to Rural Residential (43.6 acres).

APNs: 043-240-06, -07, -09, and -10; from Specific Plan to Industrial (103.4 acres).

APN: 043-240-08 from Specific Plan to Public/Quasi-Public (0.4 acres).

APNs: 043-240-13 and 14 from Commercial to Public/Quasi-Public (0.3 acres).

APNs: 043-281-01, -02, and -03; 043-291-08 from Public Open Space to Public/Quasi Public (7.3 acres).

APNs: 043-071-01, -02, and -15; 043-283-03 and -04 from Commercial to Residential Low Density (2.2 acres).

APNs: 043-272-07, -08, -09, -10, -11, -12, -15, -16, -17, -19, -21, -25, -26, -28, and -29; 043-284-06 from Residential Medium Density to Residential Low Density (3.1 acres).

APN: 042-02-22; 044-070-03 and -25 from Agriculture to Public/Quasi-Public (19.0 acres).

APN: 043-140-15 from Agriculture to Open Space (4.0 acres).

APNs: 043-250-01 and -02 from Low Density Residential to Public/Quasi-Public (13.9 acres).

Partial APN: 043-302-01 from Parks and Recreation to Public/Quasi-Public (4.7 acres).

Partial APNs: 043-282-01; 043-283-02; 043-302-01 from Low Density Residential to Public/Quasi-Public (6.7 acres).

Covell/Pole Line:

No change.

DQU

APN: 038-110-11 from Agriculture to Public/Quasi-Public (634.8 acres).

Dunnigan:

APN: 052-050-86 from Agriculture to General Commercial (89.8 acres).

APNs: 051-234-01 and -02; 051-245-01, -02, -03, -04, -05, -06, -07 and -08 from Public Facility to Local Commercial (7.6 acres).

APNs: 051-160-07 and -08 from Public Facility to Commercial General (0.3 acres).

APN: 051-170-25 from Very Low Density Residential to Public/Quasi-Public (1.9 acres).

APN: 051-221-01 from Low Density Residential to Parks and Recreation (0.5 acres).

APNs: 051-202-11 and -12 from Highway Service Commercial to Industrial (1.6 acres).

APNs: 051-202-14 and -15 from Industrial to Rural Residential (3.6 acres).

APN: 051-210-03 from Agriculture to Public/Quasi-Public (0.4 acres).

APN: 051-231-01 from Low Density Residential to Industrial (0.7 acres).

APNs: 051-150-09; 051-160-01, -02, and -03; 052-010-06 and -07; 052-02-01, -02, -05, -06, and -08; 052-030-03, -04, -05, -07, -16, and -17; 052-050-01; 052-060-01, -02, and -12; 052-070-06, -09, -10, -13, -15, and -16; 052-100-03 from Agriculture to Specific Plan (1,997.6 acres).

Partial APNs: 052-060-05, -11; and -13; 052-110-01 and -06 from Agriculture to Specific Plan (317.3 acres).

APNs: 051-221-14 and -15; 051-222-01, -02, -03, -04, and -05; 051-223-01, -02, and -03; 051-224-02; 051-232-01 and -02; 051-241-01, -02, -06, -07, -08, and -09; 051-242-03, -04, and -05; 051-243-01 and -02; 051-244-01, -02, and -03 from Medium Density Residential to Low Density Residential (19.8 acres).

APNs: Several hundred parcels, Hardwood Subdivision (will list if needed) from Very Low Density Residential to Rural Residential (approximately 325.5 acres).

APN: 051-225-01 from Agriculture to Low Density Residential (1.1 acres).

East Woodland:

APN: 027-360-10 from Industrial to Public/Quasi-Public (128.8 acres).

Elkhorn:

APN: 057-240-06 from Commercial to Specific Plan (4.8 acres).

APNs: 057-170-05 and -06; 057-210-01, -02, -04, -07, -08, -09, -10, -11, -16, -17, and -18; 057-220-01, -02, -03, -04, -05, -06, and -07 from Agriculture to Specific Plan (269.2 acres)

Partial APNs: 057-170-04 and -99; 057-240-01 from Agriculture to Specific Plan (91 acres)

El Macero:

APN: 068-220-18 from Low Density Residential to Residential Medium (4.2 acres).

APNs: 068-130-02, -03, and -06 from Low Density Residential to Parks and Recreation (171.0 acres).

El Rio Villa:

No change.

Esparto:

APNs: 049-160-10, -11, -16 and -17; 049-170-11 and -12; 049-298-07 and -10; 049-321-05; 049-380-01, -03, and -04; 049-361-05, -06, and -07; 049-362-03; 049-385-32 and -33; 049-480-02 from General Commercial to Commercial Local (13.8 acres).

APN: 049-303-01 from Public/Quasi-Public to Parks and Recreation (1.1 acres).

APN: 049-130-41 from Residential Very Low Density to Rural Residential (33.5 acres).

APNs: 049-150-44; 049-160-14; 049-230-04 and -05; 049-280-03; 049-352-01 from Residential Low Density to Public/Quasi-Public (9.0 acres).

APN: 049-511-37 from Residential Low Density to Null (0.7 acres).

APN: 049-480-03 from Rural Residential to Residential Low Density (0.9 acres).

APN: 049-150-08; 049-262-08 and -09 from Residential Low Density to Public/Quasi-Public (3.3 acres).

APN: 049-240-13 from Commercial General to Public/Quasi-Public (1.1 acres).

APNs: 049-240-01, -02, -05, -06, -07, -08, -09, -16, -17, -18, and -19 from Downtown Mixed Use to Commercial General (23.8 acres).

APNs: 049-250-01, -02, -03, -04, and -08; 049-271-03, -04, -06, and -09; 049-273-02, -03, -04, -05, and -06; 049-270-10; 049-295-04; 049-311-01, -02, and -03; 049-310-01, -02, and -03; 049-312-01 and -07; 049-363-01 and -02; 049-365-01; 049-373-01 from Downtown Mixed Use to Commercial Local (9.5 acres).

APNs: 049-364-01; 049-366-01 from Residential High Density to Residential Medium Density (2.1 acres).

APNs: 049-361-04, -08, -09, and -10; 049-362-05, -06, -07, -08, and -09; 049-364-03 and -04; 049-366-05 and -07 from Residential High Density to Residential Medium Density (2.4 acres).

APNs: 049-110-01, -02, -03 from Industrial to Commercial Local (6.1 acres).

APNs: 049-110-18, -19, and -20 from Industrial to Commercial Local (3.9 acres); High Density Residential (5 acres); Medium Density Residential (30 acres); and Open Space (36 acres).

APN: 049-180-06 from Agriculture to Public/Quasi-Public (12.0 acres).

APNs: 049-504-14; 049-511-34, 35, and -36; 049-531-02; 049-541-02; 049-551-01; 049-552-12; 049-564-01 from Residential Low Density to Open Space (16.2 acres).

APN: 048-210-02 from Agriculture to Public Quasi-Public (11.0 acres).

Guinda:

APNs: 060-140-01 and -02; 060-171-01 from Residential Low Density to Public/Quasi-Public (1.0 acres).

APN: 060-150-04 from Residential Low Density to Agricultural (5.5 acres).
Partial APN: 060-150-03 from Agricultural to Low Density Residential (1.1 acres).

APN: 060-110-09 from Industrial to Commercial Local (0.4 acres).

APN: 060-110-06 from Commercial to Low Density Residential (0.4 acres).
Partial APNs: 060-131-06 and -07 from Low Density Residential to Commercial Local (0.7 acres).

Interstate 505:

Partial APN: 054-180-18 from Agriculture to Commercial General (15.0 acres).

Jury Industrial Area:

No change.

Knights Landing:

APN: 056-350-13 from Employment Reserve to Specific Plan (21.1 acres).
Partial APN: 056-370-17 from Employment Reserve to Specific Plan (32.7 acres).

APN: 056-170-39 from Agriculture to Public/Quasi-Public (50.8 acres).

APNs: 056-284-01; 056-312-06 and -09; 056-340-11 from Residential Low Density to Public/Quasi-Public (1.4 acres).

APNs: 056-285-03, -04, -05, and -06 from Residential Medium Density to Public/Quasi-Public (0.4 acres).

APNs: 056-160-14, -21, -23, and -27 from Multiple Use to Specific Plan (147.9 acres).

APNs: 056-322-01, -02, and -03; 056-334-01 from Residential Medium Density to Residential Low Density (5.6 acres).

APNs: 056-160-26 and 056-291-01, -02, and -03 from Public Facility to Parks and Recreation (2.3 acres).

APNs: 056-312-01 and -02 from Residential Low Density to Public/Quasi-Public (0.2 acres).

APNs: 056-321-06; 056-315-02 and -03 from Residential High Density to Residential Low Density (2.0 acres).

APN: 056-274-05 from Residential Medium Density to Commercial Local (1.2 acres).

APN: 056-350-21 from Agriculture to Commercial General (1.4 acres).

APNs: 056-303-09 from Commercial to Public/Quasi-Public (0.1 acres).

APN: 056-260-11 from Low Density Residential to Medium Density Residential (1.1 acres).

Partial APN: 056-274-05 from Commercial to Commercial Local (1.1 acres).

APNs: 056-294-02, -03, -04, and -05 from Commercial to Commercial Local (0.8 acres)

APN: 056-285-02, -08 and -09 from Commercial to Low Density Residential (0.5 acres).

APN: 056-311-04 from Low Density Residential to Commercial Local (0.4 acres).

APN: 056-311-03 from Low Density Residential to Medium Density Residential (0.5 acres).

APNs: 056-297-06, -07, -08, -09, -10, and -12; 056-302-01, -02, -06, -07, -08, and -09 from Residential High Density to Residential Medium Density (2.2 acres).

APNs: 056-294-09 and -10 from Residential High Density to Commercial Local (0.9 acres).

APN: 056-294-03 from Commercial to Public/Quasi-Public (0.1 acres).

APN: 056-298-11 and -12 from Commercial Local to Residential High Density (1.0 acres).

APN: 056-160-01 from Public/Quasi-Public to Open Space (3.5 acres).

Landfill:

APNs: 042-140-01, -02, -06, and -09 from Agriculture to Public/Quasi-Public (915.1 acres).

APN: 042-240-22 from Agriculture to Open Space (419.6 acres).

Madison:

APNs: 049-462-06 and -08 from Agriculture to Residential Medium (14.0 acres).

APN: 049-462-09 from Agriculture to Public/Quasi-Public (16.3 acres).

APN: 049-100-03 from Agriculture to Specific Plan (208.2 acres).

Partial APNs: 049-090-03, -08, and -11; 049-100-23 from Agriculture to Specific Plan (193.7 acres).

APN: 049-443-05 and -07; 049-454-06 and -07; 049-455-07; 049-456-06 and -08 from Low Density Residential to Public/Quasi-Public (2.8 acres).

APN: 049-440-01 from Low Density Residential to Commercial General (2.4 acres).

APN: 049-457-04 and -05 from Commercial Local to Public/Quasi-Public (0.2 acres).

APN: 049-461-01 from Industrial to Commercial Local (0.2 acres).

Partial APN: 049-447-05 from Industrial to Commercial Local (1.0 acres).

Partial APN: 049-461-04 from Low Density Residential to Commercial Local (0.8 acres).

APNs: 049-448-03, -05, -06, and -07; 049-449-04, -05, -08, -10, and -11; 049-457-06, -07, -08, and -09 from Commercial to Commercial Local (1.7 acres).

Monument Hills:

APN: 025-440-61 from Low Density Residential to Public/Quasi-Public (3.7 acres).

APNs: 025-440-72 and -81 from Low Density Residential to Public/Quasi-Public (0.43 acres).

APNs: 025-440-84 and -85 from Airport to Public/Quasi-Public (76.1 acres).

APNs: 025-440-18, -28, -30, -42, -54, -62, -64, -65, -66, -69, -71, -76, and -77; 025-543-07; 025-561-01; and 025-571-04 from Open Space to Recreation (260.9 acres).

APN: 025-191-76 from Public/Quasi-Public to Rural Residential (6.7 acres).

APNs: 025-360-62 and -64 from Agriculture to Open Space (119.3 acres).

APN: 040-040-40 from Rural Residential to Open Space (59.8 acres).

APN: 025-440-011 from Rural Residential to Commercial Local (2.7 acres).

APN: 025-120-25 and -26; and 025-200-18 from Agriculture to Public/Quasi-Public (14.5 acres).

North Davis Meadows:

APNs: 041-220-06 and -28 from Residential Suburban to Open Space (9.8 acres).

APN: 041-160-07 from Residential Suburban to Public/Quasi-Public (0.6 acres).

APNs: 041-090-12 and -16 from Agricultural to Industrial (19.3 acres).

APNs: 041-120-35, -36, and -37 from Agricultural to Public/Quasi-Public (150.4 acres).

North Woodland:

APN: 027-440-11 from Agricultural to Industrial (9.7 acres).

APNs: 027-440-22 and -23 from Industrial/Residential to Industrial (12.7 acres).

APN: 027-330-22 from Agricultural/Residential Medium to Agricultural (39.2 acres).

Partial APN: 027-330-01 from Agricultural/Residential Medium to Agricultural (56.2 acres).

Partial APN: 027-330-01; 027-440-14 from Agricultural/Residential Low to Agricultural (28.9 acres).

APNs: 027-060-08, -12, -16, -40, -48, -49, -54, -55, -57, -58, -72, -73, -74, -75, -76, -77, -78, and -79; 027-330-23 and -24 from Agricultural/Residential Low to Agricultural (196.8 acres).

APNs: 027-082-01, -02, -12, -14, -15, 16, -17, -18, -19, and -21 from Commercial to Commercial Local (2.6 acres).

APNs: 027-081-02, -03, -04, -05, -06, -07, -12, -13, -14, -15, and -16 from Agricultural/Residential Low to Commercial Local (7.9 acres).

APNs: 027-060-03, -27, -29, -31, -38, -39, -42, -43, -44, -45, -46, -50, -51, -56, -65, and -66 from Agriculture to Rural Residential (10.0 acres).

Other:

APN: 033-150-37 from Agriculture to Residential Medium (13.6 acres).

APN: 040-080-05 from Agriculture to Public/Quasi-Public (8.8 acres).

APNs: 042-240-22; 042-320-14 from Agriculture to Open Space (499.8 acres).

Patwin Road:

APNs: 036-160-08 and -38 from Agricultural to Public/Quasi-Public (24.9 acres).

APN: 036-160-35 from Residential Suburban to Public/Quasi-Public (6.9 acres).

APNs: 036-160-02, -05, and -06 from Agricultural to Low Density Residential (3.8 acres).

Putah Creek RV Park:

No change.

Royal Oak Mobile Home Park:

No change.

Rumsey:

APN: 060-220-59 from Agriculture to Public/Quasi-Public (0.6 acres).

Spreckels:

APN: 027-230-02 from Open Space to Parks and Recreation (14.1 acres).

APN: 027-220-20 and -21 from Open Space to Agricultural (114.6 acres).

Partial APN: 027-250-05 from Agriculture to Industrial (33.7 acres).

Partial APN: 027-250-06 from Open Space to Industrial (35.4 acres).

Tribal Lands:

APN: 048-040-10 from Agricultural to Commercial General (115.5 acres).

APN: 060-030-15 from Agricultural to Rural Residential (62.6 acres).

APN: 048-040-02 from Agricultural to Open Space (4.6 acres).

UC Davis:

APNs: 036-170-01, -02, -04, -05, -07, -10, -12, -15, -17, -19; 037-100-18; 037-110-04 and -06; 037-170-10; 037-190-09; 038-130-13 and -14; 038-140-07 and -08; 038-150-08 and -09; 040-170-15 from Agriculture to Public/Quasi-Public (4,355.3 acres).

Willow Bank:

APNs: 069-230-07; 069-180-08 from Low Density Residential to Open Space (1.6 acres).

Willow Oak:

APN: 025-160-44 from Commercial to Rural Residential (4.6 acres).

APNs: 035-380-17, -18, and -19 from Rural Residential to Public/Quasi-Public (2.6 acres).

APNs: 025-160-28, -35, and -43 from Commercial to Commercial Local (3.7 acres).

Yolo:

APN: 025-040-01 from Agriculture to Public/Quasi-Public (1.0 acres).

APN: 025-390-27 from Agriculture to Public/Quasi-Public (2.3 acres).

APN: 025-250-18; 025-390-01 from Agriculture to Commercial General (13.3 acres).

APN: 025-270-21 from Commercial to Industrial (0.5 acres).

Partial APN: 025-270-29 from Commercial to Industrial (0.7 acres).

APN: 025-390-07 from Industrial to Commercial Local (0.7 acres).

APN: 025-230-09; 025-401-13, -14, and -17; 025-413-11 from Medium Density Residential to Public/Quasi-Public (6.1 acres).

APNs: 025-040-07, -08, -09, -10, -11, -16, -17, -19, and -20; 025-230-02, -03, -04, -05, -06, -07, -08, -10, -11, -12, -13, -14, -15, -16, -17, and -18; 025-390-08, -10, -11, -14, -15, -16, -17, -18, -19, -20, 032, -33, -38, -39, -40, -41, -42, -43, -44, -45, -46, -47, -48, -49, -50, and -51; 025-401-01, -02, -03, -06, -07, -08, -09, -10, -11, -12, -15, -16, -18, and -19; 025-402-02, -03, -04, -05, -06, -07, -08, and -09; 025-403-02, -03, -04, -05, -06, and -09; 025-404-01, -02, -06, -07, -08, -09; 025-411-01, -02, -03, and -07; 025-413-01, -03, -04, -08, -09, and -10; 025-414-07, -08, and -09 from Medium Density Residential to Low Density Residential (38.6 acres).

Yolo Bypass Wildlife Area:

APNs: 033-012-14 and -21; 033-120-02, -03, -07, -20, -21, -34, -35, -36, -37, -38, and -39; 033-140-31, -43, -44, -45, -46, -47, -48, -57, -59, and -63; 033-150-17 and -54; 033-160-01, -03, -05, -06, -12, -14, -21, -23, -25, -26, -28, -29, -30, and -31; 033-170-01, -09, -10, -11, and -13; 033-180-10, -18, -22, -23, -24, and -27; 033-190-05; 033-300-05, -11, -33, -35; 033-560-01, -02, -03, -04, -05, -06, and -09; 033-640-20 and -21 from Agriculture to Open Space (16,857.8 acres).

Zamora:

APNs: 055-110-20 and -21; 055-130-12, -16, and -17 from Agriculture to Industrial (13.6 acres).

APNs 055-124-01 and -02; 055-126-05 from Low Density Residential to Public/Quasi-Public (2.3 acres).

APN: 055-126-01 from Industrial to Public/Quasi-Public (0.2 acres).

APN: 055-121-03 from Commercial to Industrial (0.5 acres).

EXHIBIT 4

AB 170 Requirements for General Plans

WHAT IS AB 170?

Assembly Bill 170, Reyes (AB 170), was adopted by state lawmakers in 2003 creating Government Code Section 65302.1 which requires cities and counties in the San Joaquin Valley to amend their general plans to include data and analysis, comprehensive goals, policies and feasible implementation strategies designed to improve air quality. These amendments are due no later than one year from the due date specified for the next revisions of a jurisdiction's housing element.

COMPLIANCE DEADLINES

AB 170 requires cities and counties to comply no later than one (1) year from the date specified in Government Code Section 6588 for the next revision of the housing element after January 1, 2004 (Section 65302.1.e). Based upon the schedule outlined in the bill, jurisdictions in Fresno and Kern counties are required to adopt these amendments by June 30, 2009. Jurisdictions in Kings, Madera, Merced, San Joaquin, Stanislaus, and Tulare counties have until June 30, 2010 to comply.

AB 170 also requires cities and counties to submit their air quality amendments to the San Joaquin Valley Unified Air Pollution Control District (District) at least 45 days prior to adoption of those amendments, and the District then has 30 days to return comments (Section 65302.1.d). Therefore, if jurisdictions are planning to adopt on the due date, Fresno and Kern counties must submit their amendments to the District no later than May 17, 2009 and jurisdictions in Kings, Madera, Merced, San Joaquin, Stanislaus, and Tulare counties must submit by May 17, 2010.

Under certain circumstances, a jurisdiction may petition to the Governor's Office of Planning and Research (OPR) for an extension to comply with the requirements of AB 170. The following list provides links to OPR documents regarding AB 170 and general plans.

- OPR General Plan Guidelines Homepage:
  http://www.opr.ca.gov/index.php?a=planning/plans.html
- OPR Planning Publications Homepage:
  http://opr.ca.gov/index.php?a=planning/planningpubs.html#genplan
- OPR Planning Resources Homepage:
  http://www.opr.ca.gov/index.php?a=planning/planningpubs.html

- OPR State Agency Technical Resources for General Plans: http://opr.ca.gov/planning/docs/State_Agency_Technical_Resources_for_General_Plans.pdf

- OPR Time Extensions Homepage: http://www.opr.ca.gov/index.php?a=planning/generalplan.html

REQUIREMENTS

As required in Section 65302.1.b, cities and counties within the San Joaquin Valley must amend the general plan to include a discussion of the status of air quality and strategies to improve air quality. The elements to be amended include, but are not limited to, those elements dealing with land use, circulation, housing, conservation, and open space. Section 65302.1.c identifies four (4) areas of air quality discussion required in these amendments. These areas include: (1) a report describing local air quality conditions, attainment status, and state and federal air quality and transportation plans; (2) a summary of local, district, state, and federal policies, programs, and regulations to improve air quality; (3) a comprehensive set of goals, policies, and objectives to improve air quality; and (4) feasible implementation measures designed to achieve these goals.

The District has prepared this document to aid agencies in amending their general plans. The document provides general information that can be used as a base for the discussions to be included in the general plan. The document also provides many links to websites that may provide additional information and detail. The document is organized into four (4) sections as identified by the four (4) requirements presented above.

AIR QUALITY CONDITIONS AND ATTAINMENT STATUS

TOPOGRAPHY AND CLIMATE

The following discussion summarizes regional factors affecting the dispersion of air pollutants within the San Joaquin Valley Air Basin (SJVAB). Detailed discussion can be found in the San Joaquin Valley Air Pollution Control District's *Guide for Assessing and Mitigating Air Quality Impacts: Technical Document*, available on the District's website: http://www.valleyair.org/transportation/CEQA%20Rules/GAMAQI%20Tech%20Doc%20Jan%202002%20Rev.pdf.

Air pollutant emissions overall are fairly constant throughout the year, yet the concentrations of pollutants in the air vary from day to day and even hour to hour. This variability is due to complex interactions of weather, climate, and topography. These factors affect the ability of the atmosphere to disperse pollutants. Conditions that move and mix the atmosphere help disperse pollutants, while conditions that cause the

atmosphere to stagnate allow pollutants to concentrate. Local climatological effects, including topography, wind speed and direction, temperature, inversion layers, precipitation, and fog can exacerbate the air quality problem in the SJVAB.

The SJVAB is approximately 250 miles long and averages 35 miles wide, and is the second largest air basin in the state. The SJVAB is defined by the Sierra Nevada in the east (8,000 to 14,000 feet in elevation), the Coast Ranges in the west (averaging 3,000 feet in elevation), and the Tehachapi mountains in the south (6,000 to 8,000 feet in elevation). The valley is basically flat with a slight downward gradient to the northwest. The valley opens to the sea at the Carquinez Straits where the San Joaquin-Sacramento Delta empties into San Francisco Bay. The San Joaquin Valley (Valley), thus, could be considered a "bowl" open only to the north.

During the summer, wind speed and direction data indicate that summer wind usually originates at the north end of the Valley and flows in a south-southeasterly direction through the Valley, through Tehachapi pass, into the Southeast Desert Air Basin. In addition, the Altamont Pass also serves as a funnel for pollutant transport from the San Francisco Bay Area Air Basin into the region.

During the winter, wind speed and direction data indicate that wind occasionally originates from the south end of the Valley and flows in a north-northwesterly direction. Also during the winter months, the Valley generally experiences light, variable winds (less than 10 mph). Low wind speeds, combined with low inversion layers in the winter, create a climate conducive to high carbon monoxide (CO) and particulate matter (PM10 and PM 2.5) concentrations.

The SJVAB has an "Inland Mediterranean" climate averaging over 260 sunny days per year. The valley floor is characterized by warm, dry summers and cooler winters. For the entire Valley, high daily temperature readings in summer average 95ºF. Temperatures below freezing are unusual. Average high temperatures in the winter are in the 50s, but highs in the 30s and 40s can occur on days with persistent fog and low cloudiness. The average daily low temperature is 45ºF.

The vertical dispersion of air pollutants in the Valley is limited by the presence of persistent temperature inversions. Solar energy heats up the Earth's surface, which in turn radiates heat and warms the lower atmosphere. Therefore, as altitude increases, the air temperature usually decreases due to increasing distance from the source of heat. A reversal of this atmospheric state, where the air temperature increases with height, is termed an inversion. Inversions can exist at the surface or at any height above the ground, and tend to act as a lid on the Valley, holding in the pollutants that are generated here.

CRITERIA POLLUTANTS AND GREENHOUSE GASES

CRITERIA POLLUTANTS – The California Air Resources Board (ARB) and the federal Environmental Protection Agency (EPA) have established criteria air pollution standards in an effort to protect human health and welfare. Geographic areas are deemed "attainment" if these standards are met or nonattainment if they are not met. Nonattainment status is classified by the severity of the nonattainment problem, with marginal, moderate, serious, severe, and extreme nonattainment classifications for ozone. Nonattainment classifications for PM range from marginal to serious.

Current federal and state standards can be found online on the ARB website at: http://www.arb.ca.gov/research/aaqs/aaqs2.pdf

At the federal level the District is currently designated as serious nonattainment for the 8-hour ozone standard, attainment for PM10 and CO, and nonattainment for PM2.5. A new finding of "extreme" nonattainment with the 8-hour ozone standard is currently pending, and is expected to be approved by the federal EPA in 2009. At the state level the District is designated as nonattainment for the 8-hour ozone, PM10, and PM2.5 standards.

The District's current attainment status can be found on the District's website at: http://www.valleyair.org/aqinfo/attainment.htm

The following section summarizes the pollutants of greatest importance in the San Joaquin Valley. It provides a description of the pollutants' physical properties, health and other effects, sources, and the extent of the problems.

In general, primary pollutants are directly emitted into the atmosphere, and secondary pollutants are formed by chemical reactions in the atmosphere. Air pollution in the Valley results from emissions generated in the Valley as well as from emissions and secondary pollutants transported into the Valley. It is thought that the bulk of the Valley's summer and winter air pollution is caused by locally generated emissions. Due to the Valley's meteorology, topography, and the chemical composition of the air pollutants, NOx is the primary culprit in the formation of both ozone and PM2.5.

Ozone – Ozone (O_3) and particulate matter are the two pollutants that are responsible for the bulk of the Valley's air quality problems. Ozone is the major component of the Valley's summertime "smog," and it affects human health and vegetation. Ozone is not emitted directly into the air, but is created by a series of chemical reactions between reactive organic gases (ROG) and oxides of nitrogen (NOx) that take place in the presence of sunlight. ROG and NOx are emitted from fuel combustion, agricultural processes, and industrial processes that are widespread throughout the Valley as well as from natural sources. Studies have also linked urban areas with both higher regional temperatures and higher ozone levels (a phenomenon known as the "urban heat island effect").

High concentrations of ground level ozone can adversely affect the human respiratory system and aggravate cardiovascular disease and many respiratory ailments. Ozone also damages natural ecosystems such as forests and foothill communities, agricultural crops, and some man-made materials, such as rubber, paint, and plastics.

Reactive Organic Gases – Reactive organic gases (ROG), also known as volatile organic compounds (VOC), are photochemically reactive hydrocarbons that are important for ozone formation. The primary sources of ROG are petroleum transfer and storage, oil and gas production, mobile sources, organic solvent use, farming operations, and miscellaneous processes. No separate health standards exist for ROG as a group. Because some compounds that make up ROG are also toxic, like the carcinogen benzene, they are often evaluated as part of a toxic risk assessment.

Oxides of Nitrogen – Oxides of Nitrogen (NOx) are a family of gaseous nitrogen compounds and are precursors to the formation of ozone and particulate matter. The major component of NOx, nitrogen dioxide (NO_2), is a reddish-brown gas that is toxic at high concentrations. NOx results primarily from the combustion of fossil fuels under high temperature and pressure. On-road and off-road motor vehicles and fuel combustion are the major sources of this air pollutant.

Particulate Matter – Particulate matter (PM) is any material except pure water that exists in the solid or liquid state in the atmosphere. Suspended particulate matter (airborne dust) consists of particles small enough to remain suspended in the air for long periods. Respirable particulate matter consists of particles small enough to be inhaled, pass through the respiratory system, and lodge in the lungs with resultant health effects. Respirable particulate matter includes "inhalable coarse particles," with diameters larger than 2.5 micrometers and smaller than 10 micrometers (PM10), and "fine particles," with diameters that are 2.5 micrometers and smaller (PM2.5).

PM10 and PM2.5 are primary pollutants (emitted directly to the atmosphere) and secondary pollutants (formed in the atmosphere by chemical reactions among precursors. Generally speaking, PM2.5 sources tend to be combustion sources like vehicles, power generation, industrial processes, and wood burning, while PM10 sources include these same sources plus roads and farming activities. Fugitive windblown dust and other area sources also represent a source of airborne dust in the Valley.

Acute and chronic health effects associated with high particulate levels include the aggravation of chronic respiratory diseases, heart and lung disease, and coughing, bronchitis, and respiratory illnesses in children.

Carbon Monoxide – Carbon monoxide (CO) is an odorless, colorless gas that is highly toxic. It is formed by the incomplete combustion of fuels and is emitted directly into the air (unlike ozone). The main source of CO in the San Joaquin Valley

is on-road motor vehicles. Other CO sources in the Valley include other mobile sources, miscellaneous processes, and fuel combustion from stationary sources.

Because of the local nature of CO problems, the ARB and EPA designate urban areas as CO nonattainment areas instead of the entire basin as with ozone and PM10. Motor vehicles are by far the largest source of CO emissions. Emissions from motor vehicles have been declining since 1985, despite increases in vehicle miles traveled (VMT), with the introduction of new automotive emission controls and fleet turnover.

Sulfur Dioxide – Sulfur Dioxide (SO_2) is a colorless, irritating gas with a "rotten egg" smell formed primarily by the combustion of sulfur-containing fossil fuels. The SJVAB is in attainment of both the federal and California standards. However, like airborne NOx, suspended SOx particles contribute to the poor visibility that sometimes occurs in the Valley. These SOx particles are also a component of PM10. The prevalence of low-sulfur fuel use in Valley has minimized problems from this pollutant.

Lead – Lead (Pb) is a metal that is a natural constituent of air, water, and the biosphere. Lead is neither created nor destroyed in the environment, so it essentially persists forever. The health effects of lead poisoning include loss of appetite, weakness, apathy, and miscarriage; it can also cause lesions of the neuromuscular system, circulatory system, brain, and gastrointestinal tract.

Gasoline-powered automobile engines were a major source of airborne lead through the use of leaded fuels. The use of leaded fuel has been mostly phased out, with the result that ambient concentrations of Pb have dropped dramatically. Lead concentrations were last systematically measured in the SJVAB in 1989, when the average concentrations were approximately five percent of the state lead standard. Though monitoring was discontinued in 1990, lead levels are probably well below applicable standards, and the SJVAB is designated in attainment for lead.

A detailed discussion of selected criteria air pollutants can be found in the *District's Guide for Assessing and Mitigating Air Quality Impacts: Technical Document*, available on the District's website at: www.valleyair.org/transportation/ceqa_guidance_documents.htm

GREENHOUSE GASES – Greenhouse gases (GHGs) are gases that absorb and emit radiation within the thermal infrared range, trapping heat in the earth's atmosphere. There are no "attainment" concentration standards established by the federal or state government for greenhouse gases. In fact, GHGs are not generally thought of as traditional air pollutants because greenhouse gases, and their impacts, are global in nature, while air pollutants affect the health of people and other living things at ground level, in the general region of their release to the atmosphere. Common GHGs include water vapor, carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O), ozone (O_3), and chlorofluorocarbons (CFCs). Some greenhouse gases occur naturally and are emitted

to the atmosphere through both natural processes and human activities. Other GHGs are created and emitted solely through human activities. The principal greenhouse gases that enter the atmosphere because of human activities are CO_2, CH_4, N_2O, and fluorinated carbons.

- **Carbon Dioxide** – CO_2 enters the atmosphere through the burning of fossil fuels, solid waste, trees and wood products. CO_2 is also as a result of other chemical reactions (e.g., certain manufacturing processes). CO_2 is removed from the atmosphere through the photosynthesis process (the process in which plants absorb and convert CO_2 into energy).

- **Methane** – CH_4 is emitted during the production and transport of coal, natural gas, and oil. CH_4 is also the natural result of the ruminant digestive processes in livestock and other agricultural practices and by the decay of organic waste.

- **Nitrous Oxide** – N_2O is emitted during agricultural and industrial activities, as well as during combustion of fossil fuels and solid waste.

- **Fluorinated Gases** – Hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), and sulfur hexafluoride are synthetic gases that are emitted from a variety of industrial processes. These gases are typically emitted in smaller quantities, but because of their potency, they are sometimes referred to as High Global Warming Potential gases (High GWP gases).

Detailed discussions of GHGs and current state and federal regulations, and links to other GHG resources can be found on the District's website at: http://www.valleyair.org/Programs/CCAP/CCAP_idx.htm

AIR QUALITY MONITORING DATA

The District, the ARB, the U.S. National Park Service, and the Santa Rosa Rancheria in Lemoore operate an extensive air monitoring network to measure progress toward attainment of the NAAQS. Air quality monitoring networks are designed to monitor areas with: high population densities, areas with high pollutant concentrations, areas impacted by major pollutant sources, and areas representative of background concentrations. Some monitors are operated specifically for use in determining attainment status, while others are operated for other purposes, such as for generating daily air quality forecasts. In total, the District utilizes ozone and PM data from over 60 monitors operated at 29 sites in the Valley. All monitors must comply with the pollutant standard for the San Joaquin Valley to be considered as attainment for that standard.

More information and a map of air quality monitors within the SJVAB can be found on the ARB website at: http://www.arb.ca.gov/qaweb/basinselect.php?b_airs_code=09

EMISSION INVENTORIES

An emission inventory is an itemized list of pollutants in a given area for a specified time period. Present and future year inventories are important parts of air quality planning and modeling. Air pollution comes from many sources such as large industrial facilities, as well as things we use in our daily lives such as cars and trucks, paints, and aerosol spray products. For convenience, sources of air pollution have been grouped into the categories listed below to reflect the source of emissions or the purpose of the estimate.

Area Source – Area source emissions are from sources that are not regulated by the District, or are individually so small that they may not be included in the District's survey system. These small sources may not individually emit significant amounts of pollutants, but when aggregated can make an appreciable contribution to the emission inventory. Examples of these area sources are residential water heating and use of paints, varnishes, and consumer products. Emissions from these sources are grouped into categories and calculated based on surrogate variables.

Of the more than 500 area-wide source categories established by the ARB, the District is responsible for estimating emissions from approximately 100. Emissions for the remaining categories are estimated by either ARB or the Department of Pesticide Regulation (DPR).

Point Source – Facilities that have valid District permits are called point sources. Refineries, gas stations, dry cleaners and industrial plants are examples of point sources in our District. The District's Technical Services Division collects and maintains a database with detailed information on each point source that submits data. Almost all facilities emitting greater than 2.5 tons/year of any air pollutant are included. The District's database contains information for more than 4,000 facilities.

Data on the activity, seasonal variations, and hours of operation are collected from each facility each year through a survey process. Emissions are calculated using detailed data for each of the facilities by various processes. Each year the District provides point source emissions inventory data to ARB to be included in their CEIDARS database.

Mobile Source – Mobile sources consist of motor vehicles among other mobile sources. Mobile sources are classified as being on-road or off-road. On-road motor vehicles consist of passenger cars, trucks, buses and motorcycles. Emissions from on-road motor vehicles are a major portion of the emission inventory, and are estimated by ARB using computer models. Off-road mobile sources generally consist of vehicles in which the primary function is not transportation. Examples of off-road vehicles include construction and farm equipment.

Other mobile sources include boats and ships, trains, and aircraft. The District estimates emissions for ships and aircraft in our area source inventory. The remaining sources are estimated by ARB as part of their off-road inventory.

Natural Source – In addition to man-made air pollution, there are significant quantities of pollutants from natural source. Natural sources include biological and geological sources, wildfires, windblown dust, and biogenic emissions from plants and trees. Emissions from natural sources are estimated by ARB.

More information on current emission inventories and District methodologies can be found on the District's website at: http://www.valleyair.org/busind/pto/Tox_Resources/emissions_inventory.htm

Detailed information regarding current emissions inventory by region (air basin and county) can be found on the ARB website at: http://www.arb.ca.gov/ei/emissiondata.htm

SIGNIFICANT SOURCE CATEGORIES

The District has projected the top 10 sources for NOx, VOC, and PM2.5 emissions for 2010. A detailed discussion on these projections can be found in the District's *2008 PM2.5 Plan* which can be found online at: http://www.valleyair.org/Air_Quality_Plans/AQ_Final_Adopted_PM25_2008.htm

The District's *Annual Report to the Community, October 2008* provides a brief discussion of sources of air pollution and identifies the top sources of emissions in the SJVAB. These sources are identified in the table below. The *Annual Report to the Community* can be found on the District's website at: http://www.valleyair.org/General_info/pubdocs/2008AnnualReportfinal-web. pdf

Top 10 Sources Criteria Pollutant Emissions		
NOx	**VOC**	**PM2.5**
Heavy Heavy-Duty Diesel Trucks	Farming Operations	Managed Burning and Disposal
Off-Road Equipment	Oil and Gas Production	Residential Fuel Combustion
Farm Equipment	Consumer Products	Farming Operations
Trains	Pesticides/Fertilizers	Heavy Heavy-Duty Diesel Trucks
Medium Heavy Duty Diesel Trucks	Light Duty Passenger Vehicles	Fugitive Windblown Dust
Light Duty Passenger Vehicles	Heavy Heavy-Duty Diesel Trucks	Paved Road Dust
Light Duty Trucks – LDT2	Off-Road Equipment	Unpaved Road Dust
Food and Agricultural Processing	Recreational Boats	Cooking
Oil and Gas Production	Light Duty Trucks – LDT2	Off-Road Equipment
Medium Duty Trucks	Food and Agriculture	Chemical Industrial Processes

LOCAL, DISTRICT, STATE, AND FEDERAL POLICIES, PROGRAMS, AND REGULATIONS

All levels of government have some responsibility for protecting air quality. This section outlines the responsibilities of federal, state, regional, and local government agencies in air quality matters and explains how they interact.

FEDERAL

At the federal level, the EPA has been charged with implementing national air quality programs. The EPA's air quality mandates are drawn primarily from the federal Clean Air Act (CAA). The federal CAA was first signed into law in 1963. Congress substantially amended the federal CAA in 1970, 1977, and 1990.

The EPA deals with global, international, national, and interstate air pollution issues. Their primary role at the state level is one of oversight of state air quality programs. The EPA sets federal standards for vehicle and stationary sources and provides research and guidance in air pollution programs.

The federal CAA required the EPA to set National Ambient Air Quality Standards (NAAQS) for several problem air pollutants on the basis of human health and welfare criteria. Two types of NAAQS have been established: primary standards, which protect public health, and secondary standards, which protect public welfare (e.g., crops, forests, materials, visibility, etc.). Primary NAAQS have been established for the following criteria air pollutants:

- Carbon monoxide (CO)
- Ozone (O_3)
- Respirable particulate matter (PM10)
- Fine particulate matter (PM2.5)
- Nitrogen dioxide (NO_2)
- Sulfur dioxide (SO_2)
- Lead (Pb)

All of the above, except CO, also have some form of secondary standard. The primary NAAQS standards are intended to protect, within an adequate margin of safety, those persons most susceptible to respiratory distress, such as people suffering from asthma or other illness, the elderly, very young children, or others engaged in strenuous work or exercise.

The EPA designates areas with air quality not meeting federal standards as "nonattainment." The federal CAA further classifies nonattainment areas based on the severity of the nonattainment problem, with marginal, moderate, serious, severe, and extreme nonattainment classifications for ozone. Nonattainment classifications for PM range from marginal to serious.

The federal CAA requires areas with air quality violating the NAAQS to prepare an air quality control plan referred to as the State Implementation Plan (SIP). The SIP contains the strategies and control measures that states such as California will use to attain the NAAQS. The federal CAA amendments of 1990 require states containing areas that violate the NAAQS to revise their SIP to incorporate additional control measures to reduce air pollution. The SIP is a living document that is periodically modified to reflect the latest emissions inventories, planning documents, rules, and regulations of Air Basins as reported by the agencies with jurisdiction over them. The EPA reviews SIPs to determine if they conform to the mandates of the federal CAA amendments and will achieve air quality goals when implemented. If the EPA determines a SIP to be inadequate, it may prepare a Federal Implementation Plan (FIP) for the nonattainment area and impose additional control measures.

In addition to setting health-based standards for air pollutants, the EPA also oversees state and local actions to improve air quality. The following list provides a brief explanation of important regulations set forth by EPA:

Federal Clean Air Act (CAA)

- Requires air quality plans to include measures necessary to achieve NAAQS.
- Requires all plans, programs, and projects that require federal approval, including transportation plans, to conform to air quality plans.
- Requires sanctions if all feasible measures are not expeditiously adopted.
- The full text of the CAA can be found on the EPA website at http://www.epa.gov/air/caa/

Intermodal Surface Transportation Efficiency Act (ISTEA)

- Requires transportation projects to not impact the ability to attain air quality standards.
- Requires demonstration of expeditious implementation of Transportation Control Measures (TCMs).
- More information on ISTEA can be found on the Department of Transportation website at: http://www.dot.gov/ost/govtaffairs/istea/
- The text of the ISTEA can be found on the National Park Service website at: http://www.nps.gov/history/history/online_books/fhpl/istea.pdf

Federal Transportation Funding Reauthorization

- Provides funding for transportation projects that enhance air quality (e.g. Congestion Mitigation Air Quality (CMAQ), Transportation Enhancement, and Bicycle and Pedestrian Funding).
- Provides funding source for expeditious implementation of TCMs included in air quality plans.
- Information on the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU) cab be found on the National Highway Traffic Safety Administration website at: http://www.nhtsa.dot.gov/people/perform/pages/funding.htm

STATE

States are required to develop and implement air pollution control plans designed to achieve and maintain the NAAQS established by the EPA. States may also establish their own standards, provided the state standards are at least as stringent as the NAAQS. California has established California Ambient Air Quality Standards (CAAQS) pursuant to Health and Safety Code Section 39606(b) and its predecessor statutes.

The California Legislature established the ARB in 1967. The ARB is the agency responsible for coordination and oversight of state and local air pollution control programs in California and for implementing the California Clean Air Act (CCAA) of 1988. The CCAA provides a planning framework for attainment of the CAAQS for ozone, CO, SO_2, and NO_2. The CCAA classifies ozone nonattainment areas as moderate, serious, severe, and extreme based on severity of violation of state ambient air quality standards. For each class, the CCAA specifies air quality management strategies that must be adopted. For all nonattainment categories, attainment plans are required to demonstrate a five-percent-per-year reduction in nonattainment air pollutants or their precursors, averaged every consecutive three-year period, unless an approved alternative measure of progress is developed. Air districts responsible for air basins with air quality that is in violation of CAAQS for ozone, CO, SO_2, and NO_2 are required to prepare an air quality attainment plan (AQAP) that lays out a program to attain the CCAA mandates.

Other ARB duties include monitoring air quality in conjunction with air monitoring networks maintained by air pollution control districts (APCDs) and air quality management districts (AQMDs), establishing CAAQS (which are more stringent than the NAAQS in many cases), setting emissions standards for new motor vehicles, and reviewing district input for the SIP required by the federal CAA amendments. The SIP consists of the emissions standards for vehicular sources set by the ARB as well as attainment plans adopted by the APCD or AQMD and approved by the ARB.

The State of California, through the ARB and Bureau of Automotive Repair, develops programs to reduce pollution from vehicles and consumer products. The following list provides a brief explanation of important regulations set forth by the State of California:

California Clean Air Act (CCAA)

- Requires all feasible control measures, including transportation control measures, to reduce emissions.
- Provides for indirect source programs in attainment plans.
- Contains targets for emission reductions, vehicle miles traveled, and average vehicle ridership.
- More information on CAAQS can be found on the ARB website at: http://www.arb.ca.gov/research/aaqs/caaqs/caaqs.htm

AB (Assembly Bill) 170

- In adding Section 65302.1 to the Government Code, requires cities and counties in the Valley to incorporate strategies to improve air quality in their general planning efforts.
- The full text of the AB 170 can be found on the Official California Legislative Information website at: http://www.leginfo.ca.gov/cgi-bin/postquery?bill_number =ab_170&sess=CUR&house=A&search_type=bill_update

SB (Senate Bill) 709:

- Adds Chapter 5.7 to Part 3 of Division 26 of the Health and Safety Code, giving the District more responsibility in terms of permitting, fee implementation, and agricultural assistance, but also gives the District the authority to require the use of best available control technology for existing sources, promote cleaner-burning alternative fuels, and encourage and facilitate ridesharing.
- Adds Section 9250.16 to the Vehicle Code to allow the District to adopt a surcharge on motor vehicle registration fees in counties within the District.
- The California Health and Safety Code can be found on the Official California Legislative Information website at: http://www.leginfo.ca.gov/cgi-bin/ calawquery?codesection=hsc&code body=&hits=20
- The California Vehicle Code can be found on the Official California Legislative Information website at: http://www.leginfo.ca.gov/cgi-bin/calawquery?codesection =veh&codebody=&hits =20

California Government Code Section 65089:

- Requires trip reduction and travel demand management in Congestion Management Programs.
- The full text of the Section 65089 can be found on the Official California Legislative Information website at: http://www.leginfo.ca.gov/cgi-bin/calawquery? codesection=gov&codebody=&hits=20

REGIONAL

Air pollution does not respect political boundaries. Therefore, many air quality problems are best managed on a regional basis. In 1991 the State Legislature determined that management of an air basin by a single agency would be more effective than management through each county within that basin. Air basins are geographic areas sharing a common "air-shed." Most major metropolitan areas in California now fall under the authority of multi-county APCDs or AQMDs.

Air districts have the primary responsibility for control of air pollution from all sources other than direct motor vehicle emissions, which are the responsibility of the ARB and EPA. Air districts adopt and enforce rules and regulations to achieve state and federal ambient air quality standards and enforce applicable state and federal law.

The District has jurisdiction over air quality matters in the SJVAB. The District was formed in 1991. Its headquarters are located in Fresno with regional offices located in

Bakersfield in the Southern Region and Modesto in the Northern Region. The District has jurisdiction over the eight counties within the air basin and includes the counties of Fresno, Kern, Kings, Madera, Merced, San Joaquin, Stanislaus, and Tulare. Note that the eastern portion of Kern County falls outside the SJVAB and lies within the Mojave Desert Air Basin.

Until the passage of the CCAA, the primary role of county APCDs was controlling stationary sources of pollution, such as industrial processes and equipment. With the passage of the CCAA and federal CAA amendments, air districts were required to implement transportation control measures and were encouraged to adopt indirect source control programs to reduce mobile source emissions. These mandates created the necessity for air districts to work closely with cities, counties, and regional transportation planning agencies to develop new programs.

The District entered into a memorandum of understanding with the transportation planning agencies of the eight counties in the SJVAB in 1992. This memorandum of understanding ensures a coordinated approach in the development and implementation of transportation plans throughout the Valley. This action has helped the Regional Transportation Planning Agencies comply with pertinent provisions of the federal and state Clean Air Acts as well as related transportation legislation (such as the Intermodal Surface Transportation Efficiency Act).

The District develops plans and implements control measures in an effort to advance Valley attainment of CAAQS and NAAQS. The District has developed plans to attain state and federal standards for ozone and particulate matter. The District's air quality plans include emissions inventories to measure the sources of air pollutants, to evaluate how well different control methods have worked, and to show how air pollution will be reduced. The plans also use computer modeling to estimate future levels of pollution and make sure that the Valley will meet air quality goals on time. The District Governing Board approved three major plans in 2007-2008.

2007 Ozone Plan

- The District approved the *2007 Ozone Plan* on April 30, 2007. This plan included an indepth analysis of all possible control measures and projected that the Valley will achieve the 8-hour ozone standard (as set by EPA in 1997) for all areas of the SJVAB no later than 2023.
- This plan went above and beyond minimum legal requirements by including a "Fast Track" control strategy. Through Fast Track, new strategies produce real reductions (even though they can not be legally counted in the plan at this time) and will clean the air before the deadline.
- The ARB approved the *2007 Ozone Plan* on June 14, 2007.
- The District's *2007 Ozone Plan* can be found online at the District's website at: http://www.valleyair.org/Air_Quality_Plans/AQ_Final_Adopted_Ozone2007.htm

2007 PM 10 Plan

- The District has compiled a series of PM10 Plans, with the first one in 1991. Based on PM10 measurements from 2003-2006, EPA found that the SJVAB had reached the federal PM10 standard.
- The District's *2007 PM10 Maintenance Plan and Request for Redesignation,* approved on September 21, 2007, assures that the Valley will continue to meet the PM10 standard and requests that EPA formally redesignate, or label, the Valley to attainment status. On April 5, 2008, EPA stated their intent to approve the PM10 Maintenance Plan.
- The District's *2007 PM10 Maintenance Plan* can be found online at the District's website at: http://www.valleyair.org/Air_Quality_Plans/docs/Maintenance%20Plan10-25-07.pdf

2008 PM 2.5 Plan

- The District approved the *2008 PM2.5 Plan* on April 30, 2008. Building upon the strategy used in the *2007 Ozone Plan,* the District agreed to additional control measures to reduce directly produced PM2.5. The *2008 PM2.5 Plan* estimates that the SJVAB will reach the PM2.5 standard (as set by EPA in 1997) in 2014.
- The ARB approved the Plan on May 22, 2008, and the plan has been submitted to EPA.
- The District's *2008 PM2.5 Plan* can be found online at the District's website at: http://www.valleyair.org/Air_Quality_Plans/AQ_Final_Adopted_PM25_2008.htm

LOCAL

Local government's responsibility for air quality increased significantly with the passage of the CCAA and the federal CAA amendments. Both of these pieces of legislation place new emphasis on reducing motor vehicle trips and vehicle miles traveled at the local level. Although the District is required to address state air quality standards by way of TCMs and indirect source programs in its air quality attainment plans, cities and counties, through their Councils of Government, are responsible for most implementation.

Local government responsibilities for air quality are found in four areas: (1) land use planning; (2) reviewing and mitigating the environmental impacts of development projects; (3) developing and maintaining the transportation infrastructure in the community, including transit systems; (4) implementing local air quality programs such as commute-based trip reduction and rideshare.

Land Use – Sate law places responsibility for land use planning in the hands of city and county governments. With this responsibility comes the authority to approve development projects. As part of their duties, cities and counties are required to prepare a "general plan." The general plan is a comprehensive document that sets a community's goals and policies for development over a long period (often 20 years) and designates in general terms where certain land uses will be allowed. The general plan has seven mandatory elements, but any issues can be addressed as

the city or county sees fit. Air quality can be addressed within one or more of the mandatory elements, usually the Land Use, Conservation, or Circulation Elements. Section 65302.1 of California Government Code, added by AB 170 in 2003, requires cities and counties in the San Joaquin Valley to amend appropriate elements of general plans to include data, analysis, comprehensive goals, policies, and feasible implementation strategies to improve air quality.

Environmental Review – The California Environmental Quality Act (CEQA) was enacted by the state legislature in 1970 and has been amended on numerous occasions. It applies to government initiated plans, projects, and regulations as well as to private projects requiring discretionary approval from a state or local agency. Under CEQA, a local planning agency is designated as the lead agency for most private development projects. CEQA requires the lead agency to conduct an initial study to determine if a project may have a significant adverse impact on the environment. Lead agencies are required to consult with and request comments from responsible agencies, agencies that exercise authority over resources, which may be affected by the project. The lead agency may choose to require or not require the measures suggested by the responsible agency. Projects with significant adverse impacts require the lead agency to prepare a report referred to as an Environmental Impact Report (EIR). Projects that will not have a significant effect, or projects that are modified to avoid significant effects, require the lead agency to prepare a Negative Declaration. CEQA allows lead agencies to disapprove a project if necessary to avoid one or more significant effects on the environment. The planning agencies' authority to disapprove projects compels developers to include measures in the project to reduce significant environmental impacts.

The District has prepared three guidance documents to aid agencies in performing environmental reviews. The documents are briefly described below:

- ***Air Quality Guidelines for General Plans (AQGGP)*** – The AQGGP is a guidance and resource document for cities and counties to use to address air quality in their general plans. The AQGGP includes goals, policies, and programs to reduce vehicle trips, reduce miles travelled, and improve air quality. The AQGGP can be found on the District's website at: http://www.valleyair.org/transportation/Entire-AQGGP.pdf

- ***Guideline for Assessing and Mitigating Air Quality Impacts (GAMAQI)*** – The GAMAQI is an advisory document, that provides Lead Agencies, consultants, and project applicants with uniform procedures for addressing air quality in environmental documents. The document includes a discussion of the District's role in the CEQA process, identifies actions that can be taken by land use agencies to reduce air quality impacts, and the District' thresholds of significance. The *Technical Document* contains information for use in air quality assessments, such as air quality data, regulatory setting, climate, topography, etc. The GAMAQI can be found on the District's website at: http://www.valleyair.org/transportation/CEQA%20Rules/GAMAQI%20Jan%202002%20Rev.pdf

- ***Environmental Review Guideline (ERG)*** – The ERG fulfills CEQA requirements for agencies to adopt procedures and guidelines for implementing CEQA. The document is intended to guide District staff in carrying out CEQA and to assure the public that environmental impacts related to District actions are thoroughly and consistently addressed. The ERG can be found on the District's website at: http://www.valleyair.org/transportation/CEQA%20Rules/ERG%20Adopted%20_August%202000_.pdf

Transportation Infrastructure – The federal CAA amendments require transportation plans to conform to the air quality goals of the SIP. This means that states must assure that transportation programs do not undermine the attainment of air quality standards. The Regional Transportation Planning Agencies are responsible for making the conformity finding. The Air District's role in this process is one of consultation.

Air Quality Programs – The CCAA allows air districts to delegate the implementation of transportation control measures to any local agency as long as the following conditions are met: (1) the agency must submit an implementation plan to the district for approval; (2) the agency must adopt and implement measures at least as stringent as those in the district's plan; and (3) the district must adopt procedures for reviewing the performance of the local agency in implementing the measures. Some local agencies prefer to maintain local control of these programs to ensure that all local concerns and issues are addressed. Local government's close working relations with the individuals and businesses affected by the programs may generate more public interaction and program support. On the other hand, large businesses with worksites in more than one jurisdiction often prefer dealing with a regional agency so that compliance is uniform. A transportation control measure in which local government has an important role is in low-emission fleet vehicle programs. Cities and counties often operate the largest vehicle fleets in their jurisdictions. Programs to convert vehicle fleets to cleaner burning fuels have significant air quality benefits and can provide a model to private industry.

GOALS, POLICIES, AND OBJECTIVES

The District's primary responsibility is the control of air pollution from stationary sources (sources other than direct motor vehicle emissions, which are the responsibility of the ARB and EPA). Permitting stationary sources provides a number of benefits to the public and to regulated sources. It provides an opportunity for the project proponent, the District, and the interested public to provide input and to assess a project's compliance with federal, state, and local air requirements prior to beginning construction. It also provides a mechanism to consolidate and simplify the applicable air regulations in one brief document; and it provides guidance to both the applicant and the District that can be used on an ongoing basis to assure that the equipment or process is operating in compliance with those rules.

Because of the severity of the air quality problems, permits are required in the Valley for very small sources of emissions; as little as two pounds of emissions per day can trigger permitting requirements. The permitting process involves two steps. The first step requires the applicant to apply for and receive an Authority to Construct (ATC) permit. Construction of new or modified facilities or equipment may not legally proceed until an ATC is issued by the District. The requirements that must be met to obtain a permit in the Valley are among the strictest in the nation, requiring mitigation of emissions using best available control technology (BACT) and for non-agricultural sources offsetting emissions when above certain thresholds (SB 700). The second step, issuing the Permit to Operate (PTO), occurs after the applicant has properly installed the equipment allowed by the Authority to Construct.

In addition to permitting stationary sources the District is required by the CCAA to develop "indirect source" control programs in their attainment plans. Indirect sources are defined as any building, facility, activity center, etc. that attracts motor vehicle trips. The District committed to reducing PM10 and NOx emissions from indirect sources in the *2003 PM10 Plan* and the *2004 Extreme Ozone Attainment Demonstration Plan.* The District's Governing Board adopted District Rule 9510 (Indirect Source Review) in October 2006 as a result of this commitment. District Rule 9510 requires applicants to mitigate project impacts through the incorporation of on-site emission reducing design elements and/or the payment of fees that would be used to fund off-site emissions reduction projects.

The District's Air Quality Attainment Plans include measures to promote air quality elements in county and city general plans as one of the primary indirect source programs. The general plan is the primary long range planning document used by cities and counties to direct development. Since air districts have no authority over land use decisions, it is up to cities and counties to ensure that their general plans help achieve air quality goals

The *Air Quality Guidelines for General Plans* (AQGGP), adopted by the District in 1994 and amended in 2005, is a guidance document containing goals and policy examples that cities and counties may want to incorporate into their General Plans to satisfy Section 65302.1. When adopted in a general plan and implemented, the suggestions in the AQGGP can reduce vehicle trips and miles traveled and improve air quality. The specific suggestions in the AQGGP are voluntary. The District strongly encourages cities and counties to use their land use and transportation planning authority to help achieve air quality goals by adopting the suggested policies and programs.

More information on land use strategies can be found on the District's website at: http://www.valleyair.org/transportation/land_use_strategies.htm

A copy of the District's *Air Quality Guidelines for General Plans* can be found on the District's website at: http://www.valleyair.org/transportation/Entire-AQGGP.pdf

FEASIBLE IMPLEMENTATION MEASURES

AB 170 requires general plans to include feasible implementation measures to reduce air quality impacts. Effective types of mitigation depend on the size and type of project being considered. The District therefore recommends different mitigation strategies for different types of projects.

The District has identified three (3) mitigation strategies, based on project size, which can be used to develop plan-specific feasible mitigation measures.

1) General plan updates, large specific plans, new town

   Mitigation Strategies:
   - Adopt air quality element/general plan air quality policies/specific plan policies
   - Adopt Local Air Quality Mitigation Fee Program (Stockton and Turlock have adopted such programs)
   - Fund TCM program: transit, bicycle, pedestrian, traffic flow improvements, transportation system management, rideshare, telecommuting, video-conferencing, etc.
   - Adopt air quality enhancing design guidelines/standards
   - Designate pedestrian/transit oriented development areas on general plan/specific plan/ planned development land use maps
   - Adopt ordinance limiting woodburning appliances/fireplace installations
   - Fugitive dust regulation enforcement coordinated with SJVUAPCD
   - Energy efficiency incentive programs
   - Local alternative fuels programs
   - Coordinate location of land uses to separate odor generators and sensitive receptors

2) General plan amendments, small specific plans, and some zone changes

   Mitigation Strategies:
   - Apply general plan policies, local ordinances and programs from above to the project site or adopt similar site specific programs
   - Provide pedestrian/transit oriented project design
   - Contribute to Local Air Quality Mitigation Fee Fund
   - Contribute towards TCM implementation programs
   - Commit to on-site improvements; bikeways, transit infrastructure, pedestrian enhancements
   - Provide traffic flow improvements for areas impacted by the project

3) Tentative maps, site plans, conditional use permits

   Mitigation Strategies:

- Apply general plan policies and local ordinances and programs from above to the project site
- Pedestrian/Transit oriented site design
- Provide on-site improvement: bikeways, transit infrastructure, pedestrian enhancements
- Contribute to Local Air Quality Mitigation Fee Fund
- Contribute to TCM implementation
- Energy conservation measures above and beyond requirements
- Pay for fleet vehicle conversions to alternative fuels

These strategies can also be found on the District's website at: http://www.valleyair.org/transportation/air_quality_mitigation_strategie.htm :

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EXHIBIT 5

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September 16, 2011

Honorable Jerome Stocks
Chair, Board of Directors
San Diego Association of Governments
401 B Street, Suite 700
San Diego, CA 92101

RE: **Draft Environmental Impact Report for 2050 Regional Transportation Plan and Sustainable Communities Strategy**

Dear Chairman Stocks and Honorable Members of the Board:

Attorney General Kamala D. Harris submits the following comments on the Draft Environmental Impact Report (DEIR) prepared for the San Diego Association of Governments' (SANDAG) 2050 Regional Transportation Plan and Sustainable Communities Strategy (RTP/SCS).[1] While we recognize the difficulty of SANDAG's task – to prepare the first SCS in the State as required by SB 375[2] – our review of the DEIR for the RTP/SCS has revealed some significant legal problems, as set forth below. We believe that SANDAG has the ability to correct these problems and improve the RTP/SCS, which will benefit not only the San Diego region, but will help to set the standard for other Metropolitan Planning Organizations across California.

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[1] The Attorney General submits these comments pursuant to her independent power and duty to protect the environment and natural resources of the State from pollution, impairment, or destruction, and in furtherance of the public interest. (See Cal. Const., art. V, § 13; Gov. Code, §§ 12511, 12600-12612; *D'Amico v. Bd. of Medical Examiners* (1974) 11 Cal.3d 1, 14-15.) This letter is not intended, and should not be construed, as an exhaustive discussion of the DEIR's compliance with the California Environmental Quality Act (CEQA).

[2] Senate Bill 375 (Chapter 728, Statutes of 2008).

Comments on the DEIR

Localized Air Pollution

The SANDAG region has some of the most serious local air quality problems in the State and the nation – in substantial part caused by vehicle emissions. The harm from these pollutants is not necessarily distributed equally throughout the region, but may be more concentrated in communities immediately adjacent to large-scale industrial and commercial development and major transportation corridors, and may more particularly affect certain segments of the population. As discussed below, our review of the DEIR indicates that SANDAG has set too low a bar for determining whether the air quality impacts of its RTP/SCS are significant, and, further, has failed to analyze the impacts of projected increases in pollution on communities that are sensitive or already overburdened with pollution, in violation of CEQA.

Background: Pollutants of Concern in the San Diego Air Basin

It is well established that "[t]he significance of an activity depends upon the setting." (*Kings County Farm Bureau v. City of Hanford* (1990) 221 Cal.App.3d 692, 718 [citing Cal. Code Regs., tit. 14, § 15064, subd. (b)]; see also *id.* at 721.) Accordingly, the significance of any added pollutant emissions must be judged in the context of an air basin that already exceeds health-based federal air quality standards. (See *ibid.*) The San Diego area was ranked by the American Lung Association this year as having the seventh worst ozone problem, and the fifteenth worst particulate pollution problem, in the nation.[3] Pollutants of concern in the San Diego air basin include ozone, the chemical commonly called "smog," which may permanently decrease lung function;[4] and particulate matter, which impairs lung function and can exacerbate asthma. Small particulate matter (2.5 microns in size or less), a component of diesel exhaust, is of particular concern, because it can penetrate deeply into the lungs, bypassing the body's defenses, and can carry carcinogens on the surface of the particles.

The seriousness of the localized air pollution problem as it exists today in the region can hardly be overstated. The area exceeded the health-based federal ozone standard on 24 days in 2009, and it exceeded the federal particulate standard on 4 days. The basin exceeded the more stringent California standard for ozone on 127 days in 2009, and the fine-particulate standard on 78 days. The area has a history of failing to meet applicable air quality objectives. The San Diego Air Pollution Control District (APCD) stated in its 2009 Regional Air Quality Strategy (RAQS) that it has not consistently met the Health and Safety Code's 5% per year ozone reduction target during any year during the 2003-2006 time period, and that the APCD expects reductions of only about 3% per year during the 2006-2009 time period. (San Diego APCD 2009-RAQS, p. 2.)

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[3] American Lung Association, *State of the Air 2011*, at pp. 11, 13.
[4] Gauderman, et al., *The Effects of Air Pollution on Lung Development from 10 to 18 Years of* Age (Sept. 9, 2004) 351 The New England Journal of Medicine 1057-1068.

SANDAG's Focus on "Conformity" with the State Air Pollution Plans Fails Adequately to Address the Region's Serious Air Quality Problems.

Where an area exceeds federal air quality standards for air pollutants, federal law allows funding of the individual transportation projects listed in an RTP only if the RTP "conforms" to a federally approved state plan to meet those federal standards. The DEIR's analysis of whether localized air pollution resulting from the RTP/SCS is significant under CEQA focuses almost exclusively on whether such conformity is achieved. There are significant problems with this limited approach, which substitutes a determination of whether certain federal laws are met for SANDAG's obligation under CEQA to conduct a thorough analysis of the actual effects on the air and on public health that will result from the addition of the many hundreds of miles of highway expansion and extensions that are in the RTP/SCS.

California's most recent federally approved plan was prepared in 2007, and therefore does not reflect current conditions. The DEIR acknowledges that the federal EPA is expected to soon reclassify the San Diego Air Basin as in "serious" nonattainment of the federal ozone standard, a designation that requires attainment of the federal standard by June of 2013. (DEIR, p. 4.3-6.) Demonstrating conformity with the 2007 plan emissions budgets does not, by itself, show that relevant health effects created by the new pollution generated by the RTP/SCS have been analyzed and disclosed, or even that the relevant federal standards will be met. Instead, EPA's reclassification of the air basin as having worse air quality, and the imposition of such a short deadline for meeting the federal ozone standard, indicates a more serious air pollution problem that may require more stringent control measures to protect the public health.[5]

In addition, the DEIR fails to analyze whether the California standard for ozone, more stringent than the federal standard, will be met during the life of the RTP/SCS, or what the RTP/SCS's contribution to current or future violations of that standard will be. The DEIR appears to rely solely on the RAQS to meet the state ozone standard. (See DEIR at p. 4.3-29-30.) Yet, as noted, the region has not consistently met the RAQS 5% per year ozone reduction target. The fact that U.S. EPA is expected to reclassify the Basin as in "serious" nonattainment of the less stringent federal ozone standard would indicate that the RAQS standards have not been enough to prevent deteriorating air quality. Thus, any assumption that the RAQS will consistently achieve the 5% reduction target in the future is unsupported, and any assertion that the RAQS will attain the state ozone standard at a time certain unfounded. A full analysis is

[5] Even if conformity with federal standards in state-approved plans were an appropriate benchmark for significance under CEQA, the DEIR does not contain a quantitative analysis, using the most recent available air quality measurements as the baseline, to determine whether the federal air quality standards will actually be met, and what the public health consequences would be of adding the expected pollutant load from the RTP/SCS to existing conditions. (DEIR, at p. 4.3-14.)

needed to show that the emissions caused by the RTP/SCS at different time points during its life will not contribute significantly to violations of the state ozone standard in the San Diego Air Basin.

SANDAG Has Failed Adequately to Address Impacts to Public Health and Communities Already Burdened with Pollution.

We commend SANDAG for including in its DEIR a chapter entitled "Environmental Justice." (DEIR, ch. 4.06.) That section appears to focus primarily on the RTP/SCS's effect on access to transit by traditionally underserved communities. SANDAG has, however, failed to analyze other equally, if not more, significant effects of the RTP/SCS on communities currently experiencing environmental injustice. The principal omission of the DEIR is the lack of any discussion of the impacts of the increased air pollution that will result from carrying out the RTP/SCS on communities already severely impacted by air pollution. As noted, CEQA requires that the significance of environmental impacts be considered in context. (*Kings County Farm Bureau, supra,* 221 Cal.App.3d at 718.) Such context may appropriately include (1) whether the region includes communities or subpopulations that may be particularly sensitive to increases in pollution; and (2) whether such communities or groups are already at or near their capacity to bear any additional pollution burden.

The DEIR does not identify whether the area affected by the RTP/SCS includes particularly sensitive communities that will be affected disproportionately by the acknowledged increase in pollution. "[A] number of studies have reported increased sensitivity to pollution, for communities with low income levels, low education levels, and other biological and social factors. This combination of multiple pollutants and increased sensitivity in these communities can result in a higher cumulative pollution impact." (Office of Environmental Health Hazard Assessment, *Cumulative Impacts: Building a Scientific Foundation* (Dec. 2010), Exec. Summary at p. ix.)[6] Research in other parts of California has shown that disadvantaged and minority communities are often exposed to unhealthful air more frequently and at higher levels than other groups.[7] Identifying these communities is an essential part of describing the relevant CEQA setting.

Once such communities are identified, SANDAG must analyze how the health of the residents in these communities would be expected to be particularly affected. As discussed, residents already are experiencing serious air pollution that is impacting health and welfare, and it is reasonable to assume that these effects currently are more concentrated in certain areas of the region, for example, in communities adjacent to large-scale industrial or commercial operations or transportation corridors used by heavy-duty trucks. In addition, viewed at the individual community scale, there may be synergistic adverse effects. For example, research

[6] Available at http://oehha.ca.gov/ej/cipa123110.html.
[7] Hall and Brajer, *The Benefits of Meeting Federal Clean Air Standards in the South Coast and San Joaquin Valley Air Basins* (2008) at 22-23.

has shown that increases in greenhouse gas emissions may result in localized ozone increases; such increases have been observed in California.[8]

We believe that particulate pollution may be of special concern to already burdened communities. As discussed, diesel particulate emissions have serious health effects, since they impact respiratory function and can exacerbate asthma. Further, diesel particulates are known to the State of California to cause cancer,[9] and have been listed by the Air Resources Board (ARB) as a toxic air contaminant.[10] The DEIR shows that particulate matter pollution will increase over the life of the RTP/SCS. (DEIR, Table 4.3-5, p. 4.3-25.) It also reports that the ARB estimated in 2000 – over a decade ago – that a subset of particulate pollution, fine particulates emitted by diesel vehicles, created an additional cancer risk of 720 cancer cases per one million persons exposed in the San Diego Air Basin. (DEIR, p. 4.3-8.) For comparison purposes, a private business must provide a warning if it exposes individuals to a chemical that poses an increased cancer risk of ten cases in one million people exposed. (Cal. Code Regs, tit. 27, § 25703(b).)

Despite this high cancer risk, and the DEIR's own recognition that particulate pollution will increase over the life of the RTP/SCS, the DEIR does not analyze what public health effects the increase in particulate matter will cause. Nor does it estimate what portion of the increase in particulate pollution will be carcinogenic diesel particulate matter, and disclose the public health effects that increase may cause. Such an analysis is required under CEQA, so that both the decision maker and the public can know the full consequences of the decision being made. (*Bakersfield Citizens for Local Control v. City of Bakersfield* (2004) 124 Cal.App.4th 1184, 1219-1220.) We are especially concerned that no analysis is presented either of the current risk from particulate pollution, nor of the impact of the projected increase in particulate pollution, on already overburdened or sensitive communities. Given the increase in particulate emissions shown in the DEIR, given the emphasis in the RTP/SCS on the Goods Movement Strategy for the San Diego region (RTP/SCS, Chapter 6), and given the DEIR's recognition that much of this goods movement will be accomplished by diesel trucks (DEIR, p. 4-16-8; see, also, RTP/SCS, Tech. Appdx. 4, p. 4 [estimating that roads and truckways will carry 90% by volume of goods through the region]), it is incumbent on SANDAG to fully analyze the public health consequences of the RTP/SCS in general, and of the Goods Movement Strategy, in particular.[11]

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[8] Jacobson, *Enhancement of Local Air Pollution by Urban CO2 Domes* (2010) Environ. Sci. Technol. 2497-2502. This phenomenon is of concern because, as discussed, under the RTP/SCS, vehicle miles travelled (VMT) trends up as the total number of vehicles on the road increases. (DEIR, pp. 4.12-16, 4.12-21, 4.12-24; contrast with Table TA 3.1, showing an overall decrease of 1% in VMT by 2050.) Increases in VMT cause increased emissions of greenhouse gases, which may in turn exacerbate localized pollution.

[9] Cal. Code Regs., tit. 27, § 27001.

[10] Cal. Code Regs., tit. 17, § 93000.

[11] See *Bakersfield Citizens for Local Control v. City of Bakersfield* (2004) 124 Cal.App.4th 1184, 1219-1220, cited above.

The goal of an RTP/SCS is a sustainable community, and no community can be sustainable unless its public health is protected. Thus, while the inclusion of a separate chapter of the DEIR on environmental justice is commendable, the current analysis is deficient, and should be redone and expanded to disclose the full scope of the air pollution and public health consequences of the RTP/SCS, and to propose mitigation measures for those consequences that are proportional to the seriousness of the impacts. (*City of Marina v. Board of Trustees of the California State University* (2006) 39 Cal.4th 341, 361-62.) We would be happy to work with SANDAG in making this part of the DEIR more meaningful.

SANDAG Has Failed Adequately to Consider Feasible Mitigation for Localized Air Quality Impacts.

Although it finds the RTP/SCS's impacts on localized air pollution to be significant, the DEIR proposes almost no mitigation measures to reduce or offset these impacts. Instead, the DEIR states that "mitigation measures at the program level is [sic] infeasible" for ozone precursors and carbon monoxide, and defers all mitigation for these pollutants to individual project-level CEQA processes. (DEIR, pp. 4.3-46, 4.3-47, 4.3-48.) CEQA requires that project changes or mitigation either be adopted or shown through substantial evidence to be infeasible; the DEIR, however, does not make such a showing.

The DEIR offers virtually no evidence that program-level mitigation is actually infeasible, and the mitigation measures it does propose lack certainty and are incomplete. For example, compliance with future local land use plans (the scope of which is not now known) is identified as the only feasible mitigation for ozone-related impacts. (DEIR, p. 4.3-48.) Mitigation for fine particulate matter is not discussed separately from mitigation for coarse particulates, despite their different sizes, health impacts, and sources. The dust control measures in the DEIR are not shown to be effective against fine particulates, which come more from industrial processes and fuel combustion than from ground disturbance. The DEIR's treatment of mitigation for conventional air pollution does not comply with CEQA's substantive mandate to mitigate all significant impacts. (Pub. Resources Code, §§ 21002, 21081(a).)

It is vital for the health of the San Diego region's public that all feasible mitigation be adopted and carried out to prevent further deterioration of the already unhealthy air, and it is also vital for the region's economy. Research shows consistently that the costs of reducing pollution are far outweighed by clean-air benefits such as increased worker productivity, increased agricultural outputs, and reductions in mortality and illness that result from cleaner air.[12] The research cited above -- finding minority communities more severely affected by air pollution -- also calculated the significant costs associated with polluted air in other air basins. Costs ranged

[12] On a nationwide basis, the Office of Management and Budget has estimated that the benefits of clean air regulations outweigh the costs by a ratio of about four to one. OMB, "Informing Regulatory Decisions: 2003 Report to Congress on the Coasts and Benefits of Federal Regulations and Unfunded Mandates on State, Local, and Tribal Entities."

from $1,250 per person per year in the South Coast Air Basin to $1,600 per person per year in the San Joaquin Valley Air Basin, due to increased health care costs and emergency room visits, missed work and school days, and even premature deaths.[13] CEQA mandates that SANDAG improve its analysis of the feasibility of localized air pollution mitigation, and the economic benefits of cleaner air and healthier communities must be considered in the feasibility calculus.

Climate Change Impacts: Greenhouse Gas Emissions

Before discussing the DEIR's treatment of GHG emissions, it is important first to establish the relevant context for evaluating significance. The climate is affected by the concentration of GHGs in the atmosphere. The concentration of carbon dioxide, the primary GHG, has increased from approximately 280 parts per million (ppm) in pre-industrial times to well over 380 ppm, according to the National Oceanic and Atmospheric Administration's (NOAA) Earth Systems Research Laboratory.[14] Almost all of the increase is due to human activities (such as fossil fuel use).[15] The current rate of increase in carbon dioxide concentrations is about 1.9 ppm/year; present carbon dioxide concentrations are higher than any time in at least the last 650,000 years.[16] GHGs persist in the atmosphere for decades and in some cases millennia.[17]

The atmosphere and the oceans are reaching their capacity to absorb GHGs without significantly (and perhaps abruptly) changing the Earth's climate. California is already seeing the effects of climate change. As the Resources Agency observed in its 2009 report, we already are experiencing sea level rise, coastal erosion, increased average temperatures, more extreme hot days and increased heat waves, fewer shifts in the water cycle, and increases in the frequency and intensity of wildfires. (Resources Agency, *2009 Climate Adaptation Strategy* at p. 3.)[18] These effects are expected to increase with rising GHG levels in the atmosphere.

The burdens of climate change will not be shared equally. Future climate scenarios are expected to disproportionately affect, for example, the urban poor, the elderly and children, traditional societies, agricultural workers and rural populations. (Office of Environmental Health Hazard Assessment, *Indicators of Climate Change in California: Environmental Justice Impacts* (Dec. 2010) at p. 2.)[19]

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[13] Hall and Brajer, at 5.
[14] See http://www.epa.gov/climatechange/science/recentac.html.
[15] *Id.*
[16] *Id.*
[17] Intergovernmental Panel on Climate Change, *Frequently Asked Questions*, FAQ 10.3 (2007), available at www.ipcc.ch/pdf/assessment-report/ar4/wg1/ar4-wg1-faqs.pdf.
[18] Available at http://www.climatechange.ca.gov/adaptation/.
[19] Available at http://oehha.ca.gov/multimedia/epic/epic123110.html.

In order to stabilize the climate and avoid the most catastrophic outcomes of climate change, we must substantially reduce our annual GHG emissions over time, achieving a low-carbon future by midcentury. California has memorialized this overarching environmental objective in law. Under AB 32[20], by 2020, California must reduce its total statewide greenhouse gas emissions to the level they were in 1990. (Health & Saf. Code, § 38550). To achieve AB 32's 2020 target, total statewide greenhouse gas emissions must be reduced by approximately 15 percent from current (2008) levels. AB 32 implements Executive Order S-03-05 (2005),[21] which set the statewide 2020 target as an interim step to reducing statewide emission levels, by 2050, to 80 percent below 1990 levels. "The 2020 goal was established to be an aggressive, but achievable, mid-term target, and the 2050 greenhouse gas emissions reduction goal represents the level scientists believe is necessary to reach levels that will stabilize climate." (Air Resources Board (ARB), Scoping Plan at p. 4.)[22]

The emissions reductions required to reach our statewide climate objective are substantial. In the longer term, we must reduce our total GHG emissions by approximately four percent per year between 2020 and 2030, and our per capita emissions by slightly less than five percent per year during the 2020 to 2030 period, with continued reductions required through midcentury. (These reductions required are graphically illustrated by the chart from ARB's Scoping Plan, attached to this letter as Exhibit A.) One of the prime objectives of SB 375, a law supporting and complementary to AB 32, and of the requirement for Sustainable Communities Strategies, is to create a long-term downward trajectory for GHG emissions in California through transportation and land use strategies.

Given the seriousness of the climate change problem, and the enormity of our GHG reduction task, we are greatly concerned that, when viewed in context, the RTP/SCS seems to be setting the region on a course that is inconsistent with the State's climate objectives. Specifically, per capita GHG emissions from cars and light-duty trucks increase as compared to the previous year after 2020 (see RTP, Table 301 at p. 3-3), while AB 32 requires that we must aggressively and steadily reduce total per capita GHG emissions during this time period. (See Exhibit A.) Moreover, the total number of vehicle miles travelled (VMT) driven in the San Diego region will steadily increase over the life of the RTP/SCS over the 2010 baseline by 10%, 32% , and 51% in 2020, 2035, and 2050, respectively. (DEIR, pp. 4.12-16, 4.12-21, 4.12-24;

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[20] Cal. Health and Safety Code, § 38,500, *et seq.*

[21] The DEIR states that the Executive Order "does not constitute a 'plan' for GHG reduction, and no state plan has been adopted to achieve the 2050 goal." (DEIR, pp. 4.8-29 to 4.8-30.) The DEIR therefore does not find the RTP/SCS's failure to meet the Executive Order's goals to be a significant impact. This position fails to recognize that Executive Order S-3-05 is an official policy of the State of California, established by a gubernatorial order in 2005, and designed to meet the environmental objective that is relevant under CEQA (climate stabilization). SANDAG thus cannot simply ignore it.

[22] Available at http://www.arb.ca.gov/cc/scopingplan/document/adopted_scoping_plan.pdf. The Scoping Plan was readopted by ARB on August 24, 2011.

contrast with Table TA 3.1.) Under the most optimistic figures presented in the DEIR, total VMT will drop only 1% over current levels by 2050. Moreover, the DEIR predicts that the 14.33 million metric tons of greenhouse gases (expressed as MMT of carbon dioxide equivalent) emitted by cars and light duty trucks in 2010 (DEIR, p. 4.8-5) will fall to 12.04 MMT in 2020 (DEIR, p. 4.8-20), based largely on statewide tailpipe and fuel standards, but will then begin rising again, to 12.94 MMT in 2035 and 14.74 MMT in 2050. (DEIR, pp. 4.8-23, 4.8-25, respectively.) Thus, although SANDAG will meet the SB 375 goals for per capita GHG targets for cars and trucks set for it by ARB in 2020 and 2035, the DEIR shows that total GHG emissions from cars and light-duty trucks in 2050 will increase over the 2010 emissions level.

The DEIR finds the impact of the RTP/SCS on GHG emissions to be not significant in 2020 (DEIR, p. 4.8-20), significant in 2035 (DEIR, p. 4.8-23), and significant in 2050 (DEIR, p. 4.8-25). SANDAG must, however, make a determination whether the project as a whole has significant climate change impacts. We believe strongly that it does. What the DEIR shows is that the suite of strategies relied on by SANDAG, which include a heavy reliance on roadway expansion projects, does not deliver GHG reductions that are sustainable in the long term. In fact, infrastructure and land use decisions made in the early years of the RTP/SCS may lock in transportation inefficiencies and preclude any realistic possibility of meeting the Executive Order's goal of an 80% reduction in GHG emissions. The DEIR states that "[t]otal land-use based GHG emissions in 2050 are projected to be 21.85 MMT CO2e, or 50 percent greater than GHG emissions in 2010 (Table 4.8-11)." (DEIR at p. 4.8-24.) The DEIR should address the impact of the draft RTP/SCS on this important long-term policy in greater detail.

The DEIR is legally deficient for the additional reason that it does not analyze potential changes to the project design or specific mitigation measures for the GHG emissions impacts from land use; it makes only a generalized promise to prepare future RTPs "to incorporate policies and measures that lead to reduced GHG emissions." (DEIR, p. 4.8-35.) Further, the DEIR proposes some mitigation measures for GHG emissions attributable to transportation, but does not include any transportation mitigation that relates to land use, nor does it show that any such measures would be infeasible. We believe that CEQA requires much more analysis of potential mitigation measures, and that postponing this discussion and analysis until future RTP/SCS's and individual projects is a violation of CEQA's substantive provisions. (Public Res. Code §§ 21002, 21081(a); see *Communities for a Better Environment v. City of Richmond* (2010) 184 Cal.App.4th 70, 89-96.) SANDAG has the authority to approve the RTP/SCS even if it will have substantial environmental impacts, and CEQA will not second-guess the wisdom of that choice, so long as substantial evidence supports SANDAG's findings. (Public Res. Code § 21081(b).) However, SANDAG may not approve an environmentally damaging project until and unless it has adopted all feasible mitigation measures or shown that further mitigation – including land use mitigation – is infeasible. The DEIR does not yet do so.

We recognize that this is the first SCS prepared in California, and that SANDAG is charting new territory. However, the legal requirements of CEQA, including the requirement to mitigate significant impacts to the extent feasible, are not satisfied simply because the RTP/SCS meets the targets contained in SB 375 for 2020 and 2035. CEQA demands a full analysis and all

feasible mitigation of every significant impact resulting from the implementation of the RTP/SCS, throughout the full life of the Plan. The DEIR does not now provide this for GHG emissions.

Comments on RTP/SCS

Although we are not commenting directly on the legal adequacy of the RTP/SCS under SB 375, we concur in the comments submitted to SANDAG by the California Office of Planning and Research (OPR). As discussed above, we are particularly concerned that per capita greenhouse gas (GHG) emissions associated with cars and light-duty trucks (and associated co-pollutants like particulate matter) begin to rise after 2020. (See OPR comment letter at pp. 3-4; Draft RTP at p. 3-3, Table 3.1; see also DEIR at Tables 4.3-5, p. 4.3-25.) As OPR notes, this "implies that future growth will be unavoidably less transportation efficient, which counters SB 375's underlying purpose." (OPR comment letter at p. 3.) If the RTP/SCS in fact runs counter to SB 375's purpose to reduce transportation-related GHG emissions over time, this would bear on whether the effects of the plan should be considered significant under CEQA.

In addition, OPR's comments discuss a failure of the DEIR and RTP/SCS to fully disclose the methodology by which VMT was projected, making it difficult or impossible for the lay public to determine for itself whether the information presented in the two documents is accurate and supported by substantial evidence. This lack of transparency is also a crucial flaw under CEQA, a statute whose purposes include accountability as to governmental decisions that affect the environment. (*Laurel Heights Improvement Ass'n v. Regents of the University of California* (1989) 47 Cal.3d 376, 392 [holding that "the EIR . . . is a document of accountability" for the public officials who certify it].)

Conclusion

We appreciate the difficulty of preparing the first SCS in California. We believe that SANDAG has not yet prepared a DEIR on the RTP/SCS that fully satisfies CEQA's requirements, and urge SANDAG to redo several parts of the DEIR, as described in our comments herein. This RTP/SCS presents SANDAG with an opportunity to integrate transportation and land-use planning in a way that reduces GHG emissions and harmful air pollution, and that produces other benefits such as increased mobility and better public health for all the region's residents, particularly its sensitive and already overburdened communities. We

would be happy to work with SANDAG to take the additional steps needed to take full advantage of this opportunity. We appreciate your consideration of our comments.

Sincerely,

Timothy R. Patterson

TIMOTHY R. PATTERSON by SLD
Supervising Deputy Attorney General

Susan L Durbin

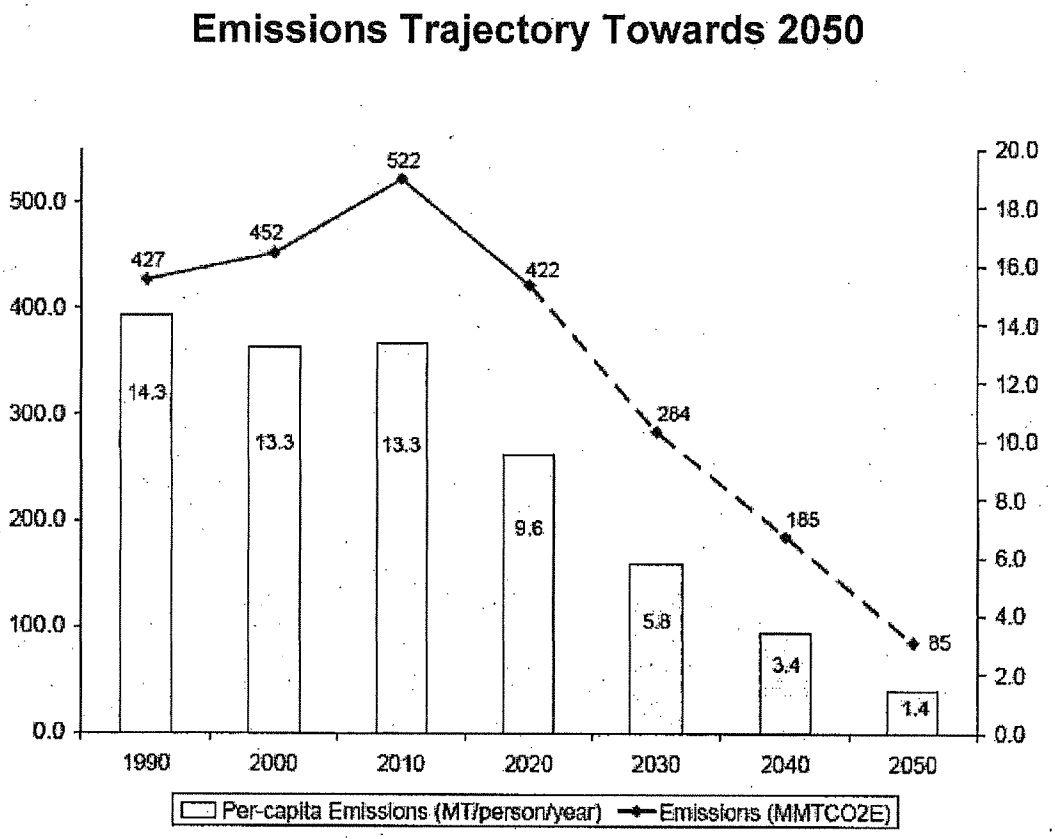
SUSAN DURBIN
Deputy Attorney General

For KAMALA D. HARRIS
Attorney General

cc: Gary Gallegos, Executive Director, San Diego Association of Governments
Julie D. Wiley, General Counsel, San Diego Association of Governments

Attachment

EXHIBIT A



(ARB, Scoping Plan, Figure 6, at p. 118.)

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GPU FEIR PC PUBLIC HEARING, gs oral comments, 101911

Good morning, Commissioners and Staff, and fellow citizens.

My name is Greg Schwaller; I live at 43857 South Fork Dr. in Three Rivers.

We applaud Tulare County for preparing a draft Climate Action Plan, because global climate change impacts the health, safety, and productivity of our county and its residents, and because we have a clear and present responsibility (and a legal obligation) to promptly and proactively reduce our contributions to this unprecedented threat.

However, **we urge you to extensively revise the CAP** to make it truly effective and responsive to the public interest and the law's intent. In the CAP you state that it is an Implementation Measure and Mitigation Measure for the proposed General Plan Update (GPU), therefore you **must make the CAP more clear, comprehensive, specific, enforceable, results-oriented, timely, and measurable.**

The CAP relies for its effect primarily on policies and implementation measures in the draft General Plan which have already been shown repeatedly during the first and second public comment periods to be far too vague, weak, and unenforceable to be relied on to accomplish both plans' goals.

For example, the General Plan has Land Use **policies that do not specify or require actions but merely "encourage"** development to locate near existing infrastructure, "encourage" residential development to be clustered, "encourage" high-density development to locate near facilities, "encourage" infill, and "encourage" the use of solar power and energy conservation. But <u>how</u> will the County "encourage" these worthwhile actions to occur? To find out, we turn to the Implementation Measures.

We find that many of these policies have no implementation measures at all, or have only very indefinite measures such as the County "shall explore implementation strategies" or "shall consider preparing an inventory" or "shall cooperate to encourage." These are ineffective Policies and Implementation Measures and they do not **make clear to the county's current or prospective residents, businesses, or agriculturists what they can expect of the plan or what the plan expects of them.**

Such vague, weak Policies and Implementation Measures also **fail to produce the basis for useful monitoring, measuring, and reporting**, that would enable the County and its citizens to ascertain whether the CAP and GPU are producing the desired good results. **They also greatly reduce accountability.** Could this be the County's goal?

We need a strong, clear, enforceable plan – not vaporware – to produce healthy, responsible growth in our county.

We urge you to recommend that the draft Climate Action Plan and General Plan documents be revised to correct these problems.

We will provide additional comments in more detail by the specified deadline.

Thank you.

Good morning, Commissioners, Staff, and concerned citizens.

My name is Laurie Schwaller; I live at 43857 South Fork Dr., Three Rivers.

At the beginning of the General Plan Update process, the County asked its citizens what they wanted for our county's future, and a strong consensus was returned: clean air; a reliable clean water supply; preservation of our agricultural lands; a more diverse economy; and growth centered in our existing communities. **The workshop attendees overwhelmingly chose the option of having 90% of future growth directed to existing communities.**

The County's own consultant showed that **far more than all the growth projected for the county during the years covered by the GPU could easily be accommodated within those existing boundaries,** without even increasing density.

The General Plan commenters have continually urged the County to prepare a strong, clear plan that adheres to the widely-endorsed planning principles of responsible growth that will work to achieve the goals and the vision of our citizens.

Responsible growth **locates people where jobs, workers, services, infrastructure, public transportation, and other amenities already exist**. It uses land, water, and energy resources efficiently and enables us to use public transit, bikes, or our own two feet to reach many destinations, promoting a healthier lifestyle, more affordable housing, and other social benefits, while reducing greenhouse gas emissions and traffic congestion.

It costs less to service and maintain, preserves our highly productive farm and ranch lands, and conserves the natural resources that provide us with essential and free ecosystem services.

Implementing smart growth policies will help us to meet the requirements of State and Federal laws and also to meet four of the County's six overall objectives of the General Plan (FEIR, p. ES-8).

> For all these reasons, we urge you to recommend that the General Plan be extensively revised **to preclude consideration of the development of any "New Towns" or "Corridor Areas" unless and until our existing communities have been developed to the fullest extent possible within their existing boundaries. Development should be required to be highly resource-efficient, and mitigation for avoidable loss of agricultural and open space land should be mandatory at a minimum 1:1 ratio.**
>
> **We urge you to recommend also that the EIR's Range of Alternatives be revised to include a true Healthy Growth Alternative** including all the principles of the one proposed by Tulare County Citizens for Responsible Growth, **and that the County adopt and implement that true Healthy Growth Alternative and the principles of responsible growth.**
>
> Thank you. We will provide more detailed comments by the deadline.

GOOD MORNING MEMBERS OF THE PLANNING COMMISSSION. MY NAME IS LEON OOLEY AND I RESIDE IN EXETER. @ 327 Lenox Ave

FROM 2000 TO 2011 I SERVED ON THE EXETER CITY COUNCIL, FULLFILLING TWO TERMS AS MAYOR OF MY FAIR CITY. IT IS BECAUSE OF THIS EXPERIENCE THAT I RESPECT THE WORK YOU DO AS A PLANNING COMMISSIONER, ESPECIALLY TODAY, WHEN YOU HAVE THE DIFFICULT TASK OF REVIEWING AND WEIGHING IN ON SUCH AN IMPORTANT ISSUE. HAVING BEEN IN YOUR POSITION, I HOPE YOU DON'T MIND IF I OFFER YOU SOME ADVICE.

YOU ARE GOING TO HEAR A LOT OF SPIRITED OPINIONS TELLING YOU THAT THE GENERAL PLAN UPDATE HAS TOO MUCH OF SOMETHING AND NOT ENOUGH OF ANOTHER. UNFORTUNATELY, WHAT YOU CANNOT DO IS ACT OR BE DETERRED BY THE LOUDEST, ANGRIEST VOICES IN THE ROOM.

IT IS ESSENTIAL THAT YOU CUT THROUGH THE RHETORIC AND REMAIN FOCUSED ON THE CORE ISSUE. <u>OUR COUNTY IS GROWING.</u> AND WITH THAT GROWTH SPECIFIC NEEDS LIKE;

THE NEED FOR COMPREHENSIVE WATER RESOURCE MANAGEMENT PRACTICES SO WE BECOME LESS DEPENDENT ON GROUNDWATER.
THE NEED FOR COMPACT DEVELOPMENT THAT REDUCES PIECEMEAL DEVELOPMENT AND PROTECTS THE LIFEBLOOD OF OUR LOCAL ECONOMY-HIGH QUALITY FARMLAND.
THE NEED FOR CONTIGUOUS OPEN SPACE PLANNING AND
THE NEED FOR INNOVATIVE PLANNING TO BETTER IMPLEMENT NEW STATE REGULATIONS FOR REDUCING GREENHOUSE GASES.

COMMISSIONERS, YOU HAVE AN IMPORTANT TASK BEFORE YOU. IT IS ESSENTIAL THAT THIS COUNTY IMPLEMENT A BLUEPRINT FOR HOW IT IS GOING TO GROW OVER THE NEXT TWENTY YEARS. AS YOU FORMULATE YOUR POSITIONS AND SET YOUR COURSE, YOU MUST THINK LONG –TERM AND LARGE SCALE. YOU MUST THINK COMPREHENSIVELY. AND YOU MUST THINK INDEPENDENTLY.

THANK YOU

CALIFORNIA RURAL LEGAL ASSISTANCE, Inc.

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Fresno, CA 93721
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Regional Offices

Arvin	Marysville	San Luis Obispo
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Delano	Monterrey	Santa Cruz
El Centro	Oceanside	Santa Maria
F	Oxnard	Santa Rosa
(	Paso Robles	Stockton
Madera	Salinas	Watsonville

October 19, 2011

David Bryant
Division Manger - Special Projects
5961 S. Mooney Blvd.
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RE: Comments on the Tulare County General Plan Update

We submit the following comments on behalf of our client, the Matheny Tract Committee, regarding the Tulare County General Plan Update:

Tulare County cannot make the finding that the General Plan is Internally Consistent at this Time and therefore, Adoption of the General Plan would be Void

The general plan must be an internally consistent document. (Cal. Gov't Code §65300.5) Consequently all elements must themselves be both internally consistent and consistent with all other elements. Internal consistency is impossible if a mandatory element is lacking. A general plan with internally inconsistent elements is legally inadequate and legal consistency is impossible *per se*.

Tulare County does not have a legally compliant Housing Element. As the County's Housing Element is currently being revised and is out of compliance with Housing Element law, the General Plan cannot be internally consistent as required by § 65300.5. The County cannot adopt the General Plan until a legally compliant Housing Element is adopted by the Board of Supervisors and after the General Plan is amended to ensure internal consistency with this Housing Element. Thus, a General Plan adoption at this time would be void under state law. Furthermore, any land use decisions made pursuant to a General Plan, if adopted, would too be per se inconsistent, and as such, void.

To achieve Internal Consistency the General Plan will have to be amended as soon as a valid Housing Element is Adopted.

Tulare County is currently working with The Department of Housing and Community Development ("Department" or "HCD") to develop and ultimately adopt a legally compliance Housing Element. In order to remain consistent with Tulare County's most recent draft

Housing Element[1] and other elements of the General Plan must be consistent with the Housing Element and in particular the Housing Element's goals, policies and implementation measures designed to address infrastructure deficits in existing communities.

The County's Housing Element is required by law to include an inventory of land suitable for residential development, including sufficient infrastructure to support housing development, and an analysis of existing or planned water and sewer services. Government Code §65583.2 (b)(5)). If there is not sufficient infrastructure to support new housing for sites identified as suitable for new housing development, the Housing Element "must include program actions to address infrastructure capacity limitations or shortfalls."

More than half of the sites identified in the County's Housing Element do not have adequate infrastructure to support the development of new housing-including affordable housing. In order to address this incredible restraint to the creation of new housing the County designed policies and actions under Program Action 9 of the Housing Element facilitates infrastructure improvement in areas of the county without adequate infrastructure in order to ensure compliance with Housing Element Law.

After the County adopts a legally compliant Housing Element, the County must amend the General Plan in order to ensure internal consistency with the Housing Element, including Program Action 9. As the Draft Housing Element is currently drafted, the General Plan the plan must be amended as follows:[2]

- PF 1.4 encourages urban development to occur in areas that have sufficient infrastructure that is available. This policy discourages infrastructure investment in the significant number of existing and historical communities that do not have sufficient infrastructure to meet current demands in direct contradiction with the County's Housing Element.
- PF 1.9: Expanding the powers of special districts, mutuals to provide new services will do nothing to improve conditions and service delivery in these areas without meaningful programs to actually increase capacity of these providers. This section must incorporate Housing Element program action 9's actions to provide technical assistance to local service providers and to have trainings to increase the capacity of these service providers to achieve internal consistency.
- PF 2.7 and 3.5 : This section must include explicit language that the failure of existing Communities to meet development standards will not affect an area's ability to annex into a unincorporated community or city or this policy

---

[1] All future references to the Housing Element and "Program Action 9" refer to the County's most recent draft submitted to the Department on September 19, 2011

[2] While this correspondence identifies changes necessary in the General Plan to ensure consistency with the currently Drafted Housing Element, the Housing Element may be further modified and other Elements of the General Plan must be amended to ensure compliance with the ultimately adopted and approved Housing Element

will conflict with PF 4.7 which is expressly to "avoid the isolation of unincorporated areas."

- Implementation Measure 10 under the planning framework gives priority for community plans to areas with sufficient water and wastewater capacity. However this conflicts with the Housing Element's goals of improving infrastructure in areas identified in sites inventory that lack sufficient infrastructure for new housing. This section must be amended to achieve consistency with the Housing Element to ensure sufficient planning and investment in areas that lack sufficient infrastructure to support housing.
- Implementation Measures 20 and 22 under the planning framework provides that the County shall explore options to fund necessary improvements and support efforts to apply for state and federal grants. This implementation measure must include language incorporating the matrix of development priorities policies and actions established in Program Action 9 of the Housing Element to ensure internal consistency
- Implementation Measure 26 under the planning framework provides for the County's support in establishing assessment districts for annexing unincorporated areas. However, this measure must also include language that the County will assist other unincorporated areas in forming assessment districts to make necessary improvements to their communities-including street lighting and curbs and gutters in order to ensure that low income communities of color are not excluded from the county's support and concomitant opportunities to improve their communities.
- PFS 1.5, 1.6, 1.7 and 1.8: Language in these sections must be amended to achieve consistency with language in Program Action 9 that relates to actions aimed toward improving public infrastructure. Additionally, as program action 9 requires the County to address affordability of these public services, these programs must also address the provision of affordable public services.
- PFS 2.1 must be amended to include language stressing affordability of water to ensure consistency with Program Action 9 of the Housing Element.
- The General Plan's infrastructure component must be amended to prioritize the needs of infrastructure improvements in existing communities to ensure consistency with Program Action 9 of the Housing Element and ensure that low income communities of color are not excluded from necessary infrastructure investment.

The General Plan Contains Inaccurate Information as to the Status of the Housing Element

The General Plan contains inaccurate and misleading statements regarding the status of the County's Housing Element. The Housing Element "addendum" states that the County's Housing Element was "formally adopted by the Board of Supervisors" on March 23, 2010. While the County did in fact nominally adopt a draft Housing Element, this adoption was enacted in violation of Housing Element law, as reflected in a subsequent letter from HCD.

Government Code § 65585 (b), requires the County to submit a draft Housing Element to the Department at least "90 days prior to adoption" of the Housing Element for comments. Additionally, pursuant to Government Code § 65585 (e) the municipality must consider these comments prior to adoption. Tulare County failed to submit its draft Housing Element prior to the Department prior to adoption and was unable to consider the Department's findings. Therefore, when Tulare County has completed its final draft, it must adopt these amendments in compliance with the Government Code.

Additionally, after HCD reviewed the nominally yet ineffectively adopted Housing Element, Dated March 23, 2010, it held that it does not substantially comply with state Housing Element law. This is reflected in the Department's most recent Housing Element compliance report dated October 12, 2011. Therefore, the "addendum" to the Housing Element (and the County's website and other communications with the public) must be amended to accurately reflect the status of the County's Housing Element.

The General Plan Fails to Plan for Existing Communities that Meet the Plan's Definition of a Hamlet

The General Plan defines a hamlet as: "an unincorporated area that shares many of the characteristics of a community but on a smaller scale." The General Plan further states that the "following criteria are used to define an unincorporated area as a "hamlet" for purposes of the General Plan:

1. Generally located in the Valley region of the County but may be located in the Foothill region, and should be identified in the Foothill Growth Management Plan,
    - A population of over 100 persons,
    - the population resides in the area more than nine months out of the year, and

2. A definable core that contains at least three of the following features:
    - Special district or town council,
    - Grocery store or other commercial establishment,
    - Wastewater system,
    - Community water system,
    - Public school,
    - Post office, and
    - Community center or other community gathering location (church, Veterans Memorial Hall, etc.)

The General Plan fails to include the Communities of Matheny Tract and Tooleville as hamlets although they meet the above definition of a hamlets as set out in the General Plan:

Matheny Tract is a community of over 1,000 residents with a population that resides in the area year round. The Community is served by the Pratt Mutual Water Company, has a community water system, a grocery store and has several churches that serve as

gathering locations. The community suffers from an almost complete lack of infrastructure including a lack of potable drinking water, a sewer system, streetlights, sidewalks, well paved roads and stormwater drainage. The County's most recent draft Housing Element states that the County has not invested resources to improves the community's infrastructure in the past 30 years.

Tooleville: is a community of over 300 persons that reside in the area year round. The community is served by the Tooleville Mutual Water Company, has both a community water system and a sewer system, has an area designated for community gatherings and is served by one small commercial establishment. The community's drinking water has recently tested above the legal limit for nitrate and the community suffers from other infrastructure deficits including street lighting, well paved roads, sidewalks and stormwater drainage.

We re also concerned that other communities were excluded "hamlet" designation.

The failure to designate Matheny Tract and Tooleville, and possibly other communities, as hamlets unfairly denies the residents of these areas the benefits of many General Plan's goals and policies that would directly improve the conditions in these impoverished areas. This includes planning framework goal 3 which purports to "provide a realistic planning area around each unincorporated hamlet to clearly delineate the boundaries of each hamlet, provide a framework for economic development, the provision of public services, and an outstanding quality of life." Matheny Tract and Tooleville will also be left out the policies for hamlets designed to reach planning framework goal 3, including PF 3.3 which requires the preparation of "Hamlet Plans." This policy involves the creation of plans for hamlets including a land use diagram and an analysis of the short and long term ability to provide necessary urban services including the availability and sufficiency of long-term water supplies.

As these communities meet the definition of hamlets and have severe services deficits, Tulare County must designate these areas as hamlets so that they benefit from policies to ensure the "outstanding quality of life" promised to the other hamlets in the County. Additionally, as Matheny Tract and Tooleville are comprised with significantly more people of color when compared with the County as a whole, the failure to designate these areas as hamlets (and to allow them to gain the benefits of such a designation) implicates federal and state fair housing and civil rights concerns-including violations of Government Code § 65008, the California Fair Employment and Housing Act (Government Code § 12900 et seq.) and Government Code § 11135.

Planning Framework 5's Policy Diverts County Resources Away From Existing Communities and Conflicts With the Requirements of SB 375

Planning Framework 5 allows for the development of new communities in Tulare County. To the extent that new town development diverts the County's resources away

from existing communities of color, P.F. 5 threatens to violate Civil Rights and Fair Housing Laws referenced above.

Furthermore, PF 5 also conflicts with Land use policy 1.1 which implements smart growth goals and conflicts with the goals, policies and standards set out in Senate Bill 375.

The Land Use Element's industrial Development Policies do not sufficiently Protect Existing Communities

Land Use Policy 5.1 encourages the development of industrial uses in "appropriate" locations. However, this policy fails to define or describe an "appropriate" location. This program must include language to ensure that no community or communities are disproportionately burdened with industrial land uses to ensure compliance with Civil Rights and Fair Housing Laws.

The General Plan Failure to Adequately Address Drinking Water Contamination Disparately Impacts Low-Income Communities of Color in Tulare County

The General Plan update almost completely fails to mention the fact that there are existing communities in Tulare County that lack a safe and affordable source of clean drinking water despite a significant discussion of this issue in the General Plan's background report. For example, the Public Facilities "existing Conditions" overview contains a general discussion of public services such as water services that are provided to County residents by the County or special districts, but does not even mention that at least Alpaugh, Cutler-Orosi, Ducor, East Orosi, Matheny Tract, Tipton, Tonyville, Seville and Tooleville,are all dependent upon water with contaminants such as nitrates, arsenic, DBCP, over-chlorinatation, bacteria and disinfectant byproducts in excess of state or federal standards.

Notably absent from the County's "existing conditions" in the County's water element is any discussion or analysis of groundwater contamination with the exception of generalized statements that the Kings River and Kaweah watersheds "tend to be high in nitrates" and that water quality in the foothills tends to be diminished due to nitrates. This fails adequately address nitrate contamination facing Tulare County's residents. Similarly, the water element fails to mention the prevalence of other contaminants in groundwater including arsenic, DBCP and bacteria.

A vast majority of the communities dependent on contaminated groundwater are from areas that are the most impoverished in Tulare County. Additionally, these Communities also tend to have significantly higher proportions of people of color when

compared with Tulare County as a whole. The County's failure to adequately address drinking water in the General Plan, disparately impacts low-income Communities of color in Tulare County. This raises serious Civil Rights and Fair Housing concerns, including violations of Government Code § 65008, the California Fair Employment and Housing Act (Government Code § 12900 et seq.) and Government Code § 11135.

Civil Rights and Fair Housing Concerns

All of the issues addressed in the above sections, address the thousands of residents of Tulare County that lack potable drinking water, sewer systems, streetlights, stormwater drainage and other necessary infrastructure to ensure that they have a safe and healthy place to live. A vast majority of these residents live in the unincorporated areas of Tulare County-which has a significantly higher proportion of people of color and low-income residents when compared with Tulare County as a whole. The General Plan's failure to include required and necessary solutions to improve conditions in these communities results in a disparate impact on low-income, people of color in Tulare County. This raises serious concerns of violations of State and Federal Fair Housing and Civil Rights Law including including violations of Government Code 65008, the California Fair Employment and Housing Act (Government Code § 12900 et seq.), Government Code § 11135 and the Federal Fair Housing Act (42 U.S.C. § 12131 et seq).

Should you have any questions regarding these comments, please feel free to contact me at 559-233-6710 ex 320. Additionally, we would like to request that California Rural Legal Assistance Inc. be placed on the mailing/notification list for all further environmental decisions regarding this project at the above address.

Sincerely,

CALIFORNIA RURAL LEGAL ASSISTANCE, INC.

Kara Brodfuehrer
Staff Attorney

cc:
Nina Dong, County Counsel
Mike Washam, County Wide Planning Manager
Jake Raper, Agency Director

JIM JACKSON FAMILY FARMS

1348 Draper Street
KINGSBURG, CALIFORNIA 93631

October 19 2011
County of Tulare Planning Commission
5961 So. Mooney Blvd.
Visalia California 93277

Sub: Zoning considerations parcels # 028-200-009 & 028-230-017

Dear Commission Members:

At this date we are requesting your time and considerations on the above Highway 99 frontage parcels located on the S/W corner of the highway 99 off ramp and ave.384. Present zoning is AE-20. Stock farm/vineyard

Are concerns with the 2030 Update are as follows.

1. The Regional Growth Corridor Opportunity Areas-Interim Policy (C-1.6)

Under this policy a property owner cannot use the property for at least 5 years for commercial agriculture. I can't find any valid reason for this restriction. It's counter productive to unnecessarily incur an unsightly environment to high profile highway property for this period of time.

2. The Kings River Sub-Area Plan.

There seems to be no changes in this plan. I would like the county to consider the possibility of extending the plan from it's S/E corner, which is the beginning of Tulare/Kings co's lines and the Ave 384 alignment and extend to the overpass then return northwest and rejoin the present bounder. See attached map.

At this time we would like to extend our thanks and gratitude to all the members of the Resource Management Agency for their help and guidance.

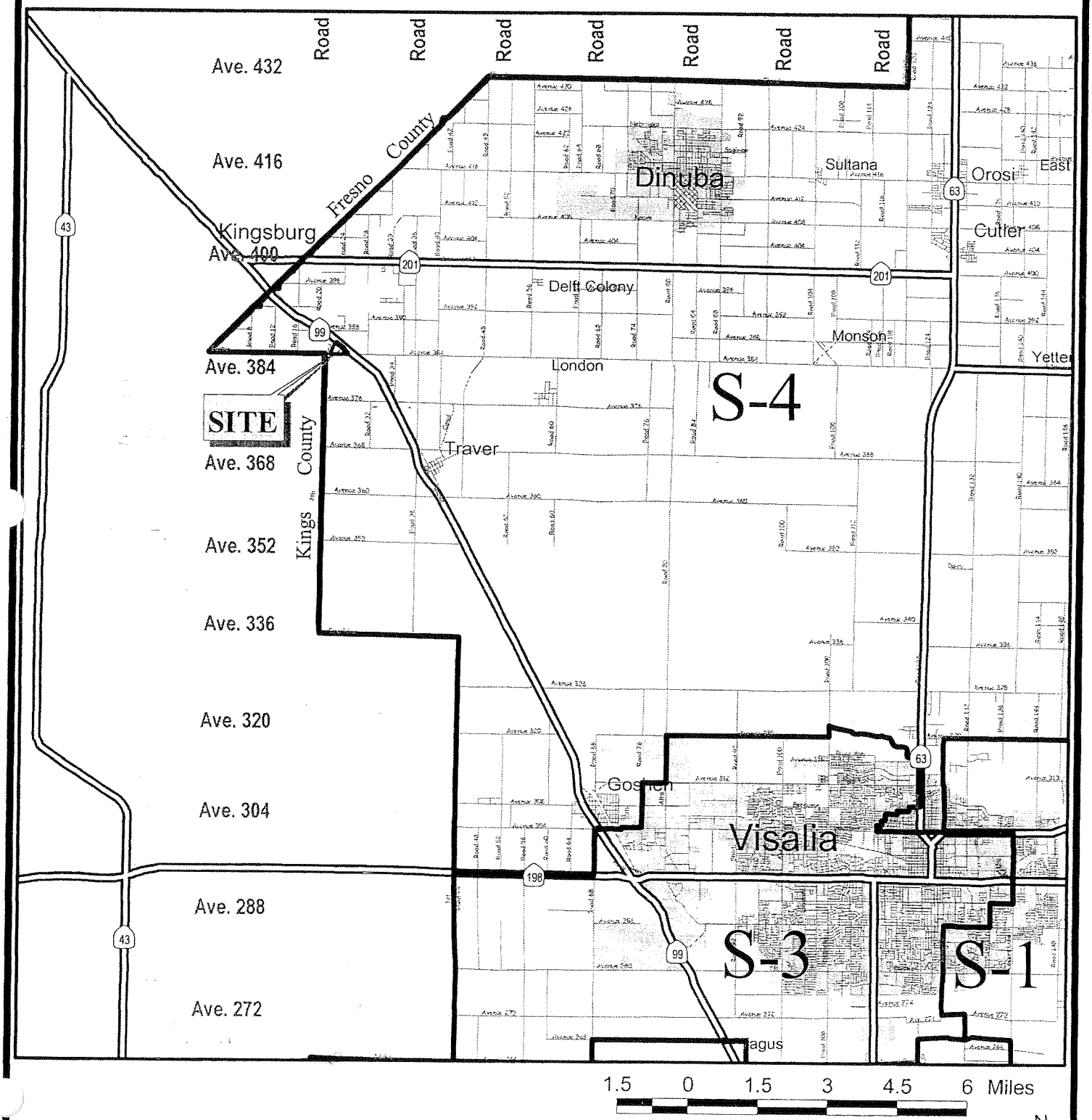
Respectfully yours
James and Ericka Jackson
1348 Draper Street Kingsburg, Calif. 93631
jamesj@jackson-ins.com 559-897-5831

County of Tulare

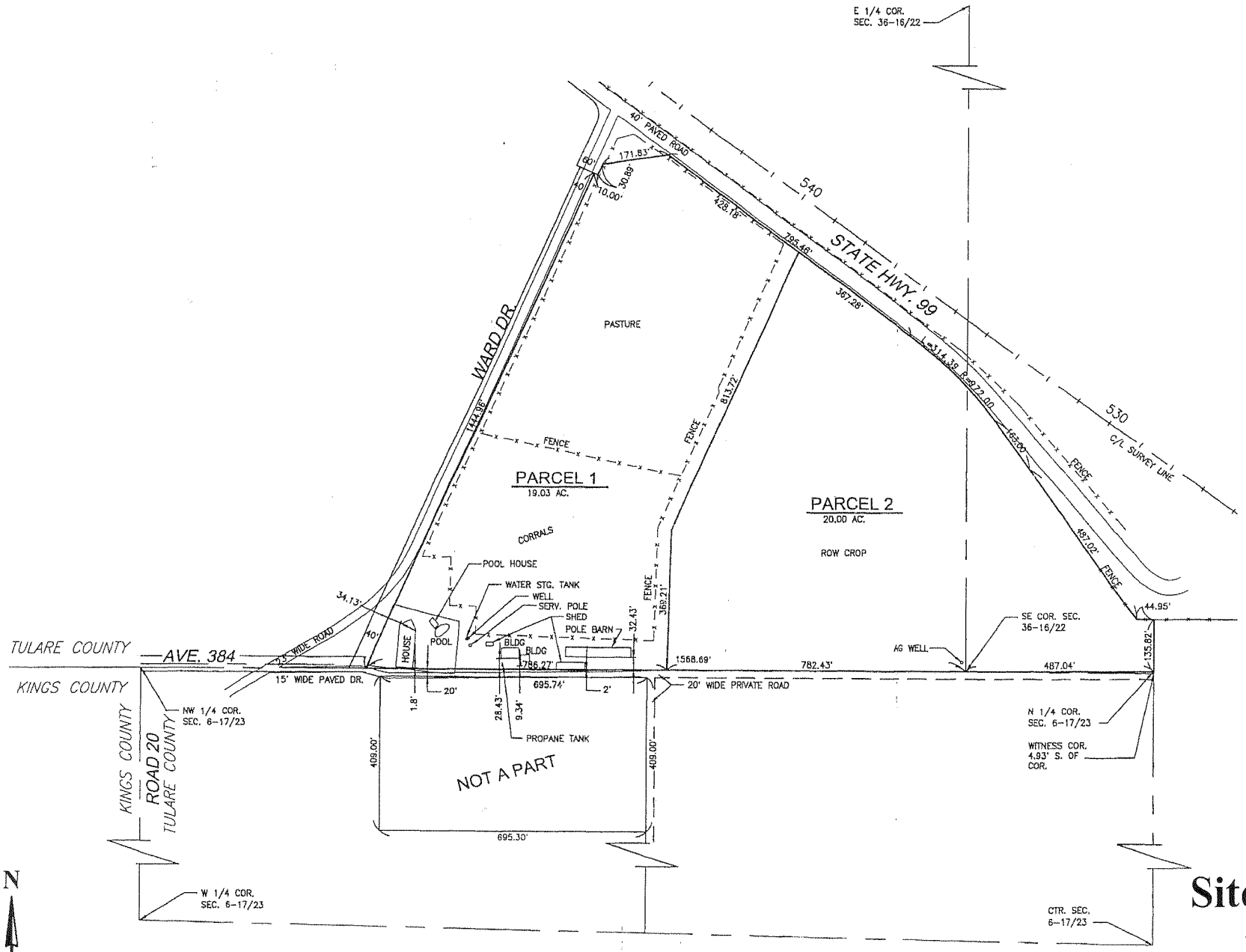
Geographic Information System

ATTACHMENT NO. 4

Vicinity Map for PPM 10-028



Supervisorial Districts
Site in District #4



No Scale

Site Plan for PPM 10-028 S.P.R.C. Exhibit "A"

Kings
River
Plan
SITE
99

Home Builders Association
of Tulare/Kings Counties, Inc.

P.O. Box 3930
Visalia, California 93278
559.625.5447 • 559.625.2690 Fax
build@hbatkc.com

MEMORANDUM

October 19, 2011

To: Tulare County Planning Commission

From: Bob Keenan
President/CEO

This Memo outlines some of the legal issues, and substantial constitutional questions, that would arise in a situation where a County and one or more Cities may be considering entering into some kind of "agreement" whereby the City would agree to impose development fees on projects within the City limits to provide funding for County projects, or projects on a study created by the County:

1. Absence of any legal authority for the County to impose its fees against a project located within an incorporated City:

Generally, cities and counties in California claim their authority to regulate land use (and to impose development fees and exactions) from their inherent constitutional "police power." (*CBIA v. Newhall School District* (1988) 206 Cal.App.3d 212, 234.) The California Constitution (Art. XI, § 7) provides, and limits, such "police power" as follows: "a county or city may make and enforce *within its limits* all local, police, sanitary and other ordinances and regulations not in conflict with general laws." (*Cotta v. City and County of San Francisco* (1st Dist., 2007) 157 Cal.App.4th 1550, 1557-1560; the exercise of police power authority by California cities and counties is "subject only to the limitation that they exercise this power within their territorial limits and subordinate to state law." (*Candid Enterprises, Inc. v. Grossmont Union H.S. District* (1985) 39 Cal.3d. 878, 885.)

Accordingly, ordinances enacted by a County imposing "fees" are effective only in the unincorporated territory of the County (*City of Dublin v. County of Alameda* (1993) 14 Cal.App.4th 264, 274), just as other County zoning and land use regulations are only effective in the unincorporated portions of the County (*Stirling v. Board of Supervisors* (1975) 48 Cal.App.3d 184, 187.)

"Police regulations of cities and of counties are enforceable only within their respective limits. Since a city and a county are separate and distinct governmental entities or agencies, within the scope of its powers each is supreme within its own jurisdictional limits. Therefore, the constitutional grant of municipal police power does not empower a city to regulate a county's activities within the city's territorial limits. . . . Conversely, the operative force of a county police regulation cannot be so extended as to affect or apply to persons violating, within the boundaries of a city, the provisions of that ordinance. . . ." 45 Cal. Jur. 3d 379, "Municipalities" § 243 (citations omitted).

Bach v. County of Butte (3d Dist. 1983) 147 Cal.App.3d 554, 569: "a resolution of a city is not an expression of policy or custom of the county in which the city is located; the entities are independent and within their respective spheres they are free to have differing or conflicting policies. (See *In re Knight* (1921) 55 Cal.App. 511, 517, 203 P. 777.)" As explained by the Court of Appeal in *In re Knight* (3d Dist. 1921) 55 Cal.App. 511, 513-514: "[A]s the cases above cited declare, when a municipal corporation is organized within the limits of a county, then so much of the territory of such county as is comprehended within the municipal limits of such corporation is, so far as local government is concerned,

withdrawn from the county, and any ordinances passed by the latter can have no binding or any force upon the municipality as to any matters or subjects as to which the latter is vested with the power to enact prohibitory or regulatory local laws."

No published California court decision has held that a city and a county may contractually "agree" to exercise their territorially-limited police power to impose development fees, other than within their own jurisdiction.[1]

2. Illegal Surrender of the City's "Police Power"

"A municipality may not contract away its legislative and governmental functions." (*Stephens v. City of Vista* (9th Cir. 1993) 994 F.2d 650, 655.)

Any such City/County "agreement" purporting to bind the City to impose certain fees would illegally impair, or contract away, the City's legislative authority to control development and set appropriate development fees within the City limits.

California courts have invalidated similar attempts to contractually bind a city's land use actions to county approved actions. (See, *Alameda County Land Use Ass'n v. City of Hayward* (1995) 38 Cal.App.4th 1716, 1724: "It is a fundamental rule that 'a local legislative body cannot surrender or impair its delegated governmental power or that of successor legislative bodies either by ordinance or by contract.' (Citations omitted.) More particularly, a local government may not contract away its right to exercise its police power in the future, and land use regulations involve the exercise of police power. (Citations omitted.)" *Alameda County Land Use Association v. City of Hayward* (1995) 38 Cal.App.4th 1716, 1724. In that case, the court struck down an agreement between two cities and a county to tie general plan amendments to concurrent action by member agencies. The Court explained that such an attempted "agreement" is invalid because it "divests each agency, presently and in the future, of its sole and independent authority to amend its respective General Plan, by providing outside jurisdictions a veto over such amendments. What the law has designed to be the exclusive power of an individual jurisdiction has become a contingent power, dependent upon the concurrence of other jurisdictions."

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[1] There was an un-published, and distinguishable, appellate court decision that may be mentioned in this context. (*Stiles v. County of Stanislaus* (5th Dist., No. F018330, 10/25/94.) However, that decision was not certified for publication, and thus may not be cited as "legal precedent" or authority for city-county "agreements" for the imposition of development fees. The agreement between the city and the county in that case was called a "Mutual Support Agreement" and was supposedly entered into "pursuant to the Joint Exercise of Powers Act" (Gov't Code § § 6500 et seq.) and supposedly reflected input from the various signatory cities as to the establishment and implementation of regional fees. Most significantly, however, the Court pointed out that there had been no issue raised by the appellant as to the lack of constitutional or statutory authority for the agreement, and the decision did not address the appellant's argument that the Mitigation Fee Act did not authorize the Mutual Support Agreement. The Court of Appeal also stated that the appellant had not timely raised its arguments that the City had improperly abdicated or delegated its decision-making authority to the County, or that the Agreement violated the Cortese-Knox Local Government Reorganization Act of 1985, and the Court thus declined to address those issues.

Similar arguments would apply to a proposed City-County development fee agreement, since the police power authority to adopt and adjust such fees is vested exclusively in the local government within its respective territorial jurisdiction. Such an agreement would likely divest the City of its independent authority to set and adjust development impact fees within its territory, would limit the discretion of each city to set different rates of fees for different types of housing or different types of development, and would effectively delegate to the County the ability to dictate, veto, or influence the costs of housing or other development within the City. (See also, 77 Ops. Cal. Atty. Gen. 13 (1994).)

3. City Imposition of County Fees Is Inconsistent with the Mitigation Fee Act:

The Mitigation Fee Act ("MFA")(Cal. Gov't Code § § 66000-66025) does not contemplate that development fees may be imposed by any agency other than the agency actually approving a development project.

See, e.g., Government Code § 66000(b): "'Fee' means a monetary exaction ...that is charged by a local agency to the applicant in connection with approval of a development project..." Government Code § 66001(b): "In any action imposing a fee as a condition of approval of a development project by a local agency, the local agency [imposing the fee] shall determine how there is a reasonable relationship between the amount of the fee and the cost ...." See also, § 66005, 66006(a), 66007.

The MFA is premised on the concept that the local agency approving the development application will be the agency that imposes any development fees – and makes no provision for one agency to impose fees "on behalf of" some other remote agency not involved in the approval of the particular project on which the fee is imposed. The *Mitigation Fee Act* in Government Code Section 66000 et seq. does not provide any independent authority for a city or a county to impose development fees. Each city or county must depend upon its own police power authority as the basis for the imposition of development fees.

As the California Attorney General explained, shortly after the MFA became effective: "We find no language in section 66001 which grants authority to any public agency to impose fees upon a development project. Instead, the language ... assumes the preexistence of authority from sources outside the section both to approval a development project and to impose a fee as a condition to such approval." (73 Ops. Cal.Atty. Gen. 229, 231 (1990).)

Peter Clum's Public Comments at the Tulare County Planning Commission Hearing on October 19, 2011

I have two handouts. The first consists of seven pages from the General Plan Guidelines issued by the Governor's Office of Planning and Research (OPR) and two pages of excerpts from sections of OPR's CEQA Guidelines. I have underlined certain portions. The second handout is Chapter 2 of the Department of Water Resources Handbook on implementing California's 2007 flood legislation. The last few pages of this handout contain some statutory provisions from California general plan law. I have checked a few paragraphs in this handout.

In the FEIR, the County has quoted from the General Plan Guidelines. The language quoted by the County must be read in context with other relevant,

more specific portions of the General Plan Guidelines with which I have provided you. I believe these sections more accurately describe the level of detail, and policy and implementation measure language appropriate for the General Plan than do Master Responses #3, #4, and #7. (FEIR pages 4-7 to 4-13 and 4-33 to 4-34). Equally informative are portions of the CEQA Guidelines Sections 15152, 15168, and 15355 I have given to you.

Turning to water supply, I ask why cannot the General Plan require the County to adopt as a mitigation measure a Water Demand Offset Ordinance which would mandate new development to have zero impact on water usage? This ordinance shall require applicants for new water service to offset at least the amount of water the new

development is projected to use so that there is zero impact on the County's water supply. Applicants for new service could accomplish the offset requirements in a variety of ways such as low flow fixture retrofits. The City of Watsonville is preparing to adopt or has adopted such an ordinance. IF it is feasible mitigation for the City of Watsonville, it should be feasible mitigation for Tulare County.

Finally, I ask you to turn to the last several pages in the DWR handout starting on page 119 titled Government Code 65302- amended by AB 162. The bold faced portions represent the 2007 AB 162 amendments to the land use, conservation, safety, and housing elements of the general plan law. Despite the County's contention to the contrary, it has not complied with many portions of AB 162.

One important example, let's look at the boldfaced provisions on page 121 "Upon the next revision of the housing element on or after January 1, 2009, the conservation element shall identify rivers, creeks, streams, flood corridors, riparian habitats, and land that may accomodate floodwater for purposes of groundwater recharge and stormwater management." (The Housing Element was formally adopted by the Board of Supervisors March 23, 2010). Prior to approving the General Plan, the County is required to comply with these amendments to the conservation and land use elements by including the appropriate text, maps, and/or tables in the General Plan. It has not done so. After the September 23, 2011, meeting of the Tulare County Flood Control Commission, the Tulare County Flood Control District

Engineer, when asked, stated that no land had been identified yet for retention basins.

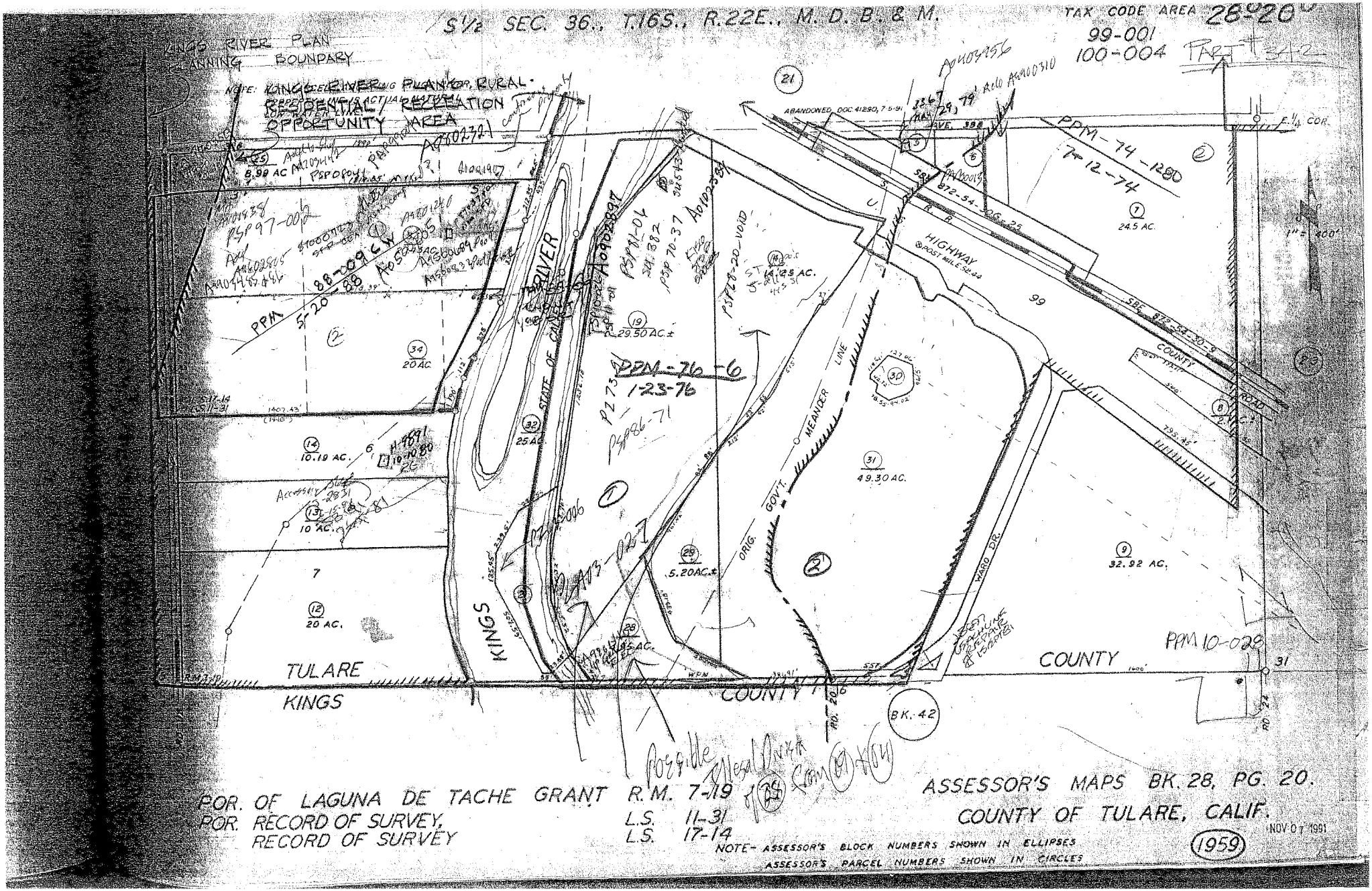
Next, let's turn to the boldfaced text on page 119 "The location and designation of the extent of the uses of the land for public and private uses shall consider the identification of land and natural resources pursuant to paragraph (3) of subdivision (d)", i.e., the portion of the conservation element we just reviewed. I ask you, if the County has not yet complied with the conservation element language, how could it have possibly complied with the change to the land use element?

To avoid land use conflicts, the requirements of AB 162 must be complied with while the General Plan is being drafted, not after its approval. "The intent is to conserve areas

used for groundwater recharge and stormwater management and to minimize urban development in these areas." (Page 32 DWR Handbook).

This non compliance with California planning Law is a fundamental flaw in the General Plan. The County must correct the General Plan to comply with California planning law and then recirculate the environmental impact report.

If you have any questions about the materials I gave you, I'll be glad to try to answer them now or at the next hearing.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99-001
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KINGS RIVER PLAN RURAL RESIDENTIAL/RECREATION OPPORTUNITY AREA
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7-12-74
PPM-76-6
1-23-76
PPM 88-09 CW
5-20-88
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HIGHWAY
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KINGS RIVER
ORIG. GOV'T. MEANDER LINE
WARD DR.
TULARE COUNTY
KINGS COUNTY
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POR. OF LAGUNA DE TACHE GRANT R.M. 7-19
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COUNTY OF TULARE, CALIF.
NOTE- ASSESSOR'S BLOCK NUMBERS SHOWN IN ELLIPSES
ASSESSOR'S PARCEL NUMBERS SHOWN IN CIRCLES
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involves time increments of five years. Geologic hazards, on the other hand, persist for hundreds or thousands of years. Sewer, water, and road systems are generally designed with a 30- to 50-year lifespan. Capital improvement planning is typically based upon a five- or seven-year term. Economic trends may change rapidly in response to outside forces.

Differences in time frame also affect the formulation of general plan goals, objectives, policies, and implementation measures. Goals and objectives are longer term, slowly evolving to suit changing community values or to reflect the success of action programs. Specific policies tend to be shorter term, shifting with the political climate or self-imposed time limits. Implementation programs tend to have the shortest span because they must quickly respond to the demands of new funding sources, the results of their own activities, and the jurisdiction's immediate needs and problems.

"The general plan shall consist of a statement of development policies and shall include a diagram or diagrams and text setting forth objectives, principles, standards, and plan proposals." (§65302)

Most jurisdictions select 15 to 20 years as the long-term horizon for the general plan. The horizon does not mark an end point, but rather provides a general context in which to make shorter-term decisions. The local jurisdiction may choose a time horizon that serves its particular needs. Remember that planning is a continuous process; the general plan should be reviewed regularly, regardless of its horizon, and revised as new information becomes available and as community needs and values change. For instance, new population projections that indicate that housing will be needed at a greater clip than anticipated, an unexpected major development in a neighboring jurisdiction that greatly increases traffic congestion, or a ballot initiative that establishes an urban growth boundary may all trigger the need to revise the general plan. A general plan based upon outdated information and projections is not a sound basis for day-to-day decision-making and may be legally inadequate. As such, it will be susceptible to successful legal challenge.

DEFINING THE PARTS OF A GENERAL PLAN

A general plan is made up of text describing goals and objectives, principles, standards, and plan proposals, as well as a set of maps and diagrams. Together, these constituent parts paint a picture of the community's future development. The following discussions help to clarify the meanings of these and other important terms.

Development Policy

A development policy is a general plan statement that guides action. In a broad sense, development policies include goals and objectives, principles, policies, standards, and plan proposals.

Diagram

A diagram is a graphic expression of a general plan's development policies, particularly its plan proposals. Many types of development policies lend themselves well to graphic treatment, such as the distribution of land uses, urban design, infrastructure, and geologic and other natural hazards.

A diagram must be consistent with the general plan text (§65300.5) and should have the same long-term planning perspective as the rest of the general plan. The Attorney General has observed that "...when the Legislature has used the term 'map,' it has required preciseness, exact location, and detailed boundaries...." as in the case of the Subdivision Map Act. No such precision is required of a general plan diagram (*67 Cal.Ops.Atty.Gen. 75, 77*).

As a general rule, a diagram or diagrams, along with the general plan's text, should be detailed enough so that the users of the plan, whether staff, elected and appointed officials, or the public, can reach the same general conclusion on the appropriate use of any parcel of land at a particular phase of a city's or county's physical development. Decision-makers should also be able to use a general plan, including its diagram or diagrams, in coordinating day-to-day land use and infrastructure decisions with the city's or county's future physical development scheme.

At the same time, given the long-term nature of a general plan, its diagram or diagrams and text should be general enough to allow a degree of flexibility in decision-making as times change. For example, a general plan may recognize the need for and desirability of a community park in a proposed residential area, but the precise location of the park may not be known when the plan is adopted. The plan would not need to pinpoint the location, but it should have a generalized diagram along with policies saying that the park site will be selected and appropriate zoning applied at the time the area is subdivided. In this sense, while zoning must be consistent with the general plan, the plan's diagram or diagrams and the zoning map are not required to be identical.

Goal

A goal is a general direction-setter. It is an ideal future end related to the public health, safety, or general welfare.

ance unless the variance pertains to the rebuilding of an unintentionally destroyed non-conforming use.

- The city shall not approve plans for the downtown shopping center until an independently conducted market study indicates that the center would be economically feasible.
- The city shall give favorable consideration to conditional use permit proposals involving adaptive reuse of buildings that are designated as "architecturally significant" by the cultural resources element.

Standards

A standard is a rule or measure establishing a level of quality or quantity that must be complied with or satisfied. Standards define the abstract terms of objectives and policies with concrete specifications.

The Government Code makes various references to general plan standards. For example, §65302(a) states in part that the land use element must "...include a statement of the standards of population density and building intensity recommended for the various districts and other territory covered by the plan." Other examples of statutory references to general plan standards include those found in §66477 (the Quimby Act) and §66479 (reservations of land within subdivisions). Of course, a local legislature may adopt any other general plan standards it deems desirable.

Examples of standards:

- A minimally acceptable peak hour level of service for an arterial street is level of service C.
- The minimum acreage required for a regional shopping center is from 40 to 50 acres.
- High-density residential means 15 to 30 dwelling units per acre and up to 42 dwelling units per acre with a density bonus.
- The first floor of all new construction shall be at least two feet above the base flood elevation.

Plan Proposal

A plan proposal describes the development intended to take place in an area. Plan proposals are often expressed on the general plan diagram.

Examples of plan proposals:

- First Street and Harbor Avenue are designated as arterials.
- The proposed downtown shopping center will be located within the area bound by D and G Avenues and Third and Fourth Streets.
- A new parking structure shall be located in the vicinities of each of the following downtown intersections: First Street and A Avenue, and Fifth Street and D Avenue.

Implementation Measure

An implementation measure is an action, procedure, program, or technique that carries out general plan policy. Each policy must have at least one corresponding implementation measure.

Examples of implementation measures:

- The city shall use tax-increment financing to pay the costs of replacing old sidewalks in the redevelopment area.
- The city shall adopt a specific plan for the industrial park.
- Areas designated by the land use element for agriculture shall be placed in the agricultural zone.

Linking Objectives to Implementation

The following examples show the relationships among objectives, policies, and implementation measures. The examples are arranged according to a hierarchy from the general to the specific—from goals to implementation measures. In an actual general plan, there might be more than one policy under each objective, more than one implementation measure under each policy, etc.

Goal:

- A thriving downtown that is the center of the city's retail and service commercial activities.

Objective:

- Development of a new regional shopping center in the downtown.

Policy:

- The city shall not approve discretionary projects or building permits that could impede development of the downtown regional shopping center.

Implementation measures:

- The city shall adopt an interim zoning ordinance restricting further development in the general vicinity of the proposed downtown shopping center

CHAPTER 7

CEQA and the General Plan

All statutory references are to the California Government Code unless otherwise noted.

Adopting or amending a general plan or a general plan element is subject to the California Environmental Quality Act (CEQA, Public Resources Code §21000, et seq.) and often requires preparation and consideration of an environmental impact report (EIR). The primary purpose of an EIR is to inform decision-makers and the public of the potential significant environmental effects of a proposal, less damaging alternatives, and possible ways to reduce or avoid the possible environmental damage. This information enables environmental considerations to influence policy development, thereby ensuring that the plan's policies will address potential environmental impacts and the means to avoid them. This chapter discusses some aspects of the relationship between the general plan and its EIR. Refer to the Bibliography for sources of more detailed information about CEQA and its requirements.

EIR PREPARATION

The procedure for preparing and using an EIR is described in detail in the state CEQA Guidelines (Title 14, California Code of Regulations, §15000, et seq.), so we will not review the entire process here. The following discussion highlights some of the key points that are particularly important when preparing an EIR for a new general plan, an element, or a comprehensive revision. Since the environmental document for a privately initiated general plan amendment is usually project-specific, we will not discuss it at any length.

A general plan for which an EIR is prepared is considered a project of statewide, regional, or areawide significance (CEQA Guidelines §15206). Projects of statewide, regional, or areawide signficance have some specific requirements for scoping, review and mitigation monitoring, as discussed later in this chapter.

To the extent feasible, the planning process and the environmental analysis should proceed concurrently, sharing the same information. The plan EIR, to a certain extent, can be seen as describing the relationship between the proposed density and intensity of land use described by the plan and the carrying capacity of the area.

The EIR must describe the existing local and regional physical environment, emphasizing those features that are likely to be affected by the plan and the environmental constraints and resources that are rare or unique to the area. It should describe existing infrastructure, such as roads, water systems, and sewage treatment facilities, along with their capacities and current levels of use. It should also discuss any inconsistencies between the proposed plan and adopted regional plans as they may relate to environmental issues.

The EIR must describe the significant environmental effects that may result from the plan's policies and proposals. Effects that are found to be insignificant need only a brief discussion in the EIR (CEQA Guidelines §15006(p)). When a new general plan or a revision is being considered, the EIR must evaluate the proposed plan's or revision's effects on both the existing physical conditions of the actual environment and the environment envisioned by the existing general plan (*Environmental Planning and Information Council v. County of El Dorado (1982) 131 Cal.App.3d 354*).

In addition to the direct impacts of any immediate projects that will occur under the general plan, the EIR must focus on the secondary effects that can be expected to follow from the plan's adoption, including cumulative and growth-inducing effects. The general plan EIR need not be as detailed as an EIR for the specific projects that will follow (CEQA Guidelines §15146). Its level of detail should reflect the level contained in the plan or plan element being considered (*Rio Vista Farm Bureau Center v. County of Solano (1992) 5 Cal.App.4th 351*). At the same time, however, the lead agency cannot defer to later tiered EIRs its analysis of any significant effect of the general plan (*Stanislaus Natural Heritage Project, Sierra Club v. County of Stanislaus (1996) 48 Cal.App.4th 182*).

The EIR must identify mitigation measures and alternatives to avoid or minimize potential impacts, to the extent feasible. The general plan EIR is a particularly useful tool for identifying measures to mitigate the cumulative effects of new development. For example, a general plan might anticipate a significant increase in industrial employment in the community. If this proposal would lead to increased automobile commuting, the EIR could identify measures to reduce peak-hour traffic volumes, such as new transit routes or improved bicycle facilities. Where other agencies are responsible for mitigating the effects of the general plan,

equacy of that draft EIR (as opposed to their opinions about the draft general plan). Some cities and counties choose to hold a hearing during the draft EIR's review period to provide the opportunity for public comment. After the end of the draft EIR's review period, the jurisdiction must prepare a final EIR containing the comments received during the review period and its written responses to those comments.

ADOPTION AND CERTIFICATION

Before adopting the general plan, element, or revision for which the EIR was prepared, the city council or county board of supervisors must consider the final EIR, certify its adequacy, and make explicit findings explaining how the significant environmental effects identified in the EIR have been or should be mitigated or explain why mitigation measures and identified alternatives are not feasible (CEQA Guidelines §15091). The city or county cannot approve the general plan unless the approved plan will not result in a significant effect on the environment or, more commonly, the city or county has eliminated or substantially lessened all significant effects where feasible and made a written statement of overriding considerations explaining the reasons why any remaining unavoidable significant effects are acceptable (CEQA Guidelines §15093). The jurisdiction must also adopt a mitigation monitoring or reporting program to ensure that the mitigation incorporated into the plan in accordance with the EIR will be implemented.

PROGRAM AND MASTER EIRS

In order to minimize the need to reanalyze a series of projects related to the general plan, CEQA and the state CEQA Guidelines encourage using a general plan EIR to address subsequent discretionary projects, such as adopting zoning ordinances and approving specific capital improvement or development projects that are consistent with the general plan. This streamlined approach to environmental review is commonly called "tiering" (CEQA Guidelines §15152). By using a tiered approach, the environmental review for a subsequent project can be limited to those project-specific significant effects that either were not examined or not examined fully in the general plan EIR.

Later environmental analysis for more specific actions can be tiered from the general plan EIR in several ways. The following paragraphs present a brief discussion of program EIRs, master EIRs, tiering under Public Resources Code §21083.3, and the use of certain statutory exemptions.

Program EIRs

The program EIR prepared for a general plan examines broad policy alternatives, considers the cumulative effects and alternatives to later individual activities where known, and contains plan-level mitigation measures. Later activities that have been described adequately under the program EIR will not require additional environmental documents. When necessary, new environmental documents, such as a subsequent or supplemental EIR or a negative declaration, will focus on the project-specific impacts of later activities, filling in the information and analysis missing from the program EIR.

The "project" being examined in the program EIR is the general plan, element, or revision. The CEQA Guidelines recommend that program EIRs deal with the potential effects of a general plan, element, or revision "as specifically and comprehensively as possible." A good rule of thumb is that the program EIR's level of detail should be commensurate with the level of detail contained in the general plan element (*Rio Vista Farm Bureau Center v. County of Solano (1992) 5 Cal.App.4th 351*).

A program EIR should pay particular attention to the following EIR components:

- The significant environmental effects, including cumulative effects of anticipated later activities under the plan or element.
- Mitigation measures, including plan-wide measures.
- Alternatives to the basic policy considerations set forth by the plan or element.

When evaluating a later activity to determine whether it is eligible for consideration under a program EIR, OPR suggests the following sequential approach.

First, the lead agency must determine whether the activity meets both of the following criteria and, if so, adopt findings to that effect:

1. It is consistent with the plan or element for which the program EIR was certified. A general plan amendment obviously would not qualify (*Sierra Club v. County of Sonoma (1992) 6 Cal.App.4th 1307*).
2. It incorporates the feasible mitigation measures and alternatives developed in the program EIR. (Additional mitigation measures and alternatives may also be applied when a subsequent or supplemental EIR is prepared.)

Second, the lead agency must evaluate the later ac-

15152. TIERING

(b) Agencies are encouraged to tier the environmental analyses which they prepare for separate but related projects including general plans, zoning changes, and development projects. This approach can eliminate repetitive discussions of the same issues and focus the later EIR or negative declaration on the actual issues ripe for decision at each level of environmental review. Tiering is appropriate when the sequence of analysis is from an EIR prepared for a general plan, policy, or program to an EIR or negative declaration for another plan, policy, or program of lesser scope, or to a site-specific EIR or negative declaration. Tiering does not excuse the lead agency from adequately analyzing reasonably foreseeable significant environmental effects of the project and does not justify deferring such analysis to a later tier EIR or negative declaration. However, the level of detail contained in a first tier EIR need not be greater than that of the program, plan, policy, or ordinance being analyzed.

(c) Where a lead agency is using the tiering process in connection with an EIR for a large-scale planning approval, such as a general plan or component thereof (e.g., an area plan or community plan), the development of detailed, site-specific information may not be feasible but can be deferred, in many instances, until such time as the lead agency prepares a future environmental document in connection with a project of a more limited geographical scale, as long as deferral does not prevent adequate identification of significant effects of the planning approval at hand.

15168. PROGRAM EIR

(b) Advantages. Use of a program EIR can provide the following advantages. The program EIR can:
(1) Provide an occasion for a more exhaustive consideration of effects and alternatives than would be practical in an EIR on an individual action,
(2) Ensure consideration of cumulative impacts that might be slighted in a case-by-case analysis,
(3) Avoid duplicative reconsideration of basic policy considerations,
(4) Allow the Lead Agency to consider broad policy alternatives and programwide mitigation measures at an early time when the agency has greater flexibility to deal with basic problems or cumulative impacts, and
(5) Allow reduction in paperwork.
(c) (5) A program EIR will be most helpful in dealing with subsequent activities if it deals with the effects of the program as specifically and comprehensively as possible. With a good and detailed analysis of the program, many subsequent activities could be

found to be within the scope of the project described in the program EIR, and no further environmental documents would be required.

15355. CUMULATIVE IMPACTS

"Cumulative impacts" refers to two or more individual effects which, when considered together, are considerable or which compound or increase other environmental impacts.

(a) The individual effects may be changes resulting from a single project or a number of separate projects.

(b) The cumulative impact from several projects is the change in the environment which results from the incremental impact of the project when added to other closely related past, present, and reasonably foreseeable probable future projects. Cumulative impacts can result from individually minor but collectively significant projects taking place over a period of time.



Implementing California Flood Legislation into Local Land Use Planning:

A Handbook for Local Communities

October 2010

California Department of Water Resources

Attachment



http://water.ca.gov/localfloodriskplanning/







Implementing California Flood Legislation into Local Land Use Planning:

A Handbook for Local Communities

October 2010

California Department of Water Resources



Informational Resource Contacts

For further information and assistance regarding this Handbook and with implementing the California flood legislation, please contact:

California Department of Water Resources (DWR)
Division of Flood Management
http://www.water.ca.gov/floodmgmt/

FloodSAFE California
http://www.water.ca.gov/floodsafe/

In addition, the following agencies can be of assistance:

Federal Emergency Management Agency (FEMA)
http://www.fema.gov/

California Geological Survey (CGS) of the Department of Conservation
http://www.conservation.ca.gov/

California Emergency Management Agency (Cal EMA)
Hazard Mitigation Branch
http://www.hazardmitigation.calema.ca.gov/

Governor's Office of Planning and Research (OPR)
State Clearinghouse & Planning
http://www.opr.ca.gov/

California Department of Housing and Community Development (HCD)
Division of Housing Policy Development
http://www.hcd.ca.gov/hpd/

Central Valley Flood Protection Board (CVFPB)
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http://www.cvfpb.ca.gov

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Collaborative Jurisdictions and Districts

City of Sacramento, Community Development Department

Sutter County, Community Services Department

Colusa County, Department of Planning and Building

San Joaquin County, Flood Management Division

Ventura County, Watershed Protection District

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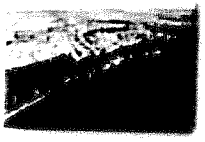

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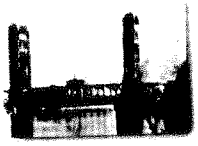



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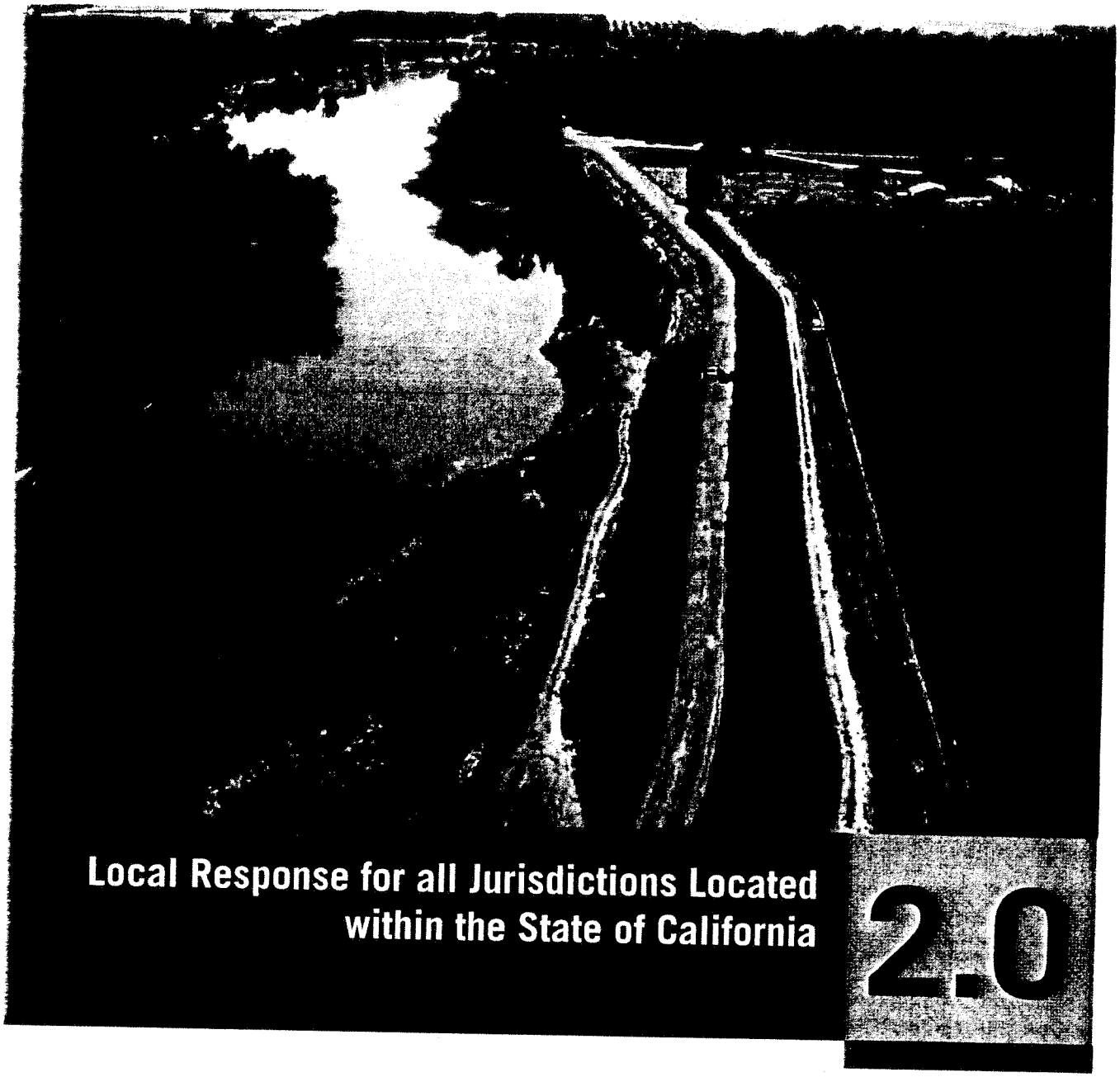


Local Response for all Jurisdictions Located within the State of California

2.0

DEPARTMENT OF WATER RESOURCES
STATE OF CALIFORNIA

Local Response for All Jurisdictions Located within the State of California

All local governments located within the State of California (Figure 3) are required to comply with portions of the new flood risk management requirements included within the Government Code. Typical local **planning documents and tools** that are affected by these requirements are outlined in Figure 4, and listed below with a reference to the section of this Handbook where the information can be found:

- General Plan Land Use Element (Section 2.1.1)
- General Plan Conservation Element (Section 2.1.2)
- General Plan Safety Element (Section 2.1.3)
- General Plan Housing Element and Regional Housing Needs Assessment (Section 2.2.1)
- Local Hazard Mitigation Plan (Section 2.3.1)

An overview of the Government Code sections that affect jurisdictions within the State are summarized in Table 2.



FIGURE 3: STATE OF CALIFORNIA

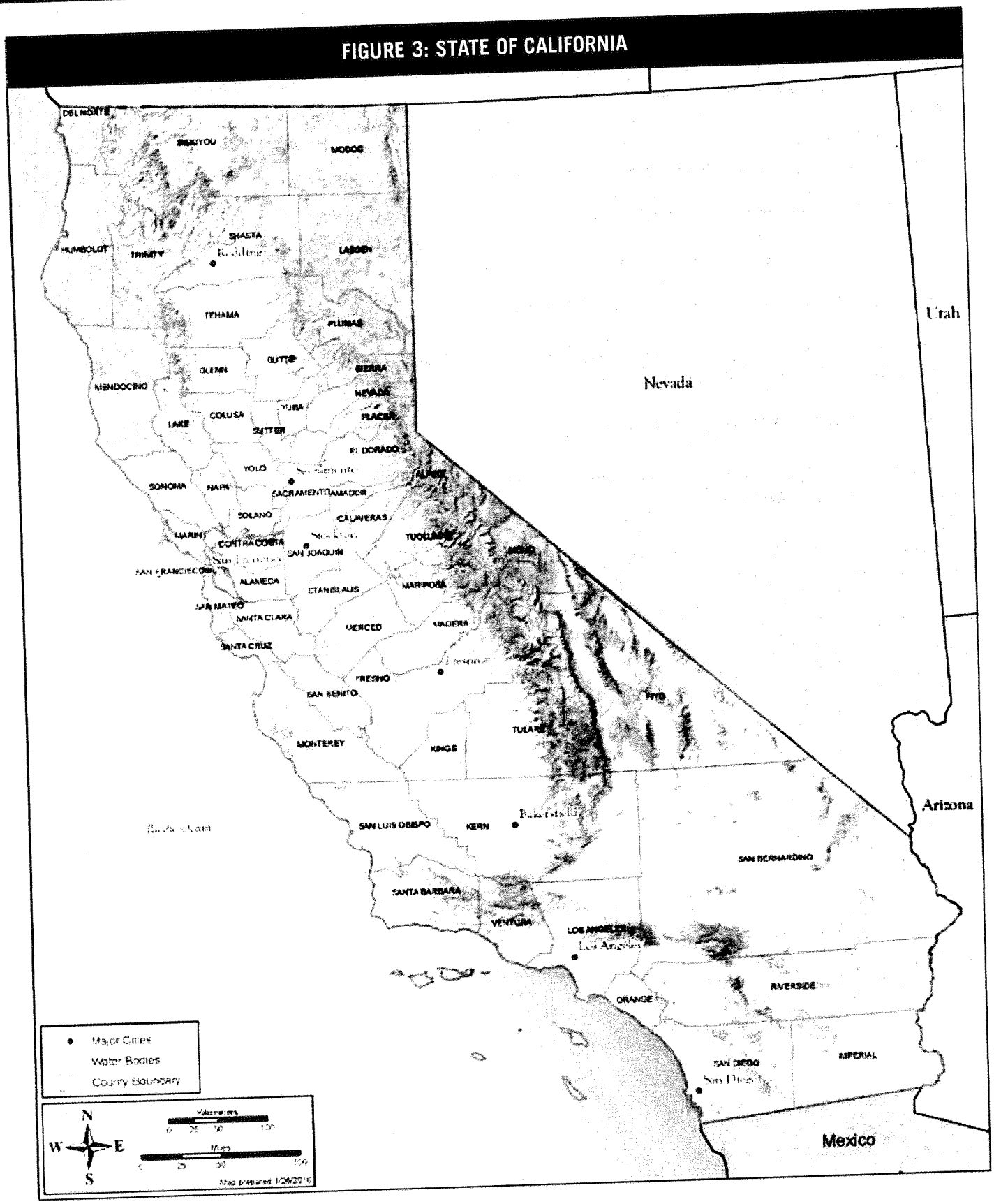




FIGURE 4: STATE OF CALIFORNIA AFFECTED PLANNING DOCUMENTS AND TOOLS

If your jurisdiction is located within ***California...***

...then the following Government Code sections affect your...

GENERAL PLAN LAND USE ELEMENT	See Section 2.1 Government Code Section 65302 (a)	■ Identify and annually review those areas that are subject to flooding ■ Consider the location of resources that are used for groundwater recharge and stormwater management
GENERAL PLAN CONSERVATION ELEMENT	See Section 2.1 Government Code Section 65302 (d)	■ Identify areas that may accommodate floodwater for purposes of groundwater recharge and stormwater management
GENERAL PLAN SAFETY ELEMENT	See Section 2.1 Government Code Section 65302 (g)	■ Identify flood hazard information ■ Establish goals, policies, objectives, and feasible implementation measures to protect communities from unreasonable risk of flooding ■ Allow information in floodplain management ordinances to be used
GENERAL PLAN HOUSING ELEMENT	See Section 2.2 Government Code Sections 65584.04 and 65584.06	■ Require that methodology for allocating regional housing needs to consider that available lands suitable for urban development may exclude lands where FEMA or DWR has determined that the flood management infrastructure designed to protect that land is not adequate to avoid the risk of flooding
OTHER PLANNING DOCUMENT	See Section 2.3 Government Code Sections 65302.6 and 8685.9	■ Allow the adoption of a **local hazard mitigation plan** in conjunction with the safety element





Table 2: Overview of Codes Applicable to Local Jurisdictions in the State of California[1]

Code/Section	Overview of Requirements	Affected Planning Documents and Tools	Schedule for Compliance	Section Reference	
				Discussion and Page Number(s)	Code Excerpt
Government Code 65302	Cities and counties are required to amend the land use, conservation, and safety elements of the general plan to consider and address flood risks.	General Plan		Section 2.1 Page 26	Appendix E
	■ Identify and annually review those areas subject to flooding. Consider the location of water and natural resources that are used for the purposes of groundwater recharge and stormwater management.	Land Use Element	Land Use Element – January 1, 2008		
	■ Identify areas that may accommodate floodwater for the purposes of groundwater recharge and stormwater management. Water resources section must be developed in coordination with applicable flood management, water conservation and groundwater agencies.	Conservation Element	Conservation Element – upon the next revision of the Housing Element on, or after, January 1, 2009[2]		
	■ Identify flood hazard information and establish goals, policies, objectives, and feasible mitigation measures to protect communities from unreasonable risk of flooding. Review, and if necessary, revise the safety element to identify new flood hazard information.	Safety Element	Safety Element (Section 65302(g) (2) and (3) – upon the next revision of the Housing Element on, or after, January 1, 2009[2]		
	■ Allow floodplain management ordinances that have been approved by FEMA to be used in the safety element to comply.		Safety Element (Section 65302(g)(4)) –January 1, 2008		

[1] *All cities and counties.*

[2] *It should be noted that the COGs (and associated cities and counties) with fourth housing element update revision cycle due dates before January 1, 2009 include the Council of Fresno County Governments, Kern Council of Governments, Sacramento Area Council of Governments, Southern California Association of Governments, and San Diego Association of Governments. All other COGs (and associated cities and counties) in the State have fourth revision due dates after January 1, 2009 (i.e., June 30, 2009 or August 31, 2009).*

Table 2: Overview of Codes Applicable to Local Jurisdictions in the State of California[1]

Code/Section	Overview of Requirements	Affected Planning Documents and Tools	Schedule for Compliance	Section Reference	
				Discussion and Page Number(s)	Code Excerpt
Government Codes 65584.04 and 65584.06	The Council of Governments or the Department of Housing and Community Development in non-Council of Governments areas, when developing the methodology for distributing the existing and projected regional housing need to cities and counties, are required to factor in that the available land suitable for urban development may exclude lands where FEMA or DWR has determined that the flood management infrastructure designed to protect that land is not adequate to avoid the risk of flooding.	General Plan Housing Element	January 1, 2008[3]	Section 2.2 Page 40	Appendix E
Government Code 65302.6	Authorizes, but does not require, cities and counties to adopt a local hazard mitigation plan specified in the Federal Disaster Mitigation Act of 2000 in conjunction with the safety element of the general plan.	General Plan Safety Element, Local Hazard Mitigation Plan	Upon revision, or adoption, of the Safety Element or Local Hazard Mitigation Plan after January 1, 2007[4]	Section 2.3 Page 43	Appendix E
Government Code 8685.9	Prohibits the State share for any eligible project under the California Disaster Assistance Act from exceeding 75% of total State eligible costs unless the local agency is located within a city, county, or city and county that has adopted a local hazard mitigation plan in accordance with the Federal Disaster Mitigation Act of 2000 as part of the safety element of its general plan. In other words, the Legislature may provide for a State share of local costs that exceeds 75% of total State eligible costs if the local agency has an adopted local hazard mitigation plan.	Local Hazard Mitigation Plan	After January 1, 2007[4]	Section 2.3 Page 43	Appendix E

[1] *All cities and counties.*

[3] *It should be noted that implementation for COGs, or HCD in non-COG areas, will become applicable after January 1, 2008. New RHNA methodology processes will not be initiated until the fifth revision housing element update cycle begins, which is anticipated in 2010 or 2011.*

[4] *The changes to Government Code Sections 65302.6 and 8685.9 chartered in 2006, and was effective on January 1, 2007.*

2.1 Government Code Section 65302

DWR consults with OPR on flood risk management in relation to the California General Plan Guidelines. DWR can provide assistance and act as a bridge between flood hazard management and local land use planning.

2007 State legislation has amended Government Code Section 65302 to now require cities and counties located within the State to review the land use, conservation, and safety elements of the general plan "for the consideration of flood hazards, flooding, and floodplains" to address flood risks.

It is important to note that any amendments to the land use, conservation, and safety elements, based on the requirements of Government Code Section 65302, will require a review of other general plan elements for internal consistency, including the housing element. Internal consistency is a fundamental requirement of the general plan under Government Code Section 65300.5, and guidance on how to meet this requirement is provided in the Governor's Office of Planning and Research (OPR) California General Plan Guidelines (http://www.opr.ca.gov/index.php?a=planning/gpg.html). If inconsistencies are identified, amendments to other general plan elements may be required. If an amendment to the housing element is made, cities and counties are to submit the amended housing element to the California Department of Housing and Community Development (HCD) for review, as required under Government Code Section 65585. If cities and counties are interested in coordination and technical assistance with their housing element updates, consultation with HCD is suggested (http://www.hcd.ca.gov/hpd/).

In addition, OPR has three references relating to planning and general plan preparation that may be helpful for cities and counties. First, the General Plan Guidelines contains a section with recommendations on how cities and counties can adopt optional elements within the general plan including a flood management element, which encompasses both floodwater management and floodplain management with discussions at the individual community level and the regional level. OPR's guidelines are equally useful in situations where a city or county has unilaterally included flood management in its general plan and where an individual jurisdiction's flood management element is a part of a larger regional strategy to be implemented by more than one agency. Second, OPR's Planner's Book of Lists contains listings of optional elements adopted by cities and counties, survey questions about various topics related to planning, and contact information for local planning departments and regional governments. For the most current version of OPR's General Plan Guidelines and Planner's Book of Lists, go to their publications and forms page at http://www.opr.ca.gov/index.php?a=planning/publications.html. And lastly, Senate Bill 18 (2004) requires cities and counties to contact and consult with California Native American tribes prior to amending or adopting a general plan or specific plan or when designating land as



open space. The intent of Senate Bill 18 is to provide California Native American tribes an opportunity to participate in local land use planning decisions at an early stage in the process for the purpose of protecting traditional tribal cultural places. OPR's supplement to the General Plan Guidelines entitled Tribal Consultation Guidelines (http://www.opr.ca.gov/index.php?a=programs/tribal.html) provides advisory guidance to cities and counties in accordance with the statutory consultation and noticing requirements of Senate Bill 18.

2.1.1 General Plan Land Use Element

The California General Plan Guidelines state "the land use element functions as a guide to planners, the general public, and decision makers as to the ultimate pattern of development for the city or county at build-out. The land use element has a pivotal role in zoning, subdivision, and public works decisions. The element's objectives and policies provide a long-range context for those short term actions."



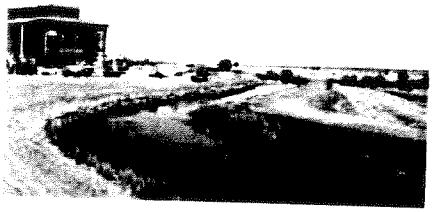
Prior to the new flood risk management requirements outlined within Government Code Section 65302, existing State law required the land use element of a general plan to identify those areas subject to flooding.

Cities and Counties Are Now Required To...

Government Code Section 65302(a) now requires cities and counties in the State to **annually review** the land use element within "those areas covered by the plan that are subject to flooding identified by floodplain mapping prepared by the Federal Emergency Management Agency (FEMA) or the Department of Water Resources."

FEMA's floodplain mapping includes:

- Flood Insurance Rate Maps (FIRM)
- Digital Flood Insurance Rate Maps (DFIRM)



See Section 2.1.2 for further requirements associated with general plan conservation elements and the identification of areas that may accommodate floodwater for purposes of groundwater recharge and stormwater management.



DWR's floodplain mapping includes:

- Awareness Floodplain Maps
- Best Available Mapping (BAM)
- Levee Flood Protection Zones (LFPZ) Maps
- Central Valley Floodplain Evaluation and Delineation (CVFED) Maps
- Alluvial Fan Floodplain Evaluation and Delineation (AFFED) Maps

The review of the land use element entails a local jurisdiction assessing floodplain mapping, groundwater recharge, and/or stormwater management information and determining if any of the information is new and/or differs from what is included in the existing general plan land use element. If the new data is different, then the existing general plan's background information, maps, goals, policies, and implementation measures, as well as the land use diagram may need to be amended.

Additionally, it should be noted that the location and designation of land uses in a general plan conservation element now "need to consider the identification of land and natural resources" that are used "for purposes of groundwater recharge and stormwater management." See Section 2.1.2 of this Handbook for more information on general plan conservation element requirements.

Cities and Counties Should Consider...

- Areas within a mapped floodplain (utilizing the most applicable floodplain mapping information, depending on the geographic location) for lower intensity land uses. General plan land use element policies that require minimization or avoidance of flood risks to new development in flood prone areas should be included or, if necessary, strengthened. These policies should be closely coordinated with corresponding policies in the conservation and safety elements. If future development is considered for flood prone areas, appropriate flood risk management strategies should be implemented. Avoidance of flood hazards should be considered for floodplains with deep flooding (depths greater than three feet), urban and urbanizing areas that require 200-year level of protection in the SSJV, and floodplain maps prepared by FEMA.



- Using the existing general plan annual progress reporting mechanism to comply with Government Code Section 65302(a), which now requires annual review of the land use element for those areas that are subject to flooding as identified by FEMA or DWR floodplain mapping. Current Government Code Section 65400 requires cities and counties to provide an annual report to their legislative body (i.e., city council or board of supervisors), OPR, and HCD on the status of the general plan and progress on its implementation. Using this mechanism to meet the requirements of Government Code Section 65302(a) will provide some efficiency, as well as ensure that the new land use element review requirements are documented and provided to the local legislative bodies.

- Amending the land use element when new floodplain mapping, groundwater recharge, and/or stormwater management information is available that differs from what is included in the existing general plan land use element. This is particularly true when the new information is not consistent with, or is not contemplated by existing goals, policies, or land uses. New data could affect the background information, maps, goals, policies, and implementation measures of a land use element, as well as the proposed land uses on the land use diagram.

- Reviewing other general plan elements (including, but not limited to the conservation, safety, and housing elements) if amendments are made to the land use element to ensure general plan internal consistency with goals, policies, objectives, and implementation measures; text; and/or maps and diagrams.

- Coordinating internally among departments within local agencies as a method to ensure that the most recent information is reflected in the land use element.

Cities and Counties Must Comply By...

Effective January 1, 2008, all cities and counties are required to comply.

Obtain More Information Here...

The 2007 legislation that amended Government Code Section 65302(a) specifically identifies DWR and FEMA floodplain mapping as the data sources for those areas subject to flooding. The following provides a listing of some of the DWR and FEMA databases that are available, but is not an exhaustive list. Each database has been prepared for a specific purpose and jurisdictions must take into consideration the intent of the



databases and perform some analysis as to which database(s) is most relevant to the specific city or county. If a city or county has conflicting flood information than what is provided in one of following data sources the jurisdiction should contact DWR and/or FEMA, as applicable, to discuss the differences.

Cities and counties should contact DWR's Division of Flood Management for assistance in obtaining the most current floodplain map information and for consultation on which database would be most applicable, by jurisdiction, at http://www.water.ca.gov/floodmgmt/.

- **FEMA Flood Insurance Rate Maps (FIRM).** Represents flood hazard areas for floodplains of 1% (100-year) and 0.2% (500-year) chance of annual occurrence. Private citizens and insurance brokers use the FIRM to identify properties and buildings in flood insurance risk areas. Community officials use the FIRM to administer floodplain management regulations and to mitigate flood damage. Lending institutions and federal agencies use the FIRM to identify properties and buildings in relation to mapped flood hazards, and to determine whether flood insurance is required when making loans or providing grants following a disaster for the purchase or construction of a building. Available at http://msc.fema.gov.



For a definition of flood prone areas, see Section 5.0 of this Hanbook.

- **FEMA Digital Flood Insurance Rate Maps (DFIRM).** Represents GIS-based mapping products of FIRM and FEMA Digital Q3 Flood Data developed as part of the FEMA Flood Map Modernization (Map Mod) program, which is transitioning FEMA maps from paper to digital formats. Available at http://msc.fema.gov.

- **DWR Awareness Floodplain Maps.** Displays the 100-year flood hazard areas using approximate assessment procedures for areas subject to future development. These floodplains are shown simply as flood prone areas, without specific depths. The intent of the Awareness Floodplain Mapping is to identify all pertinent flood hazard areas that have the potential for development in areas that are not mapped under FEMA's National Flood Insurance Program (NFIP) and to provide the community and residents an additional tool in understanding potential flood hazards currently not mapped as a regulated floodplain. Available at http://www.water.ca.gov/floodmgmt/lrafmo/fmb/fes/awareness_floodplain_maps/.

- **DWR Best Available Maps (BAM).** Represents the 100- and 200-year composite floodplains located within the SSJV, and 100-year floodplains outside of the SSJV. These maps were developed based on the best available information (i.e., FEMA FIRM, DFIRM, and DWR Awareness Floodplain Maps). The intent of these maps is

to identify potential flood hazards that may warrant further study and consideration in land use decision making. Available at http://www.water.ca.gov/floodmgmt/lrafmo/fmb/fes/best_available_maps/.

- **DWR Levee Flood Protection Zones (LFPZ) Maps.** Represents areas that are protected, as determined by the Central Valley Flood Protection Board or DWR, by levees that are part of the facilities of the State Plan of Flood Control. These maps were developed based on the best available information, as required by Water Code Section 9130. Available at http://www.water.ca.gov/floodmgmt/lrafmo/fmb/fes/levee_protection_zones/LFPZ_maps.cfm.

For a definition of project levee, see Section 5.0 of this Handbook.

- **DWR Central Valley Floodplain Evaluation and Delineation (CVFED) Maps.** Represents 100-year and 200-year floodplains for Central Valley State-Federal Project Levees within the SSJV watershed and will be developed based on more detailed hydrologic and hydraulic information, topographic data, levee evaluations, and depths, where appropriate. CVFED Maps will be developed by DWR and are anticipated to be available by 2012.

2.1.2 General Plan Conservation Element

The California General Plan Guidelines state "the conservation element provides direction regarding the conservation, development, and utilization of natural resources. Its requirements overlap those of the open-space, land use, safety, and circulation elements. The conservation element is distinguished by being primarily oriented toward natural resources. Population growth and development continually require the use of both renewable and nonrenewable resources. One role of the conservation element is to establish policies that reconcile conflicting demands on those resources."



The 2007 legislation amended Government Code Section 65302(d) to add two new requirements pertaining to the general plan conservation element.

Cities and Counties Are Now Required To...

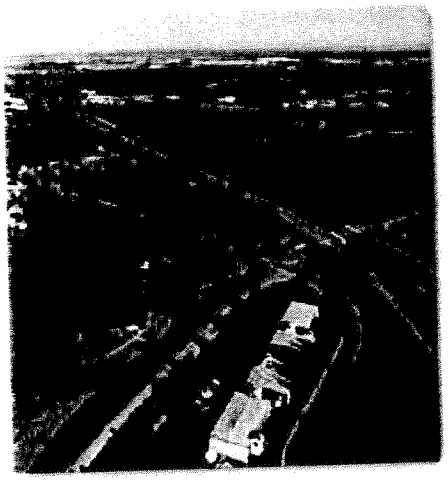
First, cities and counties in the State are now **required** to "identify rivers, creeks, streams, flood corridors, riparian habitat and land that may accommodate floodwater for purposes of groundwater recharge and stormwater management" in the conservation element. The intent is to conserve areas used for groundwater recharge and stormwater management and to minimize urban development in these areas.

Second, existing law currently requires that the portion of the conservation element that includes water resources must be developed in coordination with any countywide water agency and with all district and city agencies. New regulations now **specifically clarify these coordinating agencies to include** "flood management, water conservation, or groundwater agencies that have developed, served, controlled, managed, or conserved water of any type for any purpose in the county or city for which the plan is prepared." Government Code Section 65302(d) requires the coordination to "include the discussion and evaluation of any water supply and demand information that has been submitted by the water agency to the city or county," as described in Section 65352.5 (refer to Appendix E of this Handbook for the specific Government Code text).

Cities and Counties Should Consider...

- Referencing DWR Bulletin 118 (http://www.water.ca.gov/groundwater/bulletin118/update2003.cfm) to help identify areas that may be suitable in accommodating floodwater for purposes of groundwater recharge and/or stormwater management. Any area being considered to accommodate excess floodwaters for the purpose of groundwater recharge and/or stormwater management should be investigated to determine the areas recharge capability as well as potential impacts to existing groundwater uses. DWR Bulletin 118 also provides guidance and tools to assist local jurisdictions manage groundwater as a component of local land use planning.

- Clearly identifying all areas that may accommodate floodwater for purposes of groundwater recharge and stormwater management on maps or graphics within the conservation element. These identified areas should be considered for appropriate lower intensity, non-developed land uses such as open space, passive recreation, and agricultural uses. General plan conservation element policies that minimize impacts to these identified groundwater recharge and stormwater management areas should be included or, if necessary, strengthened. These policies should be closely coordinated with corresponding policies in the land use and safety elements.





- Using FEMA Flood Insurance Rate Maps and floodplain mapping available through DWR to identify rivers, creeks, streams, and flood corridors.

- Concurrently preparing the amendments to the conservation element required by Government Code 65302(d) while updating the housing element and amending the safety element to aid in achieving general plan consistency and avoid conflicting goals, policies, objectives, and implementation measures.

- Coordinating and collaborating with flood management, water conservation, or groundwater agencies at a minimum through documented written communications, phone calls, and/or electronic communications.

Cities and Counties Must Comply By...

Upon the next revision of the housing element, on or after January 1, 2009. Coordination with water agencies is required effective January 1, 2008.

Housing elements are to be updated as required by State statute (Government Code Sections 65880 through 65589).

It should be noted that the COGs (and associated cities and counties) with fourth housing element update revision cycle due dates before January 1, 2009 include the Council of Fresno County Governments, Kern Council of Governments, Sacramento Area Council of Governments, Southern California Association of Governments, and San Diego Association of Governments. Generally, these COG cities and counties have already adopted a fourth revision housing element update and will not update their housing element until the next, or fifth revision, which has due dates anticipated between 2013 and 2016.

All other COGs (and associated cities and counties) in the State have fourth revision housing element update due dates after January 1, 2009 (i.e., June 30, 2009 or August 31, 2009). Cities and counties with due dates after January 1, 2009 that met the June 30, 2009 or August 31, 2009 deadline and *have* an adopted housing element update must make the amendments to the conservation and safety elements as soon as possible, and should review the adopted housing element to ensure internal consistency among the elements. However, cities and counties associated with due dates after January 1, 2009 that *have not* adopted a fourth revision housing element update must update the housing as soon as possible and should make the amendments to the conservation and safety elements concurrently, ensuring internal consistency among the elements.



Obtain More Information Here...

DWR, as a referral source to other water agencies, can assist cities and counties with this effort by visiting http://www.water.ca.gov/floodmgmt/ to obtain contact information on water agencies, by jurisdiction.

Other sources of information include the Central Valley Flood Protection Plan (for flood facilities within the SSJV), scheduled to be adopted in 2012, and local agency planning documents.

2.1.3 General Plan Safety Element



The California General Plan Guidelines state "the safety element aims to reduce the potential risk of death, injuries, property damage, and economic and social dislocation resulting from fires, floods, earthquakes, landslides, and other hazards. The safety element overlaps topics also mandated in the land use, conservation, and open-space elements. The element should contain general hazard and risk reduction strategies and policies supporting hazard mitigation measures. Communities may use the safety element as a vehicle for defining "acceptable risk" and the basis for determining the level of necessary mitigation."

The 2007 legislation amended Government Code Section 65302(g) to review, and if necessary, revise the safety element to identify new information regarding flood hazards.

Cities and Counties Are Now Required To...

The 2007 legislative amendments to Government Code Section 65302(g)(2)(A) **require** the safety element to identify "information regarding flood hazards" including, but not limited to:

- flood hazard zones
- National Flood Insurance Program maps
- historical data
- existing and planned development in flood hazard zones
- databases maintained by agencies with responsibility for flood hazard information such as the U.S. Army Corps of Engineers, DWR, and Cal EMA



Based on the flood hazard information, the safety element **must establish** a set of comprehensive goals, policies, objectives, and feasible implementation measures to protect communities from the unreasonable risks of flooding, as required by Government Code Section 65302(g)(2)(B) and (C). The goals, policies, and objectives of the safety element **must include**, but are not limited to:

- "Avoiding or minimizing the risks of flooding to new development.
- Evaluating whether new development should be located in flood hazard zones, and identifying construction methods or other methods to minimize damage if new development is located in flood hazard zones.
- Maintaining the structural and operational integrity of essential public facilities during flooding.
- Locating, when feasible, new essential public facilities outside of flood hazard zones, including hospitals and health care facilities, emergency shelters, fire stations, emergency command centers, and emergency communications facilities or identifying construction methods or other methods to minimize damage if these facilities are located in flood hazard zones.
- Establishing cooperative working relationships among public agencies with responsibility for flood protection." (Government Code Section 65302(g)(2)(B))

Essential public facilities include, but are not limited to, hospitals and health care facilities, emergency shelters, fire stations, emergency command centers, and emergency communications facilities.

In addition, after the initial revision of the safety element per the requirements of Section 65302(g)(2), Section 65302(g)(3) requires that the safety element upon each revision of the housing element be **reviewed and revised**, if necessary, to "identify new information that was not available during the previous revision of the safety element."

Lastly, Section 65302(g)(4) **allows** "cities and counties that have floodplain management ordinances that have been approved by FEMA that substantially comply with this section, or have substantially equivalent provisions to this subdivision in their general plans" to use that information in the safety element to comply. The jurisdiction is then required to "summarize and incorporate by reference into the safety element the other general plan provisions or the floodplain ordinance, specifically showing how each requirement of this subdivision has been met."

Many of the new safety element requirements are also mandated or recommended to be included in other flood documents and plans, as shown in Appendix D.



Cities and Counties Should Consider...

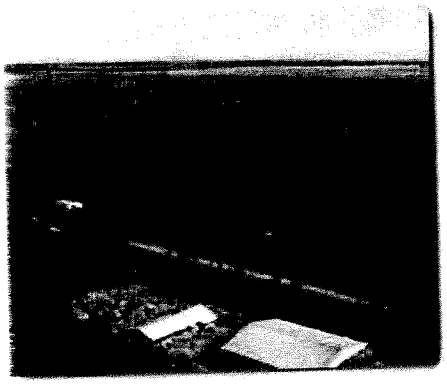
- DWR's interpretation of "unreasonable risks" associated with flooding pertaining to Government Code Section 65302(g)(2)(B). Both FEMA's special flood hazard area (100-year floodplain) and a 200-year floodplain are considered to be areas of known potential flood risk. If development were allowed to occur within the special flood hazard area or a 200-year floodplain, there may be an "unreasonable risk" associated with potential flooding.

- Coordinating with DWR and OPR when preparing the safety element's comprehensive goals, policies, objectives, and implementation measures aimed at protecting communities from the unreasonable risks of flooding.

- Documents, technical bulletins, and informational flyers published by FEMA identifying flood protection methods, building construction techniques, and flood-damage resistant construction materials. For reference to these publications go to FEMA's online Library at http://www.fema.gov/library/index.jsp.

- Concurrently preparing the amendments to the safety element required by Government Code 65302(g) while updating the housing element and amending the conservation element to aid in achieving general plan consistency and avoid conflicting goals, policies, objectives, and implementation measures.

- Providing sufficient detail in the general plan safety element referencing the floodplain ordinance and any subsequent revisions such that a city or county could change its floodplain ordinance without having to amend the safety element.



- Updating the safety element in conjunction with the preparation of a local hazard mitigation plan (see Section 2.3.1 of this Handbook for more information). This coordinated approach, which is strongly supported by DWR and Cal EMA, should result in an integrated local hazard mitigation plan/safety element or by adopting the local hazard mitigation plan as an annex, by reference, to the safety plan. Either of these approaches allows cities and counties to take full advantage of the financial benefits associated with the new regulations under Government Code Section 8685.9. See Section 2.3.1 of this Handbook for information on the requirements under Government Code Section 8685.9.

- Updating the safety element to be consistent with mandatory and voluntary building codes as they relate to flood hazards.



Cities and Counties Must Comply By...

Government Code Sections 65302(g)(2)(A), (B), and (C) are effective **upon the next revision of the housing element** on, or after, January 1, 2009. After the initial revision of the safety element, Government Code Section 65302(g)(3) requires the safety element to be updated with each revision of the Housing Element thereafter. Government Code Section 65302(g)(4) is effective January 1, 2008.

Housing elements are updated as required by State statute. It should be noted that the COGs (and associated cities and counties) with fourth housing element update revision cycle due dates before January 1, 2009 include the Council of Fresno County Governments, Kern Council of Governments, Sacramento Area Council of Governments, Southern California Association of Governments, and San Diego Association of Governments. Generally, these COG cities and counties have already adopted a fourth revision housing element update and will not update their housing element until the next, or fifth revision, which has due dates anticipated between 2013 and 2016.

All other COGs (and associated cities and counties) in the State have fourth revision due dates after January 1, 2009 (i.e., June 30, 2009 or August 31, 2009). Cities and counties with due dates after January 1, 2009 that met the June 30, 2009 or August 31, 2009 deadline and *have* an adopted housing element update must make the amendments to the conservation and safety elements as soon as possible, and should review the adopted housing element to ensure internal consistency among the elements. However, cities and counties associated with due dates after January 1, 2009 that *have not* adopted a fourth revision housing element update must update the housing as soon as possible and should make the amendments to the conservation and safety elements concurrently, ensuring internal consistency among the elements.

A flood hazard zone is an area subject to flooding that is delineated as either a special flood hazard area (1% event) or an area of moderate (0.2% event) or minimal flood hazard on an official flood insurance rate map issued by FEMA. The identification of a flood hazard zone does not imply that areas outside the flood hazard zones or uses permitted within flood hazard zones will be free from flooding or flood damage.

Obtain More Information Here...

Government Code Section 65302(g) now specifically identifies DWR, FEMA, U.S. Army Corps of Engineers, the Central Valley Flood Protection Board, and Cal EMA as sources of flood hazard information, along with other local, State, and federal agencies with responsibility for flood risk management, including special districts and local emergency management agencies. Cities and Counties should contact DWR's Division of Flood Management at http://www.water.ca.gov/floodmgmt/ for consultation and assistance in obtaining the most current relevant flood hazard information, for discussion regarding any discrepancies in data, and, if needed, for assistance on how to contact the other agencies specifically identified.



Included here for reference, is the list of information and sources regarding flood hazards from Government Code Section 65302(g) that must be identified within the safety element which include but are not limited to:

- Flood hazard .zones and National Flood Insurance maps, as identified by FEMA. This includes Flood Insurance Rate Maps (FIRM) and Digital FIRM (DFIRM) both of which are available at http://msc.fema.gov.
- Information about flood hazards, available from the U.S. Army Corps of Engineers, includes the Sacramento and San Joaquin River Basins Comprehensive Study available at http://www.compstudy.net/.
- Designated floodway maps, available from the Central Valley Flood Protection Board. These maps are available at http://cvfpb.ca.gov/maps/index.cfm.
- Dam failure inundation maps prepared pursuant to Section 8589.5, available from Cal EMA. Contact the Cal EMA Hazard Mitigation Branch at http://www.hazardmitigation.calema.ca.gov/.
- DWR's Awareness Floodplain Maps, identify the 100-year flood hazard areas using approximate assessment procedures. These floodplains will be shown simply as flood prone areas without specific depths and other flood hazard data. Awareness Floodplain Maps will be added as they become available. The Awareness Floodplain maps are available at http://www.water.ca.gov/floodmgmt/lrafmo/fmb/fes/awareness_floodplain_maps/.
- DWR's Best Available Maps (BAM), which show 100- or 200-year floodplains, accepted by DWR. The 200-year floodplain maps for the Sacramento-San Joaquin Valley and the 100-year floodplain maps for areas outside of the Valley are available at http://www.water.ca.gov/floodmgmt/lrafmo/fmb/fes/best_available_maps/.
- Maps of levee flood protection zones, available from DWR. These maps are available at http://www.water.ca.gov/floodmgmt/lrafmo/fmb/fes/levee_protection_zones/LFPZ_maps.cfm.

For a definition of LFPZ, see Section 5.0 of this Handbook



- Areas subject to inundation in the event of the failure of project or nonproject levees or floodwalls. For areas subject to inundation in the event of the failure of project levees as defined by the State Plan of Flood Control are available at DWR's Levee Flood Protection Zone (LFPZ) maps website at http://www.water.ca.gov/floodmgmt/lrafmo/fmb/fes/levee_protection_zones/LFPZ_maps.cfm. For areas inundated in the event of non-project levee failures contact the local jurisdiction for assistance.

- Historical data on flooding, including locally prepared maps of areas that are subject to flooding, areas that are vulnerable to flooding after wildfires, and sites that have been repeatedly damaged by flooding. Historic flow data is available at DWR's California Data Exchange Center (CDEC) website at http://cdec.water.ca.gov/lma.html and United States Geological Survey (USGS) Surface-Water Data website at http://waterdata.usgs.gov/usa/nwis/sw. Also, DWR has prepared a series of reports entitled California High Water that provide detailed flood information for specific flood events. For these reports, contact DWR's Division of Flood Management.

- Existing and planned development in flood hazard zones, including structures, roads, utilities, and essential public facilities, varies by jurisdiction, contact DWR's Division of Flood Management at http://www.water.ca.gov/floodmgmt/or the local jurisdiction for assistance.

- Information from local, State, and federal agencies with responsibility for flood risk management, including special districts and local offices of emergency services.

- Alluvial Fan Floodplain Evaluation and Delineation maps, available from DWR at http://www.water.ca.gov/floodmgmt/lrafmo/fmb/fes/alluvial_fan_maps.cfm, when completed.

The various sources listed provide some of the relevant flood hazard information, but do not represent an exhaustive list of flood hazard information that is available. Each informational item has been prepared for a specific purpose. Local jurisdictions must take into consideration the intention of the information and analyze which pieces of information are most relevant and non-contradictory to the specific city or county.



2.2 Government Code Sections 65584.04 and 65584.06

In developing the methodology that allocates regional housing needs as part of general plan housing elements, the 2007 legislation amended Government Code Sections 65584.04 and 65584.06 to consider excluding lands not adequate to avoid the risk of flooding from the inventory of available land suitable for urban development.

2.2.1 General Plan Housing Elements – Regional Housing Needs Allocation



The California General Plan Guidelines state "unlike the other mandatory elements, the housing element is subject to detailed statutory requirements regarding its content," must be updated as required by State statute, and is subject to mandatory review by the California Department of Housing and Community Development (HCD). "Housing element law requires local governments to adequately plan to meet their existing and projected housing needs including their share of the regional housing need. The law recognizes the most critical decisions regarding housing development occur at the local level within the context of the general plan."

The Regional Housing Needs Allocation (RHNA) is based on State of California projections of population growth and housing unit demand and assigns a share of the region's future housing need to each jurisdiction within the council of governments' (COG) regions. State law (Government Code Section 65584) provides for the COGs, in consultation with HCD, to prepare regional housing allocation plans that assign a share of a region's housing construction need to each city and county.

Each COG's methodology is based on the regional numbers supplied by HCD. The methodology used to determine the future need considers the growth in number of households expected; the need to achieve ideal vacancy rates; the need for more housing opportunities; and compensation for anticipated demolition. The RHNA is a minimum needs number. Cities and counties are free to plan for, and accommodate, a larger number of dwelling units than the RHNA, but are not obligated to build or finance the construction of any of the units.



Regional COGs, or HCD in Non-COG areas, May...

When developing the methodology that allocates regional housing needs to cities and counties as part of housing elements, Government Code Section 65584.04 requires the COG, or HCD in non-COG areas, to factor in the determination of available land suitable for urban development, which under the 2007 legislative amendments now:

> "**may** exclude lands where FEMA or DWR has determined that the flood management infrastructure designed to protect that land is not adequate to avoid the risk of flooding."

It should be noted that this applies to areas subject to inundation in the event of the failure of both project and non-project levees.

The jurisdictional survey requirement under Government Code Section 65584.04 is required when a COG is responsible for the RHNA distribution of its member cities and counties. When HCD acts as a COG for non-COG areas, a survey is not required. Surveys must be solicited "no more than six months prior to the development of a proposed methodology" for allocating the housing needs (refer to Appendix E of this Handbook for the entire Government Code section text).

Government Code Section 65584.06 requires HCD be responsible for developing the methodology for allocating regional housing needs for cities and counties without a COG.

Cities and Counties Should Consider...

- Engaging in the RHNA process through the jurisdictional survey requirement.
- Consulting with the applicable regional COG, or HCD in non-COG areas, during the RHNA methodology public comment period. The active participation of cities and counties will better inform the RHNA methodology process to avoid including lands that are not suitable for urban development because it cannot meet the required level of flood protection.
- Concurrently preparing the required flood risk management amendments to the conservation element (Government Code 65302(d)) and safety element (Government Code 65302(g)) while updating the housing element to aid in achieving general plan consistency.



Regional COGs, or HCD in Non-COG areas, Should Consider...

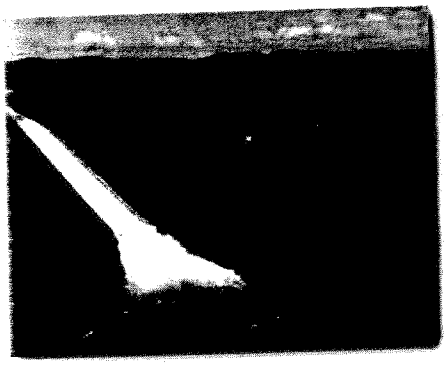
- When developing the RHNA methodology to determine the available land suitable for urban development, exclude only those areas for which it has been determined, based on applicable FEMA or DWR floodplain information, that the required flood protection cannot be met. Of particular concern are floodplains with deep flooding (depths greater than three feet), urban areas that do not have required 200-year protection in the SSJV, and levee flood protection zones (LFPZ).

Regional COGs, or HCD in Non-COG areas, Can Comply By...

See Section 2.1.1 of this Handbook for a listing of available DWR and FEMA floodplain databases.

Effective January 1, 2008, the regional COG, or HCD in non-COG areas, may exclude lands that are not adequate to avoid the risk of flooding when developing the methodology that allocates regional housing needs to cities or counties, which is associated with the requirements in State housing element law (Government Code Sections 65880 through 65589). It should be noted that even though implementation for COGs, or HCD in non-COG areas, became effective after January 1, 2008, the new RHNA methodology processes will not be initiated, or become applicable, until the fifth revision housing element update cycle begins, which is anticipated between 2010 and 2014.

Obtain More Information Here...

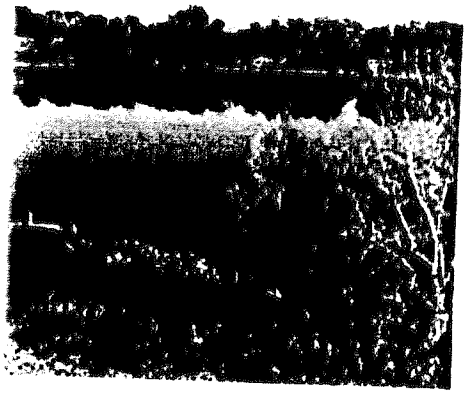


Cities, counties, and regional COGs, or HCD in non-COG areas, should contact DWR's Division of Flood Management for assistance in obtaining the most current floodplain mapping information, available at http://www.water.ca.gov/floodmgmt/. In addition, see Section 2.1.1 of this Handbook for a listing of FEMA and DWR floodplain mapping databases.

Cities and counties can also contact specific regional COGs at http://www.calcog.org/members/members.html or HCD's Division of Housing Policy Development at http://www.hcd.ca.gov/hpd/ for more information.

2.3 Government Code Sections 65302.6 and 8685.9

Local governments are required to have a FEMA-approved local hazard mitigation plan in order to apply for and/or receive project grants under the following hazard mitigation assistance programs (e.g., Hazard Mitigation Grant Program (HMGP), Pre-Disaster Mitigation (PDM), Flood Mitigation Assistance (FMA), or Severe Repetitive Loss (SRL)). FEMA may also require a local hazard mitigation plan under the Repetitive Flood Claims (RFC) program, at which time 44 CFR Section 201.6 would apply to receive grant assistance.



2.3.1 Local Hazard Mitigation Plan

FEMA implements various hazard mitigation planning provisions and regulations governing the mitigation planning requirements for local hazard mitigation plans (LHMPs) under the Code of Federal Regulations (CFR), Title 44, Part 201. Section 201.6 defines LHMPs as:

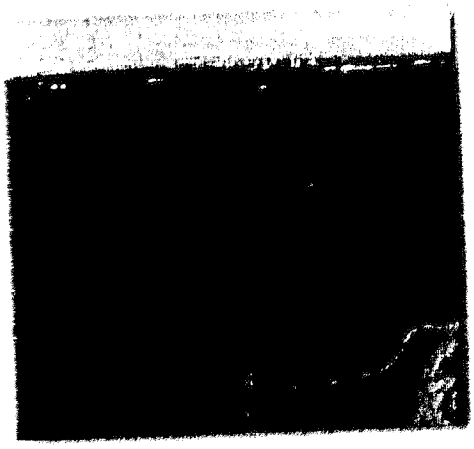
> "the local mitigation plan is the representation of the jurisdiction's commitment to reduce risks from natural hazards, serving as a guide for decision makers as they commit resources to reducing the effects of natural hazards. Local plans will also serve as the basis for the State to provide technical assistance and to prioritize project funding."

Part 201.3 lists the key responsibilities of local governments, as follows:

1. Prepare and adopt a jurisdiction-wide natural hazard mitigation plan as a condition of receiving project grant funds under the Hazard Mitigation Grant Program (HMGP), in accordance with Section 201.6.

2. At a minimum, review and update the local mitigation plan every 5 years from date of plan approval of the previous plan in order to continue program eligibility.





Cal EMA's Hazard Mitigation Planning Division administers the LHMP Program for the State of California. Cal EMA supports and assists local governments in the development of LHMPs and tracks their progress and effectiveness. Cal EMA provides local governments with information on integrating hazard identification, risk assessment, risk management, and loss prevention into a comprehensive approach to hazard mitigation and helps them identify cost-effective mitigation measures and projects.

Cities and Counties May...

Government Code Section 65302.6 allows cities and counties, if they choose, to "adopt with its safety element...a local hazard mitigation plan specified in the federal Disaster Mitigation Act (DMA) of 2000." Under new regulations Government Code Section 8685.9 now **prohibits** the State share for any eligible project under the California Disaster Assistance Act (CDAA) from:

> "exceeding 75% of total State eligible costs unless the local agency is located within a city, county, or city and county that has adopted a local hazard mitigation plan in accordance with the federal Disaster Mitigation Act of 2000 (P.L. 106-390) as part of the safety element of its general plan," in which case, "the Legislature may provide for a State share of local costs that exceeds 75% of total State eligible costs."

Government Code Section 8685.9 now provides a financial incentive for implementation of Government Code Section 65302.6, which allows local jurisdictions that adopt an LHMP as part of the safety element. The financial incentive is realized when local jurisdictions incur State-eligible, post-disaster costs under CDAA.

Specific flood information required or recommended to be included in local hazard mitigation plans are shown in Appendix D.

Cities and Counties Should Consider...

- Taking full advantage of the financial benefits associated with the new regulations under Government Code Section 8685.9 by adopting their LHMP as an annex, by reference, to their safety plan consistent with Government Code Section 65302.6. It is important to note that DWR and Cal EMA support updating the safety element, per Government Code Section 65302(g), at the time of LHMP preparation, as it maximizes efficiencies and consistency between the two. Information on the process may be obtained at http://www.hazardmitigation.calema.ca.gov/.

See Section 2.1.3 of this Handbook for information on the requirements under Government Code Section 65302(g) related to safety elements.



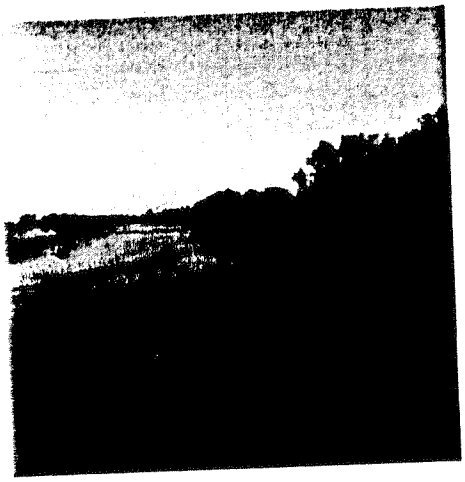
- Applying for Community Rating System (CRS) credit for their local multi-hazard mitigation plan. Implementation of Government Code Section 65302.6 may increase the rating of the local community for the CRS, which is a voluntary program for National Flood Insurance Program (NFIP) participating communities. The goals of the CRS are to reduce flood damages to insurable property, strengthen and support the insurance aspects of the NFIP and encourage a comprehensive approach to floodplain management. CRS is a point system program that reduces flood insurance premiums for the citizens of participating communities. There are 10 CRS classes and there are four main categories in which communities can earn points for doing more than the minimum NFIP floodplain management requirements: Public Information, Mapping and Regulation, Flood Damage Reduction, and Flood Preparedness. Flood insurance premium discounts can range from a 5% discount for a Class 9 community to as much as a 45% discount for a Class 1 community. One of the activities that communities can undertake to improve their CRS rating is the CRS plan. The CRS 10 step planning process is consistent with the multi-hazard planning regulations under 44 CFR Part 201. At a minimum, an approved multi-hazard mitigation plan under 44 CFR Part 201 that addresses floods could qualify for CRS credit. Although communities are not required to participate in CRS for approval of a local hazard mitigation plan, FEMA encourages jurisdictions to integrate the CRS planning steps into their local multi-hazard mitigation plan. DWR is the CRS State coordinator. More detailed information can be found under activity 510, Floodplain Management Planning, of the CRS Coordinator's Manual, and at http://training.fema.gov/emiweb/crs/.

Cities and Counties Can Comply By...

Effective January 1, 2007, Government Code Section 65302.6 allows a city, county, or a city and county to adopt a local hazard mitigation plan with its safety element. Government Code Section 8685.9 limits the State share for any eligible project under CDAA unless the local agency has adopted a LHMP as part of the safety element of its general plan also effective January 1, 2007.

Obtain More Information Here...

Cal EMA's Hazard Mitigation Branch, Hazard Mitigation Web Portal provides several links to LHMP-safety element preparation and guidance and other relevant flood hazard information at http://www.hazardmitigation.calema.ca.gov/.



Local jurisdictions that have not adopted a local hazard mitigation plan (LHMP) will be supported by CalEMA to receive federal funding to prepare and adopt LHMP's. Specifically, local jurisdictions can apply for the 2010 Flood Mitigation Assistance Grant Program.

FEMA has developed informational resources with specific "how to" guides that provide adaptable tools and methods on how to meet or exceed FEMA's requirements. These resource documents can be found at http://www.fema.gov/plan/mitplanning/resources.shtm and are useful in explaining subjects like mitigation planning and flood risk assessments in response to the preparation requirements of LHMPs. Specifically, the following "how to" guides are the most helpful for purposes of LHMP preparation and responding to flood risks:

- Understanding Your Risks: Identifying Hazards and Estimating Losses (FEMA 386-2)
- Developing The Mitigation Plan: Identifying Mitigation Actions and Implementing Strategies (FEMA 386-3)
- Bringing the Plan to Life: Implementing the Hazard Mitigation Plan (FEMA 386-4)

The FEMA-prepared guidance document called Local Multi-Hazard Mitigation Planning Guidance (July 1, 2008) is also a resource to better understand LHMP requirements (44 CFR Part 201), available at http://www.fema.gov/library/viewRecord.do?id=3336.



Government Code 65302 – Amended by AB 162

The general plan shall consist of a statement of development policies and shall include a diagram or diagrams and text setting forth objectives, principles, standards, and plan proposals. The plan shall include the following elements:

(a) A land use element that designates the proposed general distribution and general location and extent of the uses of the land for housing, business, industry, open space, including agriculture, natural resources, recreation, and enjoyment of scenic beauty, education, public buildings and grounds, solid and liquid waste disposal facilities, and other categories of public and private uses of land. **The location and designation of the extent of the uses of the land for public and private uses shall consider the identification of land and natural resources pursuant to paragraph (3) of subdivision (d).** The land use element shall include a statement of the standards of population density and building intensity recommended for the various districts and other territory covered by the plan. The land use element shall identify **and annually review those** areas covered by the plan **that** are subject to flooding **identified by floodplain mapping prepared by the Federal Emergency Management Agency (FEMA) or the Department of Water Resources.** The land use element shall also do both of the following:

(1) Designate in a land use category that provides for timber production those parcels of real property zoned for timberland production pursuant to the California Timberland Productivity Act of 1982 (Chapter 6.7 (commencing with Section 51100) of Part 1 of Division 1 of Title 5).

(2) Consider the impact of new growth on military readiness activities carried out on military bases, installations, and operating and training areas, when proposing zoning ordinances or designating land uses covered by the general plan for land, or other territory adjacent to military facilities, or underlying designated military aviation routes and airspace.

(A) In determining the impact of new growth on military readiness activities, information provided by military facilities shall be considered. Cities and counties shall address military impacts based on information from the military and other sources.

(B) The following definitions govern this paragraph:

(i) "Military readiness activities" mean all of the following:

(I) Training, support, and operations that prepare the men and women of the military for combat.

(II) Operation, maintenance, and security of any military installation.

(III) Testing of military equipment, vehicles, weapons, and sensors for proper operation or suitability for combat use.

(ii) "Military installation" means a base, camp, post, station, yard, center, homeport facility for any ship, or other activity under the jurisdiction of the United States Department of Defense as defined in paragraph (1) of subsection (e) of Section 2687 of Title 10 of the United States Code.

(b) (1) A circulation element consisting of the general location and extent of existing and proposed major thoroughfares, transportation routes, terminals, any military airports and ports, and other local public utilities and facilities, all correlated with the land use element of the plan.

(2) (A) Commencing January 1, 2011, upon any substantive revision of the circulation element, the legislative body shall modify the circulation element to plan for a balanced, multimodal transportation network that meets the needs of all users of streets, roads, and highways for safe and convenient travel in a manner that is suitable to the rural, suburban, or urban context of the general plan.

(B) For purposes of this paragraph, "users of streets, roads, and highways" means bicyclists, children, persons with disabilities, motorists, movers of commercial goods, pedestrians, users of public transportation, and seniors.

(c) A housing element as provided in Article 10.6 (commencing with Section 65580).

(d) (1) A conservation element for the conservation, development, and utilization of natural resources including water and its hydraulic force, forests, soils, rivers and other waters, harbors, fisheries, wildlife, minerals, and other natural resources. The conservation element shall consider the effect of development within the jurisdiction, as described in the land use element, on natural resources located on public lands, including military installations. That portion of the conservation element including waters shall be developed in coordination with any countywide water agency



and with all district and city agencies, **including flood management, water conservation, or groundwater agencies** that have developed, served, controlled, **managed**, or conserved water **of any type** for any purpose **in** the county or city for which the plan is prepared. Coordination shall include the discussion and evaluation of any water supply and demand information described in Section 65352.5, if that information has been submitted by the water agency to the city or county.

(2) The conservation element may also cover **all of** the following:

(A) The reclamation of land and waters.

(B) Prevention and control of the pollution of streams and other waters.

(C) Regulation of the use of land in stream channels and other areas required for the accomplishment of the conservation plan.

(D) Prevention, control, and correction of the erosion of soils, beaches, and shores.

(E) Protection of watersheds.

(F) The location, quantity and quality of the rock, sand and gravel resources.

(3) Upon the next revision of the housing element on or after January 1, 2009, the conservation element shall identify rivers, creeks, streams, flood corridors, riparian habitats, and land that may accommodate floodwater for purposes of groundwater recharge and stormwater management.

(e) An open-space element as provided in Article 10.5 (commencing with Section 65560).

(f) (1) A noise element that shall identify and appraise noise problems in the community. The noise element shall recognize the guidelines established by the Office of Noise Control and shall analyze and quantify, to the extent practicable, as determined by the legislative body, current and projected noise levels for all of the following sources:

(A) Highways and freeways.

(B) Primary arterials and major local streets.

(C) Passenger and freight on-line railroad operations and ground rapid transit systems.

(D) Commercial, general aviation, heliport, helistop, and military airport operations, aircraft overflights, jet engine test stands, and all other ground facilities and maintenance functions related to airport operation.

(E) Local industrial plants, including, but not limited to, railroad classification yards.

(F) Other ground stationary noise sources, including, but not limited to, military installations, identified by local agencies as contributing to the community noise environment.

(2) Noise contours shall be shown for all of these sources and stated in terms of community noise equivalent level (CNEL) or day-night average level (Ldn). The noise contours shall be prepared on the basis of noise monitoring or following generally accepted noise modeling techniques for the various sources identified in paragraphs (1) to (6), inclusive.

(3) The noise contours shall be used as a guide for establishing a pattern of land uses in the land use element that minimizes the exposure of community residents to excessive noise.

(4) The noise element shall include implementation measures and possible solutions that address existing and foreseeable noise problems, if any. The adopted noise element shall serve as a guideline for compliance with the state's noise insulation standards.

(g) (1) A safety element for the protection of the community from any unreasonable risks associated with the effects of seismically induced surface rupture, ground shaking, ground failure, tsunami, seiche, and dam failure; slope instability leading to mudslides and landslides; subsidence, liquefaction, and other seismic hazards identified pursuant to Chapter 7.8 (commencing with Section 2690) of Division 2 of the Public Resources Code, and other geologic hazards known to the legislative body; flooding; and wildland and urban fires. The safety element shall include mapping of known seismic and other geologic hazards. It shall also address evacuation routes, military installations, peakload water supply requirements, and minimum road widths and clearances around structures, as those items relate to identified fire and geologic hazards.

(2) The safety element, upon the next revision of the housing element on or after January 1, 2009, shall also do the following:

(A) Identify information regarding flood hazards, including, but not limited to, the following:

(i) Flood hazard zones. As used in this subdivision, "flood hazard zone" means an area subject to flooding that is delineated as either a special hazard area or an area of moderate or minimal hazard on an official flood insurance rate map issued by the Federal Emergency Management Agency. The identification of a flood hazard zone does not imply that areas outside the flood hazard zones or uses permitted within flood hazard zones will be free from flooding or flood damage.

(ii) National Flood Insurance Program maps published by FEMA.

(iii) Information about flood hazards that is available from the United States Army Corps of Engineers.

(iv) Designated floodway maps that are available from the Central Valley Flood Protection Board.

(v) Dam failure inundation maps prepared pursuant to Section 8589.5 that are available from the Office of Emergency Services.

No info for Lake Isabella

(vi) Awareness Floodplain Mapping Program maps and 200-year floodplain maps that are or may be available from, or accepted by, the Department of Water Resources.

(vii) Maps of levee protection zones.

(viii) Areas subject to inundation in the event of the failure of project or nonproject levees or floodwalls.

(ix) Historical data on flooding, including locally prepared maps of areas that are subject to flooding, areas that are vulnerable to flooding after wildfires, and sites that have been repeatedly damaged by flooding.

(x) Existing and planned development in flood hazard zones, including structures, roads, utilities, and essential public facilities.

(xi) Local, state, and federal agencies with responsibility for flood protection, including special districts and local offices of emergency services.

(B) Establish a set of comprehensive goals, policies, and objectives based on the information identified pursuant to subparagraph (A), for the protection of the community from the unreasonable risks of flooding, including, but not limited to:

(i) Avoiding or minimizing the risks of flooding to new development.

(ii) Evaluating whether new development should be located in flood hazard zones, and identifying construction methods or other methods to minimize damage if new development is located in flood hazard zones.

(iii) Maintaining the structural and operational integrity of essential public facilities during flooding.

(iv) Locating, when feasible, new essential public facilities outside of flood hazard zones, including hospitals and health care facilities, emergency shelters, fire stations, emergency command centers, and emergency communications facilities or identifying construction methods or other methods to minimize damage if these facilities are located in flood hazard zones.

(v) Establishing cooperative working relationships among public agencies with responsibility for flood protection.

(C) Establish a set of feasible implementation measures designed to carry out the goals, policies, and objectives established pursuant to subparagraph (B).

(3) After the initial revision of the safety element pursuant to paragraph (2), upon each revision of the housing element, the planning agency shall review and, if necessary, revise the safety element to identify new information that was not available during the previous revision of the safety elemen(4) Cities and counties that have floodplain management ordinances that have been approved by FEMA that substantially comply with this section, or have substantially equivalent provisions to this subdivision in their general plans, may use that information in the safety element to comply with this subdivision, and shall summarize and incorporate by reference into the safety element the other general plan provisions or the floodplain ordinance, specifically showing how each requirement of this subdivision has been met.



(5) Prior to the periodic review of its general plan and prior to preparing or revising its safety element, each city and county shall consult the California Geological Survey of the Department of Conservation, **the Central Valley Flood Protection Board, if the city or county is located within the boundaries of the Sacramento and San Joaquin Drainage District, as set forth in Section 8501 of the Water Code**, and the Office of Emergency Services for the purpose of including information known by and available to the department, the office, **and the board** required by this subdivision (6) To the extent that a county's safety element is sufficiently detailed and contains appropriate policies and programs for adoption by a city, a city may adopt that portion of the county's safety element that pertains to the city's planning area in satisfaction of the requirement imposed by this subdivision.

Government Code 65302.6 – Associated with AB 2140

see p116

(a) A city, county, or a city and county may adopt with its safety element pursuant to subdivision (g) of Section 65302 a local hazard mitigation plan (HMP) specified in the federal Disaster Mitigation Act of 2000 (P. L. 106-390). The hazard mitigation plan shall include all of the following elements called for in the federal act requirements:

(1) An initial earthquake performance evaluation of public facilities that provide essential services, shelter, and critical governmental functions.

(2) An inventory of private facilities that are potentially hazardous, including, but not limited to, multiunit, soft story, concrete tilt-up, and concrete frame buildings.

(3) A plan to reduce the potential risk from private and governmental facilities in the event of a disaster.

(b) Local jurisdictions that have not adopted a local hazard mitigation plan shall be given preference by the Office of Emergency Services in recommending actions to be funded from the Pre-Disaster Mitigation Program, the Hazard Mitigation Grant Program, and the Flood Mitigation Assistance Program to assist the local jurisdiction in developing and adopting a local hazard mitigation plan, subject to available funding from the Federal Emergency Management Agency.

Ms. Carole Clum
45638 S Fork Dr
Three Rivers CA 93271

Carole Clum's Public Comments at the Tulare County Planning Commission October 19, 2011

The impact on water quality of the General Plan 2030 Update was found to be less than significant by the RDEIR. This is incorrect. Here is why:

1. Tulare Lake Basin has been in a condition of critical groundwater overdraft for decades. New development will depend almost entirely on wells for water supply. As the water table is drawn down, contamination of groundwater becomes more concentrated. Natural sources of contamination will continue and human-caused contamination such as agriculture, dairy corrals/feedlots, septic and stormwater runoff sources will increase, but there will be less water in the aquifer to dilute it. The County should have at least prohibited development in the most severely overdrafted areas and required strict water conservation in all new development. They did not. This increase in groundwater contamination is a public health risk which was not analyzed by the RDEIR.

2. There are 895 hazardous waste sites identified in the 2010 Background Report. The County has not created a county-wide map showing the location and delineating the boundaries of these sites. The locations of these hazardous waste sites were not considered when the County amended the Housing Element in 2010. There is no way of knowing if homes will be built and wells drilled on these sites. How can the environmental impact report analyze the impact on water quality of the General Plan without considering hazardous waste sites?

3. The Tulare County Disadvantaged Community Water and Sewer Issues Report of November 2010, which you all have a copy of, details many communities with nitrate, arsenic, or DBCP contamination of their well water. The aggressive development proposed by the General Plan will expose more people to existing and deteriorating water quality problems. This impact was not analyzed by the environmental impact report.

4. The nitrate contamination of groundwater is not confined to the disadvantaged communities. Dr. Thomas Harter's report, SBX-2 Nitrate Groundwater Report to the Legislature, June 9, 2011, draft contains sobering conclusions about nitrate contamination and its spread in the San Joaquin Valley.

At the Tulare County Water Commission on June 13, 2011, Dr. Thomas Harter, groundwater hydrologist with U.C. Davis, presented the preliminary results of his study of nitrates in groundwater in the Central Valley and the Salinas Valley. The study was funded by SBX 2-1. See Attachment 14, SBX2-1 Nitrate in Groundwater Report to the Legislature June 9, 2011. The final report will be released in March 2012. Following is a summation of the preliminary findings and answers to questions asked by members of the Tulare County Water Commission:

- Nitrate is the most common groundwater pollutant.
- Nitrate occurs at shallow depths where domestic wells are.
- Most domestic well owners do not treat the water.
- Tulare Lake basin is the most affected groundwater basin in California.
- The leading nitrate loading source is agriculture, followed distantly by dairy corrals/lagoons and far more distantly by septic systems, wastewater treatment plants, food processing plants, golf courses, and stormwater runoff.
- the nitrate problem will likely worsen and not improve for several decades (50 year time lag) at which time some wells will fall below MCL for nitrates. Others will persist at two-three times MCL. (Maximum Contaminant Level)
- All remediation solutions are costly, both in capital costs and operation costs, unless the community is hooked up to a nearby uncontaminated water system.
- Treatment is unaffordable for most small communities.
- There are promising funding options for remediations, but no funding is available now for feasibility studies and planning.
- There are higher operation and maintenance costs for small systems.
- Some people in small communities with nitrate contamination will have no other option but to move.
- Reducing nitrogen use on crops must include reduction in watering in order not to drive nitrogen deeper than the root zone and into the groundwater zone where domestic wells extract water. In irrigated land nitrates penetrate rapidly to depth.
- Most nitrate contamination of groundwater occurs on the east side of the valley (including Visalia, Exeter, Lindsay, Porterville and Tulare) where irrigated agriculture first began in the Central Valley and where the soil is more porous.
- Much of nitrate concentration on the east side is above the drinking water limit.
- Most of the dairies have at least one domestic well that exceeds nitrate MCL.
- In the valley portion of Tulare County all wells will reach nitrate contamination in 100 years.
- Often wells with nitrate contamination are taken off line. Deeper wells are then driven.
- Some deep wells are contaminated with nitrates.
- Multiple contamination of wells will increase in the future. It is more expensive to remediate more than one contaminant. Some east side wells are contaminated with arsenic from a Chilean fertilizer imported in the 1950s and 1960s.

End of Report

The above four factors, ignored by the RDEIR, will adversely impact water quality:

- Critical groundwater overdraft
- Hazardous waste sites
- Disadvantaged communities' existing water quality problems
- Nitrate contamination is spreading and will cover the Tulare Lake Basin by 2100

Will your grandchildren be forced to rely on bottled water? Poor water quality affects the regional economy. What business will want to locate here? Will food processing plants be able to use our groundwater?

Do not recommend this General Plan for approval until the proper analysis and the proper mitigation have been accomplished.

Tulare County - Disadvantaged Community
Water and Sewer Issues
November 2010

Disadvantaged Communities / Schools	IRWMP	Type of Project	MHI	Entity	Issues	On-going MCL Violation	Solutions Id'd	Estimated Cost	Potential Funding Sources	App / Pre-App Submitted	Date Constructon App Submtd	Feasibility Study Needed	App Amnt Submitted	Date Planning App Submtd	Prelim. Engin. / CEQA Needed
Richgrove	Poso	Water	$22,885	Richgrove Community Services District	1 well has arsenic/DBCP MCL issues;Other well close to nitrate MCL		Drill new well and/or blend	$1,698,000	CDPH- Prop 84	Yes	Jan-08	No	$393,100	Feb-10	Yes
Richgrove	Poso	Sewer	$22,886	Richgrove Community Services District	Treatment plant inflow is in excess of rated capacity		Modify RWQCB Discharge permit and upgrade and expand treatment and disposal facilities		USDA SWRCB-SCWG/ CWSRF						
Rodriguez Labor Camp	Poso	Water	$18,144	Richgrove Community Services District	Nitrate 130 ppm	Yes	Consolidate with Richgrove CSD	included w/ Richgrove	CDPH- Prop 84	Yes	included w/ Richgrove	included w/ Richgrove	included w/ Richgrove	included w/ Richgrove	Yes
Seville	Upper Kings	Water	$14,000	Tulare County as Receiver	Old leaky pipelines, lack of storage		Replace water distribution system and install storage tank	$3,200,000	DPH-SRF & Prop 84 USDA	Yes	Jan-08	Yes	$120,000	Feb-10	Yes
Seville	Upper Kings	Water	$14,000	Tulare County as Receiver	Shallow well (125'), nitrate fluctates above and below MCL		Drill new well and connect with Yettem's water system								
Seville	Upper Kings	Sewer	$14,000	TCCSAZOB	Sewer system at capacity, lines too shallow to allow extensions										
Soults Mutual Water Company	Kaweah	Water	$41,000	Soults Mutual Water Company	Nitrates exceed MCL	Yes	Consolidate with City of Tulare	$982,500	CDPH- Prop 84	Yes	Jan-08	No			No
Sultana	Upper Kings	Water	$12,000	Sultana CSD	1 active well, DBCP over MCL for backup well		Need Feasibility Study to determine best options		IRWMP CDPH-DWSRF Prop 84	Yes		Yes	IRWMP $123,750 DWSRF $396,000	Feb-10	
Teviston	Tule	Water		Teviston CSD	Bottom of one of system's 2 wells has collapsed		Rehabilitate well or drill new well								
Tipton	Tule														
Tipton CSD-Burnett Road	Tule	Water	$19,500	Tipton Community Services District	Temporary connection for water outage has been in place for 10 years		Consolidate with Tipton CSD	$249,283	Prop 84 DWSRF	Yes	Jan-08	No	$55,000	Feb-10	No
Tonyville	Kaweah	Water		City of Lindsay ?	Disinfection byproducts with surface water - nitrate when groundwater temporarily used		Consolidate with City of Lindsay		CDPH-DWSRF Prop 84			Yes	$262,500	Feb-10	
Tooleville	Kaweah	Water	$15,500	Tooleville NMWA	Bolth wells exceed Nitrate MCL, Water capacity		Drill new well west of Exeter and wheel water thru Exeter to replacement distribution system	$3,100,000	USDA DPH-DWSRF Prop 84 CDBG	Yes		No	$408,000	Feb-10	No
Tract 92	Kaweah	Water		Tract 92 CSD	39 abandoned wells need proper destruction										

*TCCSAZOB - Tulare County County Service Area #1 Zone of Benefit
CDBG
DPH Prop 84
DWSRF
USDA
SWRCB
SCWG

Tulare County - Disadvantaged Community
Water and Sewer Issues
November 2010

Disadvantaged Communities / Schools	IRWMP	Type of Project	MHI	Entity	Issues	On-going MCL Violation	Solutions Id'd	Estimated Cost	Potential Funding Sources	App / Pre-App Submitted	Date Constructon App Submtd	Feasibility Study Needed	App Amnt Submitted	Date Planning App Submtd	Prelim. Engin. / CEQA Needed
Allensworth	Tule*	Water	$23,750	Allensworth CSD	Arsenic levels in both wells have now exceeded MCL, prblems with control system, inadequate storage	Yes	Sealing off bottom of west well, refinement of power at motor control panels, additional storage		CDPH-DWSRF Prop 84	Yes	Jan-08	Yes			Yes
Alpaugh	Tule*	Water	$23,688	Alpaugh Joint Powers Authority	Water from both new wells exceeds arsenic MCL (16 to 25 ppb)	Yes	Arsenic Treatment Plant	$1,368,000	CDPH- Prop 84	Yes			$389,200		No
Beverly-Grand	Tule	Water	$29,000	Beverly Grand Mutual Water Company	Nitrates exceed MCL	Yes	Consolidate with City of Porterville	$801,000	CDPH-Prop 84	Yes	Feb-09	Yes	$142,600	Feb-10	Yes
Cutler	Upper Kings	Water	$24,330	Cutler PUD	Need to complete metering of customers										
Ducor	Tule	Water	$23,000	Ducor Community Services District	Well collapse, lack of adequate supply of water, H2S		New water supply (well &/or consolidation)	$700,000	USDA DWSRF	Yes					
East Orosi	Upper Kings	Water	$26,071	East Orosi CSD	Both wells at times exceed nitrate MCL		Short Term: Rehabilitate both wells	$137,000	IRWMP CDPH-DWSRF Prop 84	Yes	Yes	Yes	IRWMP $102,600 DWSRF $137,000		Yes
East Orosi	Upper Kings	Sewer	$26,071	East Orosi CSD	Both wells at times exceed nitrate MCL		Long Term: Drill new well/ investigate connection to Orosi		IRWMP CDPH-DWSRF Prop 84	Yes			IRWMP $152,788		
Fairways Tract	Tule	Water		Fairways Tract MWC	Water from only well exceeds NO3 MCL by almost 3 times	Yes	Consolidate with City of Porterville	$892,886	DPH-DWSRF	Yes		No	$892,886		No
Lemon Cove and Sequoia Union School	Kaweah	Water	$28,333	Lemon Cove Sanitary District/Sequoia Union School District	Nitrates exceed MCL	Yes	Feasibility Study Drill test well(s), new well(s), storage and transmission		CDPH-DWSRF Prop 84	Yes	N/A	Yes	$315,070	Oct-08	Yes
Lemon Cove	Kaweah	Sewer	$28,333	Lemon Cove Sanitary District	Regional Board has requested treatment plant modifications		upgrade treatment plant								
London	Upper Kings	Water	$21,678	London CSD	Inadequate supply, storage, distribution		New well, storage, replace and loop undersized pipelines	$2,800,000	USDA DWSRF IRWMP	Yes	under contract	No	USDA app submited ->	Jul-10	No
Matheny Tract	Kaweah	Water	$27,467	Pratt MWC	1 well shut down due to high NO3, the other 2 wells wells excxeed arsenic MCL. Distribution system needs replacement	Yes	Consolidate with City of Tulare and replace water distribution system.	$6,000,000	CDPH-DWSRF Prop 84	Yes	Dec-05	No	SRF$389,200 P84 $97,300 $486,500	Feb-10	Yes
Matheny Tract	Kaweah	Sewer	$27,468	County-City of Tulare ??	Unsewered community on septic systems		Negotiate, secure funding and connect with City of Tulare system								
Monson	Upper Kings	Water		Sultana CSD ?	Private wells with nitrate levels over MCL		Determine community and County support and that of neighboring Sultana for potential consolidation with Sultana system.		CDPH-DWSRF Prop 84	Yes		Yes	$495,000	Feb-10	Yes
Pixley	Tule	Water	$23,304	Pixley Public Utility District	3 of 4 wells at times exceed arsenic MCL	Yes	Drill new wells and provide storage	$3,000,000	CDPH- Prop 84	Yes	Jan-08	No	$500,000	Feb-10	No
Plainview	Tule	Sewer		Plainview MWC	Unsewered community with septic system problems		Initiate preliminary engineering and build community sewer system, investigate connection with Strathmore or Lindsay		USDA SWRCB-SCWGP						

From: David Bryant
To: Flores, Maria
CC: General Plan Update Team
Date: 10/21/2011 9:17 AM
Subject: Fwd: To David Bryant/TCRMA, re: Tulare Co. GPU FEIR and TBWP Tulare Co. Measure R Riparian-Wildlife Corridor Report (2008)
Attachments: TBWPTCAGTulCoMeasRRipWLCorrReportFeb122008.pdf; TBWP.TCAGMeasureRFeb2008Map1of2.pdf; TBWP.TCAGMeasureRFeb2008Map2of2.pdf; TBWPConservationVisionJuly2010.pdf

Maria, Please include the attached material into the PDF document of the other materials received from the Planning Commission public hearing last Wednesday on the GPU. Thanks, DB

>>> "Carole Combs" <ccombs@thegrid.net> 10/20/2011 8:51 AM >>>
Dear David,

Pursuant to our discussion yesterday after the Tulare County Planning Commission briefing on the proposed FEIR for the Tulare County General Plan Update, per Commissioner John Elliott's request to me and in response to Shirley Kirkpatrick's request for such information, attached please find the Tulare Basin Wildlife Partners (TBWP) Tulare County Measure R Riparian-Wildlife Corridor Report (February 2008) and the two map attachments that were included in Appendix 2, pp. 27-28. The preparation of the report (and payment for it through TCAG Measure R funds to the TBWP) was approved by Supervisor Ishida at a TCAG meeting in late summer of 2007 and finalized in February 2008 by the Tulare Basin Wildlife Partners' biologist and management team. The TBWP team worked closely on preparation of the Report with TCAG Ted Smalley and Elizabeth Wright, and with Tulare County GIS staff Mark Clark. Preparation of the Report involved a series of meetings with and presentations to TCAG. It was then finally officially presented by our team, officially approved and accepted by TCAG at a TCAG meeting held in Tulare on February 25, 2008. The Report provides a science-based analysis of riparian and wildlife corridor protection needs and opportunities in Tulare County to assist with TCAG planning needs under Measure R and is information that, we propose, should be included in or referred to in the GPU FEIR.

In addition, the TBWP has prepared four science-based conservation plans (reports) for the Tulare Basin region --all accepted as official Conceptual Area Protection Plans (CAPPs) by the CA Department of Fish and Game (DFG) by March 2009. These CAPPs provide the basis for multi-partner project funding and implementation through DFG and the State of California Wildlife Conservation Board. The attached TBWP Conservation Vision document (posted on our Web site at www.tularebasinwildlifepartners.org) is a summary of these four conservation plans. Of these four Plans, the TBWP Sand Ridge-Tulare Lake Conservation Plan and the Tulare Basin Riparian and Wildlife Corridors Conservation Plan (available officially only now through CA DFG, Fresno Regional Office, contact Annee Ferranti at 559/243-4014, x. 227) contain additional information that is relevant for inclusion or reference in natural resource information sections of the proposed GPU FEIR.

Thank you very much for the opportunity to provide this information to you. Please let me know if I can be of additional assistance.

Sincerely,

Carole K. Combs
Executive Director/Secretary of the Board
Tulare Basin Wildlife Partners
P.O. Box 1180, 45063 N. Fork Drive
Three Rivers, CA 93271
(559) 799-7204



TULARE BASIN WILDLIFE PARTNERS

Creating Opportunities for Nature and People

Tulare County Measure R Riparian-Wildlife Corridor Report

Prepared by Tulare Basin Wildlife Partners
for Tulare County Association of Govenments

11 February 2008

Executive Summary

As part of an agreement with the Tulare County Association of Governments, Tulare Basin Wildlife Partners (TBWP) visited nine potential riparian and wildlife corridors in Tulare County during summer 2007. We developed a numerical ranking system and determined the five corridors with highest potential for conservation, recreation and conjunctive uses. The selected corridors include: Deer Creek Riparian Corridor, Kings River Riparian Corridor, Oaks to Tules Riparian Corridor, Lewis Creek Riparian Corridor, and Cottonwood Creek Wildlife Corridor. For each corridor, we provide a brief description and a summary of attributes and opportunities. Opportunities include flood control, groundwater recharge, recreation, tourism, and wildlife. We also provide a brief description of opportunities for an additional eight corridors that were not addressed in depth in this document.

In addition, we list the Measure R transportation improvements and briefly discuss the potential wildlife impacts for each of the projects. The document concludes with an examination of other regional planning efforts that include Tulare County, including the San Joaquin Valley Blueprint, the Tulare County Bike Path Plan, the TBWP's Sand Ridge-Tulare Lake Plan, the Kaweah Delta Water Conservation District Habitat Conservation Plan (HCP), and the USFWS Upland Species Recovery Plan.

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Introduction

In July 2007 Tulare Basin Wildlife Partners (TBWP) entered into an agreement with Tulare County Association of Governments (TCAG) to:

- Identify and prioritize opportunities for natural areas that may be set aside for mitigation banking purposes
- Identify and leverage additional federal, state, and private funding opportunities for mitigation bank creation
- Provide scientifically-based habitat and special status species information on six riparian (river or stream) systems on Tulare County watersheds
- Identify conjunctive use opportunities such as groundwater banking, flood protection, private landowner participation incentives, recreation, and new business opportunities
- Help lay the foundation for sound economic development
- Facilitate, streamline, or avoid federal and/or state regulatory concerns
- Help maintain/ensure local control

The mitigation banking aspects of the project are covered in a separate document that has already been submitted to TCAG (TBWP 2007). This document presents the finding of the riparian and wildlife corridor analysis.

Goals and Objectives

The goals of the Tulare County Measure R Riparian-Wildlife Corridor Project are to: (1) study each of the riparian and wildlife corridors in Tulare County, (2) identify the highest value areas where conservation activities should be focused, (3) identify sensitive areas that will need mitigation during Measure R projects, (4) identify areas for habitat protection, (5) identify potential mitigation sites, and (6) identify conjunctive use opportunities such as groundwater banking, flood protection, recreation, open space access, private landowner participation incentives, and new business opportunities.

The objectives of habitat protection along Tulare County corridors are: (1) to enhance wildlife habitat and movement along natural resource corridors by identifying important areas for wildlife, (2) protect flood–sensitive areas by recommending levee setbacks, floodplain easements, and Wetland Reserve Program opportunities, and (3) synergize conjunctive uses to maximize benefits by identifying areas which can accommodate both wildlife and recreation/open space needs.

Tulare County Corridors

Rankings

The TBWP planning team made site visits to all potential corridors during August 2007. After these visits, we ranked each corridor according to specific attributes (Appendix 1). We used a ranking process to define which Tulare County corridors are most important to wildlife and have the most opportunities. The following criteria were used for ranking the corridors: (1) extent of urban development, (2) channel hydrology & morphology (including modification history – diversions, realignments, dams, etc.), (3) condition of adjacent uplands (riparian or other complementary upland habitats), (4) riparian habitat quality & continuity, (5) presence of special status species (threatened and endangered species and species of special concern, etc.), (6) opportunities for conjunctive use (e.g. degree of groundwater overdraft; opportunities for recharge, recreation, etc.), (7) importance to Tulare Basin wetlands (i.e. Does this channel bring water down to lakes or wetlands? Does it send significant water to the Basin?), and (8) community, social & agency considerations.

Numerical results for the rankings are as follows: Deer Creek 22, Cottonwood Creek 20, Kings River 19, Kaweah Delta 19, Elk Bayou 18, Sand Creek 17, White River15, Lewis Creek 14, and Tule River 12 (Appendix 1). From this list the TBWP planning team selected the Deer Creek Corridor, Kings River Corridor, Oaks to Tules Corridor (which is comprised of Elk Bayou as well as eastern portions of the Kaweah Delta Corridor and the west end of the Tule River Corridor), Cottonwood Creek Corridor, and the eastern end of the Lewis Creek Corridor for detailed study. Lewis Creek Corridor was selected, even though it scored low in the ratings, because it encompasses some of the highest quality riparian habitat in Tulare County. We mapped selected corridors and included Measure R Projects and Sensitive Species locations from California Natural Diversity Data Base (Appendix 2).

Corridors selected for detailed study:

Deer Creek Corridor

Description - Deer Creek is located entirely within Tulare County with its headwaters at the crest of the western slope of the Greenhorn Mountains in Giant Sequoia National Monument. The highest point in the watershed is on Tobias Peak at 8,284 feet (2,525 meters) National Geodetic Vertical Datum (NGVD). The 62 mile (100 km) long watershed of approximately 230,000 acres (92,900 hectares) includes Capinero Creek, Tyler Creek, Rube Creek, Gordon Creek, Pothole Creek, and Fountain Springs Gulch. The creek flows west from the mountains through California Hot Springs, just north of Terra Bella, just north of Earlimart, and ends at the Homeland Canal north of Alpaugh. The westernmost 8 miles was rerouted approximately 4 miles to the north in the 1950s and now flows into the historic Tulare Lake bed via the Homeland Canal. Historically the creek flowed through the town of Allensworth and into the Ton Tache Lake basin, a formerly marshy lowland area between the towns of Allensworth and Alpaugh. Portions of the historic creek channel have not been filled and leveled and can be seen along Avenue 56 between Earlimart and State Highway 43. The low point of the Ton Tache basin is at 204 feet (63 meters) NGVD.

The Deer Creek watershed contains 56 of the 83 habitat types found in Tulare County (Sawyer & Keeler-Wolf 1995). The creek originates in the Red Fir zone on Tobias Peak and flows through numerous higher elevation habitats including White Fir, Mixed Conifer, Black Oak, Canyon Live Oak, and Interior Live Oak. Giant Sequoias reach the southern extent of their geographic range in the upper watershed of Deer Creek. Deer Creek Grove is a small grove with about 35 mature Giant Sequoias and Starvation Grove, a few miles to the north, has about 50 mature Giant Sequoias.

In the middle elevations the watershed is characterized by Blue Oak Woodland and California Buckeye in the uplands and extensive stands of California Sycamore and various willow habitat types along the riparian areas and drainages. At the lower elevations nearly all of the Valley floor lowland habitat types occur along the floodplain portions of the corridor.

This Plan includes an in-depth analysis of the lowland floodplain corridor from Old Stage Road (4 miles northeast of Terra Bella) downstream to just west of Highway 99 near Earlimart. The foothill and high Sierra region east of Old Stage Road has been analyzed in a plan completed by Sequoia Riverlands Trust. The region west of Highway 99 is addressed in the Sand Ridge-Tulare Lake Conservation Plan, completed in 2007 by TBWP.

Attributes – The Deer Creek Corridor was the highest ranked corridor in the study, with a score of 22 (Appendix 1). In the upper watershed, the Deer Creek Corridor is managed by the United States Forest Service (USFS) Sequoia National Forest and is designated as the Giant Sequoia National Monument. There are a few, small in-holdings within the USFS land. The middle elevations of the watershed are privately owned and are managed as grazing land. There are several areas that use hunting access to supplement the grazing operations. A limited amount of firewood harvesting is also conducted in this region. Bureau of Land Management (BLM) owns several parcels in the upper and middle watershed.

Most of the lower watershed between Old Stage Road and the western boundary of the corridor planning area is farm land. Of the 8,595 acres analyzed in this corridor, 6,100 acres (71%) were farmed and 1,894 acres (22%) were native or fallow. A small proportion of the land was canals (96 acres, 1%), developed (90 acres, 1%), or refuse disposal sites (40 acres, 0.5%). A portion of the area was also classified as wetlands (375 acres, 4.4%). This wetland habitat is a conjunctive use groundwater recharge basin/wetland habitat near the Friant-Kern Canal owned by the Terra Bella Irrigation District and monitored by Tulare County Audubon Society. These lands are a model of the kind of conjunctive use that can improve recreation opportunities, control flooding in flood-sensitive areas and provide excellent wildlife habitat in Tulare County.

The western portion of the Corridor, west of the current planning area has a mixed property ownership with more native or fallow land. Pixley National Wildlife Refuge (6,789 acres), Allensworth State Ecological Reserve (4,698 acres), Allensworth State Historic Park (1,035 acres), and BLM's Atwell Island Project (8,000 acres) are all located in this region. In addition, the Natural Resource Conservation Service (NRCS) has purchased several parcels of floodplain easements just west of Allensworth and over 5,000 acres of Wetland Reserve Easements north of Alpaugh, the latter of which are currently being managed as wetlands. These wetlands also serve

as an excellent model of how private interests can contribute to wildlife habitat while simultaneously protecting flood sensitive areas, enhancing groundwater resources and providing recreational opportunities. Local government districts, such as the Alpaugh Irrigation District (1,881 acres), Angiola Water District (773 acres), Atwell Island Water District (689 acres), Pixley Irrigation District (541 acres), and Earlimart Public Utility District (240 acres) also own sizable acreage in this area.

One of the major attributes of the Deer Creek Corridor is that the riparian vegetation is nearly contiguous along the entire corridor from the headwaters to the terminus in the center of the Tulare Basin. Other potential corridors such as the White River, Tule River/Porter Slough, and Cross Creek have major breaks in their streamside growth. With the exception of a few farm ponds and the water recharge basin near Friant-Kern Canal, the Deer Creek watershed is not regulated and there are no major dams. The absence of a dam has a profound favorable influence on the moderate to high quality riparian growth characteristic of this stretch of Deer Creek. The lack of major infestations of invasive plant species such as *Tamarix* and Giant Reed is probably at least partially due to the free flowing nature of the stream. Another important watershed attribute is the variety and extent of public lands at the western end of the stream. This area is already attractive to the many visitors at Pixley NWR and Allensworth SHP and visitation is increasing at the Atwell Island Project.

Opportunities – Recreation and open space potential on the Deer Creek Corridor is high. This corridor is a potential location for a hiking, bicycling, and equestrian trail from the Giant Sequoia groves of the southern Sierra Nevada to the wetlands of the Tulare Basin at Pixley NWR and the Atwell Island Project (TCAG 2007). There is currently a campground at Allensworth SHP, a public and a private campground at California Hot Springs, and a small picnic area/camping area at the Deer Creek Giant Sequoia Grove. Ultimately, several more small camping areas could be established 7 to 10 miles apart for long-distance hikers and bicyclists. This project would require obtaining easements for the trail, access to the trail, and access sites and parking areas. In Kern County, the Kern River Parkway includes over 6,000 acres of trails, parks, and waterways extending over 30 miles from the mouth of the Kern Canyon westerly nearly to Interstate 5 (Highway 43/Enos Lane). The Deer Creek Corridor trail, as envisioned here, would traverse far less of an urban environment than the Kern River Parkway and would provide a more scenic and rural experience.

Ecotourism and Historical Tourism are already important along this corridor. Pixley NWR is an important destination for bird watchers and nature enthusiasts who primarily visit September through March to observe the large (5,000 to 8,000) flocks of wintering Sandhill Cranes. The evening fly-in of thousands of these large birds against the setting sun is a magnificent sight that is not soon forgotten. Allensworth SHP interprets the experience of early African-American settlers in the Tulare Basin and is a destination of thousands of visitors each year. During special events, when docents re-enact the lives of the original residents of each building, the small village comes to life. BLM's Atwell Island Project currently has a one-mile birdwatching and hiking trail along a canal that is a destination for Audubon Society birding trips in the spring and fall, as well as the environmental studies class at the local High School. A system of seasonal marshes and wetlands in the Ton Tache Lake basin are also planned by BLM with the assistance of TBWP and NRCS; initial progress is expected by July 2008 for this key wetland feature of the

Atwell Island Project. Wildlife observation platforms and blinds will be constructed as part of a system of walking trails at this site.

Flood control protecting flood-prone areas and wetland habitat for wildlife can go hand in hand along the Deer Creek Corridor. There is potential to obtain grants to purchase floodplain and wetland easements which could provide both flood protection to the nearby towns and farmland at the same time that they provide wetland habitat for waterfowl and riparian habitat for neotropical migrant birds. In many areas this would consist of setting levees back 100 to 200 feet, while in other areas, large pond areas could be created with setbacks of up to one half mile. These ponds could provide wetland habitat while being managed conjunctively to help recharge groundwater resources in the area, especially during years with above average precipitation. The groundwater along the Deer Creek Corridor is severely depleted. In the Alpaugh area, where there were artesian wells in the early 1900s, wells are now drilled to a depth of 1,300 feet (390 m) with ground water standing at a depth of 350 feet early in the year and as deep as 500 feet late in the irrigation season.

Kings River

Description – Kings River is located in Fresno, Tulare, and Kings counties. It begins at the highest points in the Sierra Nevada and flows west from the mountains through Kings Canyon (in Kings Canyon National Park) and Sierra and Sequoia National Forests into Pine Flat Reservoir. The Kings Canyon is one of the deepest canyons on the North American continent. After leaving Pine Flat Reservoir, the River flows southwest through the towns of Piedra, Minkler, Reedley, Kingsburg, and Laton before flowing (historically) into Tulare Lake near Stratford. Today, the river only flows into the Tulare Lake basin at extremely high flood flows. Much of the flood water is now diverted into the San Joaquin basin via the Fresno Slough. The river has a total length of approximately 130 miles (208 km), with half above and half below Pine Flat Dam. The highest point in the watershed is on North Palisade at 14,242 feet (4,342 m) in eastern Fresno County. The watershed above Pine Flat Dam is approximately 1.1 million acres (449,000 ha) in extent and includes the North Fork, Middle Fork, and South Fork of the Kings River as well as Big Creek, Dinky Creek, Bubbs Creek, Roaring River, Mill Creek, and many other smaller tributaries. This, along with the San Joaquin River and the Kern River are the major rivers in the Southern Sierra Nevada.

The Kings River watershed contains 81 of the 82 habitat types found in Tulare County (Sawyer & Keeler-Wolf 1995). The River's headwaters are in the Alpine Zone at the crest of the Sierra Nevada and flows through numerous high elevation habitats including Lodgepole Pine, Western White Pine, Red Fir, White Fir, Mixed Conifer, Black Oak, Canyon Live Oak, and Interior Live Oak. Seventeen Giant Sequoia groves occur in the watershed including two of the largest groves (Converse and Evans groves).

In the middle to low elevations, the watershed is characterized by Blue Oak Woodland, California Buckeye, and several shrub-dominated habitats. At lower elevations, west of Pine Flat Reservoir, the broad floodplain with multiple braided stream channels was originally dominated by Valley Oak Forest, of which there are examples remaining at the following Fresno County Parks: Choinumni Park, Winton Park, Avocado Lake Park, Kings River Green Belt Park,

Kings River Access Park, and Laton-Kingston Park. There are also remaining stands of other riparian woodland types including Fremont Cottonwood, Black Willow, and Red Willow. Summit Lake, of which only an alkaline remnant remains today, was originally the terminal freshwater lake where waters exited the Tulare Lake Basin on their way north to join the San Joaquin River. Summit Lake, as well as numerous marshes and seasonal wetlands like Boggs Slough and Mussel Slough were found along the lower stretches of the Kings River. Remnants of nearly all the lowland habitat types still occur along the lower Kings River corridor.

Only a small portion of the Kings River is in Tulare County. The area that we are examining in this plan is seven miles in length, from just downstream from Reedley (Fresno Co.) to the Kings County line just downstream from the Highway 99 Bridge.

Attributes – The Kings River Corridor was the third highest rated corridor in the study, with a score of 19. A large portion of the riparian habitat remaining in the Tulare Basin is found along the Kings River downstream from Pine Flat Dam. A total of 731 acres of riparian habitat is located along the Tulare County portion of the Kings River. During our field visit, it was clear that much of this floodplain habitat is heavily grazed, invaded by non-native trees, and is encroached upon by urban and suburban development. Despite these issues, this is a very valuable biological, historical, and recreational asset.

This section of the Kings River is crossed by three roads, Ave 416, Ave. 400, and Highway 99. We examined 2,330 acres of land along the river, of which nearly a quarter (506 acres) is owned by government agencies (State Lands Commission – 246 acres; City of Kingsburg – 171 acres; and Tulare County – 85 acres). Much of this public land supports riparian habitat (State Lands Commission – 246 acres; City of Kingsburg – 64 acres; and Tulare County 85 acres) and 54% of the riparian habitat along this stretch of the Kings River is owned by these public agencies.

Public access to the public lands along the river is limited and could be improved. Canoeing and boating are popular activities along the river and are the primary means to access the State Lands. The Tulare County lands are grazed heavily enough that understory vegetation is very limited and recruitment of tree species is adversely affected, as well as the value of the habitat for wildlife. It is not known what, if any, plans have been made for the management of these public lands, but elsewhere in California (e.g. Sacramento River, American River, Feather River, Stanislaus River, San Joaquin River, and Kern River), restored riparian habitats have become very popular recreational areas (hiking, and horseback riding, bicycling, jogging, canoeing, kayaking, swimming, and nature study, including photography and sightseeing, etc.), as well as important areas for environmental education. It is important to establish a management framework for these important lands that regulates grazing management and impacts from other uses to protect natural resources and aesthetic values.

Opportunities – Recreation and education as well as conservation opportunities are great along the Kings River. Restoration and enhancement of the riparian habitats could become an important and popular community project. The San Joaquin Parkway and Conservation Trust's successful volunteer and environmental education programs could be used as models for the Kings River. This area could become an important project area for the Natural Resource Management program at nearby Reedley College and an important destination for eco-tourists.

The recreation potential in the riparian zone is great as the riverside habitat is cooler in the summer and can be a very nice place to take a walk on a hot summer day when the uplands are inhospitable. The public lands along the river could become locations for nature study areas. Environmental education programs, like the one BLM is developing in the Alpaugh Schools, could involve the local community. Nature trails could be developed to interpret the riverine habitats.

Conservation easements or fee title purchase should be considered to protect the remaining 46% (336 acres) of private lands that currently support riparian habitat. In addition, there are several privately owned parcels totaling several hundred acres where riparian habitat could be restored. By broadening the floodplain forest, this restoration would make the existing habitat even more valuable to both wildlife and the visiting public. This land could be a mix of areas that offer public access and areas with more restricted access that can be managed for habitat mitigation for riparian habitat that is adversely impacted by development projects elsewhere in the county.

Grazing on the public lands in the riparian zone is currently very heavy and is damaging the existing habitat, as well as retarding natural regeneration. Best management practices should be developed for these areas that would provide better wildlife habitat and help maintain a healthy riparian system.

Oaks to Tules Corridor (Kaweah Lake to Creighton Ranch via Elk Bayou)

Description – The Oaks to Tules Corridor is located entirely within Tulare County, with its headwaters at the crest of the western slope of the Great Western Divide in Sequoia National Park. The highest point in the Kaweah River watershed is on Triple Divide Peak at 12,634 feet (3,887 m). The 78 mile (125 km) long watershed of approximately 730,000 acres (300,000 ha) includes the Lower Tule River, Elk Bayou, Dry Creek, North, Marble, Middle, East and South Forks of the Kaweah River, Cliff Creek and Horse Creek. The Kaweah River flows west from the mountains through Sequoia National Park, the towns of Kaweah and Three Rivers and into Kaweah Reservoir. Downstream from Terminus Dam, the river flows between Lemon Cove and Woodlake. The Corridor then branches at McKay Point and continues to subdivide west and south into various creeks including Deep Creek and Outside Creek which traverse Sequoia Riverlands Trust's Kaweah Oaks Preserve. Outside Creek continues south between Farmersville and Exeter. This corridor then continues southwest where Outside Creek changes to Elk Bayou, crossing Highway 99 just south of Tulare. A few miles west of Highway 99 Elk Bayou merges with the Tule River and travels west through the Creighton Ranch and on to the Kings County line just west of Highway 43 and a few miles south of Corcoran. Thirty-three miles (53 km) of this corridor descend steeply from the headwaters of the Kaweah River to Terminus Dam, more than half the length of this corridor (45 miles, 72 km) is on the Valley floor from Kaweah Reservoir to the Kings County line.

The Oaks to Tules Corridor contains all 82 of the habitat types found in Tulare County (Sawyer & Keeler-Wolf 1995). The river's headwaters are at the highest elevations on the Great Western Divide in the in the Alpine Zone and it flows through numerous higher elevation habitats including Lodgepole Pine, Western White Pine, Red Fir, White Fir, Mixed Conifer, Black Oak,

Canyon Live Oak, and Interior Live Oak. Twenty-one Giant Sequoia groves occur in the Kaweah watershed including some of the largest groves (Atwell-East Fork, Garfield-Dillonwood, Giant Forest, and Redwood Mountain groves). All of the groves in the Kaweah watershed are within Sequoia National Park, with the exception of Case Mountain Grove which is managed by BLM.

The middle and lower elevations of the watershed are characterized by Blue Oak Woodland, California Buckeye, and several shrub-dominated habitats. At lower elevations, west of Kaweah Reservoir (Terminus Dam), the broad, braided floodplain was originally dominated by Valley Oak Forest, of which there are examples remaining, including the Kaweah Oaks Preserve. There are also remaining stands of other riparian woodland types including Fremont Cottonwood, Black Willow, and Red Willow. At Creighton Ranch (formerly a Nature Conservancy Preserve) there are numerous riparian and wetland habitats including the only Mesquite Woodland in Tulare County. All of the lowland habitat types occur along the lower corridor. Prime examples of Northern Claypan Vernal Pools are at Sequoia Riverlands Trust's James K. Herbert Wetland Prairie Preserve, near the corridor along Highway 137 between Tulare and Lindsay.

Attributes – The Oaks to Tules Corridor is a combination of three high-ranked corridors; Elk Bayou (18), Kaweah Delta (19), and Tule River (12). The combination would rank as high as the Cottonwood Creek or the Kings River corridors and possibly as high as Deer Creek. The Upper Kaweah watershed is primarily managed by the National Park Service, with smaller areas managed by USFS (Giant Sequoia National Monument) and BLM. The riparian habitat owned and managed by the US Army Corps of Engineers (USACE) immediately below Terminus Dam is of very high quality and is very valuable for wildlife. For several miles below the Dam, this corridor travels through one of the largest undeveloped areas on the valley floor in Tulare County.

Of the 27,000 acres of the lower watershed analyzed in this report, approximately 38% (10,200 acres) is native habitat, a relatively high proportion considering the proximity to major urban centers like Visalia and Tulare. The majority of the area along the corridor is farmed (56%) and the remainder is in wetlands (371 acres; 1%), aggregate quarry ponds (357 acres; 1%), recharge basins (103 acres; <1%), and developed (217 acres; 1%).

There are approximately 3,120 acres of riparian habitat along the lower Oaks to Tules corridor. The Sequoia Riverlands Trust manages the Kaweah Oaks Preserve (324 acres of riparian) and the USACE has 72 acres of riparian habitat. These two sites, the only two local examples of protected riparian habitat, account for 10% of the riparian forest total along the lower corridor. Public water agencies manage an additional 609 acres of riparian habitat, 20% of the total. The remaining 2,200 acres (70%) of riparian habitat is privately owned. The largest of these, the former Nature Conservancy Creighton Ranch Preserve, is 3,280 acres in extent with over 700 acres of riparian habitat (22.4% of the total) as well as several hundred acres of wetlands and over 1,000 acres of native upland habitat.

One of the major attributes of the Oaks to Tules Corridor is that the riparian vegetation is nearly contiguous along the entire corridor from Lake Kaweah to the Kings County line, far out into the Tulare Basin. Another major attribute is that there are already several nodes of protected land

along the corridor. These include the Kaweah Oaks Preserve, the James K. Herbert Wetland Prairie Preserve, and the Westside 300 all managed by the Sequoia Riverlands Trust; the USACE lands near Terminus Dam; and several units of the Pixley NWR just south of Creighton Ranch near Corcoran.

Opportunities – The opportunities are similar for this corridor as they are for the Deer Creek Corridor. Recreation and open space potential on the Oaks to Tules Corridor is high. This corridor is a potential location for a hiking, bicycling, and equestrian trail from Kaweah Reservoir to the wetlands of the Tulare Basin (TCAG 2007). There are currently managed recreation sites and campgrounds at Kaweah Reservoir and hiking trails at Kaweah Oaks Preserve. Ultimately, several more small camping areas could be established for long-distance hikers. This project would require obtaining easements for the trails and land for access and parking areas. The Oaks to Tules Corridor would provide a scenic and rural experience close to urban areas.

Ecotourism and historical tourism are already important in the area. Pixley NWR just south of this corridor is an important destination for bird watchers and nature enthusiasts who primarily visit September through March to observe the large (5,000 to 8,000) flock of wintering Sandhill Cranes. The evening fly-in of thousands of these large birds against the setting sun is a magnificent sight that is not soon forgotten. Kaweah Oaks Preserve provides the public with hiking trails and docent-led tours.

Flood control and wetlands can go hand in hand along the Oaks to Tules Corridor. There is a potential to obtain grants to purchase floodplain and wetland easements which could provide both flood protection to the nearby towns and farmland at the same time that they provide habitat for waterfowl and riparian neotropical birds. In many areas this would consist of setting levees back 100 to 200 feet, while in other areas, large pond areas could be created. These ponds could provide wetland habitats while being managed conjunctively to help recharge groundwater resources in the area.

Lewis Creek East of Lindsay

Description – Lewis Creek is located entirely within Tulare County with its headwaters in the upper foothills of the Sierra Nevada. The highest elevation in the watershed is 2,700 feet (830 m). The 15 mile (24 km) long watershed of approximately 32,500 acres (13,000 ha) includes one named tributary, Oat Creek. Lewis Creek flows west out of the Sierra Nevada foothills through Lindsay, travels north, and then west before merging with Outside Creek halfway between Tulare and Lindsay.

The Lewis Creek watershed contains 25 of the 83 habitat types found in Tulare County (Sawyer & Keeler-Wolf 1995). The creek originates in the Interior Live Oak, California Buckeye, and Blue Oak habitat zones. The lower elevations are in California Annual Grasslands. The main area of interest is at the lower elevations where there are well-developed mixed stands of Fremont Cottonwood, Mulefat, Red Willow, and Black Willow.

The region of this corridor that is analyzed in-depth is from the headwaters to the eastern outskirts of Lindsay. The lower 4 miles just east of Lindsay are of the most interest in this study.

Attributes – The Lewis Creek Corridor was rated rather low at 14, but was chosen for detailed study because of the presence of high quality riparian habitat. The upper and middle watersheds of Lewis Creek are almost entirely native land with very little suburban development. This upper area is primarily open grassland used for grazing with some limited firewood production in the wooded areas. The lower watershed contains some of the highest quality stand of Fremont Cottonwood-Willow habitat in Tulare County and is bordered primarily by citrus orchards, pasture, and hobby farms. This lower elevation riparian area is approximately three miles long and 200 acres in extent. It has a very high percentage of native vegetation, an extensive riparian understory, and a low proportion of invasive weed species. To demonstrate the quality of the habitat, this is the last documented area where the Endangered Yellow-billed Cuckoo (*Coccyzus americanus*) was seen in Tulare County.

The dynamics of the hydrology of this well-developed riparian zone are not entirely clear. It may be that there is an underlying rock formation that maintains groundwater near the surface, or it may be because of anthropogenic influences (e.g. release of tailwater from the local irrigation systems) may support these lush riparian groves. Whatever the reason, it is very important to gain an understanding of how this system works and to maintain its integrity. About a quarter of the riparian zone (51 acres) is owned by the Lindsay-Strathmore Irrigation District and they are the largest single landowner along this three-mile long corridor. It will be important to partner with this district to ensure that the valuable habitat is conserved.

Opportunities – This important, high quality riparian area has great potential for recreation, education, and wildlife. The close proximity to the town of Lindsay would guarantee use of parkland in this area. Walking and biking trails could be established, as well as dispersed picnic sites. Riparian areas in other parts of California have been protected and restored, benefiting local communities by increasing property values and the quality of life.

The public lands along the river could be locations for nature study areas and environmental study programs, like the one BLM is developing in the Alpaugh Schools, could involve the local community. Nature trails could be developed to interpret the creek-side habitats.

Conservation easements or fee title purchase should be considered to protect the remaining 75% (150 acres) of private lands that currently have riparian habitat. This land could be a mix of areas that offer public access and areas that can be managed for habitat mitigation for riparian habitat that is lost to development projects elsewhere in the county.

Cottonwood Creek

Description – Cottonwood Creek is located almost entirely within Tulare County with its headwaters in Fresno County near Pinehurst. The highest elevation in the watershed is in the foothills of the Sierra Nevada at an elevation of 3,150 feet (970 m). The 42 mile (67 km) watershed of approximately 145,000 acres (58,800 ha) includes Morgan Canyon, Antelope Creek, Collier Creek, Wilcox Creek, and Murray Creek. The Creek flows south through Elderwood to

Woodlake then flows west north of Visalia until it joins the St. Johns River just east of Highway 99 between Goshen and Traver.

The Cottonwood Creek Watershed contains 32 of the 83 habitat types found in Tulare County (Sawyer & Keeler-Wolf 1995). The creek's headwaters are in the Interior Live Oak, California Buckeye, and Blue Oak habitat zones. The middle elevations are in California Annual Grasslands. The main area of biological interest is on the valley floor west of Woodlake. This area has the only remaining native upland habitat in northwestern Tulare County. Habitat types here include California Annual Grasslands, Saltgrass Grasslands, Alkali Sacaton Grasslands, Bush Seepweed, Northern Claypan Vernal Pools, and Northern Hardpan Vernal Pools.

The region of this corridor that is analyzed in this Plan is from just west of the town of Woodlake to where Cottonweed Creek merges with the St. Johns River, just east of Highway 99. This complex of grassland, vernal pool, and riparian habitat continues as an important wildlife corridor further west and south into Kings County, where it is called Cross Creek. The portion of Cross Creek in Tulare County is included in this document, while the Cross Creek corridor in Kings County will be examined in a separate document.

Attributes – The Cottonwood Creek Corridor was the second highest rated corridor in the study, with a score of 20. In the upper watershed, the Cottonwood Creek Corridor is primarily privately owned and is managed as grazing land. The lower watershed, west of Woodlake has some of the last remaining native land in northern Tulare County. This land is important because of the complex of vernal pools, grassland, and alkali sink habitats and related species.

The lower watershed of 12,809 acres is primarily farmed, but a sizable proportion of the area is in native habitat (5,020 acres, 39%). There is also a small recharge basin (46 acres, <1%) and several canals (54 acres, <1%). The eastern half of the corridor is primarily a channelized waterway with low quality riparian and wetland vegetation. The corridor widens out as one moves westward, especially west of the junction with the St Johns River where the unfarmed areas extends up to 1.25 miles in width. This area is primarily grazed with cattle and provides winter and spring pasture. This area has numerous vernal pools and waterways where several of the dominant grasses are native species. This corridor is primarily a wildlife corridor, but is of historic value as it is one of the few places where the extent of uncultivated rangeland can still give one the feel of what this part of the valley was like prior to intensive settlement and cultivation.

Opportunities – The primary opportunity for this corridor is to protect the last remaining open space northwest of Visalia. As the only remaining uncultivated area in the northern part of the County this is the place where an opportunity is available to maintain a portion of the landscape as it looked prior to large-scale agricultural conversion in Tulare County. This is also an area where there are opportunities to bank grassland and vernal pool lands as mitigation for development elsewhere in the county. California Department of Fish and Game (CDF&G) has already acquired 667 acres of habitat in this area for vernal pool and upland species. Tulare County also owns 877 acres (County correctional facilities), a portion of which might be

appropriate for developing a mitigation bank and a portion of which could be restored as wildlife habitat, while maintaining current uses.

Corridors not selected for detailed study in this plan:

St. Johns River – The St. Johns River is part of the Kaweah River Delta complex. This is a major floodway with levees that protect the northern part of Visalia. It may be possible to move the levees back on the north side of the River to widen the floodplain. This could allow for planting more riparian and oak woodland along the river while improving flood control. The Saint Johns River Parkway trail has already been built from the vicinity of Cutler Park to just west of Golden West High School. This parkway enhances the quality of life in Visalia by providing a well-used recreational amenity, as well as improving existing wildlife habitat and could be extended to both the east and west.

Porter Slough – Porter Slough is a distributary of the Tule River that passes through the north side of Porterville. It is part of the braided delta formed by the Tule River where it flattens out upon entering the valley. There are several parks along the slough that enhance the quality of life in Porterville, but most of the slough is severely constricted and channelized as it passes through the City. Many cities in northern California are restoring their urban streams and such an effort, by groups like Tule River Parkway, could enhance wildlife habitat and recreational opportunities in a way that would change Porter Slough from an afterthought to a civic amenity. The cost, likely to be relatively modest, could help convert a blighted flood flow channel into a meaningful wildlife corridor and an urban greenway.

Sand Creek – Sand Creek is a low elevation stream with its headwaters on Corn Jack Peak at 2,369 feet. The watershed is approximately 25,000 acres (10,200 ha) in extent. There is some excellent grassland/vernal pool habitat at the valley edge (where Wildlands, Inc. has established a grassland/vernal pool mitigation bank), but once the stream corridor reaches the east edge of the citrus belt, there is little riparian or upland habitat.

White River – The White River flows from its headwaters in the Greenhorn Mountains west into the Ton Tache Basin near Allensworth State Historic Park. The watershed is approximately 60 miles in length and 190,000 acres (75,000 ha) in extent. The watershed east of Highway 65 is in excellent condition with extensive Sycamore Woodlands at the middle elevations. West of Highway 65 the channel is highly modified with only scattered remnants of riparian vegetation. Most of this lower channel is suitable for neither recreation nor a functioning wildlife corridor. At present there is a water spreading structure between Highway 99 and Highway 43 which contributes to flooding of Endangered Species habitat on the Allensworth Ecological Area. Whenever flood water does reach this location, urban impacts to local communities can be minimized by encouraging these flows to reach and spread out on the bed of the Ton Tache Basin – one part of a beneficial water supply that can be used to help restore this historic lake bed.

Tule River above Elk Bayou – The Tule River is a major waterway that drains from the Sierra Nevada into the Tulare Basin. It has one of the larger upper watersheds (280,000 acres; 111,000

ha) that drains into the Basin. The 29 mile upper watershed has 13 Giant Sequoia groves including one of the largest groves (Mountain Home Grove). The lower watershed of the Tule River from Lake Success to the confluence with Elk Bayou (30 miles) is a highly modified stream that received the lowest ranking (12) of any potential corridor. The best remaining riparian vegetation along the Tule River below Success Reservoir is located in the 7.3-mile stretch between Success Dam and Highway 65. At the USACE nature trail just below the dam, a singing male Bell's vireo was seen in willow scrub habitat during spring 2006. Bartlett County Regional Park, a recreational park with scattered oaks and sycamores is located just across the Tule River from this property. The City of Porterville's headgate property, where a Valley Elderberry Longhorn Beetle (VELB) was photographed, is operated as VELB mitigation habitat. A Southwestern Pond Turtle population is known to occur from Success Dam to the headgate property since year-around flowing water is present here in most years. Further downstream, DFG manages the Yaudanchi Ecological Reserve on the south side of Highway 190. This area supports a heron and egret rookery in a grove of sycamores; an example of Elderberry Savannah is present here as well. The portion of Tule River downstream from the junction of Elk Bayou is addressed in the section on the Oaks to Tules corridor.

Kaweah River Forks – Portions of this area are covered in the Oaks to Tules Corridor and the Cottonwood Creek Corridor. The remaining stream corridors travel primarily through urban and suburban areas. These urban streams include Packwood Creek, Mill Creek, Cameron Creek and Elbow Creek. These streams with their predominant Valley Oak overstory provide much needed relief from the surrounding flat, urban uplands. They add to the character of Visalia as "Tree City USA". These streams are perfect locations for urban biking and walking trails, such as the Mill Creek trail in the vicinity of Redwood High School and Packwood Creek east of Lovers Lane and west of County Center Drive. Kaweah Delta Water Conservation District is preparing a Habitat Conservation Plan (HCP) which is designed to address impacts to habitat and special status species due to its routine operations and maintenance. Because this portion of the Kaweah River watershed and the creeks named in this paragraph are part of 200 miles of riparian corridors being evaluated as part of the HCP within the District boundaries, the Kaweah River Forks area was not analyzed to the same level of detail as the of other corridors in this Study.

North-South Foothill Wildlife Corridor – Much of the foothill zone between 500 and 1,000 feet (154 and 308 m) elevation is undeveloped and unfarmed. It is used primarily for grazing land, a use that is highly compatible with wildlife movement corridors. This particular corridor may be especially useful for neotropical migrant birds, deer and other upland associated species. Since grazing is the third most important agricultural practice in Tulare County, conserving foothill rangeland protects habitats and species as well as economic activities (Kunkel 2006).

North-South Creighton Ranch to Allensworth Wildlife Corridor – This very important north-south wildlife corridor is addressed in the San Ridge-Tulare Lake Conservation Plan. That plan calls for the maintenance of a corridor of natural habitat between Allensworth Ecological Reserve and Creighton Ranch. Though nearly intact, this habitat corridor link is incomplete in several locations. These corridor "breaks" will ultimately need to be restored to native habitat in order for species to be able to move between the existing, high-quality patches of habitat. This corridor would link Creighton Ranch on the north through various units of Pixley National

Wildlife Refuge to Allensworth Ecological Reserve and Allensworth State Historic Park on the south.

Biota

Conserving wildlife corridors in Tulare County will be most effective by applying a watershed-level or basin-wide approach. In order for populations of special status species to persist, there must be enough suitable habitat for species to breed and disperse. Populations, especially rare or dispersal-limited species, are more viable if they are linked by corridors. Corridors also serve a role which can buffer habitat impacts due to climate change. Australia's Great Eastern Ranges corridor, for example, will be established along almost the entire east coast of Australia, allowing plants and animals to move as climate changes.

We searched the California Natural Diversity Data Base (CNDDB) for all corridors to lay the basis for a first analysis of the special status species occurring along and adjacent to the corridors. Tulare County is home to 168 special status species that are tracked by the CNDDB. Approximately 66 of these species are found in the planning area addressed in this corridor study (Appendix 3). These special status species include Vernal Pool Fairy Shrimp, Valley Elderberry Longhorn Beetle, Blunt-nosed Leopard Lizard, Swainson's Hawk, Burrowing Owl, Tricolored Blackbird, Tipton Kangaroo Rat, and San Joaquin Kit Fox, among other rare species. Using CNDDB information and additions from our own field observations we determined that the Kings River has 10, Sand Creek has 11, Cottonwood Creek has 23, the Kaweah River has 27, the Tule River has 32, Deer Creek has 47, White River has 36, Elk Bayou has 18, Lewis Creek has 11, and Yokohl Creek has 9 special status species. It is noteworthy that Deer Creek (Valley floor portion only) has 11 species more than White River which has the second highest number of sensitive species. It also has 4 to 5 times more sensitive species records than several of the corridors. In terms of conservation value, this statistic underscores the importance of a matrix of upland and wetland habitats as are present along the Deer Creek watershed.

The following are recommendations to address special status species along corridors:

(1) Establish a mitigation banking reserve system to pre-mitigate impacts as a result of road improvement projects and urban expansion.

(2) Each road improvement project requires a project-level Environmental Impact Report to identify specific impacts at the project level. The current analysis can only provide a general idea of the species that occur in a general area (USGS 7.5 minute quadrangles are the maximum resolution for this study) and more information is identified from the EIR process.

(3) Incorporate the current recommendations into county-wide mitigation, conjunctive use and project specific planning efforts to guide project-level analysis and promote conjunctive use for the greatest benefit. This report provides general, County-wide information on all impacts to important corridors. Wildlands Inc. produced a report (Wildlands Inc. 2004) which projected the impacts of urban expansion specifically,

recommended mitigation service areas, and prescribed mitigation needs and mitigation locations (Wildlands Inc. 2004).

(4) Evaluate projects based on the number species, including rare and common species, which would benefit and focus conservation activities on the corridor where the most benefit can be gained.

Open space needs in Tulare County, TC Blueprint

The regional San Joaquin Valley Blueprint sets a vision for the eight county San Joaquin Valley region and establishes goals and policy objectives relative to open space in Tulare County. The vision for Tulare County is: "Protecting scarce and finite resources (from adopted values in the Blueprint)". The goal is to "preserve natural areas, farmland, grazing land and open space and encourage efficient, concentrated use of existing urban infrastructure". Conservation of wildlife corridors will help achieve the vision and goal of the Blueprint process.

Potential partners

For land conservation projects to have the greatest value for mitigation purposes and for public benefit, efforts must focus on local areas to ensure enough habitat remains to sustain local native flora and fauna and regionally to ensure that remaining habitat areas will be connected via corridors. There will be a need to work with a variety of partners to ensure the maximum local and regional benefit. Some of the potential partners include:

(1) California Department of Fish and Game - The California Department of Fish and Game (DFG) can be a partner by providing support for conservation activities along corridors and in areas that are valuable for wildlife. They currently own and manage land in the Allensworth, Porterville, Lake Success, Blue Ridge and Yettem areas of Tulare County, all areas within or near studied corridors. The DFG utilizes Conceptual Area Protection Plans to focus financial resources on specific areas for the benefit of wildlife. The Wildlife Conservation Board (WCB) is the DFG's land protection and restoration funding arm. The WCB has already funded important conservation efforts in Tulare County, such as grassland and riparian restoration and management on the Sequoia Riverlands Trust's James K. Herbert Wetland Prairie Preserve.

(2) US Fish & Wildlife Service - The US Fish and Wildlife Service (USFWS) is a landowner in several of the watersheds. The USFWS may be an important partner not only in establishing mitigation banks, but also for technical expertise, and for financial partnerships with landowners through the Partners for Fish and Wildlife program. In some cases, they may also manage mitigation banks after all the mitigation credits have been sold.

(3) Large landowners - Large landowners are vital to the health and conservation of not only corridors in Tulare County, but entire watersheds. It will be important to partner

with large landowners for recreation access, and conjunctive use projects. Irrigation districts are large or important landowners along many of the corridors. These and other landowners might support integrated regional planning and partner for easements, preserves, recreation areas or restoration opportunities.

(4) Wildlands, Inc. - Wildlands, Inc. provided TCAG with information about mitigation banking and feasibility in another study (Wildlands Inc. 2004). Wildlands Inc. is a potential partner in private sector mitigation banking and is active in establishing mitigation banks in Tulare County. Wildlands Inc.'s lands are also important areas for wildlife along corridors in Tulare County.

(5) Sequoia Riverlands Trust - Sequoia Riverlands Trust is a major landowner along several of the corridors. SRT also undertakes and executes restoration projects, owns conservation land, holds conservation easements and allows recreation and educational access to local preserves.

(6) Westervelt Ecological Services - Westervelt Ecological Services (WES) provided information about mitigation banking during Tulare County Association of Government's Environmental Advisory Committee meetings during 2007. WES is an potential partner in private sector mitigation banking and is active in establishing mitigation banks in Tulare County.

(7) Center for Natural Lands Management (CNLM) - The Center for Natural Lands Management is also an active conservation land manager in Tulare County and could be a partner in establishing and managing mitigation banks.

(8) Recreation interests (such as Porterville's Tule River Parkway and Visalia's Waterway Advisory Committee and Environmental Committee) - Recreation interests may be an important group of partners, especially to generate a vision of and garner public support in the communities for particular corridor projects in the County.

Measure R impacts and mitigation needs

Measure R Projects

There are a number of projects proposed for Measure R transportation improvements including road widening, intersection widening and traffic light installation. Many projects may require mitigation under the federal Endangered Species Act (FESA), California Endangered Species Act (CESA), or the California Environmental Quality Act (CEQA).

(1) The Highway 65 transportation corridor improvement project will impact Kit Fox foraging habitat and potentially impact den sites. Mitigation will be needed to compensate for these impacts, although the total acreage may be small.

(2) The Road 80 widening and improvement project will impact, at a minimum: Kit Fox foraging habitat, vernal pool-wetlands, both Vernal Pool Tadpole Shrimp and Vernal Pool Fairy Shrimp, riparian habitat, Tricolored Blackbird, and annual *Atriplex* species.

(3) Dinuba and Ave 416 projects are likely to have little effect, further study is needed.

(4) The Kings River bridge project is likely to have impacts on riparian habitat and Swainson's Hawk, though other species may be affected. Further study is needed.

(5) The Visalia area projects may affect Kit Fox foraging habitat, VELB habitat, and riparian habitat along the existing stream channels.

(6) Tulare area projects may affect Kit Fox habitat.

(7) The Exeter-Visalia Road, Road 204 projects will impact Outside Creek crossings and thus riparian habitat, Valley Elderberry Longhorn Beetle, Swainson's Hawk, and Kit Fox foraging habitat with potential den sites. Further study is needed.

Regional planning

The lands within the Tulare County corridors are critical for the implementation of several existing management plans, habitat conservation plans, and recovery plans. There are a number of existing conservation plans that supplement the current study.

US Fish & Wildlife Service Upland Species Recovery Plan - The USFWS Upland Species Recovery Plan (USFWS 1998) calls for the following recovery tasks:

(1) Preserve Pixley NWR/Allensworth Natural Area (NA) Core Area (Priority 1). This assemblage of private and public lands includes the best and only large remnants (in addition to the dune community on the Sand Ridge) of Relictual Interior Dune Grassland, variations of Chenopod Scrub, and *Isocoma* Shrubland in the Tulare Basin. Acquire title or easements for appropriate parcels from willing sellers; restore habitat for Tipton Kangaroo Rat.

(2) Create and maintain linkage between Kern NWR, Pixley-Allensworth NA, and Semitropic Ridge NA using acquisition of marginal farmlands and restoration of natural habitat, easements, and other methods (Priority 2). (When implemented, the SR-TLCP will meet this recovery goal).

(3) Create and maintain linkage between private farmland located between Creighton Ranch and Pixley-Allensworth Natural Area using acquisition of marginal farmlands and restoration of natural habitat, easements, and other methods (Priority 3).

Pacific Gas & Electric Habitat Conservation Plan – The PG&E HCP identifies impacts to a variety of special status species and prescribes measures to mitigate impacts. It is a model of pre-mitigation and the utilization of biological data for multi-species benefit (PG&E 2006).

Wildlands, Inc. Study – The Wildlands Inc. mitigation feasibility study projects impacts to special status species as a result of urban expansion. It recommends establishing mitigation bank for all the sensitive species that will be affected by expansion. It recommends species-specific service areas and planning to pre-mitigate impacts to sensitive species (Wildlands, Inc. 2004). This is an important document and should be referred to when considering the impacts of urban expansion.

Kaweah Delta Water Conservation District (KDWCD) Habitat Conservation Plan (HCP) – KDWCD is pursuing a programmatic HCP which is designed to address impacts to habitat and 53 special status species due to routine operations and maintenance (O&M) on a 20-year horizon. The biological work for this HCP process is still underway and is designed to address impacts along 200 miles of riparian corridors and at groundwater recharge basins within their 335,000–acre district.

Sand Ridge – Tulare Lake Conservation Plan - This plan develops a conservation and management strategy for southwestern Tulare County. Some of the goals of the plan include:

(1) Management of the Ton Tache Lake Basin. This area is located between BLM's Atwell Island Project and Allensworth SHP and presents an opportunity for effective collaboration between State Parks and BLM. This historic wetland was described historically as a vast tule marsh but is now fallow farmland. The southern and eastern edges of the Ton Tache Basin still have important Endangered Species habitat and archeological sites.

(2) Complete the Allensworth ER and Pixley NWR and restore corridors between them. There is still high quality unprotected habitat in the vicinity of these areas. Protection of these native unprotected lands is of highest priority. Restoration of disturbed lands to form corridors between these reserves is also needed.

(3) Protect the remaining native habitats within the SR-TLPA between Pixley NWR and Creighton Ranch. Restore lands needed to connect what are now isolated native habitat areas. Lands already protected in this corridor are managed by DFG, CNLM, BLM, Sequoia Riverlands Trust, and other government agencies.

(4) Protect the remaining private wetlands in the SR-TLPA. Private wetlands in the SR-TLPA need to be maintained. The wetland easements that will be part of the Kern NWR Tulare Basin Wildlife Management Area expansion plan will go a long way toward meeting this objective. In addition, management agreements need to be worked out with water districts to manage wetlands in perpetuity.

(5) Establish additional private wetlands in the SR-TLPA. NRCS's Wetland Reserve Program can be used to purchase wetland easements and restore wetlands if a source of water can be found. Management agreements need to be worked out with water management agencies (Alpaugh Irrigation District, Angiola Water District, Semitropic Water Storage District, and others) to manage these wetlands in perpetuity.

(6) Establish farming easements that will maintain farming areas that serve as foraging habitat for waterfowl, Sandhill Cranes, Swainson's Hawks, Mountain Plovers, Tricolored Blackbirds, and other wildlife. These easements will maintain farmland in wildlife friendly crops such as small grains, safflower, alfalfa, or pasture. They will be located near areas that are managed for wetlands such as Pixley NWR.

San Joaquin Valley Blueprint - The regional San Joaquin Valley Blueprint sets a vision for the eight county San Joaquin Valley region and establishes goals and policy objectives relative to open space in Tulare County. The vision for Tulare County is: "Protecting scarce and finite resources (from adopted values in the Blueprint)". The goal is to "preserve natural areas, farmland, grazing land and open space and encourage efficient, concentrated use of existing urban infrastructure.

Blueprint Policy Objectives include:

(1) Preserve and maintain natural systems (including natural processes), biological communities and species native to the region;

(2) Encourage the use of agricultural lands as natural areas and promote wildlife-friendly farming practices;

(3) Promote fire management techniques that conserve biological resources, reduce hazards to humans and their property and enhance wildlife habitat;

(4) Expand the resource base for Tulare county's Mitigation/Conservation Banking Program;

(5) Utilize storm water retention ponds for multiple uses including wildlife and for either passive or active recreation; designate some areas as accessible to the public;

(6) Using a variety of land protection tools, develop linear parks and biking/walking trails;

(7) Establish an interconnected network of open space and natural areas, such as greenways, wetlands, parks, forest preserves and native plant vegetation that naturally manages storm water, reduces flooding risk, and improves air and water quality; and

(8) Develop tertiary treatment wetlands for wildlife.

Bike Path Plan - The Tulare County Bike Plan (TCAG 2007) recommends establishing a network of bike paths to facilitate alternative modes of transportation, transportation efficiency, and physical fitness of the public, among other things. Bike paths are planned for the following corridors: (1) the Kaweah Delta, (2) Deer Creek, (3) Yokohl Valley, and (4) Tule River.

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Appendices

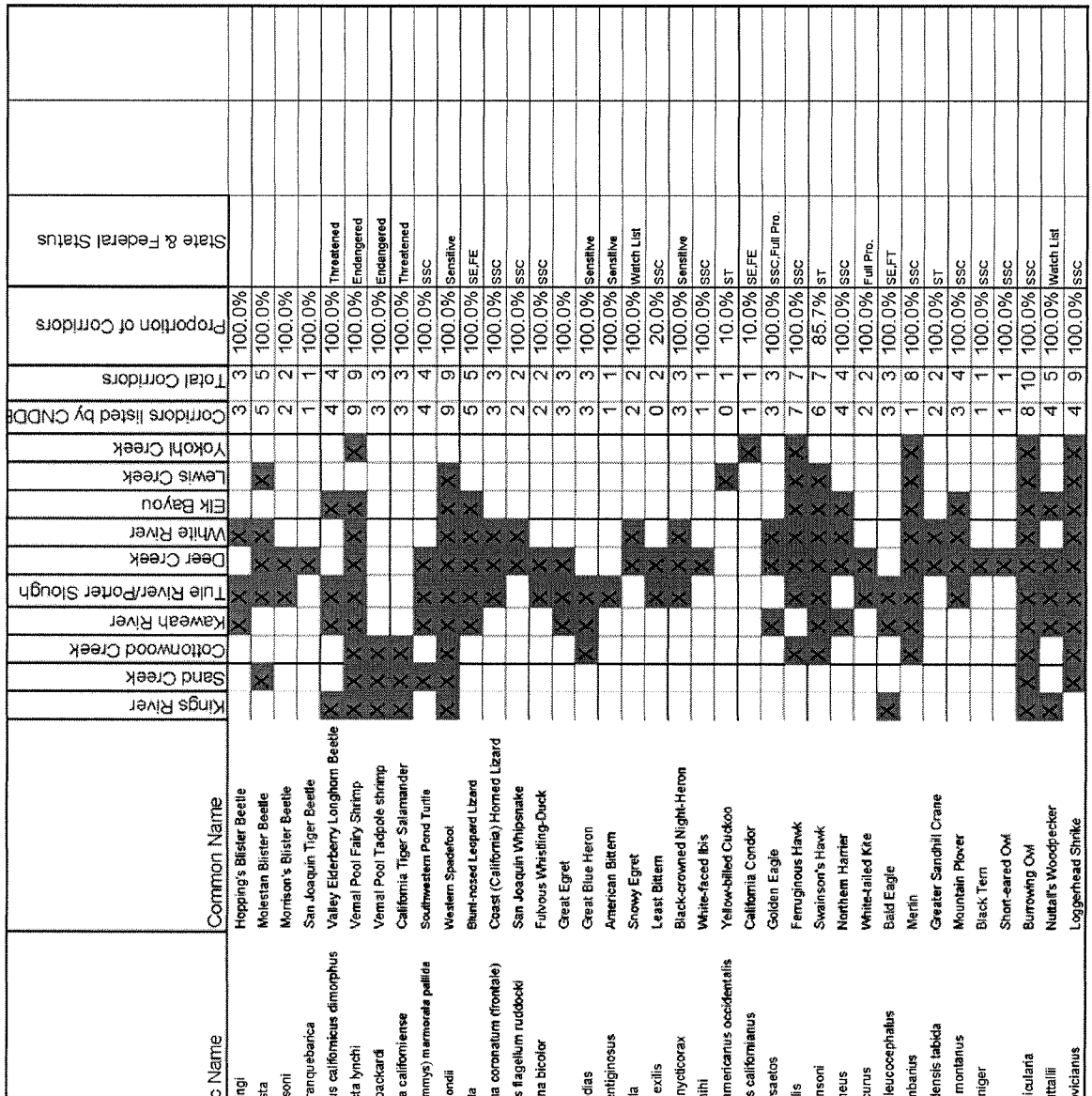
Appendix 1. Riparian and Wildlife Corridor Rankings. Scale: 0 (low value) to 3 (high value).

Criteria	Lewis Creek	Tule River: Success Dam to Elk Bayou, includes Porter Slough	Deer Creek	White River	Kings River	Sand Creek	Elk Bayou	Cottonwood	Kaweah
Extent of urban development	2 (some impact, but generally good condition)	1 (very compro-mised)	3	3 (though it flows just south of Earlimart)	2 (some impact, but generally good condition)	3	2 (impacts from dairies, etc)	3	2
Channel hydrology & morphology; flood risk	2 (no dam, but has aggregate mining sites and channelizing)	1 (pretty highly modified, dammed)	2 (no dam, narrower than ideally at lower end)	1 (no dam, but highly modified)	2 (dam, good overall morphology)	2 (rudimentary impoundment in foothills)	2	2	2
Condition of adjacent uplands	1	1	3 (Pixley NWR, Allensworth State Park)	2 (good, in places)	2 (mostly farmed)	3 (some concerns about grazing impacts)	1 (mostly farmed)	3 (big corridor)	2
Riparian habitat quality & continuity	3 (best quality riparian habitat in County)	1 (fragments)	3	1 (only where it emerges from the foothills)	3 (good quality)	1 (mostly non-existent)	3 (wood-land)	1	2
Presence/ possibility of special status species	2 (Yellow-billed Cuckoo, VELB)	2 (SW Pond Turtle, Calico Monkeyflower, Swainson's hawk)	3 (Swainson's Hawk, Tipton Kangaroo Rat, San Joaquin Kit Fox, Blunt-nosed Leopard Lizard)	3 (San Joaquin Kit Fox, Blunt-nosed Leopard Lizard, Tipton Kangaroo Rat)	2	2 (vernal pool species)	1	3	2

Criteria	Lewis Creek	Tule River: Success Dam to Elk Bayou, includes Porter Slough	Deer Creek	White River	Kings River	Sand Creek	Elk Bayou	Cottonwood	Kaweah
Opportunities for conjunctive use	2	2 (urban Tule River Parkway, Woodville)	2 (groundwater somewhat over-drafted at lower end; some recreation with lots of potential)	1	2	2	3	3	3
Importance to Basin wetlands	1 (undammed, brings some water)	2	3 (due to its beneficial effects)	2	3	1	3	2	3
Community, social & agency considerations	1	2	3 (State Parks, BLM, NW Refuge, CA DF&G)	2 (issues about where it goes, what's done to water)	3	3 (flooding)	3	3	3
TOTAL	14	12	22	15	19	17	18	20	19

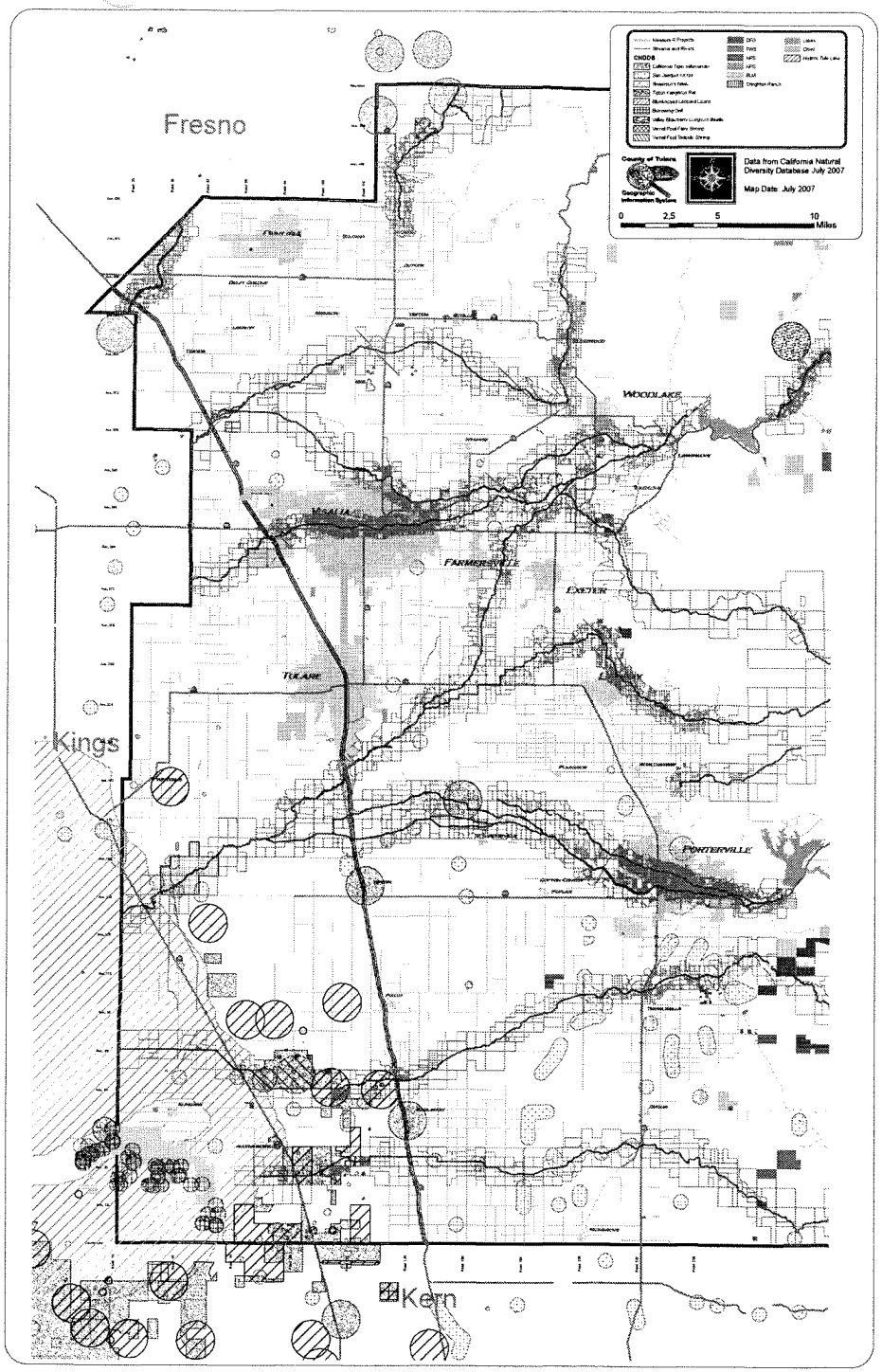
Appendix 2. Tulare County Corridor Map with Special Status Species and Measure R Projects.

Appendix 3. Sensitive Species Data for each Corridor in the Tulare County planning area from California Natural Diversity Data Base Rarefind with additional species documented by TBWP.



Scientific Name	Common Name	Kings River	Sand Creek	Cottonwood Creek	Kaweah River	Tule River/Potter Slough	Deer Creek	White River	Elk Bayou	Lewis Creek	Yokohl Creek	Corridors listed by CNDDB	Total Corridors	Proportion of Corridors	State & Federal Status			
Lytta hoppingi	Hopping's Blister Beetle				X	X		X				3	3	100.0%				
Lytta molesta	Molestan Blister Beetle		X			X	X	X		X		5	5	100.0%				
Lytta morrisoni	Morrison's Blister Beetle					X	X					2	2	100.0%				
Cicindela tranquebarica	San Joaquin Tiger Beetle						X					1	1	100.0%				
Desmocerus californicus dimorphus	Valley Elderberry Longhorn Beetle	X			X	X			X			4	4	100.0%	Threatened			
Branchinecta lynchi	Vernal Pool Fairy Shrimp	X	X	X	X	X	X	X	X		X	9	9	100.0%	Endangered			
Lepidurus packardi	Vernal Pool Tadpole shrimp	X	X	X								3	3	100.0%	Endangered			
Ambystoma californiense	California Tiger Salamander	X		X								3	3	100.0%	Threatened			
Emys (=Clemmys) marmorata pallida	Southwestern Pond Turtle		X	X	X	X	X	X	X	X		4	4	100.0%	SSC			
Spea hammondii	Western Spadefoot	X	X	X	X	X	X	X	X	X		9	9	100.0%	Sensitive			
Gambelia sila	Blunt-nosed Leopard Lizard				X	X	X	X	X	X		5	5	100.0%	SE,FE			
Phrynosoma coronatum (frontale)	Coast (California) Horned Lizard					X		X	X			3	3	100.0%	SSC			
Masticophis flagellum ruddocki	San Joaquin Whipsnake						X	X				2	2	100.0%	SSC			
Dendrocygna bicolor	Fulvous Whistling-Duck					X	X					2	2	100.0%	SSC			
Ardea alba	Great Egret				X	X	X					3	3	100.0%				
Ardea herodias	Great Blue Heron			X		X						3	3	100.0%	Sensitive			
Botaurus lentiginosus	American Bittern					X						1	1	100.0%	Sensitive			
Egretta thula	Snowy Egret						X	X				2	2	100.0%	Watch List			
Ixobrychus exilis	Least Bittern					X	X					0	2	20.0%	SSC			
Nycticorax nycticorax	Black-crowned Night-Heron					X	X	X				3	3	100.0%	Sensitive			
Plegadis chihi	White-faced Ibis						X					1	1	100.0%	SSC			
Coccyzus americanus occidentalis	Yellow-billed Cuckoo									X		0	1	10.0%	ST			
Gymnogyps californianus	California Condor										X	1	1	10.0%	SE,FE			
Aquila chrysaetos	Golden Eagle				X		X	X				3	3	100.0%	SSC,Full Pro.			
Buteo regalis	Ferruginous Hawk					X	X	X	X	X	X	7	7	100.0%	SSC			
Buteo swainsoni	Swainson's Hawk				X	X	X	X	X	X	X	6	7	85.7%	ST			
Circus cyaneus	Northern Harrier					X		X	X	X		4	4	100.0%	SSC			
Elanus leucurus	White-tailed Kite					X	X	X				2	2	100.0%	Full Pro.			
Haliaeetus leucocephalus	Bald Eagle	X			X	X	X					3	3	100.0%	SE,FT			
Falco columbarius	Merlin				X	X	X	X	X	X	X	1	8	100.0%	SSC			
Grus canadensis tabida	Greater Sandhill Crane						X	X	X	X		2	2	100.0%	ST			
Charadrius montanus	Mountain Plover					X	X	X	X			3	4	100.0%	SSC			
Chlidonias niger	Black Tern							X				1	1	100.0%	SSC			
Asio otus	Short-eared Owl							X				1	1	100.0%	SSC			
Athene cunicularia	Burrowing Owl	X	X	X	X	X	X	X	X	X	X	8	10	100.0%	SSC			
Picoides nuttallii	Nuttall's Woodpecker	X		X	X	X	X	X	X	X		4	5	100.0%	Watch List			
Lanius ludovicianus	Loggerhead Shrike		X	X	X	X	X	X	X	X	X	4	9	100.0%	SSC			

Scientifc Name	Common Name	Kings River	Sand Creek	Cottonwood Creek	Kaweah River	Tule River/Porter Slough	Deer Creek	White River	Elk Bayou	Lewis Creek	Yokohl Creek	Corridors listed by CNDDB	Total Corridors	Proportion of Corridors	State & Federal Status		
Eremophila alpestris actia	California Horned Lark		X	X	X	X	X	X	X	X	X	6	9	100.0%	SSC		
Dendroica petechia brewsteri	Yellow Warbler	X										0	1	100.0%	SSC		
Icteria virens	Yellow-breasted Chat				X							1	1	100.0%	SSC		
Agelaius tricolor	Tricolored Blackbird			X	X	X	X		X			5	5	100.0%	SSC		
Xanthocephalus xanthocephalus	Yellow-headed Blackbird				X		X	X				3	3	100.0%	SSC		
Sorex ornatus relictus	Buena Vista Lake Shrew						X					1	1	100.0%	FE		
Ammospermophilus nelsoni	San Joaquin Antelope Squirrel							X				1	1	100.0%	ST		
Dipodomys nitratoides nitratoides	Tipton Kangaroo Rat				X	X	X	X	X			5	5	100.0%	SE,FE		
Perognathus inornatus inornatus	San Joaquin Pocket Mouse						X	X				2	2	100.0%	BLM-Sen.		
Onychomys torridus tularensis	Tulare Grasshopper Mouse						X					1	1	100.0%	SSC		
Vulpes macrotis mutica	San Joaquin Kit Fox	X	X	X	X	X	X	X	X	X		9	9	100.0%	ST,FE		
Taxidea taxus	American Badger				X	X	X	X	X			5	5	100.0%	SSC		
Atriplex cordulata	Heartscale			X			X	X				3	3	100.0%	CNPS 1B		
Atriplex depressa	Brittlescale							X				1	1	100.0%	CNPS 1B		
Atriplex erecticaulis	Earlimart Orache			X			X	X				3	3	100.0%	CNPS 1B		
Atripelx persistens	Vernal Pool Smallscale			X			X	X				3	3	100.0%	CNPS 1B		
Atriplex subtilis	Subtle Orache			X	X	X	X	X				5	5	100.0%	CNPS 1B		
Atriplex vallicola	Lost Hills Crownscale							X				1	1	100.0%	CNPS 1B		
Atriplex minuscula	Lesser Saltscale			X		X	X	X				4	4	100.0%	CNPS 1B		
Orcuttia inaequalis	San Joaquin Valley Orcutt Grass			X								1	1	100.0%	Threatened	Endangered	1B.1
Tuctoria greenei	Greene's Tuctoria			X								1	1	100.0%	Endangered	Rare	1B.1
Chamaesyce hooveri	Hoover's Spurge			X								1	1	100.0%	CNPS 1B		
Calochortus striatus	Alkali Mariposa Lily							X				1	1	100.0%	CNPS 1B		
Caulanthus californicus	California Jewel-flower				X		X	X	X			4	4	100.0%	SE,FE		
Eryngium spinosepalum	Spiny-sepaled Button-celery		X	X	X						X	4	4	100.0%	CNPS 1B		
Delphinium recurvatum	Recurved Larkspur			X	X	X	X	X		X	X	7	7	100.0%	CNPS 1B		
Lasthenia ferrisiae	Alkali Goldfields						X	X				2	2	100.0%	CNPS 4		
Lasthenia glabrata ssp. coulteri	Coulter's Goldfields						X					1	1	100.0%			
Monolopia congdonii	San Joaquin Woollythreads						X					1	1	100.0%	FE		
	Total by Corridor	**10**	**11**	**23**	**27**	**32**	**47**	**36**	**18**	**11**	**9**						
Total Number of Sensitive Species: 66																	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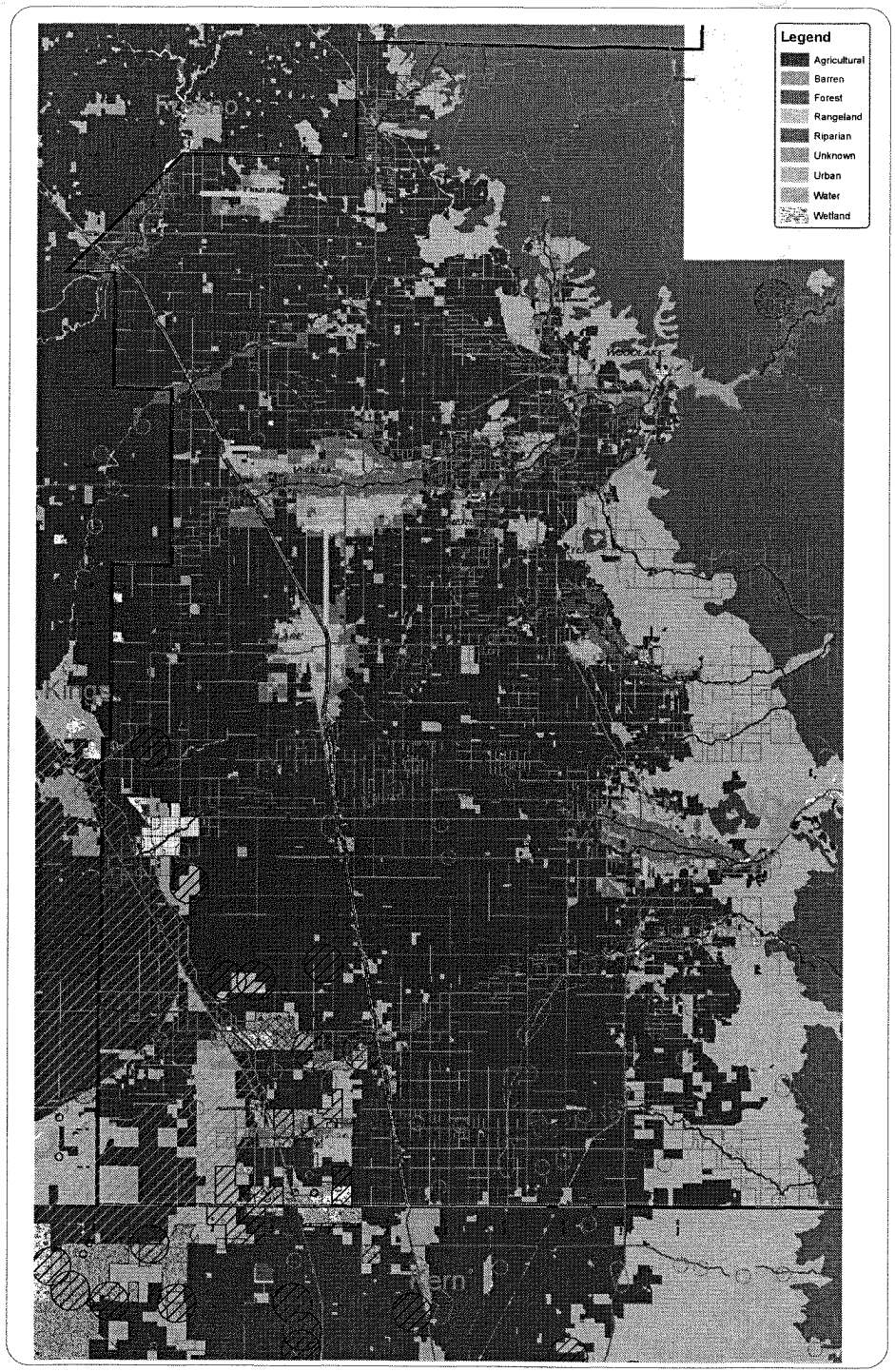
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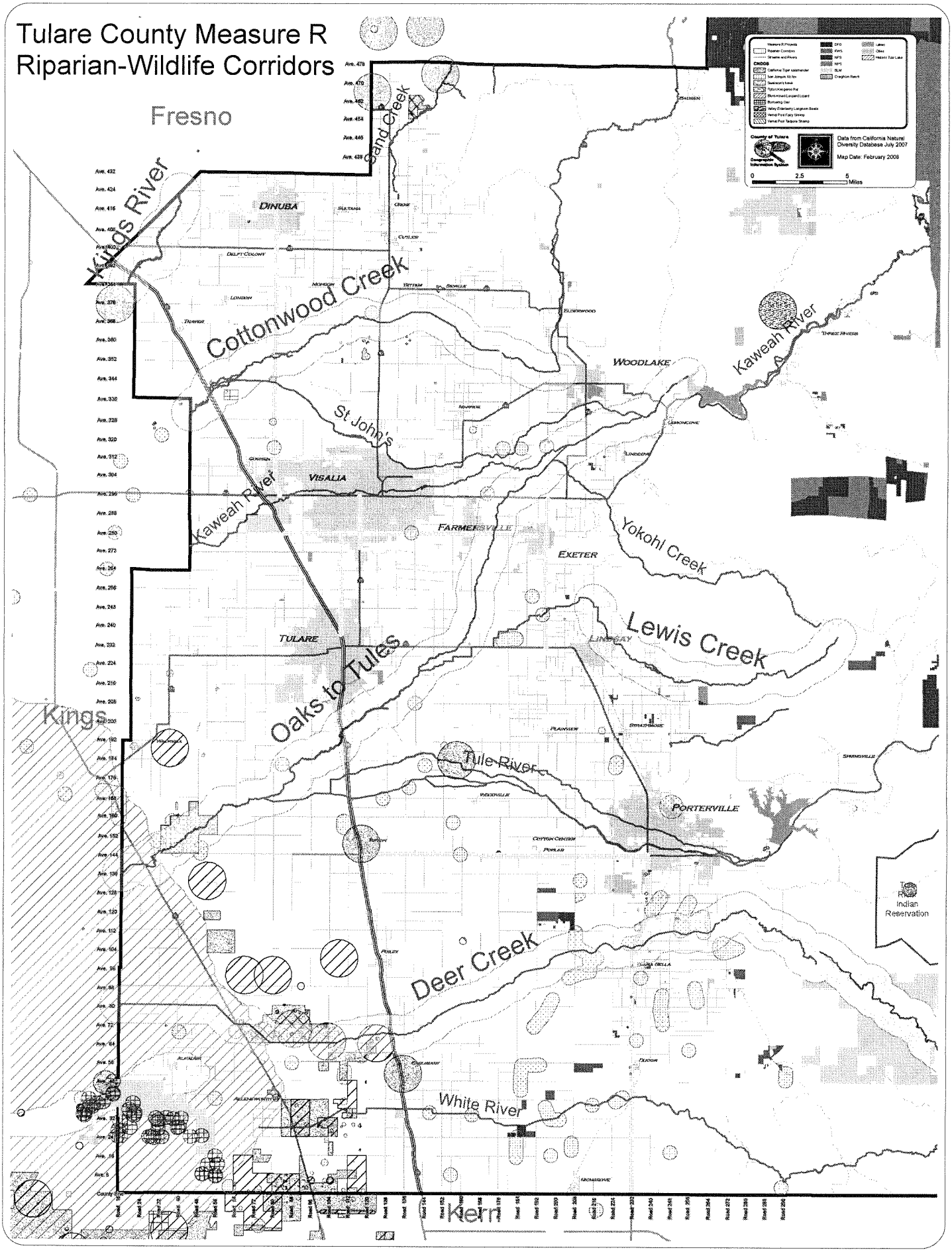
Tulare County Measure R
Riparian-Wildlife Corridors



TULARE BASIN WILDLIFE PARTNERS

Creating Opportunities for Nature and People

A Conservation Vision for the Tulare Basin



Introduction

The Tulare Basin is a land of superlatives. Located in California's southern San Joaquin Valley, the Tulare Basin encompasses portions of Fresno, Kern, Kings, and Tulare counties, where the mighty Kings, Kaweah, Tule, and Kern rivers and dozens of smaller creeks flow into the historic Tulare Lakebed. This region once featured the most extensive complex of freshwater wetlands west of the Mississippi River and the largest freshwater lake west of the Rocky Mountains. Artifacts unearthed here highlight the Tulare Basin as the location of the longest continuous human habitation in North America.

Today, the Tulare Basin is one of the most productive agricultural areas in the United States. Unfortunately, this region has lost 90-95% of its native habitat. As a result we are faced with a large number of special status species in need of protection (Appendix A). Today, the Tulare Basin has the smallest proportion of protected natural land and one of the smallest percentages of public recreational land per capita of any region in California.

The Tulare Basin is a land with a rich natural and cultural history, fertile soils, a unique landscape and plentiful opportunities. Over the next decade, land conservation, water management and wildlife protection must keep pace with community development, agricultural productivity, and land use changes or we risk losing those critical Tulare Basin resources forever. The Tulare Basin Wildlife Partners (TBWP) want to nurture and cultivate the Tulare Basin's natural legacy for current and future generations through a cooperative, comprehensive, conservation program that can only be achieved with your help.

Who are the Tulare Basin Wildlife Partners?

TBWP is a 501 (c) 3 non-profit conservation organization devoted to the protection, enhancement and restoration of wildlife habitats in the Tulare Basin. TBWP is composed of a small group of multi-skilled individuals that together act as the "action arm" of the Tulare Lake Basin Working Group, a consortium of more than 70 landowners and decision makers (Appendix B), to identify and implement collaborative conservation projects in the Tulare Basin. TBWP plays a singular role in bringing together agencies, organizations, and individuals to implement conservation projects that benefit wildlife and people alike.

TBWP aims to turn back the hands of the clock by conserving and restoring critical Tulare Basin upland and wetland habitats for people and wildlife. We believe this can be done in a way that provides multiple benefits to farming, water supply, air quality and the local economy. By working with a broad collection of stakeholders, TBWP developed a carefully crafted plan that provides a blueprint for the Tulare Basin and offers a wildlife-friendly future and better quality of life for the people that live there. We need your help today to make this plan a reality.



Alkali sacaton waves in the breeze at Pixley National Wildlife Refuge. Steve Laymon ©2008

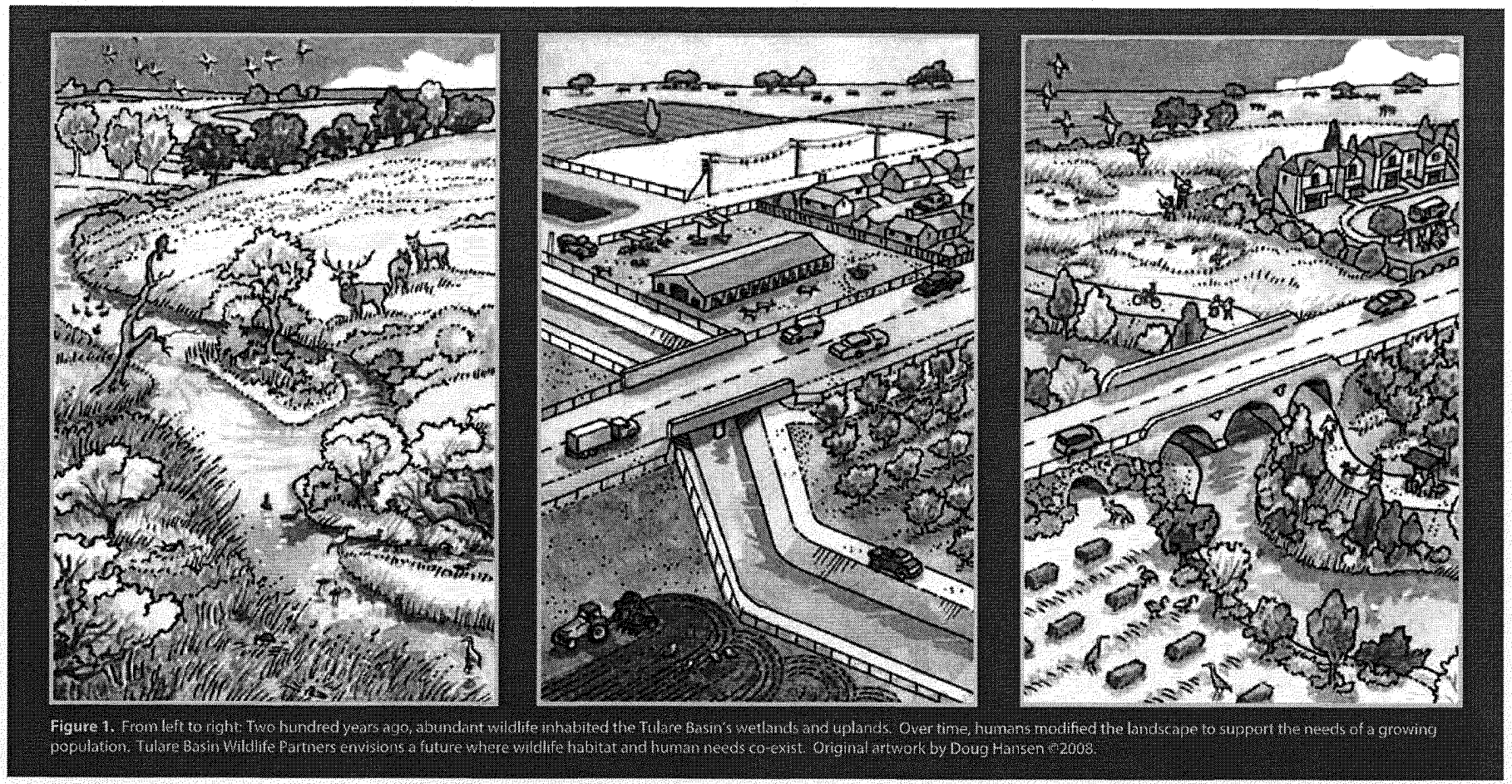


Figure 1. From left to right: Two hundred years ago, abundant wildlife inhabited the Tulare Basin's wetlands and uplands. Over time, humans modified the landscape to support the needs of a growing population. Tulare Basin Wildlife Partners envisions a future where wildlife habitat and human needs co-exist. Original artwork by Doug Hansen ©2008.

Vision for the Tulare Basin

The Tulare Basin Wildlife Partners envisions a landscape in which wildlife and agriculture co-exist, and at times complement each other or even overlap (Figure 1.). Conservation-minded farmers implement land management practices that create wildlife-friendly cropland without compromising their livelihood. Well-placed basins offer flood protection during wet years, serve as water storage and groundwater recharge sites during dry ones, and provide temporary wetland habitat for migrating waterfowl. Permanent wetlands, protected and managed for wildlife habitat, provide places for families to picnic and birdwatch and serve as outdoor education sites where students and tourists can glimpse a snapshot of Tulare Basin's past. In areas where farming is no longer viable, crucial upland habitat can be created, providing a home forendangered species such as the San Joaquin kit fox, blunt nosed leopard lizard, or Swainson's hawk. As wildlife populations become more stable and secure, Tulare Basin residents will benefit from additional economic opportunities centered around natural resources, including ecotourism, habitat restoration projects, and wetland management.

The Tulare Basin, Then...

The Tulare Basin encompasses the southern third of California's Great Central Valley. The San Joaquin River lines its northern border, while the east, west and southern edges are delineated by the Sierra Nevada, Coast, and Transverse mountain ranges respectively. One hundred and fifty years ago, the Tulare Basin was a unique and spectacular natural landscape, in which desert scrub alternated with lush wetlands (Figure 2.). Raging rivers bringing Sierra snowmelt fed six freshwater lakes, including the vast Tulare Lake. A network of sloughs and wetlands connected the lakes, so in a wet year a person traveling by boat could navigate throughout the Tulare Basin without touching dry ground.

These waterways were lined with valley oaks, cottonwoods, willows, sycamores, and dense beds of marsh-loving tules for which the region and the lake are named. Herds of elk, pronghorn, and deer covered the plains, while hundreds of thousands of migrating birds darkened the sky above. Professional fisherman caught fish by the ton and shipped Tulare Basin turtles to San Francisco to be served as Tulare Lake Terrapin soup. The plentiful game and relatively mild climate made the region amenable to the native people; the Tulare Basin boasted some of the oldest and densest Native American populations in North America. According to some estimates, at least 19,000 Yokuts once lived in, or migrated through, the Tulare Basin.

As settlers came to the Tulare Basin en masse in the late-1840s, they brought about rapid and comprehensive land use change. After the United States acquired California in the Mexican-American war, the U.S. government increased military presence and encouraged rapid settlement in the Tulare Basin as part of the answer to the "Indian problem" in

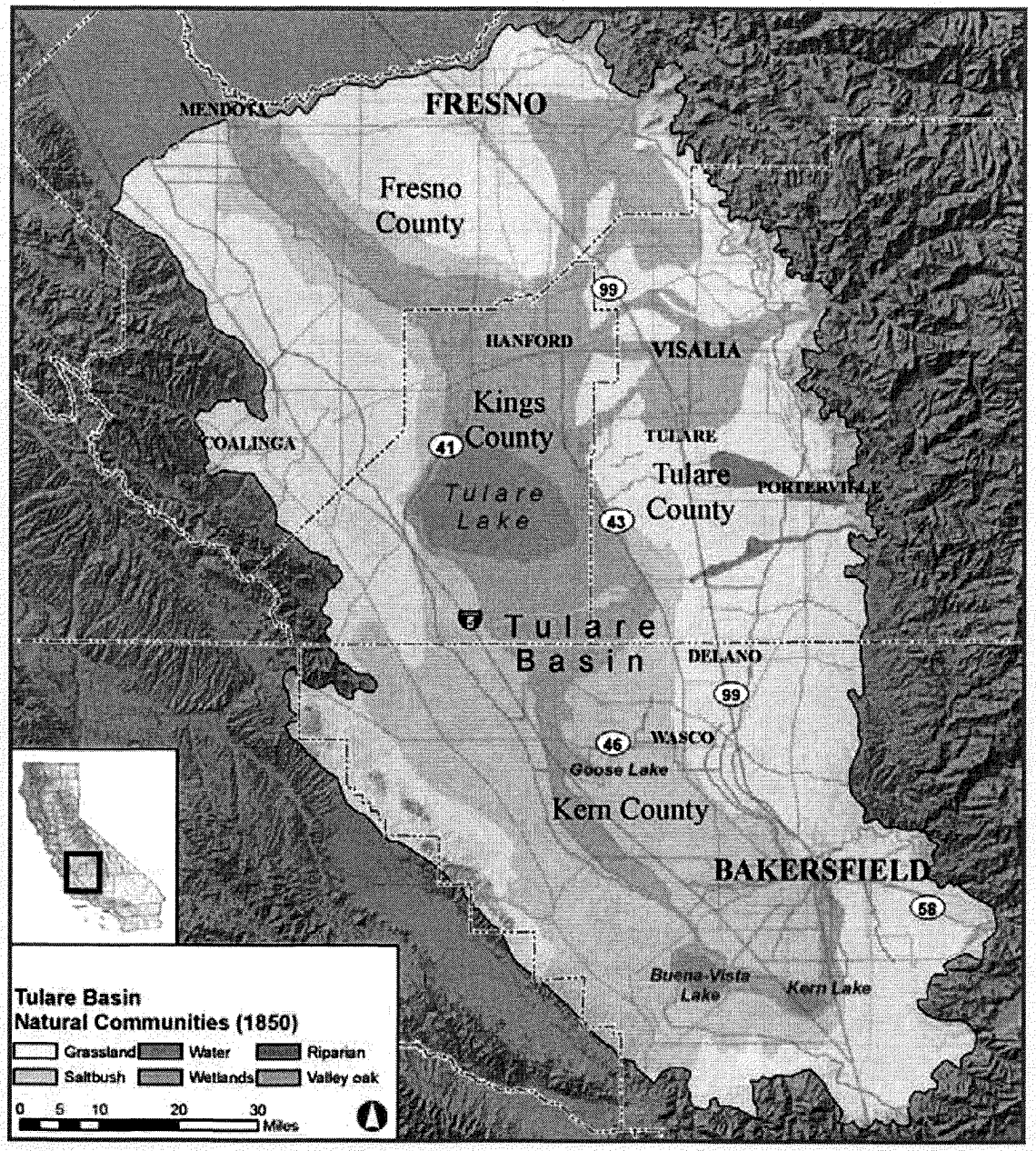


Figure 2. Map depicting expansive Tulare Basin natural communities in 1850. Scott Phillips, GIS Analyst and Network Administrator, Endangered Species Recovery Program, California State University, Stanislaus ©2010.

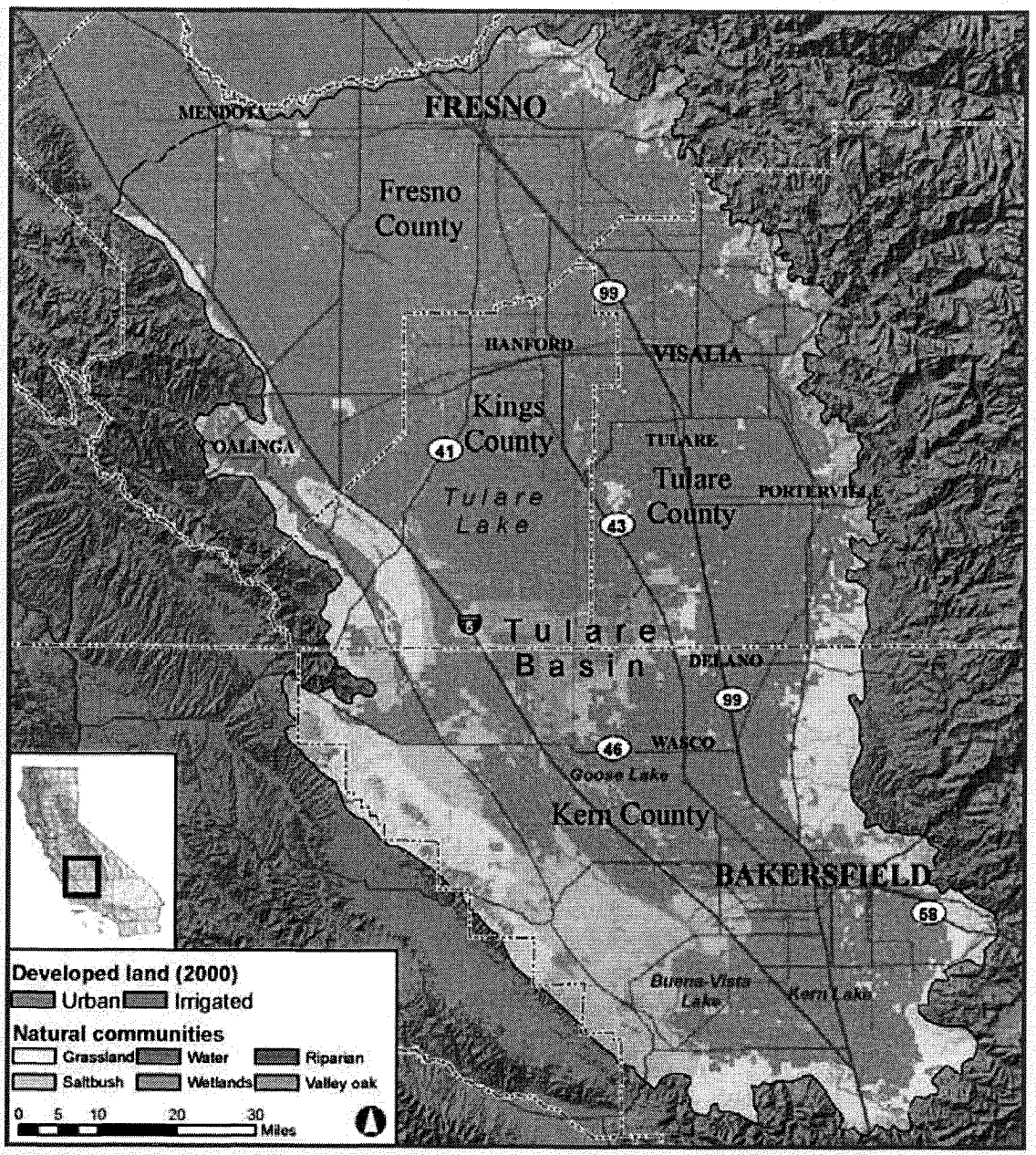


Figure 3. Map depicting developed land and natural communities in the Tulare Basin in the year 2000. Scott Phillips, GIS Analyst and Network Administrator, Endangered Species Recovery Program, California State University, Stanislaus ©2010.

California's interior. By the 1850s, most of the Yokuts had been forced onto reservations. By 1905, only 154 Yokuts remained in the Tulare Basin.

...and Now

Settlers in the Tulare Basin initiated irrigated agriculture in 1851 in an area now known as Tejon Ranch. Reclamation districts soon formed, building levees and diverting water into rapidly expanding irrigation canals, while slowly decreasing the natural flow of water into Tulare Lake. By 1900, Tulare Lake was dry for the first time in more than 20,000 years.

Within 50 years, settlers and farmers had dammed every major river feeding the Tulare Basin and created a high-tech irrigation system that enabled the conversion of hundreds of thousands of acres of prairie, forest, and desert land to cultivated crops. Groundwater pumps also proliferated, causing groundwater levels to fall dramatically. The combination of surface water plumbing and groundwater pumping facilitated the spread of irrigated agriculture, changing the physical and ecological landscape of the Tulare Basin forever (Figure 3.).

Despite its dramatic transformation over the past century and a half, the Tulare Basin is not entirely changed by humans. Thousands of birds return to protected wetlands such as the Kern Natural Wildlife Refuge; the Tupman Tule Elk preserve maintains a few dozen descendents of the once-vast Tule elk herds; and in the last 50 years, the precipitation from four, very wet winters (1969, 1982-83, 1986, 1997-98) breached levees, dams, holding basins, and canals to reclaim portions of Tulare Lake. Flocks of white pelicans, terns, ducks, and swans returned to visit the restored lake, allowing residents to glimpse a ghost of the Tulare Basin's former natural glory.

Tulare Basin Regional Conservation Plan

In 2005, the Tulare Lake Basin Working Group, an alliance of over 70 non-profit, agency and industry partners, directed TBWP to develop a comprehensive conservation plan for the Tulare Basin, built on, updating, and expanding existing conservation plans. Five years later, TBWP completed the Tulare Basin Regional Conservation Plan. When implemented, this plan will protect or restore important seasonal and permanent wetlands, riparian areas, and upland habitat, benefitting wildlife and people in the Tulare Basin. This habitat would exist as a patchwork of lands managed by federal agencies, states, tribes, cities, non-profit organizations, and private landowners. The majority of it would remain as privately-owned, working landscapes (Figure 4.).

The Tulare Basin Regional Conservation Plan is divided into five parts: The first three volumes each examine a different area within the Tulare Basin. These are: the Goose Lake Conservation Plan (April 2006), the Sand Ridge – Tulare Lake Conservation Plan (July 2006), the Buena Vista Lake – Kern Lake Conservation Plan (December 2006). Together, these plans would protect or restore over 100,000 acres of wetlands, including approximately 6,668 acres of permanent wetlands – increasing the current amount of permanent wetlands by 97%. These plans also identify 292,000 acres of upland habitat for protection and restoration.

A fourth volume, the Tulare Basin Riparian and Wildlife Corridor Conservation Plan (February 2009), identifies 16 key corridors connecting conservation areas and surrounding landscapes. The predicted changes in climate and precipitation patterns will have a profound impact on the physical, ecological, and agricultural characteristics of the Tulare Basin. The linkages identified in the corridor plan are a key element in the climate change adaptation strategy incorporated into the Tulare Basin Regional Conservation Plan. Corridors linking larger protected areas to each other and to the surrounding mountain ranges will enable Tulare Basin flora and fauna to migrate to different latitudes or higher elevations as climate change makes their current homes inhospitable. This critical piece of planning, when implemented, will greatly increase the chance of survival for native plants and wildlife in a rapidly changing world. The Tulare Basin Riparian and Wildlife Corridor Conservation Plan would protect or restore approximately 30,000 acres of riparian habitat and 550,000 acres of upland habitat.

A fifth and final volume, Tulare Basin Regional Conservation Plan Water Supply Strategies Report (March 2010) complements the other four plans. Sufficient water is critical to the management and restoration of wetland and riparian habitats in the Tulare Basin. The Water Supply Strategies Report quantifies the water needs for the four area plans described above and identifies potential water supplies. The report concludes that the total environmental water demand is between approximately 540,000 – 366,000 acre feet annually. The former figure applies to very wet years and assumes maximum utilization of all existing and potential wetland and riparian habitat; the latter figure is a dry year minimum required to maintain permanent wetlands and water-dependent riparian vegetation. This uniquely valuable report sets the stage for Tulare Basin water agencies and the TBWP to partner, collaboratively plan, and implement conservation and water management improvement projects on the local and regional level. It prioritizes leading opportunities to protect, restore, and enhance habitat at the watershed and landscape scale.

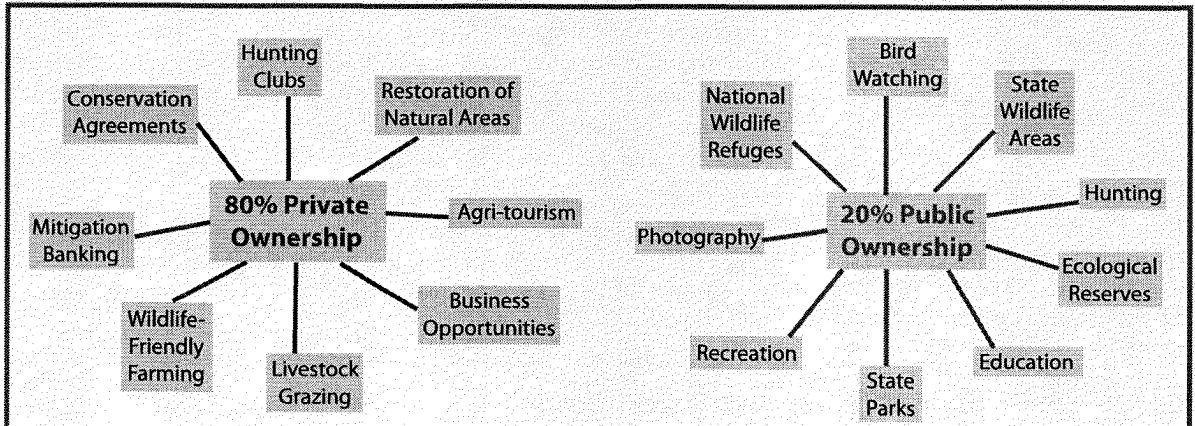


Figure 4. Tulare Basin Wildlife Partners envisions a landscape in the Tulare Basin that balances diverse places for public enjoyment with privately-owned healthy, functioning natural and agricultural lands.

Conservation Plan Goals

Preserve existing native habitat

Preserve and restore corridors between patches of existing native habitat

Preserve and restore riparian and upland corridors linking the Sierra Nevada, Transverse Range and Coast Range mountains with the Tulare Basin

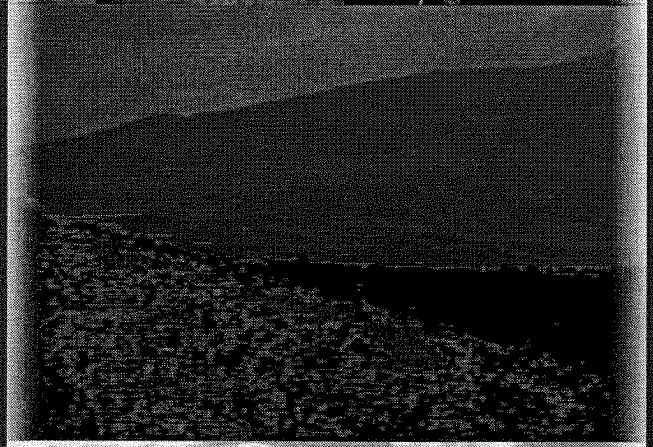
Protect and restore habitat for wintering and nesting waterfowl and other wetland species

Create flood control benefits for cities, farms, and endangered species habitat by providing and managing wetlands to store flood water and recharge groundwater

Re-create integral historical southern San Joaquin Valley landscapes

Provide natural areas where residents and visitors can relax, recreate, bird-watch, explore, and learn







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Steve Laymon ©2008

Johanna Kamansky ©2010

Benefits

Combine wildlife enhancement with improved water quality and supply; provide flood control; and increase groundwater recharge areas

Improve air quality in one of the nation's most polluted air basins

Recover populations of endangered species and avoid future species listings

Enhance educational experiences for our children

Maintain scenic vistas and natural areas

Provide recreational opportunities for families

Offer climate change mitigation and adaptation through habitat enhancement and carbon sequestration

Optimize agricultural production in harmony with natural resource protection

Increase business and tourism opportunities



Restored wetland and public viewing area near Alpaugh, California.
Johanna Kamansky ©2010.

Accomplishments

TBWP has already taken some big steps towards realizing its vision: The 70+ members of the Tulare Lake Basin Working Group and TBWP meet biannually to identify opportunities for project implementation and collaboration. The three area conservation plans and the corridor plan, which were funded through the US Bureau of Reclamation Central Valley Project Conservation Program, the USDA Natural Resources Conservation Service, and the Resources Legacy Fund Preserving Wild California Program, were adopted by the California Department of Fish and Game as Conceptual Area Protection Plans. A major anonymous donor funded the Tulare Basin Conservation Plan Water Supply Strategies Report.

TBWP has also begun implementing projects within its planning area. For example, TBWP is working with the Deer Creek and Tule River Water Authority on a four-phase groundwater banking project to enhance permanent wetland habitat. This project offers a model for future collaborative, multi-benefit conservation projects that the TBWP will undertake working with water management entities in the Tulare Basin.

Further south, TBWP and Tulare Lake Basin Working Group partners have teamed up with the Bureau of Land Management to restore 8,000 acres of wetlands and uplands near the small Tulare Basin town of Alpaugh. The Alpaugh Unified School District and the Tulare County Office of Education are also helping to make this area a field classroom to provide hands-on learning opportunities for teachers and students.



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Bobby Kamansky ©2008

Steve Laymon ©2008

Needs

TBWP has the immediate need for $250,000 annually to provide leadership for this important conservation effort. Some of these funds will come from agencies and foundations, but an important portion needs to come from individual donors. TBWP is also seeking more than $50 million to implement 11 high-priority conservation projects in the Tulare Basin during the next five years.

How You Can Help

Implementing TBWP's Tulare Basin Regional Conservation Plan requires the cooperation of local, state, and federal agencies, organizations, and individuals committed to making the Tulare Basin a better place to live for both people and wildlife.

- If you are an interested individual, you can help this effort by supporting TBWP in several ways: by making a financial donation, by providing contacts to other interested individuals, and by encouraging your elected officials to support this effort.
- If you are a manager of a governmental agency or conservation organization, you can direct existing funding and staff efforts to help achieve this regional vision.
- If you are a state or federal legislator, you can develop funding through new programs and legislation that will support this project.
- If you are a corporation or foundation, you can help fund critical land and water conservation projects that achieve this important vision.

The current recession has provided a pause in the rapid pace of residential and commercial development and a chance to think long-term about land use. Major projects, such as the high speed rail system through the Tulare Basin, will forever change land use patterns in the valley. Water policy and agriculture are at a critical juncture in the Tulare Basin. All of these factors make this an optimum time to begin to implement this conservation program.

Be assured that each dollar contributed to TBWP is stretched to the maximum extent. TBWP is a cost-effective, science-based, results-oriented organization who maximizes funder investment by implementing collaborative projects that provide model conservation solutions of local, regional, state-wide, national, and international significance. With relatively little overhead and no capital expenses, your tax-deductible donation truly funds wildlife habitat conservation in the Tulare Basin.

There is no better time to move forward than now.

Join the TBWP Team and become a part of this exciting effort to protect and restore the Tulare Basin, a critical part of California's rich natural heritage.

To receive a list of current needs and action opportunities, contact:

Tulare Basin Wildlife Partners
Carole Combs, Board Secretary
P.O. Box 1180
Three Rivers, California 93271
tel: (559) 799-7204
fax: (559) 561-1921
tax id: 75-3192859
email: ccombs@thegrid.net
web: tularebasinwildlifepartners.org

Appendix A: Tulare Basin Special Status Species

Scientific Name	Common Name	Status*	Affinity
ARTHROPODS			
Branchinecta lynchi	Vernal Pool Fairy Shrimp	FE	wetland
Lepidurus packardi	Vernal Pool Tadpole shrimp	FT	wetland
Lytta hoppingi	Hopping's Blister Beetle	CNDDB	upland
Lytta molesta	Molestan Blister Beetle	CNDDB	upland
Lytta morrisoni	Morrison's Blister Beetle	CNDDB	upland
Cicindela tranquebarica	San Joaquin Tiger Beetle	CNDDB	upland
Coelus gracilis	San Joaquin Dune Beetle	F Candidate	upland
Desmocerus californicus dimorphus	Valley Elderberry Longhorn Beetle	FT	upland
Protodufourea zavortinki	Zavortink's protodufourea bee	CNDDB	upland
AMPHIBIANS			
Ambystoma californiense	California Tiger Salamander	FT, SSC	wetland
Spea hammondii	Western Spadefoot	SSC	wetland
Rana draytonii	California Red-legged Frog	FT, SSC	wetland
REPTILES			
Emys (=Clemmys) marmorata pallida	Southwestern Pond Turtle	SSC	wetland
Gambelia sila	Blunt-nosed Leopard Lizard	SE, FE	upland
Phrynosoma coronatum (frontale)	Coast (California) Horned Lizard	SSC	upland
Masticophis flagellum ruddocki	San Joaquin Whipsnake	SSC	upland
Thamnophis gigas	Giant Garter Snake	FT, ST	wetland
BIRDS			
Pelacanus erythrorhynchos	American White Pelican	SSC	wetland
Phalacrocorax auritus	Double-crested Cormorant	CNDDB	wetland
Dendrocygna bicolor	Fulvous Whistling-Duck	SSC	wetland
Aythya americana	Redhead	SSC	wetland
Aythya valisineria	Canvasback	CNDDB	wetland
Botaurus lentiginosus	American Bittern	Sensitive	wetland
Ixobrychus exilis	Least Bittern	SSC	wetland
Ardea herodias	Great Blue Heron	Sensitive	wetland
Ardea alba	Great Egret	CNDDB	wetland
Egretta thula	Snowy Egret	Watch List	wetland
Nycticorax nycticorax	Black-crowned Night-Heron	Sensitive	wetland
Plegadis chihi	White-faced Ibis	SSC	wetland
Elanus leucurus	White-tailed Kite	Fully Protected	upland
Haliaeetus leucocephalus	Bald Eagle	SE, FT	wetland
Circus cyaneus	Northern Harrier	SSC	wetland

Scientific Name	Common Name	Status*	Affinity
BIRDS Continued			
Buteo swainsoni	Swainson's Hawk	ST	upland
Buteo regalis	Ferruginous Hawk	CNDDB	upland
Aquila chrysaetos	Golden Eagle	SSC, Fully Protected	upland
Pandion haliaetus	Osprey	SSC	upland
Falco columbarius	Merlin	SSC	upland
Falco mexicanus	Prairie Falcon	SSC	upland
Grus canadensis tabida	Greater Sandhill Crane	ST	wetland
Grus canadensis canadensis	Lesser Sandhill Crane	SSC	wetland
Charadrius montanus	Mountain Plover	SSC	upland
Charadrius alexandrinus nivosus	Western Snowy Plover	SSC	wetland
Sterna antillarum	California Least Tern	FE, SE	wetland
Chlidonias niger	Black Tern	SSC	wetland
Rynchops niger	Black Skimmer	SSC	wetland
Coccyzus americanus occidentalis	California Yellow-billed Cuckoo	SE	wetland
Athene cunicularia	Burrowing Owl	SSC	upland
Asio otus	Long-eared Owl	SSC	upland
Asio flammeus	Short-eared Owl	SSC	wetland
Picoides nuttallii	Nuttall's Woodpecker	Watch List	upland
Empidonax traillii extimus	Southwestern Willow Flycatcher	FE, ST	wetland
Lanius ludovicianus	Loggerhead Shrike	SSC	upland
Vireo bellii pusillus	Least Bell's Vireo	FE, SE	wetland
Eremophila alpestris actia	California Horned Lark	CNDDB	upland
Toxostoma lecontei	LeConte's Thrasher	SSC	upland
Dendroica petechia brewsteri	Yellow Warbler	SSC	wetland
Icteria virens	Yellow-breasted Chat	SSC	wetland
Agelaius tricolor	Tricolored Blackbird	SSC	wetland
Xanthocephalus xanthocephalus	Yellow-headed Blackbird	SSC	wetland
MAMMALS			
Sorex ornatus relictus	Buena Vista Lake Shrew	FE	wetland
Ammospermophilus nelsoni	San Joaquin Antelope Squirrel	ST	upland
Dipodomys ingens	Giant Kangaroo Rat	SE,FE	upland
Dipodomys nitratoides brevinasus	Short-nosed Kangaroo Rat	SSC	upland
Dipodomys nitratoides nitratoides	Tipton Kangaroo Rat	SE,FE	upland
Dipodomys nitratoides exilis	Fresno Kangaroo Rat	SE,FE	upland
Perognathus inornatus inornatus	San Joaquin Pocket Mouse	Sensitive	upland

Tulare Basin Special Status Species Continued

Scientific Name	Common Name	Status*	Affinity
MAMMALS Continued			
Onychomys torridus tularensis	Tulare Grasshopper Mouse	SSC	upland
Eumops perotis californicus	Western Mastiff Bat	SC	upland
Antrozous pallidus	Pallid Bat	SC	upland
Lasiurus cinereus	Hoary Bat	SC	upland
Vulpes macrotis mutica	San Joaquin Kit Fox	ST,FE	upland
Taxidea taxus	American Badger	SSC	upland
PLANTS			
Amsinckia vernicosa var. *furcata*	Forked Fiddleneck	CNPS 4	upland
Antirrhinum ovatum	Oval-leaved Snapdragon		upland
Astragalus hornii var. *hornii*	Horn's Milk-vetch	CNPS 1B	upland
Atriplex cordulata	Heartscale	CNPS 1B	upland
Atripllex coronata var. *coronata*	Crownscale	CNPS 4	upland
Atriplex depressa	Brittlescale	CNPS 1B	upland
Atriplex erecticaulis	Earlimart Orache	CNPS 1B	upland
Atriplex minuscula	Lesser Saltscale	CNPS 1B	upland
Atripelx persistens	Vernal Pool Smallscale	CNPS 1B	wetland
Atriplex subtilis	Subtle Orache	CNPS 1B	upland
Atriplex tularensis	Bakersfield Smallscale	CNPS 1B	wetland
Atriplex vallicola	Lost Hills Crownscale	CNPS 1B	upland
California macrophylla	Round-leaved Filaree	CNPS 1B	upland
Chamaesyce hooveri	Hoover's Spurge	CNPS 1B	upland
Calochortus striatus	Alkali Mariposa Lily	CNPS 1B	wetland
Caulanthus californicus	California Jewel-flower	SE,FE	upland
Caulanthus lemmonii	Lemmon's Wild Cabbage	CNPS 1B	upland
Cirsium crassicaule	Slough Thistle	CNPS 1B	wetland
Clarkia tembloriensis ssp. *calientensis*	Vasek's clarkia	CNPS 1B	upland
Cordylanthus mollis ssp. *hispidus*	Hispid Bird's-beak	CNPS 1B	wetland
Cordylanthus palmatus	Palmate-bracted Bird's-beak	SE,FE	wetland
Deinandra halliana	Hall's Tarplant	CNPS 1B	upland
Delphinium gypsophilum ssp. *gypsophilum*	Gypsum loving Larkspur	CNPS 4	upland
Delphinium recurvatum	Recurved Larkspur	CNPS 1B	upland
Eschscholzia lemmonii ssp. *kernensis*	Tejon Poppy	CNPS 1B	upland
Eremalche kernensis	Kern Mallow	FE	upland
Eriastrum hooveri	Hoover's Erastium	CNPS 4	upland
Eriogonum gossypinum	Cottony Buckwheat	CNPS 4	upland

Scientific Name	Common Name	Status*	Affinity
PLANTS Continued			
Eriogonum temblorense	Temblor Buckwheat	CNPS 1B	upland
Erodium macarophyllum	Round-leaved Filaree	CNPS 1B	upland
Eryngium spinosepalum	Spiny-sepaled Button-celery	CNPS 1B	upland
Lasthenia ferrisiae	Alkali Goldfields	CNPS 4	wetland
Lasthenia glabrata ssp. *coulteri*	Coulter's Goldfields	CNPS 1B	wetland
Layia heterotricha	Paleyellow Tidytips	CNPS 1B	upland
Layia leucopappa	Comanche Point Layia	CNPS 1B	upland
Layia munzii	Munz's Tidy-tips	CNPS 1B.2	upland
Lepidium jaredii ssp. *album*	Panoche Pepper-grass	CNPS 1B	wetland
Madia radiata	Golden Madia	CNPS 1B	upland
Malacothamnus aboriginum	Indian Valley Bush Mallow	CNPS 1B	upland
Mimulus pictus	Calico Monkeyflower	CNPS 1B	upland
Monolopia congdonii	San Joaquin Woollythreads	FE	wetland
Navarretia jaredii	Paso Robles Navarretia	CNPS 4	wetland
Navarretia setiloba	Piute Mountains Navarretia	CNPS 1B	upland
Opuntia basilaris var. *treleasei*	Bakersfield Cactus	FE, SE, CNPS 1B	upland
Orcuttia inaequalis	San Joaquin Valley Orcutt Grass	FT	wetland
Phacelia distans	Ashy Phacelia	CNPS 1A	upland
Sagittaria sanfordii	Sanford's Arrowhead	CNPS 1B	upland
Sidalcea keckii	Keck's Checkerbloom	CNPS 1B	upland
Stylocline citroleum	Oil Neststraw	CNPS 1B	upland
Symphyotrichum defoliatum	San Bernardino Aster	CNPS 1B	upland
Trichostema ovatum	San Joaquin Bluecurls	CNPS 4	upland
Tuctoria greenei	Greene's Tuctoria	FE	wetland
Twisselmannia californica	Kings Gold	CNPS 1B	upland

***STATUS KEY**

FE	Federally-listed as Endangered	**SE**	State-listed as Endangered
FT	Federally-listed as Threatened	**ST**	State-listed as Threatened
F Candidate	Candidate for Federal listing as threatened or endangered		
Sensitive	Federal agency designation (FWS, BLM, USFS)		
CNDDB	California Natural Diversity Database		
SSC	California Department of Fish and Game designation; Species of Special Concern		
Watch List	California Department of Fish and Game designation; Watch List		
Fully Protected	California Department of Fish and Game designation; fully protected		
CNPS 4	Plants of limited distribution – a watch list		
CNPS 1B	Plants rare, threatened, or endangered in California and elsewhere		
CNPS 1B.2	Plants rare, threatened, or endangered in California and elsewhere; endangerment threat rank level 2		
CNPS 1A	Plants presumed extinct in California		

Appendix B: Tulare Lake Basin Working Group

Tulare Basin Wildlife Partners operates as the "action arm" of the Tulare Lake Basin Working Group, an alliance of more than 70 agency, non-profit and industry partners. Through leadership, advocacy and facilitation, TBWP serves as a catalyst for completing partner-driven projects that protect and restore natural communities in the Tulare Basin. Below is a list of the partners with whom TBWP works to determine, fund, and implement conservation projects:

Agency Partners: Federal Government

- Naval Air Station Lemoore
- Central Valley Joint Venture (US Fish and Wildlife Service)
- Central Valley Shorebird and Waterbird Monitoring and Evaluation Group
- US Bureau of Land Management - Bakersfield Field Office
- US Bureau of Reclamation
- US Congressman Devin Nunes
- US Congressman Jim Costa
- US Congressman Kevin McCarthy
- US Department of Agriculture, Natural Resources Conservation Service
- US Environmental Protection Agency
- US Fish and Wildlife Service
- Kern National Wildlife Refuge
- USFWS Migratory Bird Program
- Pixley National Wildlife Refuge
- US Senator Barbara Boxer
- US Senator Dianne Feinstein

Agency Partners: State Government

- California Department of Fish and Game
- California Department of Parks and Recreation
- California Department of Conservation
- California Department of Water Resources
- Endangered Species Recovery Program, administered by CSU, Stanislaus Foundation
- Riparian Habitat Joint Venture (state-agency affiliated)
- University of California Berkeley, Department of City and Regional Planning
- University of California Merced, Sierra Nevada Research Institute
- Wildlife Conservation Board

Agency Partners: Local Government

- Deer Creek and Tule River Authority
- Fresno County Council of Governments
- Kern County Council of Governments
- Kern County Planning Department
- Kings County Association of Governments/ San Joaquin Valley Blueprint
- Kings County Planning Agency
- Semitropic Water Storage District
- Supervisor Allen Ishida, District 1, Tulare County Board of Supervisors
- Supervisor Mike Ennis, District 5, Tulare County Board of Supervisors
- Supervisor Ray Watson, 4th District, Kern County Board of Supervisors
- Tulare County Association of Governments
- County Resource Management Agency
- Tulare County Water Commission

Water Work Group Partners

- Kaweah Basin Integrated Regional Water Management Planning Group
- Kern County Water Agency Integrated Water Management Planning Group
- Poso Creek Integrated Regional Water Management Group
- Southern Sierra Integrated Regional Water Management Planning Group
- Tulare Basin Integrated Regional Water Joint Powers Agreement
- Tule River Integrated Regional Water Management Planning Group
- Upper Kings Basin Integrated Regional Water Management Authority

Industry Partners

- Conservation Strategy Group, LLC
- Greenbridges LLC
- Michael Nordstrom, Attorney at Law
- Paramount Farms
- URS Corporation
- Westervelt Ecological Services
- Wildlands, Inc.

Non-Profit Partners

- American Farmland Trust
- American Land Conservancy
- Audubon California
- California Institute for Biodiversity
- California Outdoor Heritage Alliance
- California Partnership for the San Joaquin Valley
- California Watchable Wildlife
- California Water Institute
- California Waterfowl Association
- Center for Natural Lands Management
- Ducks Unlimited
- Great Valley Center
- Land Trust Alliance
- National Audubon Society
- Point Reyes Bird Observatory
- River Partners
- Sequoia Riverlands Trust
- Sustainable Conservation
- The Nature Conservancy
- Trust for Public Land
- Tulare Basin Wetlands Association
- Tulare County Audubon Society
- Tulare County Farm Bureau
- US Green Building Council Central California
- Water Education Foundation
- Western Rivers Conservancy

From: Ann Huber <nn_hbr@yahoo.com>
To: "mcflores@co.tulare.ca.us" <mcflores@co.tulare.ca.us>
Date: 10/24/2011 11:11 AM
Subject: Comment on County Plan

M. Flores:

I am a resident of Three Rivers. I have been unable to attend the public meetings on the Tulare County General Plan, but if it is not too late I would like to let the planning board know that I support the Tulare County Citizens for Responsible Growth's Health, Growth alternative.

With Respect,

Ann Huber

41043 Grouse Drive.
Three Rivers, CA 93271

October 27, 2011

Tulare County Planning Commission

Nancy Pitigliano; Bill Whitlatch; Wayne Millies, Chair; Melvin Gong; John Elliott; Ed Dias; Charlie Norman; Gil Aguilar; Doug Silveria; Jack Ritchie

5961 S. Mooney Blvd.
Visalia, CA 93277-9394

Dear Planning Commissioners:

Thank you for holding a public hearing on the Tulare County General Plan 2030 Update, proposed Final Environmental Impact Report, and proposed Climate Action Plan, on October 19, 2011. We appreciated having the opportunity to speak to you then.

Because the three-minute time limit on public comments precludes any significant depth or detail, we are writing to you, as we said we would at the hearing, to provide more meaningful input.

Having read all of the GPU documents that have been made available to the public, we are very concerned that the GPU does not "walk its talk" as it should. Tulare County needs and deserves a strong, clear, consistent plan that will protect and enhance its economy, its communities, and its natural resources.

Our comments on the proposed Climate Action Plan are attached; we will follow up with comments on the proposed FEIR. As concerned citizens who have spent hundreds of hours trying to understand and evaluate this plan for our common future, we hope you will take time to read and consider our comments.

Thank you for your efforts to ensure that this GPU "constitution" will truly work to realize the vision of our county's residents.

Sincerely,

Greg and Laurie Schwaller
43857 South Fork Dr.
Three Rivers, CA 93271
559-561-0111

Comments on Tulare County Draft Climate Action Plan

We applaud Tulare County for preparing a draft Climate Action Plan (CAP) because global climate change threatens the health, safety, and productivity of our county and its residents, and we have a clear and present responsibility (and a legal obligation) to promptly and proactively reduce our contributions to this momentous threat.

However, if it is to be truly effective, and responsive to the public interest and the intent of the law, **the CAP must be extensively revised**. To serve its purpose as a meaningful implementation measure and mitigation measure for the proposed General Plan Update (GPU), it **must be made more clear, comprehensive, specific, enforceable, results-oriented, timely, and measurable**.

The CAP relies for its effect primarily on policies and implementation measures in the draft General Plan which have already been shown repeatedly during the first and second public comment periods to be far too vague, weak, and unenforceable to be relied on to accomplish the plans' goals.

For example, the General Plan has Land Use policies that "encourage" development to locate near existing infrastructure, "encourage" residential development to be clustered, "encourage" high-density development to locate near facilities, "encourage" infill, and "encourage" the use of solar power and energy conservation. But how will the County "encourage" these worthwhile actions to occur? We turn to the implementation measures to find out.

We find that many of these policies have no implementation measures at all, or are have only very indefinite measures such as the County "shall develop a set of criteria" or "shall explore implementation strategies" or "shall consider preparing an inventory" or "shall cooperate to encourage." Policies and implementation measures like these do not **make clear to the county's current or prospective residents, businesses, or agriculturists what they can expect of the plan or what the plan expects of them**.

Such vague, weak policies and implementation measures also **do not enable useful monitoring**, measuring, and reporting, to ascertain whether the plan is producing good results. **They also greatly reduce accountability**. Could this be the County's goal?

While **the CAP and the General Plan pay lip service** to important principles and concepts of responsible growth and ways to reduce greenhouse gas emissions (GHGs), when it comes to providing clear, concrete, measurable implementation and mitigation, we get vaporware and crippling inconsistencies.

Here's a typical example:

The County states correctly that its "**authority over land use provides its most important contribution to efforts to reduce greenhouse gas emissions related to new development**" (CAP, p. 64). It then states that "as new development is constructed consistent with the General Plan and Blueprint, even existing development will see benefits from infill and better transportation options." Then it summarizes sound principles of compact development (CAP, p. 64): "Higher development densities to

shorten travel distances and increase the feasibility of frequent transit service; incremental development and infill that minimizes travel distances and allows for efficient expansion of pedestrian and bicycle infrastructure, transit services and road improvements; farmland and Open Space preservation to focus development in existing communities and hamlets that are more walkable and better served by transit."

Very good lip service, and fine window dressing, **but the GPU documents totally contradict this approach by promoting unwanted, unneeded, resource-wasting New Towns and Corridor Areas.**

The County admirably and sensibly states (LU-2.1, CAP, p. 65) that it "**shall direct urban development away from valuable agricultural lands to cities, unincorporated communities, and hamlets where public facilities and infrastructure are available**." We strongly support this policy (although it shouldn't need the "valuable agricultural lands" qualifier; it should stand by itself). The County has listed dozens of already developed areas in the unincorporated area where new development can go (and, of course,it can go, as it has been voluntarily going, mostly to the cities).

The County should provide a plan that consistently upholds this policy, for a more robust economy, stronger communities, reduction of VMTs and GHGs, and a healthier environment. **Development of New Towns and Corridor Areas should not be considered unless and until incremental development and infill have used up the thousands of acres available within existing development boundaries; the GPU documents should be revised to that effect.**

The proposed Yokohl Ranch is one 800 pound gorilla that the County refuses to honestly address in the GPU documents; it is also the flagship for the leapfrog sprawl development that the GPU is promoting with its New Town and Corridor Areas policies. This type of development is antithetical to the purpose and effectiveness of the CAP. **To reduce GHGs via land use decisions, the County must mandate compact development <u>within existing development boundaries</u> that can be served by existing infrastructure, facilities, and services and that enables and encourages people to travel without their cars.** VMTs are increasing much more rapidly than population growth and are likely to overwhelm the benefits of lower-emissions vehicles unless we can reduce private vehicle use.

The CAP's GHG "**reductions are based on the development being consistent with the goals, policies, and implementation measures in the General Plan, and the TCAG Blueprint Vision**." The analysis is based on "general **assumptions," including** that "*new development will be targeted in existing cities and rural communities*, large lot rural estate subdivisions and ranchettes on important farmlands will be *discouraged*, new residential development in rural communities will *increase development density by 25 percent* compared with current averages, a significant amount of development in the unincorporated County areas will occur on existing lots that are not subject to any additional County discretionary approvals, and *any new town, planned community area, or corridor developments in Tulare County will be environmental showcases* for technology and innovation that go well beyond standards for energy efficiency, water conservation, and alternative transportation." (CAP , p. 2-67) Unfortunately**, these goals, policies, and implementation measures are so consistently vague and weak that they provide**

no justification for making these assumptions, as pointed out throughout hundreds of pages of comments on the GPU.

"Farmworker transportation is an important concern in Tulare County" (CAP, p. 45), but **where is this addressed** in any of the GPU documents?

Another 800 pound gorilla that the CAP is keeping mostly behind closed doors is the agricultural industry's substantial contribution to the County's GHGs, largely from CAFOs (confined animal feeding operations). The **dairy emissions**, based on projections from the Tulare County Phase I Animal Confinement Plan Draft Supplemental EIR (2006), **comprised 63% of the GHG emissions for the unincorporated county** in 2007 (CAP, p. 39), and continue close to that percent through 2030 (CAP, p. 40). And yet, the "**CAP does not currently propose a reduction target for dairies**" (p. 46).

"The County will continue to apply SJVAPCD rules and to identify any additional feasible greenhouse gas mitigation measures for dairies and feedlots through the project approval process and CEQA and will identify a reduction target for this source through **a separate CAP process** as part of amendments to the Animal Confinement Facilities Plan [ACFP]and Program EIR" (p. 46). (**NOTE:** the County agreed in **June, 2001**, to prepare a Draft Supplemental Program Environmental Impact Report [DSPEIR] for the ACFP, to settle CEQA litigation on the ACFP. Has this DSPEIR ever been completed and adopted? The fact that the court required the County to develop a better EIR for this plan indicates that it is not likely to be supporting our CAP goals.)

The CAP should be revised to propose a reduction target for dairies since they are by far the major GHG emissions source in the unincorporated County (and Tulare County has far more cows than any other county in the nation). **The CAP process for dairies should not be pushed off onto a separate track and/or down to the individual project approval level**. If the County hasn't prepared and adopted the SPEIR for the ACFP required ten years ago by the courts, when will it address a CAP for the ACFP? The CAP should make clear what targets proposed dairies must meet in order to win project approval. The CAP cannot succeed as an implementation and mitigation measure for the GPU if it does not deal effectively with CAFO GHGs.

The 2008 version of GPU EIR (DEIR, p. 4-53) included SVAPCD Rule 4570-Confined Animal Facilities (p. 58) **as a required mitigation measure** ("The County shall ensure that dairy operators implement the following ROG reduction measures as part of all dairy operations," followed by a list of seven measures**, but it was deleted** in the 2010 RDEIR version and no longer appears. **The GPU/CAP/EIR should be revised to include clear, mandatory mitigation measures for the enormous GHG impacts from the county's CAFOs.** (The Fresno Bee recently reported that we have about a million cows in Tulare County; and our dairies are rarely inspected, despite their critical impacts on GHG emissions, air quality, and water.)

In the proposed Final Environmental Impact Report (FEIR) for the GPU, the County asserts that "There are many ways of stating and portraying the AB 32 goal." That is likely. **The important point of AB 32 is that we all must take as many of the steps that we can to reduce our GHG emissions**. These can range from changing to energy-efficient lightbulbs to choosing xerigraphic landscaping to walking or biking or

bussing to work or to school. It can mean buying only Energy Star appliances, watering only at night, or hanging your clothes out on the line to dry. It also means **requiring new development and redevelopment to be resource-efficient in terms of energy, materials, land, and water use. And it means conserving our open spaces and grasslands and forests to provide carbon sequestration, water supplies, groundwater recharge, and local food production.**

The County's "discretionary land use decisions and the County's internal government operations" (CAP, p. E-3) are within the purview of the CAP and GPU. SB 375 (enacted September, 2008) provides "incentives for local governments and developers to follow new conscientiously-planned growth patterns" to "reduce GHG emissions by preventing urban sprawl" and integrating "disjointed planning activities" (CAP, p. E3). **The legal direction is obvious. The CAP and the other General Plan documents must be revised to provide a strong, clear, consistent plan that will achieve these goals.**

Our next problem is that **the County is not planning to adopt the CAP with the GPU.**

In a paid advertisement titled "Tulare County General Plan 2030 Update Background Information" published in local papers on 03/25/10, the County stated that "A **Climate Action Plan has been prepared as an implementation measure of the General Plan Update. The Climate Action Plan is not a part of the formal General Plan Update documents but will be considered for approval subsequent to the adoption of the General Plan Update."**

If the CAP is to serve as an implementation measure for the GPU, and the CAP is already written, why would it not be adopted along with the GPU in order to begin its function? The California Environmental Quality Act (CEQA) requires every public agency to eliminate or minimize, to the greatest degree feasible, any adverse environmental impacts that may be associated with a governmental action. Tulare County must provide -- as part of the GPU -- policies and implementation measures that will substantively affect the global warming emissions associated with the GPU (the "project"). Therefore, **the County should include its Climate Action Plan as an integral part of the GPU documents, giving the proper weight and effect to implementation in this key area by adopting the CAP along with all of the other GPU implementation measures.**

The County must explain what justifies the County's separation and delay of this integral and crucial part of its "comprehensive, long term plan for land use and physical development." **How can the CAP be considered as an implementation measure when it may not even be adopted** – at some undefined later date? When is a Plan not a Plan? **Now is the time** for the County to take real, lasting action on global climate change that will improve the County's resilience to this great threat and also fulfill its critical legal obligation to do so.

We also urge that the proposed **GPU EIR be revised to include a <u>true</u> Healthy Growth Alternative such as that proposed by Tulare County Citizens for Responsible Growth** (which is <u>substantially</u> different from any of the Alternatives currently presented in the EIR) and that the CAP be revised to implement that Healthy Growth Alternative, and that the County adopt that Alternative and the revised CAP together.

We will now look at the draft CAP in more detail, ask for more information, and make additional suggestions for improving it.

Page vii of the CAP, under "CAP," states that most Climate Action plans include a timeline, a description of financing mechanisms, an assignment of responsibility to departments and staff, direct greenhouse gas (GHG) measures, and public awareness and education efforts. **The CAP should include all of these aspects, and should be adopted as part of the General Plan 2030 Update.**

"Climate Change" is the next **glossary item (p. vii).** This definition typifies the County's GPU/EIR approach to this issue and many others. Instead of providing a definition that contributes to public awareness and education and enables readers to understand why this issue is so important both immediately and in the long term and why, therefore, the State of California requires that it be addressed at all levels of government, this glossary presents a dry as dust and inconclusive description of Climate Change, which implies that there is no clear idea of what is causing the problem (and why we have to change our ways). **This information must be included in the definition**: "According to the State of California, 'Overwhelming evidence establishes that global warming is occurring and is caused by human activity. Global warming poses a serious threat to the economic well-being, public health, natural resources, and environment of California. The evidence of global warming is indisputable, it is causing significant environmental impacts in California, and it will cause future catastrophic impacts if greenhouse gas emissions levels are not substantially reduced.'"

In the same vein, in the interest of public awareness and education, **the glossary definitions of CO2 (p. vii), Greenhouse Gas (p. viii), NOx (p. viii), and ROG (p. ix) should be made relevant and informative.**

The County should add the following to these definitions:

CO2 (p. vii): Please add: "Over the last dozen or so decades, burgeoning human population, industrialization, and burning of fossil fuels has emitted so much CO2 that it has begun to throw the Earth's CO2 system out of balance, resulting in accelerating climate change (global warming) that will drastically impact human comfort, health, livelihood, and even survival all over the planet. Human civilization has evolved and thrived under a climate regime that has been relatively stable for over 650,000 years. In the last few decades change has occurred far beyond the bounds of any previous change in that 650,000 year period, and human activities are contributing significantly to that change."

Greenhouse Gas (p. viii): **Please add:** "Human activity (e.g., burning of fossil fuels) has flooded the atmosphere with heat-trapping carbon dioxide, triggering a significant 1 degree increase in average global temperature, largely in the last 30 years, causing altered precipitation patterns, melting glaciers, intensifying storms, and a rise in sea level. Unless CO2 emissions are slashed, the planet will likely heat up even faster, fundamentally changing the world we live in. Recognizing this great threat, in June, 2005, the Governor of California issued Executive Order S-3-05, setting emission reduction targets for California: by 2010, reduce GHG emissions to 2000 levels, by 2020, reduce emissions to 1990 levels; by 2050, reduce emissions to 80% below 1990 levels. In September, 2006, California's Global Warming Solutions Act (AB32) was signed into law, requiring reduction of California GHG emissions to 1990 levels by 2020."

Nitrogen Oxides (NOx) p. viii): **Please add:** "The primary manmade sources of NOx are motor vehicles, electric utilities, and other industrial, commercial, and residential sources that burn fuels (natural gas burning appliances used for space heating, water heating, and cooking are a source of NOx emissions, and our consumption of electricity also causes pollutant emissions from the operation of power plants fueled by fossil fuels). **NOx causes a wide variety of health and environmental impacts. Ground-level ozone (smog)** is formed when NOx and VOCs react in the presence of sunlight. **Children, people with lung diseases such as asthma, and people who work or exercise outside are susceptible to adverse effects such as damage to lung tissue and reduction in lung function. Ozone also damages vegetation and reduces crop yields**. **Nitric acid** affects breathing and the respiratory system, damages lung tissue, and can cause premature death; small particles penetrate deeply into the lungs, causing or worsening respiratory diseases such as emphysema and bronchitis, and aggravating existing heart disease. **Nitrous oxide** is a Greenhouse Gas, contributing to Global Warming. NOx reacts readily with common organic chemicals and even ozone to form a wide variety of toxic products, some of which may cause biological mutations. **Nitrate particles and NO2 can block the transmission of light, reducing visibility** in urban areas and on a regional scale in our national parks, forests, and monuments."

ROG (p. ix): Please add: "ROGs result from combustion, industrial solvents, and biological and agricultural sources, including animal waste, agricultural chemical formulations, and other combustion. Dairies are presumed to be significant emitters of ROGs."

1.2-Climate Action Plan Purpose (p. 1): This section states that the "CAP is an implementation measure of the 2030 General Plan Update" that will focus on "strategies that . . . enhance the quality of life and well-being of Tulare County residents."

The second bullet below this header states that "CAP **strategies that provide an economic return will receive a higher priority** than strategies that increase costs for the County, or for businesses and residents." **It is essential that the CAP describe how these economic returns and costs will be calculated, and how they will be weighed against impacts to quality of life.** It is imperative that such calculations **consider the true NET costs and benefits** of the strategies. Thus, the enormous costs of inaction or insufficient action on the County's part must be weighed against the calculation of the immediate or short-term costs of any particular strategy. Specific examples must be supplied to illustrate these calculations. The County is already paying for climate change in decreased crop yields, impacts on health, health care costs, water supply impacts, earlier runoff, and other on-going consequences. These impacts will worsen unless the CAP and the GPU/RDEIR require bold, prompt, and comprehensive policies and implementation measures to address them. Additionally, the cost/benefit analysis must include the savings that the County would realize from requiring smart, resource-efficient development; these would include reduced cost of public services, reduced cost of infrastructure and maintenance, improved public health, reduced health care costs, reduced water use, and reduced energy costs.

1.2-Climate Action Plan Purpose, p. 2:

The first bullet states that the CAP will not duplicate strategies and programs better handled by other agencies. This is vague and lacks initiative. Local government, through its control of almost all land use decisions and building permits (including those for CAFOs), plays a huge and essential role in mobilizing and enforcing California's response to global climate change (GCC) and local government should be building on strategies and programs developed by other agencies wherever possible. **Saying that another agency can do something better does not discharge the County from responsibility** for doing all that it can within its jurisdiction and its capacity to protect its citizens, its economy, and its resources from the threats of GCC. The County is legally required to address climate change and to implement the maximum feasible mitigation.

The third bullet says the County will use existing data collection and reporting systems to the maximum extent possible. Presumably, this could be economical, but **the County must ensure that reliability and adequacy of CAP implementation and monitoring will not be comprised by this approach**.

2030 General Plan Update Principles (CAP, p. 2):

Unfortunately, contrary to the promising tone of the first sentence, the current draft of the GPU/RDEIR is poorly designed to protect farmland, preserve open space and natural environments, and preserve air quality. Instead of requiring compact, efficient, multi-use, concentric, multi-modal-transit-oriented development in existing communities, the Plan proposes to promote greatly increased auto-dependent sprawl development by designating corridors along all the main highways in the County for commercial/industrial development, inviting the development of new towns, and providing for enormous development boundaries around existing unincorporated communities, hamlets, and "mountain service centers" so that they appear able to double in geographic size in many cases over the next 20 years while wasting farmland, energy, groundwater recharge capability, and taxpayer dollars. As examined and commented on throughout the draft Plan and the CAP, **these Principles and their related policies and implementation measures will do very little, if anything, to reduce Tulare County's GHG emissions**. The opposite will more likely be the case. The proposed GPU and EIR should be extensively revised so as to walk this talk.

Tulare County's Blueprint Vision (pp. 3-4):

Tulare County, contrary to the public's votes at the local Blueprint meetings, did not adopt a meaningful density target, opting for **only 5.3 du/acre, substantially below the SJV county average of 6.8.** While the County's Blueprint Vision sounds lovely, this GPU/RDEIR and CAP will do very little to realize it and much to mar it. **Smart growth policies and comprehensive efforts to meet AB32 and SB375 goals are needed** if County residents are to benefit from "well-planned, well-designed, and maintained land use structure and transportation system that offers a variety of housing choices, mixed uses, and numerous ways to get from place to place." **This Plan's policies and implementation measures are much too vague, inconsistent, and unmeasurable to realize this vision. They must be clarified, unified, and strengthened.**

Tulare County's Role (pp. 3-4):

The CAP says, "The County's focus is on emission sources within its regulatory authority, which are mainly related to land use and the local transportation system. To some extent, the County can influence activities that provide green house gas reductions such as water conservation and solid waste diversion and recycling. The County also can require feasible mitigation measures for new projects as Lead Agency under CEQA." Unfortunately, the GPU/RDEIR and the CAP appear to approach this regulatory authority and ability to influence activities and require mitigation measures with indifference and timidity, providing far too few firm, effective policies and even fewer meaningful implementation measures, despite the great abundance of examples and models on State and other organization's websites and in other counties and jurisdictions' plans. As a County that will suffer greatly from the impacts of GCC, **Tulare County should be in the forefront of addressing GCC,** with strong, clear policies and timely, enforceable implementation measures. As previously noted, many sources provide examples ready for adoption.

Addressing Climate Change Under CEQA (p. 4):

The CAP states that "Although it is technologically possible to reduce greenhouse gases if cost is not considered, the potential exists that a locally implemented measure will only serve to relocate the emissions to another place that does not require the new technology. Therefore, even if emission rates are lower in one place, it could have no effect on global climate if the emission-producing activity is shipped out of State or overseas." **This completely irresponsible, self-serving approach is a disgrace to our County and a grave disservice to its citizens.** If all jurisdictions take this approach, we will only accelerate the onset of problems that will cost us more to solve with every day of delay. Again **consideration of "cost" must include the cost of doing nothing or delaying an effective response**. The County must provide this true cost/benefit analysis to its proposed response and the alternatives; it currently implies that we can't afford to implement GHG-reduction technology, when in actuality we can't afford not to.

Summary of CAP Actions (p. 5):

As noted in the fourth bullet, the "CEQA Guidelines encourage the adoption of policies or programs as a means of addressing comprehensively the cumulative impacts of projects." This the County is failing to do because this draft Plan actually promotes inefficient sprawl development and unnecessary VMTs, and fails to address the impacts of animal confinement facilities.

AB32 (p. 6):

As noted, **AB32 "cites local government action as an integral partner to achieving the State's goals**." To achieve the 1990 emission levels in 2020 will require a reduction in emissions that "equates to a 28.3 percent reduction from all sources compared to the 2020 'business as usual' inventory." Tulare County's draft plan abrogates responsibility for any significant partnership in achieving these essential goals and limits its commitment to a paltry 1.1% reduction. **The County must provide a comprehensible, convincing , independently auditable analysis to determine the maximum feasible percent it can**

achieve to fulfill its responsibility as lead agency to mitigate the project's GHG impacts. How land is used and where development goes from now forward will be major factors in our County's GHG emissions budget. We must reverse our "business-as-usual" course with this Plan and focus highly efficient growth and development in our existing urbanized areas. **The CAP actually projects a substantial increase the County's GHG emissions by 2030; clearly, better policies and implementation measures are required** if the County is to meet even the grossly insufficient 1.1% reduction.

Senate Bill 375 (pp. 6-10):

SB375 harnesses funding and regulatory incentives, without mandates, to align transportation, housing, and land use planning (p. 6) to **reduce the amount of vehicle miles traveled** (p. 9). Projects outside the approved Sustainable Communities Strategy would not qualify for federal transportation funding (p. 9). Success hinges on the land-use decisions by Tulare County and the other jurisdictions in the County (p. 9). And it's not just State funding. The U.S. Department of Housing and Urban Development, U.S. Department of Transportation, and U.S. Environmental Protection Agency have created a high-level interagency partnership, announced in June, 2009, to better coordinate federal transportation, environmental protection, and housing investments; the goal is to **help all communities gain better access to affordable housing, more transportation options, and lower transportation costs while protecting the environment, promoting equitable development, and helping to address the challenges of climate change.**

Tulare County, one of the poorest in the state, should be creating a Plan designed to take advantage of these SB375 incentives and Federal investments. Unable to maintain its roads, to provide safe and adequate water supplies and wastewater systems to many of its communities, to keep open medical clinics, or to provide adequate levels of service in many other areas, the County should take every step possible in this plan to **concentrate growth where facilities, services, and infrastructure already exist, to use land and other resources as efficiently as possible, to place new development not in "new towns," abandoning the old, and not out along the highways, requiring long commutes, but in existing communities that can benefit from revitalization**. The County's GPU must include policies and implementation measures that will significantly increase and consolidate densities to enable efficient multi-modal transportation. **The Plan must be revised** to actively work to align regional transportation, housing, and land-use plans.

1.4 – Tulare County's Greenhouse Gas Sources (pp. 10-11):

The CAP assumes steady growth rates between 2007 and 2030. **What is the assumed rate of growth**, and how was it determined? **Why are the dairy and feedlots targets being set through a separate process, when they are the source of a majority (63%) of the emissions in the unincorporated County**? The Animal Confinement Facilities Plan has been in the works since March of 2000, so surely sufficient data are available to deal with those emissions as part of this CAP. Dividing the information weakens the CAP and makes it much harder for the public to see the whole picture and consider the effectiveness of the County's Plan. **The CAP should include the dairy and feedlot targets and reporting.**

Generally, the most important source of development related emissions is from mobile sources, and emissions related to the generation of electricity are the next largest, followed by those from combustion of natural gas (p. 11). Thus, the County must provide policies and implementation measures that will serve to reduce VMTs and reduce consumption of electricity and natural gas. These would include land use and transportation system improvements (including active and alternative transit), efficient and green buildings, water conservation, and waste reduction, as indicated on p. 11 and listed in Section 5, which will be discussed below.

1.6 – Greenhouse Gas Reduction Target (pp. 12-16):

The CAP must explain why Tulare County, located in the San Joaquin Valley, is electing to use the Bay Area Air Quality Management District proposal instead of the SJVAPCD document. **Why is this CAP dealing with only a 2020 target, rather than extrapolating to 2030, the horizon of the GPU**? If the State is working to get 24.6% with the part its working on, shouldn't the County be doing better than 1.15 with the part it's working on?? And what's an "average project level reduction of 6%?"

1.7 – Cost of Implementing the Climate Action Plan (p. 16):

In the first paragraph's discussion of savings, **the County should also consider reduced costs to provide services (police and fire, health care, etc.) to compact areas, plus lower maintenance costs due to more compact infrastructure, plus lower crime rates if compact development is properly designed, plus lower health care costs for a healthier population. The County should require all new construction in the County to include energy efficiency and solar power installation, thus leveling the playing field of market forces for developers anxious to recoup costs.** This is not to mention the economic and social benefits to families of affordable housing in walkable, mixed-use, transit-oriented neighborhoods with safe routes to school and complete streets facilitating active transit.

In the second paragraph's discussion of costs, there is no indication of what the costs of administering the CAP might actually be and how they would compare to the savings that implementation of a thorough CAP reduction strategy could provide. **The County should provide this discussion to enable the public to understand the likely cost/benefit ratio.**

1.8 – Monitoring and Tracking Progress (pp. 16-19):

The CAP states (p. 19) that the "type, mix, and scale of development that will occur by 2020 are dependent on the economy, changes in consumer preferences, and market trends." These are factors, but **this statement implies that the market will drive development and that County policies and practices are not able to influence development. Certainly the County must strongly influence the location, type, mix, and scale of development through this GPU and CAP** in order to address GCC and enable a more sustainable future. Norms can certainly change, and they must not be created or dictated solely by markets governed by short-term profit motives and no regard for the health, safety, and welfare of the public, which are the concern of government.

SECTION 2: CLIMATE CHANGE

2.1 – Climate Change Science (pp. 21 - 22):

This section should be re-written because it gives the reader no idea of why this information is being presented. It is unfocused and doesn't connect the dots or come to any conclusion, or make any connection to the reader's interests or concerns. **It should at the very beginning clearly explain the force and effect of Climate Change Science.** For example, from the National Geographic: "The scientific evidence is clear: surface temperatures on Earth are warming at a pace that signals a decisive shift in the global climate, one expected to last for centuries. Previous epochal changes of climate, such as the Ice Age that ended 11,500 years ago, were set in motion by natural causes – variations in Earth's orbit that affect the amount of sunlight warming the planet. In those cases, the cycles of cooling and warming unfolded slowly, over the course of millennia. This episode is different. Climate is changing more rapidly than ever before. Human activity is the main cause. Burning of fossil fuels – oil, gas, coal – has flooded the atmosphere with heat-trapping carbon dioxide, triggering a 1 degree spike in average global temperature in the past century, largely in the past 30 years. Already, impacts include altered precipitation patterns, melting glaciers, intensifying storms, and a rise in sea level. **Unless CO2 emissions are slashed, the planet will likely heat up even faster, fundamentally changing the world we live in.**" Global climate change is already impacting Tulare County, and the negative impacts will continue to worsen unless we move rapidly and effectively to substantially reduce our GHG emissions.

Table 3: Greenhouse Gases (pp. 22-23):

The County should revise this table to show the importance of these gases to the GCC problem and relate their sources to Tulare County sources specifically as well, in order to bring this information and its significance home to CAP readers. The County has included statements in this Table that seem irrelevant except for the purpose of minimizing or trivializing the information. For example, its first statement regarding nitrous oxide is that "nitrous oxide is also known as laughing gas." It states for methane that "EPA reported that the average methane concentration in 2008 was 2,000 ppb based on data from a single site." (The County should include the citation for this EPA report, so that readers could review it.) **The County should remove these statements from this Table and keep the focus on the seriousness of the issue and what we can do about it.**

2.2 – Effects of Climate Change (pp. 23-24):

The first paragraph diminishes and minimizes the impact of GCC in California (". . . climate change could affect . . . through potential, though uncertain, changes related to future . . . impacts . . . . that could threaten . . . ."). **The State of California's Governor, legislators, Attorney General, Climate Change Center, etc., etc. have made clear that GCC is already negatively impacting the state in many ways, and this paragraph should reflect this conclusion by stating that the existence of global warming is indisputable, it is causing significant environmental impacts in California, and it will cause future catastrophic impacts if greenhouse gas emissions levels are not substantially reduced."**

2.2.1 – Impacts to California (p. 24):

This section is written in a very diffused manner that does not enable readers to visualize these impacts. **This section should include an introductory paragraph or two that provides something like an executive summary, such as the following information (from the Planning & Conservation League): "Global warming is affecting us right now, and as the problem worsens, California will be affected in many ways:**

- **Air quality in California, already the worst in the U.S., with more than 90% of residents living in areas that violate state air quality standards, will degrade substantially, causing dramatic declines in public health and major increases in health care costs.**
- **Heat waves will become more frequent and more intense. Californians will face greater risk of death from dehydration, heat stroke, heart attack, stroke, and respiratory distress.**
- **Rising sea levels will increase flooding on the coast and in the Sacramento-San Joaquin Delta. Sea level rise in the Delta may also have negative impacts on the State Water Project and the Federal Central Valley Project, which deliver water to agribusinesses and cities south of the Delta.**
- **California's economy will sustain serious damage, particularly to our $30 billion agricultural industry. Other affected industries include wine, tourism, skiing, forestry, and recreational and commercial fishing.**
- **Some of the largest temperature changes in California are projected for the Central Valley, which contains some of California's poorest areas and worst air quality.**

Water Supply (pp. 24-27):

The second sentence of this section (p. 24) says that climate change is "expected" to impact California's water supply through a diminishing Sierra snowpack. **This section must be revised to include the information that the Sierra's snowpack has decreased over the last 50 years while Tulare County's spring run-off has been occurring earlier and its depth to groundwater has been increasing.**

The second paragraph on p. 27 states that "most" global climate models project that climate change will be a "continuous and fairly gradual process" and that "California is expected to be able to adapt to the water supply challenges posed by climate change." This paragraph implies that we have little to worry about, as if we'll scarcely notice this gradual change. **This paragraph must discuss what it will take for California to adapt to these water supply challenges (including reduced snowpack, early run off, flooding, droughts, greater heat, the salinization of the Delta, less reliable SWP and CVP supplies, etc.) so that it will be clear how great the adaptive challenges are and how important it is to get started now, including in Tulare County.**

Surface Water Quality (p. 27):

This paragraph should describe the importance of well-planned development to mitigating negative impacts to surface water quality.

Amount of Precipitation (p. 27):

The first paragraph implies that California is getting more rain, so we don't have to worry about water supply. Instead of this false perspective, **this paragraph should be revised to include a discussion of the effects on Tulare County of more precipitation occurring as rainfall rather than as snow, which will cause huge problems for us.** (See paragraph 2 on p. 28 for a brief start on this, although the **implications of "when many reservoirs are managed primarily for flood control and not for water supply" are not made clear and must be on both this page and on page 28.)**

Wildland Fire Hazards (p. 28):

The second paragraph should be modified to **show where Tulare County fits into this picture**, and **clear information about Wildland Fire Hazards must be included under Section 2.2.2 as well, because these hazards create great risks and cost for Tulare County and can definitely be affected by good land use planning and development.**

Negative Impacts to Agriculture and Forestry (pp. 28-29):

This section should highlight the importance of agriculture to Tulare County's economy (with key sectors, such as dairy production, ranked).

Negative Impacts to Public Health (p. 29):

This information should also be tailored to Tulare County, which already often has the worst air quality in the country and a horribly high asthma rate.

2.2.2 – Implications for Tulare County (p. 30)

Increased Flooding (p. 30):

The first paragraph should be revised to include the information that **our levees have been found to be in serious disrepair.**

For the second paragraph, didn't Earlimart experience severe flooding not that long ago? If so, please include it in the list.

Water Supplies (p. 30):

These paragraphs should be revised to show what percentage (approximately) of our water comes from which sources and how it's used (e.g., where domestic water comes from, where agricultural water comes from).

Agriculture (p. 30):

Dairy production should definitely be included here, along with the information on p. 29 that estimates the reduction in dairy production due to increased temperatures. This section should include the top

agricultural products listed with their corresponding estimated dollar losses to clarify the significance of this information.

Public Health (p. 31):

This paragraph also is much too vague. It should show the age range numbers and percentages in Tulare County, to show the "elderly and young" populations that will be most affected. "Social equity issues" must be clarified. Tulare County's population/income percentages should be shown, so that readers can understand how extensive these issues are in our county.

2.2.3 – Climate Change Adaptation (p. 31):

Indeed there are many "adaptation strategies Tulare County can use that would minimize impacts from climate change." However, stating that "these strategies are incorporated in a variety of policies within the 2030 Tulare County General Plan" and "will help the County adapt to impacts from climate change" is very misleading, because, as has been shown repeatedly by numerous commenters, **most of these policies and their corresponding implementation measures (if there are any) are so vague, weak, and unenforceable that they are not likely to help the County much at all. Almost every one of them should be revised so as to be concrete, meaningful, effective, measurable, and results-oriented.**

See below.

Water Supply (p. 31):

The CAP lists (p. 31) four water conservation policies from the GPU that "will help to conserve water for future uses." **Like most of the GPU's policies**, these look good in a list, but **they must be revised, as indicated above, if they are to have any reliable force or effect:**

WR-1.5 Expand Use of Reclaimed Wastewater: Great goal. But the policy (GPR, p. 11-7) says only that the County will "**seek opportunities**" to expand recharge efforts. The IM (#10, GPR p. 11-13) says the County will incorporate provisions into its ordinances for this ("ongoing"), including "**evaluating** incentives."

WR-1.6 Expand Use of Reclaimed Water: Again, admirable and important. But the policy says only that the County will "**encourage**" use of treated wastewater, and there is **no implementation** measure.

WR-3.5 Use of Native and Drought Tolerant Landscaping: The policy says will "encourage" such landscaping and "emphasize" the importance of utilizing water conserving techniques. Implementation Measures are #10 (see above at WR-1.5) and #21 ("maintain and implement" its water efficient landscape ordinance consistent with the DWR Model Ordinance; however, when one looks up the County's ordinance, which is from 1993, it has only an "Alternative Compliance" section #7-31-1050 which states that if the applicant wishes to utilize the State of California Model Water Efficient Landscape Ordinance, this would "require certification and auditing by qualified professionals, at the applicant's expense, with appropriate verification to be submitted to the County for approval....").

ERM-1.7 Planting of Native Vegetation: The County will "**encourage**" planting natives. The Implementation (previously scheduled to be completed by 2010, now scheduled for 2010-2015) is that the County will "**develop a list** of native vegetation to be used as a landscape pallet for use by citizens and developers."

The CAP (p. 31) also mentions that the County's Redevelopment Agency "proposes to implement a Water Conservation Program in the Community of Traver as part of a wastewater treatment plant upgrade project" by "allowing the income-qualified residents to replace inefficient water devices with new low-flow or low-consumption water conserving devices." **The GPU/CAP should be revised to require such devices in all new construction and resales, as other counties have**.

AB 1881 and the State Model Water Efficient Landscape Ordinance: The County says this ordinance "will result in reduced water consumption for landscape watering," but the County has not adopted it. When one looks up the County's ordinance, which is from 1993, it has only an "Alternative Compliance" section #7-31-1050, which states that if the applicant wishes to utilize the State of California Model Water Efficient Landscape Ordinance, this would "require certification and auditing by qualified professionals, at the applicant's expense, with appropriate verification to be submitted to the County for approval....").

Flooding (pp. 31-32 ff):

The CAP lists eighteen policies "that would help to prevent flooding."

FGMP-8.3: Here's **just the kind of policy we need – clear and strong and enforceable**: "The County **shall prohibit development of residences or permanent structures within the 100 year floodway**." This can be presumed to be a self-implementing policy.

HS-5.2 Development in Floodplain Zones (GPR, p. 10-9), however, states that "New development . . . especially **residential subdivisions, shall be developed [in floodplain zones] to minimize flood risk to structures, infrastructure, and ensure safe access and evacuation during flood conditions**." Which of these two policies, FGMP-8.3 or HS-5.2, is more likely to "help to prevent flooding," or to prevent the worst impacts from flooding?

HS-5.9 Floodplain Development Restrictions: "The County shall ensure that riparian areas and drainage areas within 100-year floodplains are free from development that may adversely impact floodway capacity or characteristics of natural/riparian areas or natural groundwater recharge areas." **Why not revise this to match the clear policy of FGMP-8.3?**

HS-5.10 Flood Control Design (GPR, p. 10-10): "The County shall evaluate flood control projects involving further channeling, straightening, or lining of waterways until alternative multipurpose modes of treatment, such as wider berms and landscaped levees, in combination with recreation amenities, are studied." This policy has no IM. **It has been adversely modified and should be restored to its previous wording**, that the County "shall *avoid* flood control projects involving channeling . . . ." Many studies have already shown that wider berms and landscaped levees are much more effective flood control

projects than channeling, straightening, or lining of waterways, as the latter projects speed up water flow, intensify flood damage, and preclude groundwater recharge in desirable areas.

HS-5.11 Natural Design (GPR, p. 10-10) **should be revised from "encourage" to "require,"** for the reasons shown above.

PFS-4.1 (GPR, p. 14-8): "The County shall consider the preparation and adoption of stormwater management plans for communities and hamlets . . . ." Since many of our communities and hamlets have been around for almost a hundred years or more, **this policy should be revised to "prepare and adopt" (not just "consider"), or it will probably be another 100 years before we get around to it.** There is no Implementation Measure.

PFS-4.3 Development Requirements (GPR, p. 14-8): "The County shall encourage project designs that minimize drainage concentrations . . . ." **Please change this "encourage" policy with no implementation measure to "require" and include an IM to show when and how it will be made effective.**

Agriculture and Forest (CAP, pp. 32-33):

The County points out (CAP, p. 32) that "Agricultural and forest land preservation and conservation would allow greater room for adaptation. Smart growth policies and urban growth boundaries would help to reduce encroachment onto agricultural and forest lands." The **CAP lists eight policies with good-sounding titles** on CAP p. 33 **"that would help the County adapt to impacts from climate change** on agriculture." Unfortunately, upon examination, the policies are **written so vaguely** that there is no guarantee that they would help much at all.

AQ-3.2 Infill Near Employment (GPR, p. 9-9): "The County *shall identify opportunities* for infill . . . near employment ... within all communities and hamlets . . . ." The **IM is #11** (GPR, p. 9-12), which says "The County *shall identify opportunities* for infill sites in all new community updates, hamlet plans, and redevelopment project area plans as they are prepared over time." **This policy and IM must be substantially strengthened and made much more timely**. Identifying opportunities for infill is necessary, but certainly doesn't cause any infill to occur, and none of the hamlets has a plan, and many community plans are years out of date.

LU-1.4 Compact Development (GPR, p. 4-22): "The County shall actively *support* the development of compact mixed use projects that reduce travel distances." The **IM is #3** (GPR, p. 4-33): "During preparation of the Zoning Ordinance and Land Development Regulations, the County shall *consider* appropriate incentives to encourage smart growth implementation . . . ." **The policy and its IM should be revised to do much more than "support" by "considering incentives; please make it concrete, clear, and enforceable.**" The timeline here is 2007-2010. **Have these incentives been incorporated into the Ordinance and Regulations**? If so, what are they (they should be cited), and how do they support smart growth, with what results?

LU-1.8 Encourage Infill Development (GPR, p. 4-23): "The County shall encourage and provide incentives for infill development . . . ." The IMs are #3 (*consider* incentives during Zoning Ordinance and Land Development Regulations preparation), #7 ("develop a set of criteria and a set of incentive programs), #8 (develop a data base of infill sites), #9 (create a program to consolidate infill sites), and 10 (require identification of infill sites in community plan updates, hamlet plans, and redevelopment project area plans as they are prepared). (GPR, pp. 4-33 – 4-34)

Does the County currently have no such criteria and no such incentive programs? The **2003 Tulare County Housing Element reported (p. V-14) that the County was at that time "working on implementing a Density Bonus allowance, as well as provisions incorporated into the PUD standards in the Zoning Ordinance**. That was eight years ago! Many jurisdictions already have developed and implemented working programs to mandate and incentivize smart, resource-efficient, healthy infill development; these could presumably provide models and examples to speed Tulare County's long overdue development and adoption of effective infill development policies and implementation measures. **This Policy and its IMs must be strengthened, clarified, and prioritized**. Efficient **infill development is, of course, also one of the best ways to help preserve agricultural land,** as pointed out in the Background Report (p. 11-22): "The **need to expand urbanized uses onto farmland can be reduced by developing and redeveloping land in the core areas of communities. For every 100 acres of urban land developed with a mix of single family homes, townhouses, and apartments (assuming an average density of 20 units per acre), 500 acres of farmland can be saved at the edges** (assuming a typical density of 4 units per acre (suburban character)." Efficient infill development is a key to achieving many of the other CAP and GPU goals as well.

LU-3.3 High Density Residential Locations (GPR, p. 4-27): "The County shall *encourage* high-density residential development (greater than 16.1 dwelling units per gross acre . . . ." This vague policy should be made clear and concrete, and it should have a concrete, measurable Implementation Measure (it presently has none).

LU-2.1 Agricultural Lands (GPR, p. 4-26): "The County shall maintain agriculturally-designated areas for agriculture use and *shall direct urban development away from valuable agricultural lands to . . . . where public facilities and infrastructure are available*." This policy would be a wonderful implementation measure and mitigation measure if it were actually consistently implemented as it reads, especially if it were revised to include open space lands (e.g., watersheds, viewsheds, woodlands, habitat, wetlands, riparian areas, floodplains). But the only **IM is #13, (p. 4-34),** which just says that the County will renew Williamson Act contracts for parcels on prime agricultural land. **This IM should be revised to define "prime" as the County is using it here. What happens if the Williamson Act is no longer funded** by the State? Simply renewing Williamson Act contracts does not deliberately direct development to areas where public facilities and infrastructure are available. The County should **add a strong, clear, enforceable IM to show how it will direct urban development to where public facilities and infrastructure are available**. Implementation of this policy is very important to the success of the CAP. The planned community areas in the policy should be located only within existing development boundaries unless and until they are filled up.

AG-1.8 Agriculture within Urban Boundaries (GPR, p. 3-5): It is not clear how this policy would "help the County adapt to impacts from climate change on agriculture." NOTE that **AG-1.1 (GPR, p. 3-4) states that the County "shall maintain agriculture as the primary land use** in the valley" in recognition of its economic importance and "real **contribution to the conservation of open space and natural resources**." Agriculture (including extensive agriculture: grazing and ranchlands) makes the same contributions in the foothills. **This policy should be revised to recognize the situation in the foothills as well.** Strong policies and implementation measures to conserve open space and natural resources are very important to the success of the CAP.

ERM-5.15 Open Space Preservation (GPR, p. 8-17): "The County shall preserve natural open space resources **through the concentration of development in existing communities [this should mean no New Towns or Corridor Areas, but the GPU is pushing them; it should be revised to state that they will not be considered unless and until the development areas available within existing development boundaries has been fully utilized], use of cluster development techniques [there are no enforceable policies or IMs for cluster development in the GPU; it should be revised to include concrete, measurable ones];** maintaining large lot sizes in agricultural areas**, discouraging [this was "avoiding" in the 2008 version**; why has it been changed to "discouraging" in 2010? **Please use the stronger verb.**], limiting development in areas constrained by natural hazards, and encouraging agricultural and ranching interests to maintain natural habitat . . . ."

How is the County "encouraging agricultural and ranching interests to maintain natural habitat?" There are two IMs for ERM-5-15 (#47 and #48 on GPR pp. 8-31 and 8-32). #47 says that "scenic and open **space easements shall be acquired through subdivision and development approvals**," and that this is an ongoing IM. **Where are these easements and HOW and when have they been acquired? Repeatedly, we have recommended mandatory mitigation measures such as conservation and agricultural easements for unavoidable impacts to agricultural lands and natural resource areas, but we see no such concrete and enforceable policies and implementation measures in the GPU documents.**

For example, repeatedly, we and other citizens and organizations **have urged the County to prepare and adopt an Oak Woodlands Management Plan** (we have even volunteered to draft one), **but the County has not done so; instead, it has now moved the timeline for an OWMP out to 2015-2020, when it was 2010-2015 in the 2008 GPR** (see ERM-1.12 and IM #15). **This timeline must be revised to 2010-2015 or sooner**: At its meeting on July 7, 2009, the Board of Supervisors considered a staff report on an OWMP (which had already been presented to the Planning Commission) and heard public testimony. **The Supervisors stated that RMA should make an OWMP a top priority as soon as the planners had passed off the GPU for adoption, or maybe even before the GPU was finished. How can this be reconciled with a 2015-2020 timeline?**

This clearly illustrates how policies such as "shall support" (ERM 1.12, GPR p. 8-10) and IMs such as "shall work with" (IM #15, GPR p. 8-24) render the GPU unenforceable and non-responsive, even on a program that would be clearly helpful to accomplishing the CAP's objectives and contributing to mitigation, and a program with definite support from stakeholders. **We need a plan that we can count**

on; there is no accountability with policies and implementation measures like these.

LU IM 3 Encourage Smart Growth Incentives (GPR, p. 4-33): As discussed above, "shall consider appropriate incentives to encourage smart growth implementation" is useless as an IM because **there is no commitment to actually implementing anything.**

Table 9: Blueprint Scenario Comparison in the CAP (p. 51) and its accompanying text convey the impression that housing mix densities in the county are likely to increase by 25%, since TCAG has approved this scenario as the preferred scenario for the County. However, **the policies and implementation measures in the GPU and the CAP are too vague, weak, and unenforceable to cause this increase to occur, especially since they never specifically require it.** The 25% increase, if it did occur, would still result in only 5.3 dwelling units per acre, far below the San Joaquin Valley Blueprint average of 6.8. **This Table should be revised to show what the number of dwelling units per acre is for each of the categories cited in the Housing Mix category**. For example, how many dwelling units per acre would qualify as medium density? How do these relate to the densities in Table 4.1 in the Goals and Policies Report (GPR, p. 4-7 ff) and the tables at the end of the CAP?

The Cap says (p. 54) that the GPU forecasts 10.5% employment growth by 2030 in the unincorporated county, with a population increase of 78,490, reflecting Blueprint and General Plan *policies to focus development in cities and existing rural communities*. How would this forecast change if much of the growth occurs instead outside of these locations in "new towns" such as the proposed Yokohl Ranch (estimating a population of 30,000), and in Corridor Areas? The CAP states that "some" of the substantial number of *lots it has already planned for development* "will *be limited by various factors such as water supply, sewer/septic capability, road capacity, etc. that cannot be addressed during the planning horizon [20 to 30 years?!] due to lack of resources*." **The CAP should be revised to give a best estimate of what number of lots are available for development and how many of them will be limited by the various factors mentioned.** If the County doesn't have the resources to support development on the lots it has planned for that purpose, then why shouldn't that development go to another area with already-planned lots that could accommodate it within existing development boundaries? If a landowner or developer "has the resources to provide all improvements and services required for the site" (p. 55), why couldn't that entity apply those resources to the *existing l*ots, to enable them to be developed, instead of pursuing development in new areas? What are the "additional measures required to mitigate significant impact" that development occurring in new subdivisions and projects would be subject to (p. 55)?

Much of the information, hypotheses, projections, and reasoning provided in the Emission Reduction Targets and Justification section of the CAP leads to more questions than it answers. For another example, the assertion that projects in new towns "would be able to achieve reductions greater than 6.0 percent, due to opportunities to design land use pattern and transportation and infrastructure to support walking, bicycling, and transit use" **does not take into account the inordinate GHG emissions** that would result from having to bring roads, utilities, water, public services, stores, schools, hospitals,

etc. to a location remote from existing communities that already can provide them. Stores, schools, medical facilities, movie theaters, employment opportunities (other than in construction) will not precede the population of a new town. It will take years before there is enough population in the new town to support these facilities in the new town. During that time, everyone needing those facilities will drive many extra and otherwise unnecessary VMTs to get to those facilities. Wouldn't this likely wipe out the GHG reductions that might occur from walking and bicycling and transit use for many years? And **where does the GPU require new towns to be compact, walkable developments?**

"Energy efficiency in homes and buildings can achieve reductions in excess of Title 24 in most cases" (p. 56). Indeed it can, but **where does the GPU require this**? Instead, the County states in the proposed FEIR (p. 4-45) in response to the suggestion that the County require new development to exceed Title 24 standards that **the "County has limited expertise in the feasibility of energy efficiency technology and *believes it would not be appropriate to second guess the State agency*** *responsible for that function.* Arbitrarily setting an energy standard would constitute an experiment that is not without risks and unintended consequences. *CEQA Guidelines does not require the County to conduct every test and perform all research."* So much for mandating greater energy efficiency. It is just **this type of contradictory assertions that creates serious inconsistencies in the GPU documents**. Perhaps this stems from using different consultants to write different portions, but it does not make for a sound, consistent, effective, results-oriented, accountable plan.

"Solar generation can provide additional energy reductions for some projects" (p. 56). Yes, it can, but **where does the GPU require this**? Instead, the County states in the proposed FEIR (p. 4-45) that "Mandating projects to include solar will have the effect of raising the cost of the home or business. This causes shifting money that would have been spent on other goods and services to pay for energy production infrastructure. [How much will the adverse impacts of climate change cost us?] *The County does not wish to force people to become energy producers . . . . Requiring solar on all new development would provide insufficient flexibility* to account for the needs of specific projects . . . and would be infeasible . . . ." **Since there will be no requirements, the CAP, and the public, cannot count on these chickens to hatch.**

Unfortunately, there is no reason to conclude, as the CAP does (p. 56), that "Based on this analysis, implementation of the policies contained in the General Plan 2030 Update and available project specific measures can achieve an overall reduction of 6 percent of development-related greenhouse gas emissions under Tulare County jurisdiction." One could as easily assert one percent or three percent or a negative percent or seven percent.

The CAP then states that "several other measures may result in additional reductions that *have not been included* in the emission target, *due to uncertainty in implementation timeframes and required funding*" (p. 56**). By this logic, however, if the CAP is going to exclude measures for which there is this uncertainty, it would have to exclude most of the measures in the GPU, for, as it points out** (GPR, pp. 1-11 – 1-12): "The following principles guide action on these Implementation Measures: The timelines . . . are general guidelines for completion . . . . Completion of various tasks . . . are [*sic*] **subject to available staff, financial resources, and other considerations. Implementation can take time,**

especially when needed resources are limited . . . . Because **implementation will take time and will be costly**, the County will need to prioritize Implementation Measures. . . . Implementation Measures may be adjusted . . . without amending the General Plan, based on new information, changing circumstances, and evaluation of their effectiveness . . . ."

The CAP states on p. 56 that "Mobile sources are 46.4 percent of the 2020 greenhouse gas emissions." Table 6 on p. 40 shows that Mobile Sources are 46% of development related GHGs, but only 18% of total GHGs (compared with dairy/feedlots at 61% of the total). **The CAP should be revised to correct and clarify this information and the following assertion regarding a 2% reduction in VMTs.**

"One of the primary purposes of the CAP is to provide a solid approach for determining significance for project cumulative impacts on climate change" (p. 57). It may be that Michael Brandman Associates (the consultant that prepared the CAP) has produced a solid approach, but it seems like hocus pocus to us. If the County truly "wants to encourage" development that will "promote greenhouse gas reductions and protects agricultural and natural resources," then it should demonstrate how the "CAP targets for development provide an incentive for developers to propose projects that meet or exceed the targets" (p. 57**).** It includes so many qualifiers, exceptions, contradictions, and numbers that appear to be pulled out of the air that it is hard to imagine how a County planner could credibly and consistently determine the percent reductions for the various measures that might be proposed and add them up to see whether the target will be met**. A strong, clear, consistent, enforceable General Plan with policies and implementation measures that truly require more resource-efficient development would be more likely to achieve the goal of GHG emissions reductions. For flexibility, let developers show how they can exceed the basic requirements, and incentivize those improvements**.

Page 60 of the CAP states that many of its "building related measures provide savings from reduced energy consumption" and "many of the land use and transportation measures have lower infrastructure costs compared with business as usual, resulting in more compact development and less need to expand transportation infrastructure because of the reduced trip generation rates." **These savings would be wiped out if the County proceeds to allow the development of the unneeded and unwanted New Towns and Corridor Areas.**

Table 14 on p. 61 provides cost-effectiveness estimates for various measures. It indicates that the **cost per metric ton for several measures is negligible**, including improving residential energy efficiency, creating travel routes that ensure destinations may be reached conveniently by public and active transit, and providing for increased albedo (reflectivity) of all urban surfaces to minimize the heat island effect. **The GPU/CAP should be revised to require such very cost-effective measures, in at least some percentage or types of development**. Mixed-use, infill, and higher density development is shown as the next most cost-effective.

Table 15: General Plan Policies Having Greenhouse Gas Emission Reductions (p. 63) lists dozens of "Sustainability and Greenhouse Gas Emissions" policies. Regrettably, as discussed throughout the rounds of comments submitted on all the GPU documents, **virtually none of these policies nor their Implementation Measures can be relied on to effect the goals of the CAP or the GPU; virtually every**

one should be revised to be more clear, specific, measurable and enforceable. Many of them have already been specifically commented on in this letter.

"Encourage," "examine," and "consider" aren't going to make anything happen. And then It is dismaying to find text in the CAP (p.67) that does not appear in the RDEIR for LU IM 19, and that further weakens it. The first sentence is the same in both places, stating that "The County shall **prepare a cluster development ordinance**." But **the CAP adds a second sentence that does not appear in the RDEIR: "The means of consultation and contents will be developed *later*, after further research."** The County has had a policy to encourage cluster development since at least 1981 (see FGMP-3.1, GPR p. 3-9). **Thirty years later**, it still has no cluster development ordinance?? And even if it ever gets around to preparing the ordinance, it still will have no meaningful mitigation measure, since "the contents will be developed later after further research"? **This plan often seems designed to <u>not</u> implement constructive change that will work to achieve the public's priorities, effectively mitigate the plan's impacts, and reduce our GHGs.**

Unfortunately, the same pattern continues and the same comments apply to pp. 67-77 of the CAP. We have already submitted comments on these policies and their implementation measures individually in the first two public comment periods (as have dozens of other commenters), but **the County continues to refuse to respond constructively to the comments it has received (see proposed FEIR Master Responses section).**

CAP Section 6: Other Voluntary Programs (p. 79) lists advances in agricultural practices that provide energy and air quality benefits, but gives **no idea of the degree of their implementation in Tulare County, nor how much implementation of any of them might actually reduce GHGs**. One advance listed is "Install dairy digesters to produce biogas," but the CAP states on p. 59 that the "**County believes that anaerobic digesters have not been demonstrated as a feasible mitigation measure**." None of the other measures are evaluated in the CAP. The CAP says that a Water Conservation Program for the Community of Traver is being proposed and could provide a model for other Tulare County communities, but there is no indication of whether or when this program is likely to be implemented.

CAP Section 7: Monitoring Program and Implementation Plan (p. 83): "Appropriate benchmarks and the means to track them will be developed within 12 months of adoption of the CAP." Already **we don't know when the CAP might be adopted because it has been separated** from the other GPU documents that would be adopted together. Now we learn that **it could take another year after that unknown date to prepare the basis for reports on the CAP's effectiveness**.

Proposed benchmarks are listed for land use, conservation, and transportation and circulation. **The CAP should be revised to show how many of these benchmarks are already being tracked and reported on.** Surely, for example, the County already tracks the building permits issued yearly. Which of the listed benchmarks are <u>not</u> already being tracked and reported on?

On page 84, the CAP lists actions that "*should* be" initiated "within the first year *after* adoption of the CAP." **The CAP should be revised to show how many of the activities on the list are already ongoing**. For example, surely the Fleet Manager already tracks and reports on low emission vehicle purchases,

Solid Waste already tracks and reports on recycling and waste diversion statistics, the County already participates in the SB 375 Regional Targets process with TCAG and coordinates with transit agencies on transit issues, etc.

We sympathize with County staff and recognize that at least some of the items on these lists must represent new work, but since **the draft CAP has already been out for over a year and a half, surely many of these first year actions have already been mostly figured out, and the CAP should be revised to provide a shorter timeframe for initiating and accomplishing the items on this list**.

Long-Term Actions (pp. 84-85): "Approximately every 5 years" is the frequency the CAP proposes for reviewing data and analyzing completed projects in order to determine whether the CAP targets are being achieved and whether it should be revised and updated. At the rate things are going, this means that **it could easily be 2018 before we hear anything about whether CAP targets are being achieved and any course corrections get made**. The CAP states (p. 84) that multiple years of data are needed to account for market fluctuations. But surely the annual reports on the benchmarks should give us a much earlier indication of whether the CAP is effectively implementing the measures that will act to reduce our GHG emissions. **Please revise the CAP to state that these long-term milestones will occur at much shorter intervals (such as every two years), at least initially (such as for the first ten years), so that policies and implementation measures can be clarified, strengthened, or added to as needed to ensure that mitigation and GHG reduction will actually occur**.

The CAP analysis of methane emissions (p. E-9) "assumes that . . . emissions in 2030 will be similar to those in 2020." **The CAP should be revised to explain the basis on which it has projected the emissions from 2006 to 2020 and 2030**. What has been the rate of increase in the bovine population in Tulare County over the last ten and twenty years? Is this rate of increase likely to continue? **Since the dairy/feedlots sector produces 63% of the GHG emissions in the unincorporated county, it is very important to clarify and support this information, and the CAP/GPU should be extensively revised to effectively address the CAFO impacts.**

The CAP suggests (p. E-11) that the County "may consider" "in future years" including additional sources of emissions. **We urge the County to include fertilizer, because Tulare County is a major user of this source. Sewage should also be included because, particularly in the unincorporated area, there are major problems with wastewater treatment and disposal**. Since most major wildfires are caused by humans, and the cost of battling fires in the area of the urban/wildland interface continues to increase drastically, the GPU should strictly limit development in the vicinity of wildlands; firmly directing development into existing developed areas.

Page E-A-7 of the CAP indicates that the emissions shown are based on an assumption of "60% cars, 35% light trucks, and 5% heavy diesel trucks and older vehicles." **Has the County examined whether this mix is accurate for the unincorporated area?** Just eyeballing our traffic, it seems to us that heavy diesel trucks and older vehicles likely make up more than 5% of the vehicles in the unincorporated area's traffic and light trucks probably more than 35%. **The CAP should be revised to document the actual mix for the project area.**

On page E-A-9, the CAP assumes that "2030 total solid waste generation will increase proportionate to population growth" and that "annual disposal rates at each landfill did not change from 1971 to 1996." **The CAP should be revised to explain these seemingly disparate statements**. Have efforts to promote recycling and re-use had an effect? What accounts for the disproportionate changes in fugitive emissions and total equivalent CO2?

The population figures given on p. B-1 appear to be inconsistent with those on pp. B-6, B-10, and B-11. **Please review these and revise the CAP as necessary to make them consistent and correct.**

POPULATION DISTRIBUTION PROJECTION: A handout at the Three Rivers Town Hall meeting from Supervisor Ishida on April 4, 2011, titled "Total Population and Percent Change from 2000 to 2010," with the source shown as the US Census Bureau, shows that Tulare County's overall population increased from 368,021 in April of 2000 to 44,179 in April of 2010. The total increase was 74,158 (20.2%). The population increase in the eight incorporated cities was 72,124. That leaves an increase of 2,034 in the unincorporated county. This indicates **that about 97% of the population growth in the most recent 10-year period occurred in the cities, while only about 3% occurred in the unincorporated county. Why, then, is the County projecting that 25% of growth during the GPU horizon will occur in the unincorporated area? The CAP and other GPU documents should be revised to explain the reasons for the County's projection of 25%, considering the 2010 Census Bureau information.**

Page B-7 refers to "Figures in italics," but we don't see any figures in italics on that page. Please explain and/or correct.

Page B-10 should be revised to show definitions for "Low Density," Medium Density," and "High Density."

Final Draft Staff Report

Appendix C: San Joaquin Valley Air Pollution Control District Green house Gas Emission Reduction Measures – Development Projects:

There is no page number on the page that contains this heading only and no other information. The next page is labeled:

Final Draft Staff Report Appendix J: GHG Emission Reduction Measures – Development Projects

This page is numbered 236 and also Page C-1 of 25 and has a footer stating "SJVAPCD, November 5, 2009." The following pages are numbered 237-60 and C1-C25. Therefore, Appendix J is apparently serving as Appendix C of the CAP. **The County should include an explanatory note to avoid confusion here, as it appears that appendices between C and J are missing, when actually J is serving as C** (I think).

This Appendix, pp. C1-C25 (also numbered pp. 237-260) is entirely a table (apparently created by SJVAPCD) showing GHG Emission Reduction Measures and their Estimated CO2 Equivalent Point Reductions. Page C-10 shows no point reduction for densities of 3-6 du/acre. Tulare County is striving

for 5.3, a 25% increase over its current 4.3 du/acre. Table 9 on p. 51 describes this as a housing mix of 8.7% low density, 49.8% medium density, and 41.5% high density, but it **never defines what constitutes low, medium, and high density**. The Table states that the County currently has 25.3% high density, but in traveling around the County, we have never observed that anywhere near a quarter of it looked to have anything like high density. **The CAP must define its terms here and should illustrate the various densities to enable the public to make the comparison. The County should upgrade its density target to at least 7-10 du/acre, which would provide a point reduction of 1**. (For comparison, 50 or more du/acre gets a 10 point reduction.) This would give residents much greater choices in what kind of development they'd like to (or be able to afford to) live in.

Page C-19 (aka p. 254) shows Measure 21 "as defined in Ch 22.35 of Sacramento County Ordinance Code**. Is the CAP deliberately referring Tulare County CAP readers to a Sacramento County Ordinance**? If that's the definition we want to use, why doesn't Tulare County adopt its own ordinance with the relevant definitions?

Thank you for considering these comments and responding to them constructively. We hope that they may contribute to a more understandable and effective CAP and GPU.

From: "Paul F. Pugh" <paul.pugh@sequoiavalleyresources.com>
To: <DPBryant@co.tulare.ca.us>
Date: 10/31/2011 10:27 PM
Subject: Tulare County General Plan

Page 23 Mineral Resources " The project may: Result in the loss of availability of a known mineral resource that would be of value to the region." And two "Result in loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan." Could you help me find the countervailing analysis in the EIR that would seek to alleviate this adverse impact?

Then specific to the background analysis find my comments below:

10.3 Mineral Resources

10.18 Significance

10.20 This appears to be a demand analysis based on local needs. It fails to take into account an expanding geographic market. A growth economy can only be supplied by production sales beyond the County border. The family farm has been replaced by agribusiness. Tulare County would not be the size that it is in Agriculture if the planning basis was production acreage based on the local demand. Export of the surplus is key to a vital local economy. As in agriculture, mineral production depends on undisturbed land for production. Like agriculture, engineered mining

can reuse the land after extraction.

Page 11-8 under Dams and Sources is the only mention of White River anywhere in the analysis. Figure 11-2 depicts White River. Correct me if I'm wrong, please direct me to mention of White River under Mineral Resources.

Page 11-28 This wordage is based with a market conclusion bias

3.7-3 What is the procedure to include the White River Resource and why wasn't it previously sought?

QUESTION:

IF SMARA ONLY COVERS THE SURFACE OF THE LAND WHO CONTROLS IN TULARE COUNTY TUNNEL EXTRACTION?

3.7-9 What will or what does it take to correct the assumptions and lend some accuracy to these statements?

3.7-11 Same question as 3.7-9

3.7-13 Where did these oil production numbers come from?

In the 4-25-2006 Draft comments from the State Department of Conservation of O'Bryant - Did any of the action points including Williamson Act concerns get addressed?

Again, my biggest concern is that the Mineral and Natural Resources Impact Information is drawn from a flawed background report. Left out is the White River Mining District replete with active Mineral Leases and Owners. What can be done to correct this potential Billion Dollar resource over the next 20 years?

Paul F. Pugh Jr. COO

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November 7, 2011

Tulare County Planning Commission

Nancy Pitigliano; Bill Whitlatch; Wayne Millies, Chair; Melvin Gong; John Elliott; Ed Dias; Charlie Norman; Gil Aguilar; Doug Silveria; Jack Ritchie

5961 S. Mooney Blvd.
Visalia, CA 93277-9394

Dear Planning Commissioners:

Thank you for continuing the public hearing on the proposed Tulare County General Plan 2030 Update, Final Environmental Impact Report, and Climate Action Plan, to November 16, 2011. We presented oral comments to you regarding these draft plan documents at the public hearing on October 19, 2011. On October 28, we emailed to you (via Maria Flores) our written comments on the draft Climate Action Plan.

We are now emailing you our written comments on part of the draft Final Environmental Impact Report (FEIR). We are commenting primarily on the "Master Responses," addressing the first five of the eleven in this comment letter. A further letter will address the remaining six Master Responses.

We certainly understand that the County would like to get to the adoption stage of this long drawn out General Plan Update process. We also feel very strongly that if the County had made from the outset a good faith, well-focused effort to respond constructively to the vision and inputs of its citizens, the requirements of State law, and the large existing body of good planning knowledge and examples, the General Plan Update could have been successfully completed at a much earlier date, would have been a much more satisfactory plan, and would not be facing the threat and expense of litigation due to major inadequacies.

Unfortunately, Instead of revising the plan documents constructively in response to the hundreds of specific questions and suggestions it has received from over 90 commenters, including the State Attorney General, the County has chosen to present in the draft FEIR a set of eleven broad "Master Responses," which it claims will provide the commenters with "a complete picture" regarding their concerns. But these Master Responses do not suffice, because they and the FEIR continue not to deal honestly and effectively with the fundamental flaws of the GPU documents.

And hundreds of the comments are not being addressed at all, except to say that they will be "forwarded to County decision makers for their consideration." Well, at this point, that would be you!

Thoughtful citizens have been responding to this planning effort for the last eight years -- attending meetings; reading thousands of pages of documents; contributing the results of their research, analysis, thought, and discussion in written and oral comments through the NOP, the Matrix process, the 2008 GPU comment period, the 2010 comment period, and the public hearings; and hoping to help shape a plan that will provide for healthy, responsible, and sustainable land use and development for all of us and for our children.

Thank you for considering our comments.

Sincerely,

Greg and Laurie Schwaller
43857 South Fork Dr.
Three Rivers, CA 93271
559-561-0111

COMMENTS ON PROPOSED TULARE COUNTY GENERAL PLAN UPDATE/FEIR, 11/07/11, from Greg and Laurie Schwaller

The proposed Final Environmental Impact Report (FEIR) for the Tulare County General Plan 2030 Update (GPU) was released to the public on August 30, 2011, fifteen months after the close of the previous public comment period (May 27, 2010) on the GPU documents, which at that time included the Re-circulated Draft EIR (RDEIR) and the draft Climate Action Plan (CAP). (The first full draft version of the GPU/DEIR was circulated for public comment in January, 2008.)

The County received over 1500 pages of **comments** and attachments **from over 40** individuals, organizations, and agencies during the public comment period on the RDEIR, and over 1500 pages of written comments and attachments from approximately **90** individuals, organizations, and agencies during the public comment period in 2008 on the GPU/DEIR (Draft Environmental Impact Report) (FEIR, p. 4-4). (The comments on the GPU/DEIR in 2008 were so critical of the content that the County determined that it would have to extensively revise it and then re-circulate the documents – in 2010 -- for public comment as the GPU/RDEIR, including in 2010 the County's first draft Climate Action Plan.)

It is a shame and a disservice to our current and future residents that the County and its consultants did not spend the fifteen months leading up to the release of the GPU FEIR working to substantially and meaningfully revise the GPU documents to make them responsive to the constructive comments received from the public during the workshops conducted at the beginning of the plan update process and from the more than 90 individuals, organizations, and agencies that have commented on the draft documents to date.

Instead it appears that the County has spent well over a year and hundreds of thousands of taxpayer dollars searching the legal archives to find cases that can be construed to claim that the County is not required to produce a strong, clear, enforceable plan that will actively work toward achieving the goals of the public, the Regional Blueprint, the State of California, and responsible, cost-effective, resource-efficient, healthy growth. Obviously, the County had a choice on how to spend the public's resources in light of the public's input. **Why has the County chosen to ignore the repeated calls for a responsive plan and focused its efforts instead on ensuring that its five Supervisors will have almost complete "flexibility," rather than necessary accountability, in their decision-making regarding crucial land use issues that will profoundly affect our future?**

At the beginning of the GPU process, the County asked its citizens what they wanted for our county's future, and a strong consensus was returned: clean air; a reliable clean water supply; preservation of our agricultural lands; a more diverse economy; and growth centered in our existing communities. **The workshop attendees overwhelmingly chose the option of having 90% of future growth directed to *existing* communities.**

Professional planners, legislators, architects, scientists, transportation engineers, economists, housing authorities, health professionals, natural resource managers, farmers and ranchers, hydrologists, recreationists, and many public advocacy groups agree upon a number of planning principles that will work to achieve the goals and the vision of Tulare County's citizens.

A huge majority of the comments made on the draft versions of the GPU documents have urged the County to prepare a plan that adheres to these principles, with concrete, timely implementation measures to ensure that land use and development decisions will promote a healthy and sustainable future for our county and all its residents.

Many dozens of commenters have provided many hundreds of suggestions to improve and strengthen the draft plan so that future growth will occur within our existing growth boundaries. The County's own consultant showed that far more than all the growth projected for the county during the years covered by the GPU could easily be accommodated within those existing boundaries, without even increasing density.

This kind of development locates people where jobs, workers, services, infrastructure, public transportation, and other amenities already exist. It uses land and water much more efficiently than wasteful sprawl development. It means that people can spend less time and money commuting to work, school, appointments, and recreational opportunities, and can have more time to spend with family and friends.

This type of compact, orderly growth also promotes healthier lifestyles, enabling residents to use public transit, bikes, or their own two feet to get to many of their destinations. These alternative transportation modes have social benefits, too, and promote equity, while reducing absences from work and school, lost productivity, and medical and insurance costs.

For a cash-strapped county like ours, such **responsible growth is important because it costs less to service and maintain**: fewer miles of pavement and lights needed, fewer stations for fire and sheriff personnel, fewer miles to patrol, less exposure to the dangers of wildland fire, economies of scale in providing and servicing water and wastewater systems, less water used, lower costs for fuel and energy.

While reducing these costs, **responsible growth also keeps inefficient development from encroaching onto our highly productive farm and ranch lands, and conserves our natural resources** that provide us with so many essential services (such as air cleaning, habitat, flood and erosion control, scenic views, recreational opportunities, pollination, and groundwater recharge).

Additionally, **implementing smart growth policies goes a long way toward enabling Tulare County to meet the requirements of State laws** such as AB32-the Global Warming Solutions Act (enacted in 2006), SB375-the Sustainable Communities Strategy Act (2008), and AB1358-the Complete Streets Act (2008). These acts are designed to increase public health and safety, reduce greenhouse gas emissions, and promote economic development and cost savings. More affordable housing is often a result.

In spite of all of these constructive inputs and legal mandates, the County's proposed GPU/FEIR contains **only "minor revisions to the Recirculated Draft Environmental Impact Report . . . minor changes and edits to the text . . . made in response to the comments.** These changes correct minor errors and provide clarifications and amplifications to the information previously provided; the changes do not constitute significant new information or result in any new significant impacts [FEIR, p. ES-1]." Why is

the County dismissing the thousands of pages of suggestions for a better, more certain and effective plan?

The County states six overall objectives of the GPU [FEIR, p. ES-8]:

1. *Provide opportunities for small unincorporated communities to grow or improve quality of life and their economic viability and to provide the framework for planning new self-sustaining communities.*

   This objective is problematic and contradictory. It calls for providing opportunities for existing small communities but at the same time, to the contrary, promotes the development of "New Towns."

   Tulare County's citizens told the County that they wanted growth and development to go into our *existing* communities. All over the County, vacant land, vacant houses, and vacant commercial properties stand waiting. **Why shouldn't the benefits of new development accrue to the towns we already have? Why would the County permit any new towns at all, at the expense of our existing communities and much greater environmental impacts? The GPU must answer these questions** and show how new towns, instead of contradicting the Value Statements, Framework Concepts, and Guiding Principles of the GPU, and the vision and priorities of its citizens, could better serve to fulfill them at lower environmental cost.

   As a corollary, the GPU is also proposing a Corridors Framework Plan, promoting development in unidentified corridors along the County's scenic highways, major regional transportation arterials, and throughout the county, instead of mandating development inside the boundaries of existing communities, and is thereby promoting leapfrog sprawl development instead of maintaining rural separators, the integrity of intensive and extensive agricultural lands, scenic landscapes and open space, and the integrity and character of existing communities. **The GPU must explain why this Corridor sprawl development is being proposed, when it, like New Towns contradicts the Value Statements, Framework Concepts, and Guiding Principles of the GPU** and the vision and priorities of its citizens, while incurring greater environmental impacts than resource-efficient development within existing growth boundaries.

   "New Towns" would not only contradict the resource-efficient and cost-effective goal of focusing new development inside existing development boundaries, they (and the proposed Corridors) **would also greatly increase vehicle miles traveled,** as they would, by definition, not be located where jobs, workers, customers, services, and infrastructure already exist. Requiring more miles to be traveled in vehicles will only aggravate our county's already severe air quality problems. "New Towns" would also pave over our irreplaceable agricultural lands and open space (farms and ranches).

Never does the GPU discuss and explain why it is choosing the "New Town" path, nor does it require any mitigation for the loss of agricultural and open space lands, nor does it discuss how or when these "New Towns" would become "self-sustaining" and how their needs would be supplied in the meantime. **The GPU should be revised to preclude consideration of the development of any "New Towns" unless and until our existing communities have been developed to the fullest extent possible within their existing boundaries. Future significant development outside of those boundaries should be required to be contiguous to the boundaries and highly resource-efficient so as to strictly minimize impact on agricultural lands and open space. Mitigation for loss of agricultural land and open space should be mandatory at a minimum 1:1 ratio.**

2. *Promote reinvestment in existing unincorporated communities in a way that enhances the quality of life and their economic viability in these locations.*

See #1 above. Developing "New Towns" and Growth Corridors will not promote reinvestment in existing communities.

3. *Protect the County's important agricultural resources and scenic natural lands from urban encroachment through the implementation of goals and policies of the General Plan.*

Again, see #1 above. The development of "New Towns" and Growth Corridors will immediately and permanently adversely impact the County's important agricultural and scenic natural lands.

4. *Strictly limit rural residential development in important agricultural areas outside of unincorporated communities' Urban Development Boundaries (UDBs) and cities' County Adopted City Urban Area Boundaries (CACUABs) and County Adopted City Urban Development Boundaries (CACUDBs) (i.e., avoid rural residential sprawl).*

See #1 above. Again, the development of "New Towns" and Growth Corridors would directly contradict this objective and work against the economic and environmental health of the county, and the health, safety, and welfare of its residents.

5. *Allow existing and outdated agricultural facilities in rural areas to be retrofitted and used for new agricultural related businesses (including value added processing facilities and uses) subject to specified criteria.*

Here's an objective that, on its face, appears to make sense.

6. *Enhance planning coordination and cooperation with the agencies and organizations with land management responsibilities in and adjacent to Tulare County.*

   This is a worthy objective. Unfortunately, the GPU in general never gets more specific than this, and when it does, it has created the opposite effect. For example, the incorporated cities of Tulare County were so outraged by the County's proposals for "coordination and cooperation" with them that they united as the Council of Cities and threatened to sue the County unless it changes its new proposed policies in the Planning Framework Element vis a vis the cities. **The GPU should be revised to promote a truly cooperative and equitable fiscal and planning relationship between the County and the cities.** (Perhaps they should consider submitting to binding arbitration to resolve their differences?)

The County projects a population of 742,970 by 2030 [FEIR, p. ES-11). The **Board of Supervisors decided, for reasons not explained in the GPU documents, that 25% of that growth (78,490 people) could be accommodated in the unincorporated area of the county** – the unincorporated communities and hamlets, the mountain service centers and foothill development corridors, the new urban and regional growth corridors – and, presumably, the "New Towns" (FEIR, p. ES-11), with a "majority of future development . . . expected to occur within established Urban Development Boundaries (UDBs), Urban Area Boundaries (UABs), Hamlet Development Boundaries (HDBs), and other identified growth areas."

The FEIR notes (p. ES-11) that "**major infrastructure investments by the public and private sectors are a necessary precursor to accommodate anticipated growth within the County,**" but does not show how or when these investments might be obtained. Would such major necessary investments be required, or required as extensively, if a much higher percentage of future growth were first directed to the incorporated cities and existing unincorporated communities? **Given the relative poverty of Tulare County, it is surely in the interest of the taxpayers to direct growth to where it can be most efficiently and economically accommodated?** The proposed FEIR states that it does not have to deal with economic issues, but **Tulare County cannot afford a GPU that doesn't insist on growth that is cost-effective and resource-efficient**, and good for the health, safety, and welfare of its public and its natural resources. It may be that the FEIR does not by law have to deal with economic issues, but it is surely a duty of the County to prepare a General Plan that will sustainably benefit our economy.

Planned Community/New Town areas and new Corridors: The original 1964 General Plan considered "**retention of community identity, preservation of the agricultural economic base and control of urban sprawl" as major issues** for our county. Almost fifty years later, they still are. In the GPU's Planning Framework Element, the County states (PF-1.2) that it shall ensure that urban development "**only takes place in the following areas**" and lists incorporated cities and their CACUDBS, unincorporated communities, HDBs of hamlets, within foothill development corridors determined by the FGMP, within areas set aside for urban use in the mountains, within other areas suited for non-agricultural development as determined by the RVLP. This seems to approximate locating development mostly within existing boundaries, or having some safeguards (FGMP and RVLP criteria) to limit development outside of those boundaries.

However, in PF-1.2, #2, "planned community areas" are slipped into the list. The GPU often interchanges the terms "New Town" and "planned community," so we assume this is a reference to "New Towns." While the long-designated (since 1981) foothill development corridors are mentioned, nowhere are the new Corridor Plan corridor developments (GPR Part II-Chapter 2 – Corridors Framework Plan) specifically called out in PF-1.2.

Development can take place in PCAs/new towns and the new Corridors, but **where can PCAs/new towns and Corridors be developed? The GPU/FEIR must answer this crucial question.** All of the RVLP and FGMP criteria should apply in determining where a PCA/new town or Corridor development might be allowed. But **why is the County promoting this development when it is inconsistent with the goals of the plan?**

The FGMP includes a four-level process to determine what areas in the foothills could be found to be suitable for development. Factors considered included access to a publicly maintained road or highway, location within a 15-minute response time of a County fire station, slope of less than 30%, no unique features (physical, biological, archaeological, land use) that would be inconsistent with development, appropriateness of soils, water level and availability, and agricultural, cultural, biological, and aesthetic assessments, etc.

The GPU should include a similar system to determine what areas, if any, would be suitable for development of "new towns" and "growth corridors" proposed for locations outside of the FGMP; this system would also utilize the RVLP point system. The County should require any proposed "planned communities" or "new towns" or "growth corridor" developments to first prove why they could not be located within the thousands of acres available inside our existing development boundaries before they could begin to consider a location outside of those boundaries. Any development outside of those boundaries should require mandatory mitigation to compensate for impacts to agricultural land and open space, LOS, and air quality, at a minimum.

Based on the results of this systematic analysis, **the County should also determine and include in the GPU what areas should specifically be restricted from development and should be preserved as open space designated as scenic landscapes, water resources, habitat, urban separators, and/or recreational areas, etc. to fulfill the requirements of the mandated Open Space Element.**

Master Responses (FEIR p. 4-1 ff): Many of the commenters extensively addressed the same areas of the GPU/RDIER which they felt required substantial improvement. The County replies to several of these areas via **"Master Responses" in the proposed FEIR,** including Enforceable Policy Language, Level of Detail for the General Plan and Programmatic Nature of the RDEIR, Land Use Diagram and Build-Out Assumptions, Water Supply Evaluation Assumptions and Methodology, Implementation Measures, Foothill Growth Management Plan, Range of Alternatives Addressed in the RDEIR, Climate Action Plan, and Discussion of Yokohl Ranch Project.

The County starts off by stating that it is **not required** by CEQA to make a formal response to comments on the RDEIR that address legitimate concerns of public policy (e.g., economic, fiscal, or social issues), but that are construed not to be addressing environmental issues or CEQA concerns; such comments are

part of the administrative record and will be forwarded to decision-makers for their consideration (FEIR, p. 4-2).

Next, the County claims that since the GPU and RDEIR "have been substantially revised in comparison to the 2008 documents," and that the "County carefully considered each of the comment letters received on the previous DEIR in 2008," those "previous comments are generally no longer be applicable [*sic*]to the currently proposed 2010 draft of the General Plan (project), which is why additional opportunities to comment on the revised General Plan 2030 Update and the RDEIR have been provided" (FEIR, pp. 4-3 - 4-4). The previous comments will be a part of the administrative record, but will not receive any written response in the FEIR. **Unfortunately, after it "carefully considered" the comments, when it "substantially revised" the GPU documents, the County still failed to satisfactorily address the great majority of the fundamental concerns raised by the commenters. In the Master Responses in the FEIR, the County basically says that it does not intend to address them.**

The FEIR reproduces the 2010 comment letters and then devotes probably hundreds of pages to the County's written responses to these comment letters. However, the overwhelming majority of these responses are simply the reiteration of the various Master Responses. Many of the Master Responses seem almost insulting in their dismissal of the validity of the commenters' suggestions and in the arguments they use to assert that the County does not need to respond constructively to them.

MASTER RESPONSE #3: Implementation and Enforcement of General Plan Policy Language (FEIR p. 4-7 ff):

The County provides Implementation Measures at the end of each Element of the GPU. The **County defines an Implementation Measure as** "a **specific** action, program, procedure, or technique that is provided to help **ensure** that appropriate actions are taken to implement the General Plan." "Implementation Measures describe actions that are **concrete and measurable** so their completion can be easily monitored in annual reports" (RDEIR pp. 2-26 and -27).

Many commenters have pointed out repeatedly throughout the GPU process that the GPU's policies and implementation measures are far too often much too vague and too weak to be relied on to fulfill the GPU's goals and to provide the required mitigation for the GPU's numerous substantial environmental impacts.

Regrettably, **instead of improving the policies and implementation measures by making them specific, concrete, and measurable, as advertised**, the County 's Master Response is that "this is not an exclusive list of implementation measures," and "it is simply not feasible to list every potential implementation measure which will be adopted over the 20 year horizon of the General Plan, nor to provide the text of every potential ordinance that will be adopted as a result of General Plan implementation." Obviously, no one is asking the County to do any such thing.

The County should revise the GPU documents to meet the repeatedly emphasized need to make its plan's implementation measures effective, enforceable, measurable, timely, and accountable.

The County states that the "Goals and Policies Report (Part I of the General Plan Update) is **the essence of this proposed General Plan** amendment. It **contains the goals and policies that will guide future decisions within the county.** It also **identifies a full set of implementation measures that will ensure the goals and policies in the General Plan are carried out**" (County of Tulare Join Workshop Agenda Item, 08/30/11).

However, in the FEIR (p. 4-7), the County notes that "several commenters have expressed skepticism that certain words used in policies would result in enforceable policies. Words such as 'encourage,' 'may,' 'support,' and the use of should versus shall, were specifically mentioned." In its response to this skepticism, **the County never addresses how policies and implementation measures based on "encourage," "may," "support," and "should" can be relied on** to ensure anything. Not one of these verbs define "a specific action, program, procedure, or technique," contrary to the County's own definition of what its implementation measures do. **The GPU policies and implementation measures must be revised so as to conform to the County's own definition and to provide reliable guides to what the public, developers, communities, and businesses can expect.**

The FEIR's convoluted discussion of **"shall" versus "should"** is bewildering (FEIR, p. 4-8), presumably deliberately. Without offering any supporting evidence, the FEIR states that "shall" is considered a "mandatory requirement" that is "*not necessarily* required in broad legislative policy," while "'should,' as used in General Plan policy development is a less rigid directive to be honored in the absence of compelling or contravening considerations." It concludes that "policies containing the term 'should' remain effective and enforceable. They are clear expressions of the . . . Board of Supervisors intent to rely on the subject policy to guide relevant decisions, and so must be recognized and analyzed in such decisions."

Let's get down to brass tacks. We all know (and Webster's dictionary points out) that **"should" shows "obligation or duty, *often with doubtful fulfillment*," while "shall" denotes "obligation or command" (and also "determination or resolve" and "pledge or promise" – all of which are important in signaling that something specific is ensured to be carried out).** As stated by the County, the General Plan is "the 'Constitution' for future development and growth within the unincorporated areas of the County." **"Shall" should definitely be the operative verb to show clear intent.** (For example, the message that you "should" not kill or you "should" not steal is not nearly as clear and commanding as you "shall" not kill or you "shall" not steal.)

The GPU should be revised in many important instances to use the strong word "shall" instead of weak and irresolute verbs such as "may" or "should," as has been repeatedly pointed out in the comments.

The FEIR tries again to circumvent the issue, stating that the plan's" diagrams and text should be general enough to allow a degree of flexibility in decision-making as times change" and to maintain "flexibility to address unforeseen or evolving circumstances" and that **"flexibility is needed** to address the peculiarities of specific parcels and specific projects as they are proposed." Certainly "a degree of flexibility" may be needed in some well-documented exceptional circumstances where an exception to

the rules should be made. But if all the rules are flexible in the first place ("should," "may"), it is very difficult to enforce, ensure, or rely on anything.

If the GPU is truly to work toward achieving cleaner air, more reliable water supplies, the protection of agricultural and open space lands, directing growth into existing communities, and a sustainably healthier economy, it must be strong and enforceable. **The County should revise its policies and implementation measures as recommended to achieve these goals.**

The sole example the County gives to illustrate the need for flexibility (FEIR, p. 4-8) is that "an outright ban on development on an unknown parcel in a flood zone could force development into other areas with greater geologic, fire, or other hazards." The logic and likelihood of this prediction escapes us; surely, no one could or should be forced to develop in any area with great natural hazards. On the contrary, the plan should direct growth into existing development boundaries, where such hazards are far less likely to occur.

The County notes (FEIR, p. 4-9) that "commenters have suggested that the individual **policies in the RDEIR designed to avoid impacts (i.e. self mitigating) improperly defer mitigation of some impacts and suggest that these mitigation measures and policies should be more specific . . . and that some policies and mitigation measures are infeasible, unenforceable, unlikely to be carried out, or unlikely to be successful.**" Again, the County has refused to revise the policies and mitigation measures to be more specific, enforceable, and successful. Instead, it argues that the General Plan "is not intended to provide the level of detail that is found in an ordinance or special use permit condition."

No one is urging the County to provide this level of detail. But many are repeatedly and reasonably urging the County to make its policies and mitigation measures clear, strong, concrete, and effective. (Also, the County, despite repeated requests, persists in not labeling the individual GPU policies per the various categories it claims they are divided into, so that no one can see which policies it considers to be "self mitigating" and which fall into the other categories.)

Noting that commenters "questioned the **enforceability of individual policies**," the FEIR responds that the policies "should not be reviewed in a vacuum" and "will be interpreted in relationship to the other goals, policies, and implementation measures contained in the General Plan," while development "will also have to comply with existing Federal, State and local regulations." This argument places a big burden on County staff, the public, and anyone else trying to understand the enforceability of General Plan policies.

If it is not at all clear how a particular policy is to be interpreted and enforced and so one consults related policies and finds that it is not clear how they are to be interpreted and enforced either so that one must then root through "the entire General Plan" and Federal, State, and local regulations to attempt to determine the intent and enforceability of the "comprehensive system," a great deal of time will be required and the resulting interpretations may vary significantly. This is especially problematic when the County is understaffed and when there is a significant rate of staff turnover.

Surely, the plan is much more likely to be effective if it is clear in the first place how each policy is to be implemented and enforced. Obviously, the plan should be consistent, as it is required by law to be, and the policies and implementation measures should reinforce each other and produce a synergistic effect, but **if great numbers of the policies are vague and weak and unclear as to enforcement, the entire plan is substantially weakened.**

The FEIR continues to dodge the issue by stating that "the General Plan's goals and policies will be implemented and realized through County ordinances and future County decisions on specific development projects" (FEIR, p. 4-9). **But, obviously, the GPU does have implementation measures and these must be improved so that the public rely on the plan to provide for consistency and accountability in future decisions.**

In response to many comments pointing out that many of the GPU/**RDEIR's mitigation measures are also unenforceable, vague, unlikely to be carried out, and/or unlikely to be successful, while also too often deferring the mitigation**, the County again has refused to clarify and strengthen these measures, repeating that they "should also be read in conjunction with the goals, policies, and implementation measures that are part of the proposed General Plan" (RDEIR, p. 4-10).

The County stresses that its **policies and mitigation measures "should be consistent with the geographic scope of the project (a diverse geographic area encompassing approximately 4,840 square miles** of valley, foothill, and mountain geographic areas), population size and density, fiscal and administrative capabilities, and economic, environmental, legal, social, and technological factors" so "it is important for General Plan policies and mitigation measures, which cover such a large and diverse area, to be flexible enough to accommodate the individual environmental and planning needs of each area of the County." "Accordingly, this EIR proposes goals, policies, and mitigation measures at a programmatic level" (FEIR, p. 4-10).

Certainly, Tulare County is large and has diverse terrain. But **let's examine the big misleading 4840 square mile figure, because the County brings it up continually** in the FEIR as the reason why it can and can't do various things. It's important to consider that **the County has no jurisdiction over more than half of this area.** For example, the County has no jurisdiction over the National Park, National Forest, and National Monument lands in the county: subtract 2320 square miles. The County does not have jurisdiction over the eight incorporated cities: subtract 130 square miles. The County doesn't have jurisdiction over the Tule River Indian Reservation: subtract 85 square miles. Nor does the County have jurisdiction over other Federal lands in the county such as the National Wildlife Refuges and BLM lands, nor does it have jurisdiction over the State Park land. **What the County does have jurisdiction over amounts to well under 2300 square miles.** This is still a lot of area, but it's certainly less than half the number of square miles that the County keeps saying it has to plan for. And how much of that area is actually actively doing the planning for? Maybe one-tenth of that amount.

Of course, Tulare County, just like every other county in California has to factor in its geography, population, fiscal and administrative capabilities, and other factors when formulating its General Plan policies and mitigation measures. And, like every other county in California, it is **required by State law**

to prepare and adopt a comprehensive and long-range General Plan for its physical development that addresses the seven elements of land use, circulation, housing, open space, conservation, safety, and noise (additionally, counties in the San Joaquin Valley must address air quality because ours is so unhealthful). The General Plan **must comprise an integrated, internally consistent and compatible statement of development policies; once adopted, its maps, diagrams, and development policies form the basis for the County's zoning, subdivision, and public works actions.** (RDEIR p. 2-5 and 2-6)

While Tulare County is diverse in its terrain, population, and communities, as is virtually every California county, that certainly doesn't mean that sound planning principles cannot and should not be applied throughout the County's jurisdiction. For a quick example, we could **look at the principles of a Healthy Growth Alternative recommended by Tulare County Citizens for Responsible Growth** in its extensive constructive comments on the GPU documents. Obviously, **none of these principles are ruled out by the scope of the County's jurisdiction.**

The County makes sweeping, specious statements, such as that it "strives to provide as much detail as possible in the mitigation measures and policies" and that "an attempt to examine impacts on a site-specific basis and to provide mitigation measures for those project level impacts would be speculative given the lack of information about future site-specific development" (FEIR, p. 4-10). Of course, **the impacts would be substantially less "speculative" if the County had been demonstrating a real commitment to sound and foresightful planning. If the County truly intends to focus growth in its existing communities, then it should already know a good deal about those sites and how development would impact them**, since most of them have been in existence for dozens of decades (many for over 100 years) within the County's jurisdiction. It should have been working for years to prepare and maintain plans for these communities (regardless of whether they are now being designated as communities or hamlets or mountain service centers).

If the GPU included the kinds of maps, diagrams, and development policies that it should, then the County would not just be "speculating" about what kind of development might occur where with what types of impacts, the County would be planning and illustrating what kind of development could occur where and how its impacts would be mitigated. The County's track record indicates that many of these communities, hamlets, and mountain service centers may still not have updated plans or even any plans at all during the time horizon of the GPU. **This makes it even more important that the GPU documents provide policies and implementation and mitigation measures that are clear, concrete, specific, measurable, and enforceable**, because for many communities, hamlets, and mountain service centers, this may be all that will protect their resources and provide for healthy, sustainable growth for their current and future residents.

The County states (FEIR, p. 4-10) that CEQA case law has held that "**deferral of the specifics of mitigation is permissible** where the lead agency commits itself to mitigation and, in the mitigation measure, either describes performance standards to be met in future mitigation or provides a menu of alternative mitigation measures to be selected from in the future." However, the County provides **no evidence** that the GPU documents meet these standards. On the contrary, despite numerous

recommendations from many commenters, the **GPU remains extremely weak in its commitment to mitigation measures, as in its commitment to implementing almost anything.**

For example, although it has been urged for several years to implement a policy of mandatory mitigation for loss of agricultural lands to development and to establish an agricultural conservation easement program to help carry this out, **here is the County's level of commitment:** "The County *may develop* an Agricultural Conservation Easement Program (ACEP) to help protect and preserve agricultural lands . . . This program may require payment of an in-lieu fee sufficient to purchase a farmland conservation easement . . . ." (GPR AG-1.6, FEIR, p. ES-16); "The in-lieu fees *may be transferred* to the Central Valley Farmland Trust [why not our own local Sequoia Riverlands Trust?!] . . . which will arrange the purchase of conservation easements" (AG-1.8, FEIR, p. ES-16). **Here's the implementation measure** that will ensure this happens: "The County *shall consider the implementation* of an Agricultural Conservation Easement Program (ACEP) to help protect and preserve agricultural lands" (Agricultural Element Implementation Measure #15, FEIR, p. ES-16). **So, we're going to mitigate for loss of agricultural land by maybe developing an easement program that we're going to implement by considering whether to implement it.**

This is not by any definition a necessary or desirable degree of flexibility or a permissible deferral of the specifics of mitigation or any kind of actual good faith effort. **A policy of "may" is no policy at all**, for it may as easily turn into "may not," and an implementation measure that says that the County "shall consider the implementation" is no implementation measure at all and guarantees no mitigation whatsoever. **The public clearly cannot rely on this plan** to accomplish any of its priorities.

The County next argues that "the **Government Code and other statutory and regulatory requirements provide mechanisms to implement** the goals and policies of the General Plan" (FEIR, p. 4-10). If the GPU's own implementation measures cannot be relied on to implement the plan, so that we must rely on the Government Code and other statutory and regulatory requirements to provide the "mechanisms" to implement it, **then the County should cite those mechanisms when its own measures are so clearly inadequate. The GPU documents must be extensively revised to provide clarity, consistency, and accountability -- a plan that is actually a plan and not vaporware.**

The County concludes its defense of its mitigation measures by stating that they are part of the RDEIR "and are subject to the same requirements regarding their level of detail described in Master Response #4" (FEIR, p. 4-10). Master Response #4 says that "A General Plan is by definition intended to be **broad, or 'general' in scope**. Relegation of more specific regulatory details and requirements to implementing plans, regulations, and ordinances is common practice" (FEIR, p. 4-12). The County says that "A program EIR is **not expected to analyze site-specific impacts.** The 2010 General Plan consists of goals and policies that will guide future development decisions. It **does not include site-specific development proposals**" (FEIR, p. 4-11).

This is not an honest response to the comments. Let's not be bamboozled. We return to our example of the Agricultural Conservation Easement Program as a policy and implementation measure to achieve mitigation. The policy statement that the County may develop a conservation easement program is

certainly broad and general. The more specific regulatory details of the plan are being left to an ordinance or other regulation. The policy and its implementation measure are not at all site-specific. **That is not the problem. The problem is whether the policies and implementation measures are in any way specific enough to actually effect mitigation** (or any other result). When these read "may," "should," or "shall consider," **they are clearly not intended to ensure that the County will actually produce any results at all.** No one can be held accountable to "may." **Policies and implementation measures like these must be revised to be clear, concrete, and enforceable.**

MASTER RESPONSE #4: Level of Detail for the General Plan and the Programmatic Nature of the RDEIR (FEIR, p. 4-11 ff)

The County states that "several **commenters questioned whether the General Plan and/or EIR contained sufficient information and detail to satisfy the requirements of State Planning law and CEQA**," so it developed this master response to address these comments (FEIR, p. 4-11). The County stresses that the function of a General Plan is . . . **to set general policies and provide direction for implementing those policies** through more specific land use regulation such as zoning ordinances." The County emphasizes that it has "**great latitude** in the development and adoption of a General Plan as long as the statutory requirements of State law are satisfied" and emphasizes that "among the most important of those requirements is that the elements of the General Plan be **integrated and internally consistent**," while alleging that "the County's General Plan 2030 Update clearly meets these requirements." (FEIR, p. 4-11)

The County quotes Section 15151 of the CEQA Guidelines: "An evaluation of the environmental effects of a proposed project need not be exhaustive, but the **sufficiency of an EIR is to be reviewed in the light of what is reasonably feasible**. Disagreement among experts does not make an EIR inadequate, but the **EIR should summarize the main points of disagreement among the experts**. The courts have looked not for perfection but for **adequacy, completeness, and a good faith effort at full disclosure**." (FEIR, p. 4-11)

As discussed and profusely illustrated with hundreds of examples in hundreds of pages of comments, the County has continually failed to set policies and provide direction for implementation that would suffice to ensure the achievement of the objectives of the GPU (as expressed in its value statements: to protect and enhance the beauty of the County and the health and safety of its residents, to create and facilitate opportunities to improve the lives of all County residents, to protect its agricultural economy while diversifying employment opportunities, to provide every community with the opportunity to prosper, and to ensure that growth will pay its own way by providing sustainable high-quality infrastructure and services). (GPR, p. ES-2)

Indeed, **it is immediately after professing these values that the GPU becomes disastrously unintegrated and inconsistent.** While its citizens, during the public workshops, envisioned a future in which clean air, reliable clean water supplies, preservation of agricultural and open space lands, growth focused in existing communities, and a more diverse economy were the priorities, the County, in the

General Plan Framework Concepts, looses the snake into this garden. **Betraying the public's desire for a healthier, more sustainable development pattern, with its attendant benefits, the County, in Concept 2 – Land Use, states that it "may plan for and establish new communities that will grow and develop while natural resource lands (agriculture, mineral extraction, and open space) will be preserved and permitted to expand."**

Nowhere in the process of the workshops and public hearings and Technical Advisory Committee sessions did anyone recommend that the County establish "new communities." The comment letters on the GPU have been overwhelmingly against the establishment of such "new towns" because of their negative impacts on existing communities, agricultural and open space lands, scenic landscapes, vehicle miles traveled, the County's long-term budget, traffic and LOS, greenhouse gas emissions, water supplies and quality, air quality, public health, a more diverse economy, dark skies, etc. Nowhere does the County explain why it is emphasizing new towns as part of the plan update (not to mention the Corridor Areas).

Building new towns would, of course, NOT preserve and expand natural resource lands and open space, but would needlessly and permanently pave them over. It is utterly inconsistent and irrational for the County to state the contrary.

In Concept 4 – Natural and Cultural Resources, the County states that as it "develops its unincorporated communities and plans for new self sustaining communities," it will "ensure that development occurs in a manner that limits impacts to natural and cultural resources." (GPR, p. ES-3) Obviously, **the best way to limit impacts to natural and cultural resources is to locate new development within our existing development boundaries**, which can easily accommodate more than all the growth projected during the GPU horizon. The benefits of compact, resource-efficient development within existing boundaries have been repeatedly pointed out in the comments. **The County should revise the GPU to make it consistent with its values and the will of its people: the GPU should strongly discourage, if not outright ban, the development of new towns and the similarly undesirable and unwanted Corridor Areas.**

The GPU documents, including the FEIR and the CAP, **will never meet the criteria of "adequacy, completeness, and a good faith effort at full disclosure" until the County deals honestly and completely with this inconsistency and provides a true range of alternatives that includes a genuine healthy growth alternative designed to ensure that the County's land use decisions will work consistently to further the achievement of the people's priorities. The Planning Commission should ensure that a genuine healthy growth alternative is included and recommended for adoption. It should include all of the principles recommended by Tulare County Citizens for Responsible Growth in their comment letters.**

As previously discussed, the GPU/RDEIR does not cover plans and policies for over 4840 square miles (over 3,000,000 acres), although the County continues to wave this flag (FEIR, p. 4-13) throughout the FEIR; the County actually has jurisdiction over substantially less than half that amount of land.

The County states, however, that "Thus, **development in the county is considered *more generally* (e.g., a specific number of homes will be developed in a certain market area producing a calculated number**

of vehicle trips, air emissions, etc.)." Indeed, **that is exactly the type of information that many commenters have insisted the County must include in order to provide the required adequacy, completeness, and good faith effort. The GPU must be revised to include it** so that current and future residents can visualize and understand the plan and track its implementation.

Where in the GPU documents does the County reveal in which market areas specific numbers of homes will be developed? Where does it designate densities, or show where commercial or industrial development may occur? Where does it discuss how many acres are available within which development boundaries for which types of development? Where are the new towns and the Corridor Areas to go? Where does it give residents, prospective residents, businesses, and developers a plan to go by if they are considering locating or re-locating within the county? Where are the areas set aside for parks and recreation, wildlife habitat and connecting corridors, groundwater recharge? Where are the boundaries of the buffers between developed areas? Clearly, **the County has not provided the level of specificity required by the "more general" category, and the GPU documents must be revised to provide it.**

The County asserts that "throughout the RDEIR, **mitigation measures** have been clearly identified and presented in language that will **facilitate the establishment of a mitigation monitoring and reporting program (MMRP).**" True, the RDEIR provides list after list of what are purported to be mitigation measures, and it is important for accountability and regular progress checks for the County to establish an effective MMRP. However, as already pointed out above, and also hundreds of times in the comment letters, **the "identified" mitigation measures are regularly far too vague, untimely, or inadequate to serve as the foundation of a useful MMRP. All such mitigation measures must be clarified, strengthened, and made measurable; otherwise they cannot be monitored and reported.** (Returning to our example of the Agricultural Conservation Easement Program, AG-1.6 and 1.18 and Implementation Measure #15, RDEIR, p. ES-16, how could staff possibly monitor and report progress on whether the County "may" develop the ACEP and "may" transfer funds and "shall consider" implementing the implementation measure as effectively achieving mitigation for adverse impacts?)

While it is unfortunately clear that far too few of the policies and implementation measures integrated into the GPU can be counted on accomplish any of the much-needed mitigation (or much of anything else, including effective monitoring), the County reassures us that **future development contemplated by the GPU "will be required to comply with State and Federal permitting regulations** concerning biological and other resources, as well as existing County regulations" and that "as individual projects or specific plans are considered, more detailed information will be generated regarding size and placement of buffers and the particular measures needed," since "**pre-determining the most effective measures for any given setting [given the "variety of field conditions" with the UDB, HDBs, and MSCs] would be speculative** and not based upon any of the detailed information that will be acquired in the future . . . ." (RDEIR, p. 4-13)

Here again **the GPU is inconsistent:** occasionally it provides the specific language of a State or Federal regulation, making it clear how that legislation will carry out, for example, an implementation measure; but very frequently the GPU provides County policies and implementation measures that cannot be

relied on and yet no other regulations are indicated. **The GPU should be extensively revised to show what State and Federal regulations (or "existing County regulations") will be utilized "in developing specific mitigation measures for future projects" (FEIR, p. 4-13).** Without this information, we are unable to know what measures we can look to to provide implementation and mitigation.

For example, ERM Implementation Measure 55C Discovery of Human Remains (FEIR, p. ES-17) spells out in detail over 25 lines, including direct quotations of the language, the requirements of Section 7050.5 of the California Health and Safety Code and CEQA Guidelines Section 15064.5 regarding what must be done if human remains of Native American origin are discovered during project construction. Obviously, this is an implementation and mitigation measure that is clear and concrete, shows its source, and can be applied anywhere.

Policies and implementation measures such as this do not require us to "speculate" about what would be effective, and they are applicable in any of the future development areas, whether they are in the valley, the foothills, or the mountains, regardless of other site-specific project details. **Just so, the basic principles of cost-effective, resource-efficient, healthy and sustainable growth apply to all of our development areas, and the GPU should be wholeheartedly revised to apply them consistently in strong, clear, enforceable policies and implementation measures** that will do the most to avoid or reduce adverse environmental impacts and to mitigate for those that continue to be significant and unavoidable.

MASTER RESPONSE #5: Land Use Diagram, Land Use Designations, and Build-Out Assumptions

(FEIR, p. 4-13 ff)

The proposed land use diagrams in the draft GPU do not serve effectively as planning documents because they convey almost none of the information needed to show what the plan intends (other than apparently greatly expanded boundaries around most of the communities, hamlets, etc. in the unincorporated county). The FEIR points out that "Most of the areas under the County's planning jurisdiction are agricultural or open space areas except for the historical urban service centers (communities, hamlets, and mountain service centers) *which total only approximately 170 square miles*."

Presumably, the great majority of the growth that the County expects for the unincorporated area would occur in the valley and in the existing valley communities, but the draft plan never makes that or anything else clear. The County already has detailed information regarding the factors relating to planning well for land use and development in the unincorporated areas (e.g., water supply and quality, wastewater disposal, environmental constraints, circulation, LOS, transit, flood control, stormwater disposal, jobs, housing ratios, amount of vacant land in the various zoning categories, etc.). **The GPU's maps must be revised to clearly depict where, given this information, growth and development can and cannot go, and how much and what type and density of development is expected where.** Without this kind of mapping, there is no plan, no clear and reasoned guidance, and no way to predict, evaluate, and avoid or mitigate for the likely environmental impacts.

The FEIR states (p. 4-16) that **"a majority of urban service centers have limited existing capacity** to serve new growth or development," but there is **no indication on the GPU's maps of which of these centers have limitations or what they are or how that affects planning** for land use and development in those areas. It also says (p. 4-16) that "new development in these urban areas may also be limited by other constraints such as the existing ordinances, topographical restrictions . . . and many others," but **none of the maps indicate these constraints or show how they affect location, type, or density of development** in the urban service centers. The FEIR simply states that new development will be required to "pay its own way and provide sufficient resources to serve the proposed development," and that PF-1.4 "*seeks to require* that new development *not increase existing deficiencies*" [which are rampant in the unincorporated county]. It asserts (p. 4-16) that "the planning boundaries in the proposed general plan . . . concentrate urban growth within specified areas of the county thereby limiting sprawl and preserving the vast majority of the County's open space resources," but at the same time mentions that **no boundaries are "yet established" for the Planned Community Areas (New Towns) or corridors or "a few other existing Sub-Area plan areas such as the Kings River Plan, Sequoia Field Land Use and Public Buildings Element/Juvenile Detention Facility element, Great Western Divide North-Half, and Kennedy Meadows Mountain Sub-Area Plans."**

Eight of the unincorporated communities, all eleven hamlets, and all sixteen mountain service centers have no plans of their own, and several of the communities' plans are sorely out of date (Three Rivers, for example, adopted its plan in 1980 and has been trying for almost 15 years to work with the County to get its plan updated, but the County has never been able to commit staff for long enough to get the job done). Yet the GPU tells us that the planning decisions will be made on the specific project level. **What percentage of those projects will be developed in these urban centers with no plans or plans that are outdated to guide and direct them? What percentage and size of projects will be permitted to be developed in the "not yet established" Planned Community Areas and Corridors? The GPU provides no good maps to our future, none that give us any clear idea of what to expect.**

The "numerous policies designed to cluster development and provide for infill" (p. 4-16) and the "policies to limit and focus development" (p. 4-16) often sound good, but their implementation measures are too often, weak, unreliable, and unenforceable ("shall consider," "shall encourage," etc.). Too often the policies themselves are the problem. For example, **Policy PF-1.2 is cited specifically as a policy to limit and focus development, but it does nothing to "protect agriculture and the County's unique rural character"** (p. 4-15) because it provides that "The County shall ensure that urban development *only takes place in the following areas*," which sounds very specific, but the areas include "within . . . planned community areas," which means New Towns, which, as far as we can tell means that **urban development can take place virtually anywhere within the unincorporated county.**

For example, the proposed Yokohl Ranch development of 10,000 houses has been approved 5-0 so far at each step of its planning process by the Board of Supervisors, but it is NOT within <u>any</u> of the areas listed in which urban development can take place (except for a tiny piece of it lying within a Foothill Growth Management Plant development corridor), and **it would obliterate thousands of acres of extensive agricultural land and destroy the unique rural character of one of our most scenic and accessible foothill areas. Nowhere on the GPU's land use diagrams and designations** do we see where

these gigantic New Towns may be allowed to develop, and the GPU/FEIR/CAP fail to address the environmental impacts of the policies allowing New Towns and Corridor development.

The County blows off this failure to responsibly plan and illustrate its proposed land use and development by claiming that the GPU documents are sufficient "consistent with the broad nature" of the plan. But **this proposed plan is so "broad" that in too many respects it is no plan at all.** Instead, **it pushes almost all decisions down to the individual project level,** where its vague and weak policies and implementation measures and timeframes can be quickly and quietly nibbled down to nothing. The residents of Tulare County and our small towns in the unincorporated area deserve much better than this. The great majority of them have no individual plans of their own. Simply drawing a big boundary around them and saying that everything within the boundary not already zoned is now zoned mixed use **is not "broad" planning; it's simply <u>not</u> planning.**

The same critique applies to the "interim policy (C-1.6) with criteria for highway oriented commercial, industrial and mixed use development that would apply *until a regional growth corridor plan is adopted"* (p. 4-21). So here **the plan is to not wait until we get a plan established,** but to instead proceed to approve development on State Routes 65 and 99 as long as the site has access to a publicly maintained road, is within 1/8 mile of the highway, and hasn't been used for commercial agriculture for the last five years (GPR, Pt. II, p. 2-2). Would this allow development along 50% of these routes? Eighty percent? Twenty percent? What kind of development? What would the effect be on traffic flow, air quality, our "unique rural character," scenic landscapes, and quality of life? Where are the environmental impacts discussed and where is the mitigation? **If this isn't carte blanche for piecemeal, leapfrogging sprawl development, what is? It is completely and outrageously contrary to the "straightforward" "County planning strategy" "to focus growth into urban centers, provide services, and economic opportunities to these centers, and to protect agriculture and the County's unique rural character"** (p. 4-15). **The GPU must be revised to resolve these complete contradictions that make it fundamentally inconsistent and unresponsive to the vision of the County's residents.**

The description of the Foothill Growth Management Plan "updates" (p. 4-22) continues the very misleading representation of the GPU. While the County assured citizens that it would not change the FGMP, it has changed it significantly in the proposed GPU. We have commented on this extensively already in 2008 and 2010, but the FEIR continues to imply that nothing meaningful has changed. However, as we have just seen with the discussion of the proposed Yokohl Ranch development, everything has changed, because **the New Towns are clearly exempt from the guidelines of the FGMP.**

They can be proposed outside of the areas that were determined to be suitable for potential development. They can include extensive commercial development, when the FGMP previously directed commercial development into the existing foothill communities. The beautiful foothill scenic byways that have been indicated for designation for almost 50 years in the existing General Plan can now be turned into massive traffic corridors to service thousands of houses and many miles of new roads carving up scenic landscapes designated as Foothill Agriculture that have supported productive cattle grazing, valuable oak woodlands, sycamore alluvial woodlands, viewsheds and watersheds, irreplaceable habitat, and our rural ranching heritage for generations.

The County has apparently determined that we won't be wanting locally-raised beef, much-loved open space, or the critical free ecosystem services provided by our foothills, and that we would prefer the traffic, noise, air pollution, light pollution, greenhouse gas emissions, wildland fire danger, irreversible loss of scenic open lands, and adverse impacts to the economies of our existing foothill communities that these changes to the FGMP would allow. (Additionally, the Background Report [p. 9-31] points out that the U.S. Fish and Wildlife Service's *Recovery Plan for Upland Species of the San Joaquin Valley* "identifies the Sierra Nevada foothills in Tulare County, at the east and southeast edge of the San Joaquin Valley, as an area to maintain its natural lands" and highlights the contiguous Blue Ridge Critical Condor Habitat Zone and Tulare County's "unique and threatened wetland-type known as vernal pools . . . one of the most threatened ecosystems in California"[p.9-28] – all of which would be negatively impacted by the proposed vast New Town in the Yokohl area.) The FEIR says disingenuously "These revisions would not change the amount or type of growth expected within the FGMP area," but **the proposed GPU would hugely change the both the amount and type of growth expected within the FGMP area**. If people want to live in our foothills, they already have several existing foothill communities to choose from, all of which have numerous properties for sale. **The citizens of Tulare County said they want future growth to be directed into our existing communities.** We want a responsive, cost-effective, resource-efficient plan that fulfills this mandate, and the GPU documents should be revised to provide it. This would also be the environmentally superior plan.

As is the case with the FGMP, **the RVLP** (p. 4-22) **is trumped by the "planned communities" (New Towns) and Corridors provisions** in the GPU. How many acres do the new Hamlet Development Boundaries remove from RVLP jurisdiction, and what criteria determined where they would be drawn?

The FEIR should explain why the policies for a **Mountain Framework Plan** that were originally drafted in 1995 were not adopted (p. 4-2), how the policies have been "updated and modernized," and why, when the policies have been drafted for over 15 years, most of the implementation measures aren't slated to be worked on until 2015-2020. That's a lot more years to go without establishing "appropriate zoning," "fencing standards" that are not "extremely detrimental to deer movement," and including "mountain areas design review" (GPR, Pt. II, pp. 4-9 - 4-10).

As for **Project Build-Out**, the FEIR states that "the County has only limited control over growth and cannot control external factors such as population growth . . ., existing infrastructure constraints, and the intent of individual property owners, businesses, and citizens" (p. 4-23). Of course, no one is implying that the County can control "birth rates and death rates" (although it could certainly be better addressing our extraordinarily high teen birth rate and our deadly air quality), but obviously the County has the power to "provide a long term, comprehensive plan for the physical development of the County" (p. 4-23), which is what it's failing to do. The FEIR states that the draft plan "generally describes the type, intensity, and location of development that may occur within the County," but actually it only provides lists of definitions of types and intensities and for location provides only a map of the county. **This is not a comprehensive plan.**

Simply designating Mixed Use (p. 4-24) for all the communities without plans, all the hamlets, and all the mountain service centers, gives no idea of where the development is more likely to, or should, occur,

and which types of development (commercial, residential, industrial, parks, etc.) and at what intensities are needed or desired in which locations and where they can best be accommodated. Without this degree of analysis and planning, there is no way to estimate and evaluate the potential environmental impacts and thus plan to effectively avoid or mitigate for them.

The FEIR says that "CEQA only **requires analysis of reasonably foreseeable impacts**" (p.4-24). Since the GPU fails to provide a clear plan with effective policies and implementation measures to carry it out, reasonably foreseeing its impacts is made much more difficult, jeopardizing accurate analysis and precluding avoidance and mitigation. The FEIR states that "the **pattern and extent of existing uses is considered predictive** for the proportion of uses that would occur in future development" (p. 4-25), but **none of the maps** in the GPR of the communities, hamlets, and mountain service centers **give any indication** of what their current underlying zoning is, what the pattern and extent of their existing uses is, how much land is being added for mixed use development within the individual new boundaries, and what their past development trends have been. There is no indication of what the individual urbanizing areas' desire and capacity for growth is. Additionally there is no indication of how much development and what type of development is expected to be permitted in the Corridors and New Towns. **The GPU should be extensively revised to correct these substantial deficiencies.**

Instead, the FEIR states (p. 4-25) that "GIS data was used to determine the *average* vacant land available for development within areas that would receive the mixed use designation: 46% for Communities and MSC's and 26% for Hamlets." But the County has repeatedly emphasized how diverse these urbanized areas are in terms of geography, resources, constraints, infrastructure, services, existing development, etc., so surely **the actual likelihood of quantity and type of development in the various communities will not reflect these averages. The GPU and its maps should be revised to reflect what is actually likely to be the apportionment of expected growth based on the circumstances in the diverse communities** (e.g., which are likely to grow extensively, which moderately, which hardly at all – and why – and then use this information to much more accurately project and treat likely environmental impacts). If, indeed, "**Most of the projected population growth in the County would occur in areas where no changes in the applicable land use plans are proposed** as part of the General Plan 2030 Update"(FEIR p. 4-26), that should make the above requirement that much easier.

"The average, existing residential density of **2.58 units per acre** was calculated for these communities and MSC's" (FEIR, p. 4-25), but **why was this density used when the GPU plans a 25% increase in its average density to support the Blueprint goals, and the status quo density is given as at least 3 du/acre and also as 4.3 du/acre, both higher than 2.58 units/acre?** (The Climate Action Plan states, p. 51, that "TCAG has approved the 25% Density Increase Scenario as the preferred scenario for the County. . . . The Blueprint is expected to provide a significant part of the SB 375 regional targets reductions for Tulare County. SB 375 provides incentives that will help to ensure that the County implements the Blueprint scenario." However, Table 9 on CAP p. 51 shows the **status quo as 4.3 dwelling units per acre** and the **25% density increase scenario as 5.3 dwelling units per acre,** while in the paragraph below the Table, the "status quo **density of three dwelling units per acre** for single-family development" is cited.) **The GPU documents regarding the target densities should be made clear and consistent,** because the CAP and its results are dependent on reasonably accurate projections.

Does (or should) the County actually have different density targets for its diverse urbanizing areas? For example, the FEIR (p. 4-26) points out that constraints such as" a wastewater moratorium, slope percentage, grading, existing urban development floodway, biological, cultural and many other issues . . . limit the density of urban development" within Springville. **If density must be limited in Springville, then where will densities have to be higher in order to meet the targeted increase? The GPU documents must be revised** to clarify and reasonably address this important issue.

The FEIR should explain why the Tulare County Housing Element that was adopted in 2010 was "not certified by the State Department of Housing and Community Development" (p. 4-26). If "15,592 sites are available for residential units within the Urban Boundaries of the GP 2030 Update" (p. 4-27), does that include all of the communities, hamlets, and MSCs in the unincorporated county? **The GPU should show how the Units in Table 4-3 (p. 4-27) are distributed among the areas cited** (e.g., of the 977 units among the hamlets, how many units are in each of the different hamlets; how are the 9,133 Units apportioned among the communities with plans?). The figures presented on pp. 4-28 and 4-29 continue to use the residential density of 2.58 units per acre.

The Tables on these pages present various possibilities. **What's the plan and what's the likely environmental impact of the plan? It is the responsibility of the GPU to provide intelligent analysis of these opportunities and constraints, and to prepare a sound, coherent plan for the benefit of the County's current and future residents,** not to throw up a bunch of uncoordinated data and dodge the responsibility by saying that dealing with it would be only speculative, so the market will decide. The market has only short-term profit as its goal; it is the County's job to plan in the interest of its people and a sustainable future.

(To be continued.)

Peck Planning and Development, LLC
Planning Development Economics

Stephen Peck, AICP
President
1850 S. Maselli St.
Visalia, CA 93277
559 731-5778
stephen_peck@sbcglobal.net

November 9, 2011

Phil Cox, District 3 Supervisor
County of Tulare
2800 West Burrel Avenue
Visalia, CA 93291

Re: Inclusion of Travis Property (APNs 119-110-015, -016 and -017)
as Commercial in County General Plan Update.

We represent Bill Travis, owner of the subject property located at the southeast corner of Caldwell and SH 99.

Over the past 8 years the County has been working on its General Plan Update. A key element of that update is the inclusion of policies that will augment the County's finances, and provide for additional economic development. The County's' Growth Corridor policies clearly provide for the development of intersections that are regional in nature for non-agricultural uses. Other counties have capitalized on this approach to the benefit of their residents.

We are writing you to request that the subject property be included in the General Plan update for commercial development in conformance with those policies. Your policies call for the development of a "Corridor Plan" for these parcels, followed by Special Use Permit for individual properties. It would have been most beneficial if the actual sites were designated at this stage of the planning process because it makes it clear that this was an intended candidate site for the County's Corridor Growth policies. However, staff has indicated that changing general plan land use designations on individual properties will not be part of this update, and that the General Plan before you will only establish policies that will be used to evaluate development applications that may be submitted by individual property owners.

If the County chooses to not make land use designation changes to individual parcels at this time, it is suggested that the County at least adopt a graphic that accompanies the proposed Regional Growth Corridor policies so that is it clear which properties are intended for consideration. State General Plan Law requires that there be a Land Use Diagram as part of the County's Land Use Element. The California Attorney General (AG Opinions 83-804) has determined that this diagram must have enough specificity to illustrate the policies of the plan in a clear and unambiguous manner. This diagram does not have to follow the precise configuration of individual parcels, but it must at least follow or identify a finite, well-defined geographic area so that future decision makers and the public can properly interpret and implement the plan. Designating specific parcels for development consideration under the Growth Corridor policies fulfills that requirement of General Plan Law. The County should, therefore, as part of its General Plan adoption, adopt a diagram for Policy C-1.6 similar to the one shown in Figure 1 to meet this legal requirement. Adop-

tion of this diagram would not create new policy for the County, only clarify those policies that are proposed in the General Plan update.

We have noted in previous correspondence that the Caldwell and Highway 99 site that we represent meets most if not all of the County's criteria. The project site conforms to the Growth Corridor policies and the Work Plan/Implementation Measures contained in Section 2.2 of the Corridors Framework Plan in the following ways:

- Located within ¼ mile of a highway intersection
- Within 1/8 mile of an existing local road
- Qualification under the RVLP requirements under Policy C-1.6.
- Availability of infrastructure
- Absence of major frontage roads
- Separation criteria for uses (to be part of Special Use Permit)
- Demonstrable cohesive circulation plan
- Proximity of public safety services
- Perpendicular road (Caldwell) to the corridor
- Nodal concentration
- Quality development (as part of Special Use Permit)
- Special environmental review (as part of Special Use Permit)
- Fiscal review (as part of Special Use Permit)
- The Caldwell/99 intersection is slated for improvement in 2015 according to the General Plan.

Considering the importance of the development of these sites for the County and Tulare County's communities, we believe that the Land Use Diagram should be modified prior to adoption to show commercial development on this site.

Thank you for your consideration of this matter.

Sincerely,

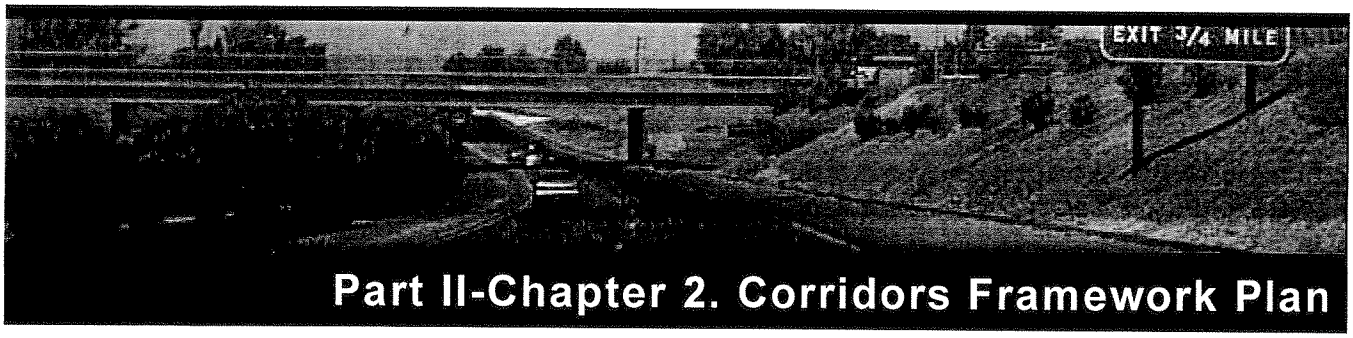
Stephen J. Peck, AICP

Xc: William Travis
Bob Dowds

Attachments: Figure 1:Regional Growth Opportunity Areas

Figure 1
Regional Growth Opportunity Areas





Part II-Chapter 2. Corridors Framework Plan

This chapter sets out area plan policies for development within corridors adjacent to transportation routes in the County. While many of the goals and policies of Part I of the General Plan are applicable to all regions, the policies contained in this chapter are specific to the County's corridors (see Figure 2-1: Corridors).

Corridors

The Corridors chapter provides guidance in the unincorporated portions of the County that are adjacent to transportation routes. There are three types of corridors: Regional Corridors, Urban Corridors and Scenic Corridors. This chapter provides framing policies for future corridor plans to be adopted. This chapter also provides for an interim policy for development of a Regional Corridor until a Plan is in place.

2.1 Corridor Policies

C-1 To provide an economically viable and balanced land use pattern along major transportation corridors in Tulare County *[New Goal].*

C-1.1 Corridor Plans – Defined
The County may adopt corridor plans for the corridor types and locations identified below:

- **Urban Corridors** along major transportation routes within urban boundaries, such as Mooney Boulevard,
- **Scenic Highway Corridors** along eligible State Highways, such as State Highways 190 198, and throughout the County,
- **Regional Growth Corridors**, along the major regional transportation arterials in the County, such as State Highways 99 and 65, and throughout the County *[New Policy].*

C-1.2 Urban Corridor Plans
The County shall support the development and adoption of urban corridor plans that include goals, policies, and implementation measures that encourage the development of commercial and industrial uses within an adopted UAB, UDB, or planned community *[New Policy].*

C-1.3 Scenic Corridor Protection Plans
The County shall support the development and adoption of scenic corridor protection plans that protect and enhance the scenic qualities of major transportation routes *[New Policy].*

C-1.4 Regional Growth Corridor Plans
The County shall support the development and adoption of regional growth corridor plans to maximize the economic development potential of areas located along major transportation routes for uses such as: intensive agricultural related industrial employers, major industrial employers, regional retail, office parks, and highway commercial *[New Policy].*

C-1.5 Agricultural Enterprises
The County shall support the development of agricultural enterprise zones along rural arterials in the County to encourage agriculturally related industries to cluster near transportation and shipping routes *[New Policy].*

C-1.6 Regional Growth Corridor Opportunity Areas – Interim Policy
Pending adoption of regional growth corridor plans, the County may approve highway oriented commercial, industrial, and mixed use development if all of the following criteria are met:

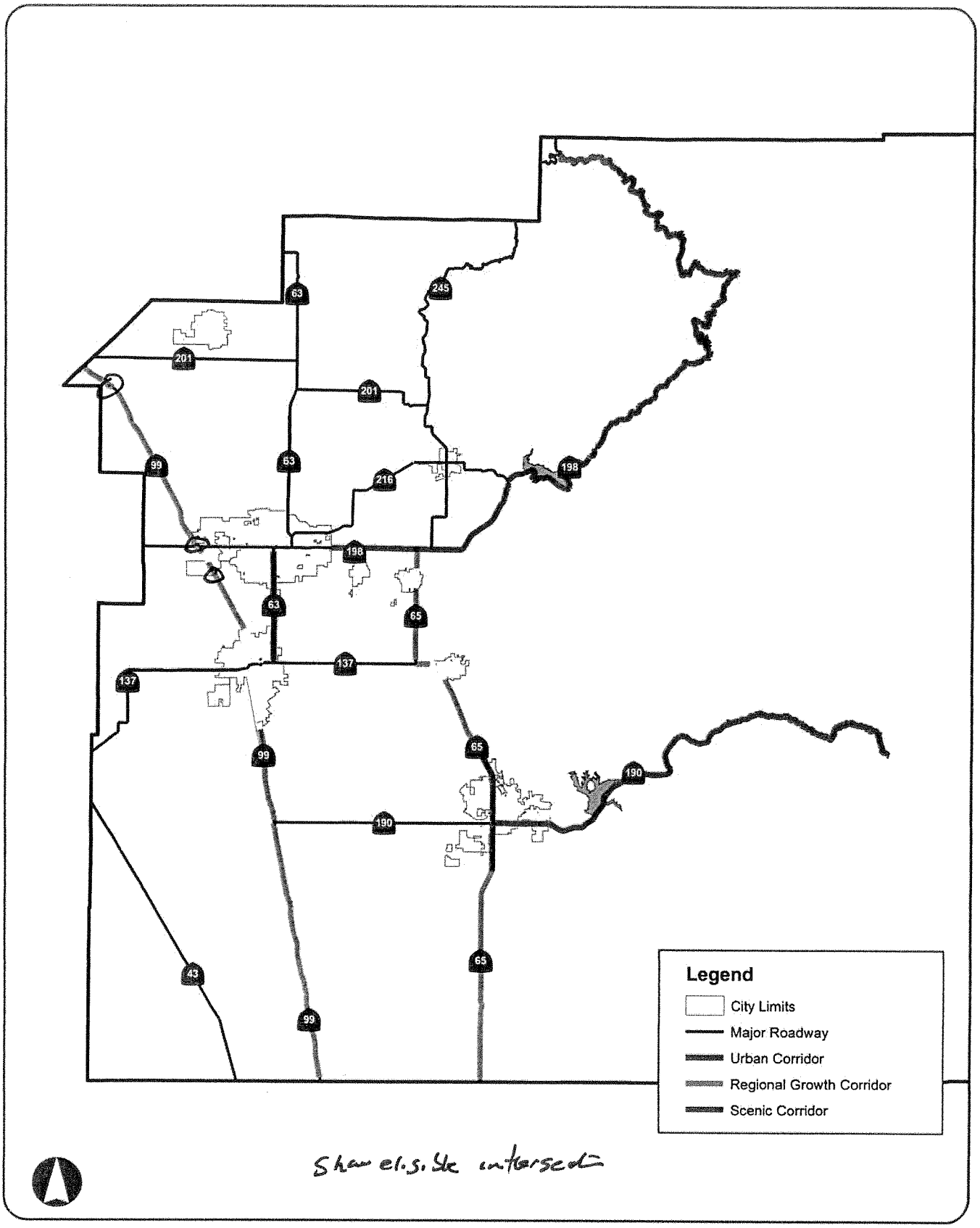
- The development runs along a major collector within one quarter mile of a rail stop or intersection (ingress/egress) of State Routes 65 and 99. The development must have access to a publicly maintained road and be located within 1/8 of the major collector mentioned above.
- More than 50% of the site has soils with an agricultural capability of Class III or lower,
- The Rural Valley Land Plan (RVLP) point evaluation, the property is determined to meet the values that would render the property "restricted to agriculture", and
- The property must not have been used for commercial agriculture for the last five years.

Impossible to meet.

This policy shall be applicable until such time as a regional growth corridor plan is adopted for those segments of State Highways 99 and 65 located outside an HDB, UDB, UAB, or planned community *[New Policy].*

C-1.7 Highway 99 Valley Corridor
The County shall support and participate in regional efforts to develop and implement corridor plans for State Highways 65 and 99. These plans shall incorporate an appropriate strategy for maximizing industrial, commercial, and tourism opportunities *[New Policy].*

C-1.8 Commercial and Industrial Highway Growth
The County shall encourage commercial and industrial growth to locate within, HDBs, and designated regional growth corridors along State Highways 65 and 99 *[New Policy added per Board of Supervisors November 2005].*



Corridors | **Part II: Figure 2-1**

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2.2 Work Plan/Implementation Measures

The following table documents the Implementation Measures included with the General Plan to implement the goals and policies included in this Chapter.

Implementation	Implements what Policy	Who is Responsible	2010-2015	2015-2020	2020-2030	On-Going
1. The County shall establish a committee of community residents, businesses, TCAG, and County staff to develop corridor plans, including phasing and financing measures that is coordinated with valley-wide efforts by Caltrans and the Great Valley Center *[New Program]*.	C-1.2 C-1.7 C-1.8	RMA	■			
2. When preparing regional growth corridor plans or an interim development proposal in accordance with Policy-1.6: Regional Growth Corridors Opportunity Areas-Interim Policy, the following shall be considered and addressed: ▪ Corridors may be identified as part of existing community plans or be qualified exceptions to the RVLP, ▪ Urban separators between communities will be maintained, ▪ Corridors shall be located at or near highway interchanges that meet specified criteria. These criteria could be met with new investment, ▪ A Special Use Permit would be required, ▪ Address any infrastructure that is lacking in a corridor area, ▪ Prohibit new frontage roads, like the Golden State Highway in Fresno, within half a mile of freeways, ▪ Establish separation criteria for appropriate spacing of gas stations and other uses at commercial interchanges, ▪ Provide a circulation plan demonstrating arterial road access, a cohesive and integrated access road network, and the potential for future transit service, ▪ Ensure reasonable proximity to police and fire protection, ▪ Corridors will run perpendicular, not parallel to the adjacent	C-1.4 C-1.6	RMA	■			

Implementation	Implements what Policy	Who is Responsible	2010-2015	2015-2020	2020-2030	On-Going
highway, ▪ Maintain nodal concentrations as part of existing communities and include open space and agriculture community separators, ▪ Build on valley-wide efforts by Caltrans and the Great Valley Center, ▪ Implement best management practices for highway oriented development, ▪ Ensure quality development, ▪ Ensure that business frontages are showing; not backyard storage areas, and ▪ Develop outdoor storage and landscaping requirements *[New Program by BOS 08/08/06].*						
3. A proposal submitted under C-1.6: Regional Growth Corridor Opportunity Areas – Interim Policy, may be submitted in the form of an application for a specific plan, change of zone, use permit, tentative subdivision map, or the necessary entitlement for use. The proposal should be subject to appropriate environmental and fiscal review; and before making a decision on the proposal, the County should solicit and consider the input of any affected public entities *[New Program].*	C-1.6	County				■


Orosi
Kingsburg
Riverland
Traver
Ave 328/Hwy 99
Rd 124
Ivanhoe Dr
Visalia
Lacey Blvd
198
Hwy 99/198
216
Caldwell/99
Exeter
99
Tagus
N Mooney Blvd
Tulare
137
Ave 228
W Inyo Ave
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Image © 2011 GeoEye
Google earth


Orosi
Kingsburg
Riverland
Traver
Ave 328/Hwy 99
Rd 124
Ivanhoe Dr
Visalia
Lacey Blvd
193
Hwy 99/198
216
Caldwell/99
Exeter
99
Tagus
N Mooney Blvd
Tulare
137
Ave 228
W Inyo Ave
© 2011 Google
Image © 2011 GeoEye
Google earth

From: River Ridge Ranch <info@river-ridge.net>
To: "MCFlores@co.tulare.ca.us" <MCFlores@co.tulare.ca.us>
Date: 11/12/2011 5:43 PM
Subject: GP

I urge the PC to vote in favor of a strong general plan that supports infill in existing cities, downtown redevelopment incentives for builders and limits growth in our rural, open space, large parcel areas and along our rivers. Thank you.
Gary Adest

www.river-ridge.net
(559) 539-0207
Sent from my iPad

From: "Jean Mayer" <jmmayer@theworks.com>
To: <MCFlores@co.tulare.ca.us>
Date: 11/13/2011 12:48 AM
Subject: General Plan Hearing

I can not be at the General Plan hearing Nov. 16th, but wish to express my feelings.

I support a strong, clear General Plan and the Healthy Growth Alternative proposed by TCCRG.

I urge you to support it also.

Sincerely,

Jean Mayer
43888 North Fork Drive,PO Box 12, Kaweah, CA 93237

From: gerald gregg <gmgregg@sbcglobal.net>
To: <MCFlores@co.tulare.ca.us>
Date: 11/13/2011 12:45 PM
Subject: Submission of Draft General Plan Comment

I am submitting a comment for Wed. Nov 16th's meeting on the Draft General Plan. I am a 22 year resident of Three Rivers. I support quality of life. That's what will make our county strong and prosperous over the next decades. That means clean air, a good water supply, preservation of agricultural land, a commitment to open space lands, and growth centered in existing communities rather than new towns or highway corridor areas.

Mignon Gregg

From: Mona <snowmoon@snowcrest.net>
To: <MCFlores@co.tulare.ca.us>
Date: 11/13/2011 9:14 PM
Subject: Comment, Planning Commission Hearing

Planning Commission of Tulare County

Dear Sirs:

Please do not sell the present population of Tulare County as well as future generations out for the benefit of a few who stand to profit by sprawling development. Please stand up for a strong, clear General Plan and the Healthy Growth Alternative proposed by TCCRG. Future generations will remember and thank you for it.

Sincerely,

Mona Fox Selph

Concerned Citizen of Tulare County

From: "S. Bullene" <sbullene@sbcglobal.net>
To: <MCFlores@co.tulare.ca.us>
Date: 11/13/2011 11:29 AM
Subject: Healthy Growth

We support the Healthy Growth Alternative.

Dan and Sharon Bullene

--
Sharon
Sequoia River Dance Bed & Breakfast
www.SequoiaRiverDance.com <http://www.sequoiariverdance.com/>
559-561-4411

From: Maria Flores
To: Planning Commission
CC: Bryant, David
Date: 11/14/2011 10:07 AM
Subject: Fwd: Tulare County General Plan and Health Growth Alternative

>>> <kaweah93271@sbcglobal.net> 11/14/2011 10:04 AM >>>
Dear Tulare County Planning Commission,

I support a strong, clear General Plan and the Healthy Growth Alternative proposed by the Tulare County Citizens for Responsible Growth; I urge you to support it, too. The health of our environment is critical to the well-being of local communities, human health, and economic health. Please support the well-researched alternative that TCCRG has proposed. The General Plan needs to be sustainable for the long-term, not just for the next 2 or 3 years.

Thank you for your consideration.

Sincerely,
Linda Mutch
43554 Skyline Drive
Three Rivers, CA 93271

SOUTHERN SIERRA
ARCHAEOLOGICAL
SOCIETY

P.O. BOX 1973 • VISALIA, CA 93279



November 14, 2011

Tulare County Resource Management Agency
David Bryant, Project Planner
Government Plaza
59561 South Mooney Boulevard
Visalia, CA 933277

RE: Tulare Co. General Plan Draft FEIR, September, 2011
Response to the Recirculated DEIR

The intent of CEQA is that every citizen has a responsibility to contribute to the preservation and enhancement of the environment [CEQA § 21000 (e)]. By replying to the General Plan, we are fulfilling our civic obligations.

The foundation of CEQA rests upon informed decision-making. To be informed, Tulare County citizens need facts presented in a clear, logical format. We found much of the information in the DEIR difficult to follow. According to CEQA, the facts must be presented is a way that a citizen can understand. [CEQA § 21003 (e)]. This document does not meet that requirement.

The reason our organization is writing this letter is to ensure that Tulare County fulfills following CEQA objective: Take all action necessary to provide the people of this state with clean air and water, enjoyment of aesthetic, natural, scenic, and historic environmental qualities... [CEQA § 21001 (b)]. This objective is not fulfilled in the present DEIR.

Our organization has submitted written comments through the years of Tulare County's General Plan process. Our Society researched General Plans throughout the state for effective policies for cultural resources that occur in other county's

General Plans. We incorporated these policies into our response. Several policies we suggested are included in the current DEIR and our archaeological society members appreciate seeing these additions [I22-14, 16].

However, we got the same non-response on a number of policies that are accepted in General Plans throughout the state. For example: "County staff **shall consider** such recommendations and implement them where they are feasible in light of project design... [ES-11]. When other California Counties have adequate protection for cultural resources, why is Tulare County unable to do so? The County Supervisors have abdicated their responsibility to make policy throughout the DEIR. CEQA requires governmental agencies at all levels to develop standards and procedures necessary to protect environmental quality [CEQA § 21001 (f)].

For Impact ERM-14 the conclusion is that "impact to historical resources would still result in a significant and unavoidable impact. No additional feasible mitigation is currently available." This is not a valid conclusion under CEQA, which requires that an EIR identify, and decision-makers adopt, all feasible mitigation measures that would reduce or avoid a project's significant impacts. [CEQA § 21002; CEQA Guidelines §15091 (a)(3)] The agency must comply with this requirement even if the mitigation would not reduce the impact to a less than significant level, as long as the measure would have some mitigating effect. A fundamental purpose of the EIR is to identify appropriate mitigation measures. [Public Resource Code §210021.1(a)]. Mitigation measures must not be remote or speculative. [Federation of Hillside & Canyon Ass'n v. City of Los Angeles (2000) 83 cal.App.4th 1251,1260]. A mitigation measure is legally inadequate if it is so undefined that it is impossible to gauge its effectiveness. [San Franciscans for Reasonable Growth v. city and County of San Francisco (1948) 151 Cal CA.App.3rd 61, 79]. These defects need to be corrected on the current document.

We find the DEIR lacking in appropriate mitigation measures. The range of mitigation measures as written is clearly inadequate. CEQA requires that the range of the alternatives include sufficient information about each alternative to allow evaluation and comparison of alternatives to the Project [CEQU Guideline 15126.6(d)]. Moreover, the range of alternatives must be sufficiently varied to foster informed-decision-making and public participation [CEQA Guidelines § CEQA Guideline 16126.6(a)-(f); Mann v. Community Redev. Agency (1991) 233 Cal.App.3d 1143, 1151].

In addition: the Tulare County Historic Site Board, an advisory body that provides recommendations to decision makers regarding archaeological and historic cultural resources was removed from the General Plan draft (July 2007). Not only is this a step backward, but it precludes professional and avocational citizens from providing our county with a valuable service [CEQA § 21000 (e)]. The inclusion of the

Certified Local Government (CLG) Program, would be an appropriate mitigation measure, which this GEIR is sadly lacking.

CEQA requires that governmental agencies create and maintain conditions under which man and nature can exist in productive harmony to fulfill the social and economic requirements of present and future generations [CEQA 21001 (e)]. Furthermore, it asks us to develop and maintain a high-quality environment now and in the future, and take all action necessary to protect, rehabilitate, and enhance the environmental quality of the state[CEQA 21001 (a)]. It is clear that this General Plan promotes development to the detriment of Tulare County's environment and cultural resources.

Sincerely,

Sylvie Robillard, Vice President

Mary A. Gorden, Education Chair

From: Maria Flores
To: Planning Commission
CC: Bryant, David; Chuck Przybylski; Dong, Henry
Date: 11/15/2011 1:23 PM
Subject: Fwd: GP comment

>>> Mehmet McMillan <mehmet@wildplaces.net> 11/15/2011 1:21 PM >>>
To Commission:

I support the environmentally superior Healthy Growth Alternative proposed by TCCRG; I urge you to support it as well. Please work to improve longterm conditions in TC (as other counties have done) by recommending General Plan changes that protect rural lands from uncontrolled development.

--
Mehmet McMillan
35625 Hwy. 190 suite 203
Springville, CA 93265
M: 760.447.1702
www.wildplaces.net
www.burmamission.org

From: Maria Flores
To: Planning Commission
CC: Bryant, David; Chuck Przybylski; Dong, Henry
Date: 11/15/2011 11:59 AM
Subject: Fwd: General plan

>>> Bruce Watts <bwatts@lindsay.k12.ca.us> 11/15/2011 11:58 AM >>>
Dear Planning Commission Members: I support a strong, clear General Plan and the Healthy Growth Alternative proposed by TCCRG. Please support this plan. I've spent countless hours in Yokohl Valley and it is one of the last havens for wildlife in our foothill area. We don't need another town or city. Thanks. Bruce Watts

From: Maria Flores
To: Planning Commission
CC: Bryant, David; Chuck Przybylski; Dong, Henry
Date: 11/15/2011 4:32 PM
Subject: Fwd: Tulare County Draft General Plan update

>>> Sue Winters <suewinters9@gmail.com> 11/15/2011 4:31 PM >>>
Dear Ms. Flores,

I understand there is a hearing tomorrow morning regarding the GPU and I am not able to attend. I'm writing to communicate my concerns. I am a resident of Three Rivers.

- 90% of future growth should be directed to existing communities.
- Responsible "smart" growth principles should be endorsed.
- The General Plan should be revised to preclude consideration of the development of any "New Towns" or highway "Corridor Areas" unless and until our existing urbanizing areas have been developed to the fullest extent possible within their existing boundaries.
- Development should be required to be highly resource-efficient.
- Mitigation for avoidable loss of agricultural and open space land should be mandatory at a minimum 1:1 ratio.
- The EIR should be revised to include a true Healthy Growth Alternative, incorporating all of the principles proposed by Tulare County Citizens for Responsible Growth.
- Tulare County should adopt and implement the true Healthy Growth Alternative and the principles of responsible growth.

Thank you for your consideration of these points.
Sincerely,
Sue Winters

From: "Laurie Schwaller" <lschwaller1@wildblue.net>
To: "Tulare County Planning Commission" <MCFlores@co.tulare.ca.us>
CC: "'David Bryant'" <DPBryant@co.tulare.ca.us>
Date: 11/15/2011 5:21 PM
Subject: Comments on Proposed Tulare County GPU, FEIR, CAP from Greg and Laurie Schwaller per PC Public Hearing
Attachments: GPU FEIR cover letter to PC re FEIR MR 6-11 111511.doc; GPU FEIR COMMENTS to PC 111111 second half.doc

Hello, Maria -

Could you please distribute this cover letter and these comments to the Commissioners?

Thank you!

See you tomorrow.

Please let us know when you receive this email (we are copying Dave Bryant also).

--Laurie and Greg

561-0111

Hi, Dave -

Please let us know when you receive this email. Don't be working too late again!

--Laurie and Greg

November 15, 2011

Tulare County Planning Commission

Nancy Pitigliano; Bill Whitlatch; Wayne Millies, Chair; Melvin Gong; John Elliott; Ed Dias; Charlie Norman; Gil Aguilar; Doug Silveria; Jack Ritchie

5961 S. Mooney Blvd.
Visalia, CA 93277-9394

Dear Planning Commissioners:

Thank you again for continuing the public hearing on the Tulare County General Plan 2030 Update, proposed Final Environmental Impact Report, and proposed Climate Action Plan, to November 16, 2011. We spoke to you on October 19 and emailed you written comments on the proposed Climate Action Plan on October 27 and on the FEIR and its first five Master Responses on November 7.

Now we are emailing you our further comments on the GPU, focusing on the rest of the FEIR's Master Responses.

It seems to us that the County has erred in the GPU process, and has not served well its current and future residents, by refusing to address, or to address adequately, the numerous policy concerns raised by the commenters throughout the public comment periods.

Despite numerous and repeated requests, the County has far too often failed to provide information, clarification, explanation, or justification. The reasons for and relative benefits of many of the policies and policy directions in the GPU documents continue to be absent or unclear, as the County has persisted in either ignoring the requests or asserting that it doesn't have to deal with those issues (most recently in the proposed FEIR).

Instead, it is now referring all these comments to "the County decision-makers." We hope that the County decision-makers will address them comprehensively and responsibly before moving to adopt the proposed plan.

These consistent and pervasive concerns must be satisfactorily addressed not only because that is the right and necessary course, but also to avert legal action against the GPU. The citizens and taxpayers of Tulare County, not to mention its overtaxed staff, certainly do not deserve to have the expense and

effort of litigation imposed upon them when these could be averted by thorough and responsive action on the part of our decision-makers.

Thank you for your work on behalf of an improved and successful General Plan Update.

Sincerely,

Greg and Laurie Schwaller
43857 South Fork Dr.
Three Rivers, CA 93271
559-561-0111

GPU FEIR COMMENTS TO PC 111111 second half

MASTER RESPONSE #6: Water Supply Evaluation Assumptions and Methodology (FEIR, p. 4-29 ff)

Again in this Master Response, the County erroneously and irresponsibly **asserts that the "program level" view from 30,000 feet is sufficient,** rather than developing and applying the information regarding water availability and quality for the areas where it proposes that development will actually occur and planning on that basis for type and density of growth in the county's diverse urbanizing areas and evaluating and mitigating for the environmental impacts of that well-researched actual plan.

On p. 4-30, the FEIR asserts that "**over 95% of the land use changes proposed** for both the Rural Valley Lands and Foothill Growth Management Areas anticipated by the proposed project would likely occur in proximity to existing urban areas of the County, **where current irrigated agriculture exists**." Up pops that 800 pound gorilla, the proposed **Yokohl Ranch "New Town"** development, designed to put 30,000 people, three golf courses, extensive landscaping, and lots of commercial development on **thousands of acres of land in the Foothill Growth Management Plan area that is virtually 100% NOT irrigated**. The **FEIR cannot legitimately exclude consideration of the water needs and water supply impacts of such "New Towns,"** when the Board of Supervisors has consistently voted 5-0 to pave the way for this one.

The Supervisors have stated that "New Towns" should be located in the foothills, to keep development off our prime agricultural land (but the Yokohl Ranch project would certainly not accomplish that objective, since its target markets are primarily people living in wealthy areas outside the Central Valley; these people would not likely be considering a move to Tulare County to live on its prime agricultural land: they would be considering moving to Tulare County only because they are being induced to by the Yokohl Ranch marketing effort. This is a growth-inducing project, not in any way a solution to Tulare County's housing needs nor a wise use of our resources).

The FEIR must be revised to provide full disclosure of the likely impacts of "New Town" and "Corridor" development on water supply and quality (not to mention air quality and energy use, with all that extra pumping) and what mitigation will be required. The proposed population (30,000) for just the single "New Town" of Yokohl Ranch is well over ten times the growth that occurred in the unincorporated county from 2000-2010. **With already the greatest groundwater overdraft in the State, how can Tulare County afford to host such water-hungry, growth-inducing development?**

While it never discloses where it intends to permit "New Towns" to be developed, the example of the proposed Yokohl Ranch makes it clear that **the County cannot honestly say that "the land-use changes contemplated by the proposed project essentially had the same, if not slightly reduced, potential future demand for water resources as that of the existing land uses"** (FEIR, p. 4-30), **since it is surely dishonest and very misleading to exclude** from the project contemplation of land-use changes such as those that would be brought about by the development of Yokohl Ranch and similar "New Towns" on land that is not being used for irrigated agriculture.

The FEIR states that the WSE (Water Supply Evaluation) analysis selected three past years' water budgets to determine "**'average' water supply and demand conditions** for the Tulare Lake Hydrologic

Region." It points out that the WSE "is **not intended to serve as a detailed, community-by-community assessment** of the sufficiency of water supplies" (FEIR, p. 4-30), and that the RDEIR, as a Program EIR, assesses **only "the broad environmental impacts** of the program" to "reasonably evaluate the implications of the contemplated land-use changes" (p. 4-31). But **a community by community assessment of the sufficiency and quality of water supplies is essential if the County is to effectively guide growth to where it is desired and can be accommodated.** The Background Report indicates that many of the county's urbanizing areas have severe problems with water supply, water quality, and/or wastewater treatment and disposal. As the County points out so often, **the existing communities, into which it asserts it will focus development, are very diverse in their geography, hydrology, and capacities**. The 30,000 foot view is certainly important, but "**average" does not apply when guiding growth among such varied communities**.

Additionally, the County's 30,000 foot view looks only at "water budgets" of the past. Clearly**, the GPU must look to the future as well**. As our groundwater declines, water quality declines, massive overdrafting continues, global climate change impacts snowpack and snowmelt, our imported water supply is reduced, and the increasing commoditization of water leads to more exports from Tulare County, our water budget of the future looks increasingly constrained, and it appears that **the GPU should be revised to reduce the rate of withdrawal and try to put more back into the savings account**. For example, mandatory water metering with tiered rates based on usage, strict watering controls, mandatory water-efficient appliances and plumbing for new development and remodels and resales, mandatory purple pipe in new construction, public landscaping and all streetscaping and even golf courses that must incorporate mostly native and xeriscape vegetation should be required in the GPU.

Most of the **development in our county takes place in the valley, which is just an inch away from being a true desert i**n terms of precipitation. That means that **Tulare County should adopt water measures more stringent than those recommended or required by the State.** Strong, enforceable policies to adequately protect and buffer riparian areas, floodplains, wetlands and other areas important to groundwater recharge and natural water filtration should be included and implemented promptly and without loopholes. At the same time, it is essential that the **cumulative impacts** on water supply and quality of development and the establishment and maintenance of new wells be scrupulously monitored, recorded, compiled, and evaluated to ensure that comprehensive and up-to-date **information** about our dwindling water supply is available.

By far our major water consumer is **agriculture,** and the GPU should be revised to promote conservation and better practices there as well. For example, if homeowners can be required to water their lawns only after 6:00 or 8:00 p.m. and before 8:00 a.m., farmers and ranchers could be required to restrict aerial irrigation to the same resource-efficient schedule. Rainbirds should not be running during the hottest part of the day, when high percentages of the water are lost to evaporation. By far the cheapest source of water is conservation. We are clearly on an unsustainable course in terms of water supply, and the **GPU should be revised to ensure** that timely, specific, and effective course corrections are made. Far too many of the policies and implementation measures in the Water Resources Element (GPR, Part I, p. 11-1 ff) are **still too vague and weak** to be effective, enforceable, and measurable

("cooperate," "support," "encourage," "discourage," "take an active role in cooperating," "should be prevented," "will research the development of," "should be evaluated," "shall consider," etc.).

MASTER RESPONSE #7: General Plan Implementation Measures (FEIR, p. 4-33 ff)

The pervasive weakness and ineffectiveness of the GPU's Implementation Measures (IMs) vitiate the whole plan, including the CAP. **We have already discussed the IMs throughout our comments to date, because the IMs affect the viability of every other part of the plan,** so we will only briefly address the issues again here. Please recall also the earlier discussion of "shall" and "should" ("shall" being mandatory: "obligation or command"; and "should" being iffy: "showing obligation or duty, *often with doubtful fulfillment*"). The FEIR states (p. 4-33) that the **IMs constitute a "work plan," a "*specific* action, program, procedure, or technique"** to "help ***ensure* that appropriate actions are taken** to implement the General Plan 2030 Update." IMs "describe **actions that are *measurable* so their completion can be *easily monitored* in annual reports**" (GPR, p 1-11).

But **consider, for example**, ERM Implementation Measure #48 (GPR, Part I, p. 8-32: "The County *should consider* other tools in addition to the continued implementation of the Williamson Act program as part of its open space and protection program, such as transfer of development rights." The timeline for implementation is shown as "ongoing." This IM is, by the County's definition, supposed to be a specific, measurable, easily monitored action to help ensure implementation of policy ERM-5.15—Open Space Preservation (GPR, p. 8-17). If you were a farmer or rancher, concerned because the Williamson Act is threatened, would this IM assure you that the County is committing itself to develop and implement an alternate program within a reasonable time period? How could you measure or monitor "should consider?" If it's "ongoing," should it have happened already? **Where's the specific work plan and where's the accountability?**

How about ERM IM #50 (GPR, Part I, p. 8-32): "The County *should establish* and maintain a Historic Site Preservation Committee." If you were a citizen concerned about preserving some of the historic landmarks of our county, would this IM enable you to count on having this committee functioning by 2015?

Or ERM IM #46 (GPR, Part I, p. 8-31): "Tulare County *should initiate* the development of a park master plan to cover facilities needed to serve the unincorporated communities, hamlets, and regional park needs in the County. Emphasis *should be given* to classifying and quantifying the present and future needs of all socio-economic groups and visitors, with special emphasis on deficiencies in recreation for low-income residents. An inventory of potential park and recreation areas *should be made* and a program of priorities established with proposed methods of financing" (also slated for 2010-2015). Certainly the County "should" develop a park master plan; it "should" have done so long ago. (Community input should be a key step in the development of the plan, too, but that's not mentioned.)

If you lived in a hamlet with no park or playground for your family to exercise in, would you feel able to rely on this IM to get a plan in place for your hamlet by 2015?

Or ERM IM #11 (GPR, Part I, p. 8-23): "The County shall continue efforts to maintain and enlarge wetland preserves"; does this provide a specific, measurable work plan? What efforts? What are the "appropriate actions" the County will take? What are the "measurable" goals (e.g., percentage of acreage of enlargement, types or locations of wetland preserves, increased wildlife population counts, etc.)?

Or consider policy ERM-1.14—Mitigation and Conservation Banking Program (GPR, Part I, p. 8-10), which says, "*The County shall support the establishment and administration of a mitigation banking program*, including working . . . to evaluate and identify appropriate lands for protection and recovery of threatened and endangered species impacted during the land development process." Sounds great; sounds as if we're going to protect some land so that some of our fellow creatures may still have a place to live. We turn to the IMs to learn about the specific, measurable work plan that will ensure that appropriate actions are taken to implement this policy. But ERM IM #8 (GPR, Part I, p. 8-23), far from fulfilling this expectation, instead casts doubt on the whole idea of the policy and makes it sound as if the County is instead looking for reasons not to implement it: "*If feasible and needed*, the County shall develop and administer a mitigation banking program in conjunction with TCAG and other stake holders." If I were a threatened or endangered species, I wouldn't be banking on this implementation measure to keep a bit of home safe for me.

HS IM #25 (GPR, Part I, p. 10-21) says the County "*is to consider* the preparation of a Healthy Communities Element in the General Plan" in 2015-2020. Given Tulare County residents' high percentage of obesity, asthma, and diabetes, a Healthy Communities Element certainly would have been a desirable feature of the current GPU. An implementation measure like this gives us little hope that the County will actually "support healthy lifestyles among residents of Tulare County through the built environment and land use decisions that play an important role in shaping the pattern of community development, in either promoting or discouraging good health for its citizens" (GPR, HS-9, p. 10-15) during the GPU's time horizon.

Not only are the IMs already far too often too vague and weak to be measured, monitored, or relied on to carry out specific planned work in a specified timeframe, but **they also "will need to" be prioritized and their timing "may be adjusted over time" (FEIR, p. 4-33), further reducing accountability and any positive effect as mitigation measures.**

Having asked already in every round of comments, **we will ask again that all the GPU documents' policies be individually labeled to show whether they are Framing Policies, Consistency Standard Policies, County Directory Policies, or Environmental Mitigation Policies (FEIR, pp. 4-33 – 4-34) so that readers and interpreters of the GPU documents may better understand how any given policy is supposed to function**.

Limited staff, time, money, and other resources will always constrain what can be done to implement worthwhile policies to achieve important goals. **This makes it even more important for the GPU to be**

as clear, consistent, and enforceable as possible, so that staff, citizens, developers, agriculturalists, realtors, builders, water resources managers, and others concerned with land use and development in Tulare County can readily understand the intent and direction of the plan and conform to it in the public interest.

MASTER RESPONSE #8: Foothill Growth Management Plan (FEIR, p. 4-34 ff)

The FEIR states that commenters "expressed confusion" (p. 4-34) about the changes made to the Foothill Growth Management Plan (FGMP) and how those changes may affect growth in the area. We, as commenters on the FGMP in every round (and residents of the foothills), were actually outraged, as well as confused, since the County, in the person of George Finney, specifically promised that the FGMP would not be changed as a result of the GPU. But **the County has not kept its promise**, and it has changed the FGMP in numerous significant ways that have indeed made it confusing**: the FGMP has been extensively reorganized and renumbered (in both the 2008 GPU and further in the 2010 GPU) for no apparent reason except to confuse**.

The FGMP has also been gutted by the new Planned Community Area (PCA, or "New Town," or "new self sustaining community") provision, resulting from the J.G. Boswell Company-written Planned Community Zone Ordinance, which is evidently going to enable developers to ignore the areas that were deemed suitable for development under the original FGMP and instead develop anywhere they can get the County to re-zone Foothill Agriculture land into a PCA. **The GPU should be revised to explain** very specifically why the County would renege on its **promise to "carry the FGMP forward unchanged**, except for deletion of the obsolete sections" (per the GPU Matrix, p. 294).

This explanation should include specific analysis of impacts on opportunities for our existing unincorporated communities to grow or improve quality of life and economic viability, on promoting reinvestment in existing unincorporated communities, on protecting the county's agricultural resources (which should certainly include extensive agriculture, or grazing) and scenic natural lands from urban encroachment, and on strictly limiting rural residential development to avoid rural residential sprawl (FEIR, p. ES-8).

It should also include specific analysis of how the addition of PCAs ("New Towns") will affect the achievement of the objectives to "protect the fragile environment and preserve important agricultural land" in the foothills, "maintain the agricultural viability of the foothills," and "accommodate . . . growth in the areas serviceable by the State and/or County agencies in a manner which is cost efficient, safe, and consistent with the environmental constraints" (GPR, Part II, p. 3-2), and, of course, the environmental impacts of major development (such as the proposed 10,000-house Yokohl Ranch development) in our fragile and largely un-urbanized foothills. **Now is the time for the GPU documents to consider these impacts**, looking at our foothills as a whole, as the original FGMP did; the County should not allow individual requests for PCAs to be considered piecemeal, one by one, over time, but must consider at the outset the cumulative impacts **of opening the door to this type of irremediable major development in this critical environment**.

The GPU should be revised to prohibit the development of "New Towns" (AKA PCAs, planned communities, etc.) and Corridor Areas, at least unless and until the development opportunities within our existing development boundaries have been exhausted. The original FGMP should be restored in the GPR; the only changes that should be made to the original, other than to delete obsolete sections (e.g., Springville has now adopted a community plan), would be changes that would further strengthen its goals, policies, and implementation measures in order to better protect our fragile and valuable foothills from unnecessary and inappropriate development. As irreplaceable watersheds, viewsheds, habitat, agricultural (mostly extensive agriculture) and open space lands, recreational areas, world-class Native American sites, scenic landscapes, historic and beautiful scenic routes, timberlands, sustainable tourist attractions, oak and sycamore alluvial woodlands, areas providing carbon sequestration and groundwater recharge, and sources of physical and spiritual renewal (among other values), our foothills are a vital resource to the health, economy, and beauty of Tulare County. And they should continue to be so for generations to come.

The RDEIR should be revised to provide a clear, quantified description and depiction of the direct and indirect impacts of development in the Development Corridors and PCAs. The proposed Yokohl Ranch development (10,000 houses, 30,000 people, golf courses, resort, large commercial area, many new roads, wastewater treatment plant, dam, reservoir, new utility corridors, new water conveyance structures, etc.), for example, is not located (except for a tiny piece) in a foothill development corridor.

The **RDEIR must provide non-generic, FGMP area-specific qualitative and quantitative analysis of impacts, including cumulative impacts, of the proposed project**. The foothill area of the project differs substantially in many respects from the valley area of the project (slopes, drainages, wildlife, wildfire, wildland interface, running rivers, water supply, recreational opportunities, road types, etc.) and so **requires analysis based on its own characteristics** and how they affect and would be affected by the proposed project.

For example, in what areas and to what degree will the proposed project impact the existing visual identity and character of the FGMP area, which is one of the most scenic in the County? How many acres of agricultural lands will be urbanized under the proposed project in this area? How many additional VMTs will likely be generated, and what will be the impacts on air quality, including scenic vistas? What wildlife species, habitat areas, and migration areas will be impacted? How many acres and where? In what areas will the project impact how many known or likely cultural resource acres? How many acres of critical riparian areas and woodland will be impacted, and in what areas? Existing foothill communities and individual properties are experiencing significant problems with water supply and quality and with wastewater disposal; how will the proposed project impact these issues, including loss of groundwater recharge areas?

The RDEIR must also thoroughly discuss the direct, indirect, and cumulative impacts of permitting development outside of the FGMP's designated development corridors. Traffic and transportation impacts must be discussed and analyzed with the same thoroughness, especially quantifying the fiscal impact to the County of improving and maintaining foothill roads under the quantified proposed increases in traffic.

It must also specifically **assess the FGMP area project's impacts on global climate change, and the impacts of global climate change on the project, and discuss how the proposed project in the FGMP area will further Tulare County's compliance with the requirements of AB32**. Discussion of excessive VMTs, loss of large-canopy trees

and forest areas, loss of carbon sequestration capability, quantification of additional acres of impermeable hardscape, etc. must be addressed in this evaluation.

The RDEIR must also qualitatively and quantitatively assess the adequacy and efficacy of the project's policies and mitigation and implementation measures as remedies to the adverse impacts described. It begs the question to simply describe all the impacts as "significant and unavoidable" without making an honest effort to relate to them the effects of the project's proposed remedies and to determine whether they should be strengthened or added to.

For adequate baseline and project impact analysis, the GPU must specifically describe and map the current conditions in the Foothill Area, including specifics on Development Corridors, such as their current and proposed (if different) acreage, their current and proposed populations, their current and proposed land usages, their current infrastructure (e.g., water and sewer systems, police and fire protection, etc.), the development corridors' major riparian areas designated as open space, the corridors' identified wildlife habitats, the corridors' sensitive wildlife areas designated as open space, the current and projected availability and quality (e.g., radon, nitrates) of water, etc.

The RDEIR (p. 3.1-9) states that the existing FGMP Development Corridors comprise 86,138 acres already. That's enough land to potentially accommodate hundreds of thousands of people. But we don't need to use even those lands (currently largely undeveloped) to accommodate all the growth projected through the GPU horizon, all of which can be easily accommodated within the development boundaries of our existing communities; **much less do we have any need to leapfrog even beyond those already designated corridors into areas far less suitable for extensive development such as PCAs ("New Towns").**

The fourth paragraph of the GPU FGMP (Part II) p. 3.3 includes a statement from the original FGMP: "**It is the policy of the FGMP to strengthen the community identities of Springville, Lemon Cove, and Three Rivers**." Therefore, the FGMP directed retail commercial development to these existing foothill communities. The "new" FGMP now knocks out that policy by stating that retail commercial will be directed to these communities "and new planned communities ["New Towns"] rather than areas outside these communities." Clearly, "**new planned communities" (AKA PCAs, New Towns, etc.) will have a detrimental effect on the economies of our existing communities** if retail commercial development is directed to the new communities instead. **Why is the GPU promoting such "new communities" at the expense of our existing communities? The GPU documents should be revised** to clearly explain this.

Likewise, the GPU FGMP (Part II) p. 3-4 states that "the final step of the review procedure is to meet the development standards outlined in Section 3.12 of this Chapter *or for planned communities those standards established through the project approval process."* **The GPU FGMP should be revised to require "planned communities"** (AKA "New Towns," PCAs, etc.) **to meet the development standards of the FGMP as a minimum**, and then require them to meet any additional standards established through the project approval process as well.

The GPU FGMP (Part II) p. 3-5 states that the "FGMP attempts to direct . . . growth in such a manner that the total County benefits." Certainly, all proposed development should be evaluated from that point of view, looking at overall and cumulative impacts as well as direct and immediate impacts, and considering what would be most in the public's interest. But the next sentence states, "The objectives of the FGMP may also be met by locating development corridors within planned communities that provide for the comprehensive planning and development of large tracts of land which direct growth into specific area[s] of the foothills and thereby preserve important agricultural land and fragile resources." **The GPU FGMP should be revised to explain** how the development of "New Towns" outside of existing development boundaries is "growth in such a manner that the

total County benefits," considering resource efficiency, VMTs, greenhouse gas emissions, traffic, maintenance costs, impacts of the requirement for entirely new infrastructure, facilities, and services, etc.

The "fundamental intent" (FEIR, p. 4-35) of the FGMP, and the foundation for it, were expressed in clearly in the original. **The GPU FGMP must be revised to include the information in the original FGMP's Appendices** (General Description, Socioeconomic, Environmental Factors, Circulation Systems, Public Service Systems and Utilities) because **this information (which must be updated, since it is 30 years old) is critical to understanding the factors affecting growth and development in the foothills.** Additionally, **the maps included in the original FGMP must be included in the GPU**, as their information regarding slope analysis, vegetation, land capability, circulation, and land use are very important to understanding the foothill area conditions; these maps presumably can be made even better thanks to new technologies (e.g., GIS, Google Earth, etc.).

FGMP-1 (GPR Part II p. 3-6): "To maintain the natural beauty of the foothills while allowing focused growth in identified growth areas." The natural beauty of the foothills is a certainly a key asset of Tulare County, but **the GPR should be revised to expand this goal to include, along with beauty, "the natural capital and the ecosystem services" of the foothills**, as these assets are also essential to the health, sustainability, and quality of life of Tulare County and must be maintained.

Here are some **examples** of how the GPU version of the FGMP has been altered, distorted, and weakened compared to the original, and is **not** the promised unchanged FGMP:

FGMP-1.5 "Preserving Visual Resources" (GPR p. 3-6): The language and meaning of the original FGMP has been changed and weakened in this policy. The original (p. 13) says "New development ***shall*** *be designed* in a manner which preserves the visual quality of the foothill setting . . . ." The new, unimproved policy is no longer mandatory; now "The County shall ***encourage*** new development to be designed . . . ." The County has not kept its promise to not change the original FGMP. **The GPU FGMP should be revised to restore the original language.**

FGMP-1.6 "Commercial Neighborhood Centers" (GPR pp. 3-6, 3-7): This policy has been modified from the original (FGMP p. 13) and made vaguer and weaker. The original states that "neighborhood commercial centers shall be allowed in designated areas of the development corridor and ***shall only include uses of a type and size*** **to service a neighborhood . . . .**" Why does the new policy eliminate key rural-character factors "*type and size*," and substitute "*shall only include land uses that provide neighborhood-related services*?" **The GPU FGMP should be revised to restore these factors in the original language**.

The **third bullet (FGMP-1.6, p. 3-7)** provides another change. The original FGMP (p. 13 c) states that the "maximum size of the commercial center shall be ***5 acres.***" With no explanation, the GPU doubles the size, to "**10** acres." **Why was this change made?** What is the average acreage of neighborhood commercial centers in the foothills? **The GPU FGMP should be revised to restore the original language.**

The **fourth bullet** (FGMP-1.6, p. 3-7) is another change. The original FGMP (p. 13 d) states that "the commercial center may be ***considered*** as a part of a planned residential development, but the GPU GPR says "the commercial center may be ***included*** as a part of a planned residential development." **The GPR should be revised to restore the original language, which requires a review process to consider whether a commercial center should be included,** whereas the GPU FGMP's revised language implies that a commercial center is already permitted.

The GPU version of the FGMP includes after the FGMP Implementation Measures, Section 3.12—**Development Standards. (Page 23 of the original FGMP** includes as an Implementation "Adopt by Ordinance the Foothill Development Standards which are now included as a subsection of the Foothill Growth Management Plan." **Was**

this ever done? If so, what is the Ordinance? This information should be provided in the GPU FGMP. We do not see the standards in the Tulare County Ordinance Code online, nor in the Improvement Standards of Tulare County online.)

The GPU FGMP Development Standards section (GPR Part II, p. 3-29) starts with a **new proviso**: "Unless it can be demonstrated that an alter[n]ative standard will result in attainment of *a superior environment* . . . the development standards within the FGMP-Section 3.12 shall apply." **The GPU FGMP should be revised to define and clarify what is meant by "a superior environment."** Does this mean a natural environment superior to the existing condition of the natural environment, or is it referring to a man-made environment that is superior in some way? **The FGMP Development Standards must not be over-ridden or waived without clear, defined conditions that justify the exception and that prevent damage to the fragile foothill environment.**

The Open Space Requirements Standard has been changed in the GPU FGMP (GPR Part II, p. 3-29)by the omission of the key word "open" in the phrase "shall remain in common [open] space." **The GPU FGMP must be revised to restore** this critical word.

FGMP-1.8 "Mobile Homes" (p. 3-7): The original (p. 14, #9) states that "Mobile home projects ***shall be*** located and designed," but the GPU version says "The County ***shall encourage*** mobile home projects to locate and be designed . . .." No Implementation measure is shown in the GPU for this Policy. **Why has the Implementation in the original (p. 27) been omitted** ("The Site Plan Review Committee shall review mobile home parks and subdivisions to encourage designs that 'fit' into existing development patterns.")? **The GPU FGMP should be revised to restore the stronger original language and the implementation measure.**

FGMP-1.9 "Light Industrial Uses" (p. 3-7): The original (p. 14, #10) states that "Light industrial uses *(as described in the Tulare County Zoning Ordinance)* ***may be allowed*** in a development corridor subject to a ***conditional*** use permit." The GPU version says "The County ***shall allow*** light industrial uses in a development corridor subject to a ***special*** use permit." **Please explain** why this policy has been changed. No IM is shown in the GPU for this Policy. **Why has the Implementation in the original (p. 27) been omitted from the GPU** ("The *environmental impact report process* is the mechanism which will provide specific data both to the Site Plan Review Committee and the Planning Commission for purposes of determining a decision on the conditional use permit.")? **The GPU FGMP should be revised to restore the original language and the implementation measure.**

FGMP-4.1 "Identification of Environmentally Sensitive Areas" (p. 3-9): Please explain why the original (p. 15) "***special wildlife habitats***" has been changed to "***habitat of special status species***" in the draft GPU. The IMs that were listed in the 2008 GPU for this Policy (#13 and #14 on p. 3-14) related only to visual impact and scenic corridors. Responding to this comment, the County now shows no IMs for FGMP-4.1 **The GPU FGMP should be revised to cite for this Policy IMs that relate directly to identifying and protecting environmentally sensitive areas** such as floodplains, steep slopes, unique sites, riparian woodland, wildlife habitat and corridors, etc. The original FGMP (p. 34) states that "**Level III designates the *major riparian areas* of each development corridor as *open space*. Review of landscaping plans through the site plan review process will insure that areas to be landscaped are compatible with surrounding native vegetation. Level II of the FGMP identifies *wildlife habitats* in each development corridor. Level III of the FGMP *designates sensitive wildlife areas as open space*** in each development corridor." **The GPU FGMP must be revised to restore this text and the designations must be indicated on a clear baseline map and detailed maps** of the FGMP Area and its development corridors. (The maps in the GPU FGMP section, for example, do not mark the riparian areas as open space, and do not identify wildlife habitats and sensitive wildlife areas and show them as open space.

The **large-lot exclusive agricultural zoning policy of the original FGMP has been rewritten in the GPU as Implementation Measure #18 (p. 3-24). Why has this IM been rewritten** so that it appears to weaken the original FGMP, which stated "***Protect*** . . . agricultural areas . . . from encroachment . . . through the use of . . . zoning": the new IM says " to ***reduce*** encroachment." The GPU FGMP should be revised to restore the stronger language.

FGMP-6.2 "Identification of Scenic Highways" (p. 3-10): **No IM is listed** for this important Policy; **please revise the GPU to provide** a concrete, measurable, enforceable one. **Page 30** of the original FGMP states that Level III of the FGMP provides for circulation patterns for each of the development corridors. Those *roads with unique visual qualities are shown as scenic highways*." Scenic highways and scenic roads are depicted on one of the maps enclosed in the FGMP. They include Hwy. 245, Hwy. 198 from north of Exeter through Three Rivers, M-296/J37 – Yokohl Drive/Balch Park Drive (from Hwy. 198 to Hwy. 190), J28 from near Springville to Strathmore, portions of Hwy. 190, Globe Drive near Springville, and J42/Success Drive.

Thirty years later (about 45 years later, if we go back to the scenic routes policies in the original General Plan), the **GPU, in GPR Figure 7-1 (GPR Part I p. 7-5)** is depicting some of Hwy 198 and Hwy 190 as "***Candidate*** State Scenic Highways and several County roads as County Scenic Routes." **Please explain what the status is** of this 1981 original Implementation and **how it relates to GPR Policy SL-2.1 (p. 7-4)** 30 years later. SL-2.1 states that "The County shall protect views of natural and working landscapes along the County's highways and roads by maintaining a designated system of County scenic routes and State scenic highways." Some good policies are included in SL-2.1 and SL-2.2, 2.3, 2.4, 2.5, and 2.6, and there are even some IMs for these policies. **The GPU's proposals for "New Towns" and Corridor Areas work directly against protection of these assets**. Designating, protecting, and publicizing our outstanding scenic routes and highways is long overdue. They are treasured by our residents and are key features and routes to enjoyment of our county's beauty and rural heritage. They make Tulare County unique and attractive and contribute greatly to our quality of life.

MASTER RESPONSE #9: Range of Alternatives Addressed in the RDEIR (FEIR, p. 4-36 ff)

As has been frequently pointed out by commenters, the Alternatives presented in the RDEIR fall far short of presenting a "reasonable range" as required by CEQA and as important to the public and to sound decision-making. There is actually almost no "range" at all discernible in the alternatives presented: they are described as all having almost the same significant and unavoidable impacts. Obviously, in a true range, clear differences in effects and impacts would be evident, enabling a real choice to be made for an effective alternative that would be truly environmentally superior while still accomplishing "most of the basic objectives of the project."

Let's look again at **the stated objectives of the proposed project** (the GPU), as listed on FEIR p. ES-8. They are generally consistent and acceptable, although not as exactly reflective of the county's **citizens' stated objectives** (clean air, reliable water supply, growth focused in existing communities, preservation of agricultural and open space lands, and a more diverse economy) as they could have been. The first four objectives call for providing opportunities for small unincorporated communities to grow or improve quality of live and economic viability, promoting reinvestment in existing unincorporated communities, protecting the County's agricultural resources and scenic natural lands, and strictly limited rural residential development to avoid rural residential sprawl. **The giant fly in the ointment** appears in

the first objective, which **contrary to the goals of the rest**, calls for providing "the framework for planning new self sustaining communities [AKA 'New Towns' and 'planned communities']."

The GPU's promotion of **"New Towns" and Corridor Areas not only flies in the face of the other stated objectives of the proposed project and of the county's citizens, it is also clearly the least environmentally sound and most adversely impactful of all the objectives**. Obviously, **in a true range** of alternatives, including an actually environmentally superior alternative, **at least one alternative would have to preclude the development of "New Towns" (AKA "new self-sustaining communities" and "planned communities") and Corridor Areas in the unincorporated county**.

Indeed, **Tulare County Citizens for Responsible Growth has repeatedly recommended just such an alternative, but the County (while giving it lip service) has repeatedly refused to include it in the EIR's range of alternatives**. Instead, the County has very inaccurately and misleadingly stated that its RDEIR Alternative 5 (Confined Growth) "addresses many of the concerns expressed by various community members, in particular those concerns submitted by the Tulare County Citizens For Responsible Growth and expressed in their Healthy Growth Alternative" (FEIR, p. 4-37). (Please **see FEIR, Volume II, p. 3-1565 ff for the Healthy Growth Alternative** description in the Tulare County Citizens for Responsible Growth comment letter.)

The FEIR claims that "Both **Alternative 5 (Confined Growth) and the Healthy Growth Alternative** would direct development in ways that would reduce or avoid the loss of agricultural and open space areas and aesthetic resources, and concentrate development within areas that are or are becoming urbanized. Further, the Healthy Growth Alternative recommends limits on expansion of urban areas, and Alternative 5 incorporates strategies to limit the circumstances under which urban areas could be expanded, specifically, a 'no-net gain' scenario" (FEIR, pp. 4-37 – 4-38).

Outrageously, the FEIR goes on to state that "The **Healthy Growth Alternative need not be analyzed** in the EIR because it is a variation on RDEIR Alternative 5 and *does not offer significant environmental advantages* in comparison with the alternatives presented in the EIR" (FEIR, p. 4-38). Let's take a look at the validity of this statement. Alternative 5: Confined Growth Alternative is shown only partially on FEIR p. 2-5. Please look at the **full text in the RDEIR, pp. 4-32 – 4-33**; you will see that **the text shown in the FEIR is only the first paragraph** of Alternative 5. You will also see that **the ensuing paragraphs of Alternative 5 gut the effectiveness of its "limits" and provide so many loopholes that this Alternative is rendered as weak and ineffective as the bulk of the GPU's policies and implementation measures**; thus, **it cannot serve as an environmentally superior alternative, nor is it at all comparable in intent, force, or effect to the TCCRG Healthy Growth Alternative**.

First, Alternative 5 "**assumes** that all of the proposed policies and implementation measures contained in the Goals and Policies Report (Part I of the General Plan Update) would be included as part of this alternative." This assumption immediately **disqualifies this Alternative** as providing a "reasonable range," since the policies and implementation measures include the provisions for "New Towns" and Corridor Areas, which are not excluded by any of the alternatives in the range currently presented. The **TCCRG Healthy Growth Alternative (HGA) would prohibit Corridor Areas and New Towns in the**

unincorporated area, in order to significantly reduce the environmental impacts of the project while still meeting all of its objectives (with the exception, of course, of providing for "New Towns" and Corridor Areas).

"The **primary objective**" of Alternative 5 is stated to be "**to minimize significant and unavoidable impacts** to open space areas, agricultural lands, and aesthetic resources." Certainly, the development of "**New Towns" and Corridor Areas would create the opposite results, by maximizing impacts** to open space areas, agricultural lands, and aesthetic resources, impacts **that are completely unnecessary** and undesirable; that's why "New Towns" and Corridor Areas would be precluded by the Healthy Growth Alternative. (The "New Towns" and Corridor Areas would also adversely impact health, traffic, LOS, VMTs, greenhouse gas emissions, existing communities' economies and opportunities, etc., as discussed repeatedly in our comments and others'.)

The next sentence of Alternative 5 states that growth "would be directed to occur *only within* established Hamlet Development Boundaries (HDB)," but **that declaration and the "no net gain" "assumption" are quickly rendered meaningless by a long list of loopholes**. (Additionally, without explanation, the text on FEIR p. 2-5 has **erased CACUDBs** from the statement of where growth would be directed to occur and from the "no net gain" scenario. **The FEIR should be revised** to explain why the CACUDBs have been erased from this paragraph.)

The second paragraph of Alternative 5 (RDEIR, p. 4-32), which is **silently omitted** on FEIR p. 2-5, states that "Under Alternative 5, the General Plan 2030 Update *would incorporate some land use strategies that would require greater land use efficiency standards* for development on important farmlands and *promote increased densities and mixed use areas* within developed areas." **This assertion is so totally vague as to be useless** in terms of providing any idea of what strategies would be incorporated, when they would be incorporated, what the efficiency standards would be, what the increased densities would be, and how and when these strategies would be implemented. Its complete vagueness also **precludes any evaluation or comparison** of its possible effects on environmental impacts.

The paragraph goes on to state (RDEIR p. 4-32) that "**Expansion** of CACUDBs or Hamlet Boundaries without offsets would only be **allowed under *extenuating circumstances***. Criteria for expansions *might include:* Mandatory agriculture impact fees for important farmlands added to Urban Development Boundaries. Significant job generation projects or projects of regional importance . . . . Regional growth corridors . . . . Boundary adjustments where Master Planning efforts [read "New Towns"] demonstrate exemplary land use efficiency standards . . . . Boundary expansion is consistent with the San Joaquin Valley Regional Blueprint."

These **"extenuating circumstances" allow major development to occur virtually anywhere within the unincorporated area. They defeat the GPU objectives** of providing opportunities for small unincorporated communities to grow or improve quality of life and economic viability, promoting reinvestment in existing unincorporated communities, protecting the County's agricultural resources and scenic natural lands, and strictly limiting rural residential development to avoid rural residential sprawl. The "**extenuating circumstances" are so broad that virtually any proposed development could**

meet at least one of the proposed criteria, and thus, again, the County's Alternative 5 **precludes any evaluation or comparison** of its possible environmental impacts on its own or in relation to the other proposed alternatives.

While the first possible criterion for expansion is shown as "**mandatory agriculture impact fees**," the **County now states (FEIR p. 4-47) that it "does not support the development of a mitigation fee program** as a measure for inclusion in the General Plan 2030 Update" and that it "**does not consider it a wise use of resources to divert staff to manage** a new mitigation program **or to transfer mitigation fees to a third party." The RDEIR should be revised** to reflect this change.

The third paragraph of the County's Alternative 5 (RDEIR p. 4-32) states that "**No new towns would be allowed on important farmland unless** equivalent capacity is transferred from CACUDBs or HDBs through mechanisms such as purchase and transfer of development rights to offset the loss of important farmland." **The RDEIR should be revised** to make clear whether "important" farmland is being termed generically here, or whether the actual classification ("Farmland of Statewide Importance") is meant.

What about "New Towns" that are proposed on other types of farmland, or on ranchland, or on scenic landscapes, or on wetlands, or on groundwater recharge areas, or in oak woodlands, or on any other areas outside existing development boundaries? **The RDEIR should be revised to explain** why the County's Alternative 5 is restricting this proviso to important farmland and why it does not apply the "equivalent capacity" requirement to every development proposal outside of existing development boundaries (which have been shown to have the capacity to accommodate much more than all the growth projected during the GPU horizon).

The RDEIR should also be revised to explain how and when the "equivalent capacity" transfer mechanisms will be established, and by whom these mechanisms will be administered and monitored. This sounds like an important and beneficial mitigation program, but the FEIR (p. 4-47) states that the **County "does not consider it a wise use of resources to divert staff to manage a new mitigation program** or to transfer mitigation fees to a third party."

In contrast to the County's Alternative 5, TCCRG's **Healthy Growth Alternative would**:

1. Base the location, density, and amount of growth within urbanized areas on their desire and capacity to accommodate growth.
2. Locate development (except that which is directly related to agriculture) within existing Development Boundaries, without loopholes or exceptions that allow for leapfrog new town or growth corridor development.
3. Require (or incentivize) efficient development within or contiguous to existing urban areas.
4. Make community and hamlet development boundaries meaningful, long-term planning boundaries by firmly limiting the circumstances under which they can be expanded.
5. Prohibit Growth Corridors and Planned Communities (New Towns) in the unincorporated area.

6. Discourage the premature conversion of agricultural lands to urban uses, and offset unavoidable impacts to agricultural lands and natural resource areas with mandatory mitigation measures such as conservation and agricultural easements at a minimum ratio of 1:1.

7. Provide strong, clear policies with concrete, enforceable implementation measures that include definite timeframes, funding sources, and departments in charge of monitoring and enforcement.

Please see the TCCRG comment letter (FEIR, Volume II, p. 3-1565 ff) for details. Clearly, the TCCRG Healthy Growth Alternative is not at all simply "a variation on RDEIR Alternative 5" (FEIR, p. 4-37). It is intended to be a much stronger, clearer, and more enforceable Alternative and to better avoid and minimize adverse environmental impacts. **We urge the County to include at least one Alternative that includes at least all of the principles and policies proposed in the TCCRG Healthy Growth Alternative (and no vitiating loopholes) so as to provide a truly reasonable range of alternatives and a clearly environmentally superior alternative, in compliance with CEQA.** Adoption of such an alternative **would also help the County to meet the requirements of AB32 and SB375** and to achieve the priorities expressed by its citizens.

The RDEIR states (p. 4 – 33, under "Ability to Meet Project Objectives") that under the County's Alternative 5, "mechanisms would be put in place that insure the existing capacity for development already present in the existing General Plan is used efficiently and smartly under the General Plan Update. It would meet all the objectives with respect to protection of existing open space and agricultural resources in a more efficient manner than the other alternatives. It would . . . help to promote a greater interest in reinvestment within existing communities and hamlets."

The GPU should be revised to include these mechanisms that ensure that capacity for development is used "efficiently and smartly" regardless of which alternative the County adopts. Tulare County cannot afford and does not deserve inefficient and irresponsible growth. It is not at all clear how Alternative 5 as it is currently written would protect open space and agricultural resources more efficiently than the other alternatives. **The RDEIR should be revised to show why (quantitatively and qualitatively) this is true, and explain how** the County's Alternative 5 promotes "greater interest in reinvestment within existing communities and hamlets."

The RDEIR Alternatives' "Ability to Meet Project Objectives" sections should all be revised to be more specific, including more quantitative information to support and verify the typical statements that are so broad and general that they do not provide any idea of what the statements actually mean or how they can be meaningfully compared to the statements in the other alternatives (e.g., "likely to be most similar," "greater protection of agricultural resources," "similar types of development with a smaller footprint," convert less County open space," "fewer number of acres of . . . farmland . . . would be converted," "may reduce the overall number of vehicle miles driven," etc.). Are we talking about comparative differences of one or two percentage points, or significant differences? Are we talking about hundreds of acres or thousands of acres of difference in the various categories of footprints and open space and agricultural land conversion? **The comparison**

should specifically include a truly reasonable range of alternatives, including at least one clearly environmentally superior alternative that embodies at a minimum the principles and policies of the TCCRG Healthy Growth Alternative.

MASTER RESPONSE #10: Climate Action Plan (FEIR, p. 4-38 ff)

The County's discussion of its Climate Action Plan (CAP) targets and baselines (FEIR, p. 4-39 – 4-41) alarmingly omits sufficient coverage of a major factor in our County's GHG emissions: CAFOs (Confined Animal Feeding Operations, such as dairies, which, per the CAP contribute 63% of the GHG emissions in the unincorporated county). **The CAP and the GPU documents should be revised to address the substantial and increasing impacts of this major industry in our county; key policies and implementation and mitigation measures for CAFOs should be included in the General Plan**, our guiding "constitution," not dealt with entirely separately in the County's legally-challenged and still not completed (since 2001) Animal Confinement Facilities Plan (AFCP) and its Draft Supplemental Programmatic EIR. With more than twice as many cows as people (about a million now, per a recent Fresno *Bee* article), far more cows than any other county in the nation, Tulare County should pay plenty of attention to this population in its CAP and GPU.

The County also implies that "land use and development related emissions" are only a small component of plans to reach emissions targets (FEIR, p. 4-42). However, land use and development are the areas where the role of local government is critical to creating and implementing measures to ensure GHG reductions, as we are obligated to do. **The CAP and the GPU policies and implementation and mitigation measures designed to reduce GHG emissions reductions should be revised to be clear, firm, consistent, enforceable, and measurable.** The CAP seems to be designed to try to define the least that the County could do to fulfill its responsibility to help to reduce GHGs (FEIR, p. 4-39). Since the impacts of global warming will be strongly felt in Tulare County (and in our neighboring Valley counties), we should have a strong plan to enable us to do as much as we can to avoid or ameliorate local production of GHGs.

On FEIR p. 4-40, the County projects that the population in unincorporated Tulare County will grow by 18.6 percent between 2007 and 2020. According to a U.S. Census Bureau report on Total Population and Percent Change from 2000 to 2010 in Tulare County (handed out by Supervisor Ishida at a Three Rivers Town Hall meeting in April, 2011), the entire county's overall population grew 20.2% in those 10 years (74,158 more people). The eight incorporated cities grew by 72,124 (a 31.7% increase), while the unincorporated county grew by 2,034 (a 1.4% increase). **The FEIR should be revised to include the 2010 U.S. Census data and to explain why 18.6% growth is being projected for the unincorporated area from 2007-2020, when it grew by only 1.4% in the last 10 years. What would cause such a huge increase in the growth rate in the unincorporated county?** Is it based on the County's intent to permit "New Towns," such as the proposed Yokohl Ranch development, with its projection of 30,000 people?

If "uncertainty exists regarding the timing and the effectiveness of implementation of State regulations to reduce greenhouse gases" (FEIR, p. 4-40), then **it is even more important for local governments to**

ensure that the timing and effectiveness of their planning and regulations is as certain as possible, so that we begin requiring much more resource-efficient, alternate and active transit supporting development as quickly as we can. The effects of land use planning and **development decisions are very long-lasting and their effects are hard to change**; housing tracts and roads and shopping centers last a long time. As the FEIR states (p. 4-42), "Greenhouse gases are a true cumulative impact." That means we have to act fast, because we are already beginning to experience the impacts of climate change**. The ARB can set standards for vehicles** [FEIR, p. 4-42]**, but it's local governments' responsible land use planning and development decisions that can help reduce VMTs** (which are increasing much faster than population growth and are likely to overtake the gains in automotive efficiency).

The County has identified the CAP as an important implementation and mitigation measure for addressing the impacts of the GPU. However, the County states (FEIR, p. 4-43) that the draft CAP "may require revision to address comments received during the review process" and that completing the GPU is its "first priority" (as it has been for a number of years), so it provides no timetable or deadline for completion of the CAP.

The same paragraph emphasizes that implementation measures (and the CAP is an implementation measure) have "multiple year implementation timeframes, 2010 to 2015 in some cases. This is necessary to account for uncertainty in the timing of completion of the General Plan 2030 Update, staff availability, and the speed of the economic recovery." **There are also a number of implementation measures in the GPR with timelines of 2015-2020 (including critical ones** such as #27 on GPR p. 11-16 – "The County shall identify a system of critically inadequate water supply, water transfer facilities, and groundwater recharge areas on a map . . . ." and seemingly simple but important ones such as #16 on GPR p. 10-21 – "The County shall work with the Fire Chief to develop a natural hazard disclosure statement for wildland fires to be recorded along with all development approvals in all moderate and extreme hazard areas").

The County should include its Climate Action Plan as an integral part of the GPU documents, giving the proper weight and effect to implementation in this key area by adopting the CAP along with all of the other GPU implementation measures. Failing that, the County should provide a definite near-term target date for completion and adoption of the CAP; otherwise, it appears that we could be looking at 2015-2020, while global climate change proceeds apace.

The FEIR states (p. 4-43) that the "ARB recommended that local governments provide reductions to match the State's reduction target." The **State's reduction target is "to reduce greenhouse gas emissions by 15 percent from current levels by 2020**" (p. 4-39). We don't understand why that's not the reduction target that Tulare County is shooting for in the area of land use and development which is what it (not the State) has control over. **Please clarify this**. We need to take strong and immediate action: 2020 is just over eight years away.

The County states (FEIR, p. 4-43) that the annual general plan reporting process provides "information needed to identify *development trends that affect implementation*." **We need a strong, clear,**

enforceable GPU/CAP that will put the horse in front of the cart, so that its *implementation will affect development trends* instead. Development trends (often created through constant advertising by the building and development industries) are focused, naturally, on being profitable in the very near future for the industry, not on the goals of providing affordable, resource-efficient development for the benefit of all the county's residents and promoting a healthy and sustainable future for the county; **it is up to the County to create a plan that will guide land use and development decisions to achieve those long-range public benefit goals**. The recent housing crisis of bubble boom and bust shows clearly that **"the market" often requires a powerful countervailing force if development decisions are to be made in the public interest**.

The County emphasizes (p. 4-44) that the "General Plan must *remain flexible to account for the needs of specific development projects* and their locations." Certainly, there should be some degree of flexibility so that creative and constructive changes can be made when necessary, and there will always be occasions when well-documented exceptions to the rules may be justified, but **the General Plan and its CAP should be revised to be stronger and firmer in its policies and implementation measures**. Let the would-be developers account for the *needs of the County* in their proposals, and instead of only "encouraging" them to meet the standards that are essential to creating healthy and responsible growth, prepare a strong plan that puts the onus on the developer to show why any specific standard cannot be met.

Certainly some of these policies and implementation measures could have impacts "on the cost of housing and doing business in Tulare County" (FEIR, p. 4-44), **but many of the measures mandating resource-efficient, compact, mixed-use, active and alternate transit oriented development will likely more than pay for themselves in savings to homeowners, taxpayers, and the County** (lower energy costs, lower water use, better health, fewer miles of roads and infrastructure to maintain, etc.). And **some changes are required even if they do add something to up-front costs** (take mandatory seatbelts in vehicles, for instance, which, despite the auto industry's outcries, did not cause people to stop buying cars or cause vehicle manufacturers to go out of business; we also require today's homes to meet many other requirements – earthquake safety, electrical safety, waste disposal, fire safety, etc. -- that are imposed to increase the occupants' health and safety even though they add to the up-front cost). It is far more cost-efficient to pay for these necessary changes by adding a few percentage points now to the cost of a house that will be spread over a thirty-year mortgage period, and to thus begin to reduce the GHG emissions based on our ever-growing built inventory, than to try to find the money to pay the costs of global climate change as its impacts worsen in the years to come.

The County argues (FEIR, p. 4-45) disingenuously against solar because "taxpayers of the State and nation are helping to pay for systems with bonds and deficit spending." If we stopped all taxpayer subsidies and corporate welfare tomorrow, the resultant rise in prices of all other major sources of energy (coal, natural gas, gasoline, electric, nuclear) would likely be drastic and almost immediate, not to mention what would happen to food prices. How many projects in Tulare County are funded through bond measures? What about property taxes? Don't these cause "shifting money that would have been spent on other goods and services to pay for" something else? But, unlike the other energy sources, on-site solar doesn't require massive, hugely expensive distribution systems (nobody in Tulare County

wanted those gigantic new electrical lines and towers to be located anywhere near their homes or businesses), and there are no GHG emissions; they would also help our awful air quality problems. They would pay for themselves in energy cost savings, and they would increase home values.

But **the "County does not wish to force people to become energy producers."** Since the County forces people to do a whole lot of other things that aren't any more beneficial than becoming energy producers (and clean energy producers at that, benefiting all the other residents in the county), this argument has no logical foundation. However, the County states that it "strongly encourages those with the economic capability and desire to invest in solar or other technologies that reduce greenhouse gases to do so." **The FEIR should be revised to show how the County provides this strong encouragement.**

The County's argument then jumps to extremes that do not reflect what most of the commenters are suggesting. The County states (FEIR, p. 4-45) that "it may not always be economically feasible to require affordable housing to fully offset their energy consumption," "it may not be possible to require 100% offset of energy use for new commercial development," implying that 100% is the only option, and if we can't require 100% offset 100% of the time, then we can't require anything. **The point is, of course, that even if we can't immediately do 100% better, we must start** taking definite, significant steps toward achieving significant GHG reductions, and we must start right away. We're looking for a strong, whole-hearted, good faith effort. **The County could begin with this plan to require a minimum percentage, such as requiring that at least 25% of the homes in a development must include solar photovoltaic panels to generate electricity, and such systems must be offered as an option on the other units in the development.** If our emissions haven't come down enough by 2015 to assure that we can meet the 2020 target, then the minimum percentage could be increased. Obviously, requiring solar (or other clean alternative on-site energy generation) does not preclude "flexibility" and it is certainly not "infeasible."

(The "National Solar Jobs Census 2011 Report, released in October, 2011, "found that **one in four solar energy jobs in the United States are held by Californians** . . .with 25,575 of the 100,237 solar-related jobs nationwide." "While . . . overall United States job growth was only 1% for the twelve month period ending in August, employment in all areas of the solar industry increased by nearly 6.8% in the same time period; with projected growth of another 4% over the next year, creating 24,000 more jobs." Additionally, "the Renewable Portfolio Standard, passed in the legislature and signed by Governor Brown this year, requires 33% of California's energy to be derived from renewable sources." There are many good reasons for the County to start mandating solar.)

The County rejects the suggestion to provide additional incentives for actions to reduce emissions because "it would not be fiscally responsible to develop long term programs that count on continued funding and it considered this measure infeasible at this time based upon policy considerations" (FEIR, p. 4-45). **The FEIR should be revised to state what these policy considerations are and to explain why the additional incentives couldn't be conditioned upon availability of funding.**

The County opposes other suggestions for greater energy efficiency, such as mandating new development to exceed Title 24 standards or to meet LEED standards. While it knows that other counties have requirements for development to exceed Title 24 standards, Tulare County "believes it would not be appropriate to second guess the State agency responsible," and states that "arbitrarily setting an energy standard would constitute an *experiment that is not without risks and unintended consequences*" (FEIR, p. 4-46). **The FEIR should be revised to explain what these risks and consequences would likely be, based on the experience of other counties that have implemented such requirements. It should also discuss the risks and likely consequences if we do not take action now to reduce the impacts of global climate change**, and weigh which course is more in the interest of the public's health, safety, and welfare. **It should also discuss the risks and unintended consequences that could attend the experiment of introducing huge, leapfrog "New Towns" and Corridor Areas development into the agricultural and open space lands of Tulare County**.

The County states that "the intent of the General Plan 2030 Update is to focus on future development in the County, rather than existing development" (FEIR, p. 4-46); **the FEIR should be revised to explain why this is the case.** Since the existing built environment will comprise the majority of units compared to new development for years to come, and since the existing built environment is presumably often less energy efficient than new development will be, **it is important to address emissions-reducing retrofits** and not ignore this avenue of improving the CAP and helping us to reach the emissions reduction targets. **Despite the County's argument (FEIR, p. 4-46) that "under CEQA, mitigation is not required to fix existing deficiencies," mitigation for new development often includes contributions to funding retrofits of existing housing to lower their GHG emissions** (see, for example, the Bakersfield Commons project, which made such a mitigation agreement in December, 2010).

The County argues (FEIR, p. 4-46 that such a mitigation fee "may be subject to Proposition 26 and require a vote of the people for implementation**"; the FEIR should be revised to show why this would be the case, and where this has occurred, and what the results have been.**

The County announces on FEIR p. 4-47 that it "**does not support the development of a mitigation fee program** as a measure for inclusion in the General Plan 2030 Update" because "the burden of **additional fees and difficulty for potential buyers to qualify for loans makes additional costs a real concern for the ability of the County to attract businesses and house its people.**" Further, the County "**does not consider it a wise use of resources to divert staff to manage a new mitigation program or to transfer mitigation fees to a third party."**

The County is still operating under its original General Plan, which was adopted in 1964, over 45 years ago. Based on current experience, it seems entirely possible that **45 years from now the County may still be operating under the General Plan 2030 Update**. Given this potential timeline, or one of at least 20 or 30 years, and given that we may hope that the current economic recession will not last nearly that long, and given that other counties have adopted workable mitigation fee programs, and given that **the County should encourage compact responsible development within existing development boundaries while discouraging development that is outside these boundaries or otherwise not resource-efficient, a mitigation fee program sounds like an effective motivator that should be added to the plan. If the**

County can document, based on other counties' experience, that such a program is likely to significantly reduce its ability to house its people and attract businesses even if it is applied only to development that is out-of-bounds and/or otherwise not resource-efficient, then **it could include the program in the General Plan Update, but indicate that it will not go into effect until the economy improves (with a specific indicator of what that threshold would be).**

It's time for this plan to walk its talk and get some teeth. The FEIR should be revised to **explain why the County rejects transfering mitigation fees to a third party that could manage the mitigation program.** Don't other counties use such third-party programs successfully?

Nobody is asking the County "to provide an economic study for every suggested policy revision and how it will apply to every parcel in the County" (FEIR, p. 4-47), but **in the case of global climate change and in the case of leapfrog, sprawl development, it seems clear that it's an economic case of "pay me now, or pay me later."** We must use our resources wisely and conservatively and not waste them, and for healthy, sustainable growth and development, **we must take a long-range view and make the investments now that are necessary for a more stable and secure future**. We're talking in broad, General Plan terms here, **asking for policies and implementation and mitigation measures with long-term cost-effectiveness.** We urge the County to respond honestly on that basis.

The County does not have authority to plan over 4840 square miles; it's about 2105 square miles (FEIR, p., 4-47), and of that, only about 200 square miles are actually being involved in planning, with the rest being agricultural and open space. Its residents who live in new developments there "**will be subject to the burdens imposed by the State" (presumably meaning fees or taxes) because they are necessary in order to finance the benefits that residents accrue** from the State, such as highways, water projects, energy provision, and conservation of lands for essential ecosystem services, study, recreation, habitat, and general marveling at the creation.

It's true that **the General Plan "does not stand alone for*[sic]* a regulatory perspective"** and that "projects will need to comply with Federal, State, and Local statutes and regulations." But the County does stand pretty much alone with its substantial discretionary authority and responsibility with regard to local land use and development, and **it must provide a stronger and more enforceable plan in order to do its fair share in this area where it is being counted on to meet the targets and promote the health, safety, and welfare of its residents and visitors**.

It may be the case that, despite their pervasive weaknesses, implementation of the GPU and the CAP (whenever it is that the CAP might be adopted and implemented) "will provide reductions that continue beyond 2020" (FEIR, p. 4-48), but **what is the likelihood that those reductions will be over-ridden by the increases in GHG emissions brought about by the leapfrog sprawl development of "New Towns" and Corridor Areas promoted by the plan?** The success of AB32 and SB375 depends to a large extent on us, and this plan is too often not designed for success.

MASTER RESPONSE #11: Discussion of Yokohl Ranch Project (FEIR, p. 4-48 ff)

The County's Master Response to the issues surrounding the proposed "new town" (really "new city" at Tulare County scale) Yokohl Ranch development completely sidesteps the fundamental, often-reiterated, consistent questions and concerns raised by the public and other entities regarding the establishment of "new towns" (which the GPU sometimes refers to also as "planned communities" or "self sustaining communities") in our county.

Since the Yokohl Ranch Company (J. G. Boswell Company)submitted its request to the County in 2005 for "entitlements for a phased planned community on 36,324 acres," through the general plan amendment application hearing, the Notice of Preparation process, the Planned Community Zone Ordinance process, and the GPU process, the County has received both extensive oral and hundreds of pages of written comments regarding the proposal to turn the productive grazing land, wildlife habitat, scenic landscapes, archaeological and historical treasure house, oak and sycamore alluvial woodlands, and treasured open space of Boswell's Boston Ranch into the sprawling 30,000-house development of Yokohl Ranch, with its golf courses, many miles of new roads, new above-ground utility corridor, new reservoir, new imported water supply system, huge and needless increase in VMTs and GHG emissions, new wastewater treatment system, new commercial center, and at some point new fire and police stationslibrary, and school. **Virtually all of these comments have dealt with major concerns about the adverse impacts of such a "new town" on our county's economy, communities, and environment.**

During the public workshops at the outset of the GPU process, before the Supervisors' first vote on Yokohl Ranch, the public emphasized to the County that it wanted 90% of future growth directed to existing communities. Based on the County's arbitrary decision that 25% (78,490) of the new population growth during the GPU horizon is expected to occur within the unincorporated County, allowing 30,000 of that growth to occur in the "new town" of Yokohl Ranch would mean that 39% of the new unincorporated population would go into that single new community during the GPU horizon, leaving only 61% (far below 90%) to go into the existing unincorporated communities even if no one else located outside of them in the unincorporated areas (which, of course, would not be the case). **This is clearly not what the County's residents had in mind.**

At the Board meeting attended by over 200 members of the public, none of whom spoke in favor of the proposed project, the Supervisors ignored the public's strong urging to delay consideration of the general plan amendment until after adoption of the General Plan Update and voted 5-0 in favor of Boswell's general plan amendment.

In 2007, many oral and written comments were presented to the Planning Commission and the Board of Supervisors regarding Boswell's request for the County to adopt a Planned Community Zone Ordinance. While dozens of recommendations were made for improving the proposed ordinance, based on what other counties had done, the Supervisors dismissed them all (except to add the adjective "energy efficient") and adopted Boswell's proposed ordinance verbatim 5-0 on September 25, 2007. This was a necessary step to enable Boswell to develop the new town in foothill land zoned for agriculture which has been productively ranched for well over 100 years, and which was excluded from other than agricultural uses by the County's Foothill Growth Management Plan, adopted in 1981.

The existing Foothill Growth Management Plan also directs any commercial development proposed for the foothills into our existing communities, all of which have many homes, lots, and commercial properties for sale. Without explanation, the proposed, significantly revised FGMP (FGMP-1.6, GPR Pt. II, p. 3-6) has doubled the maximum size of allowable neighborhood commercial centers, from 5 acres to 10 acres. **This should be revised back to the original 5 acres,** which should be plenty to accommodate neighborhood-related services**; we need compact, resource-efficient development, not sprawl**. Who benefits if the County starts permitting commercial development outside of our current communities? What are the costs? To protect the economies of our existing communities, our air quality, water supply, agricultural and open space lands, and scenic landscapes, and to reduce vehicle miles traveled, we need to **direct development into our existing communities.**

For people who want to live in our foothills, **our existing "self-sustaining" foothill communities already offer** infrastructure, restaurants, fire stations, sheriff's patrols, medical and dental care, grocery stores, post offices, retail outlets, nurseries, houses of worship, coffee shops, art galleries, real estate offices, libraries, lodging, community centers, history, heritage, festivals, rodeos, senior centers, golf courses, produce from local farms and ranches, abundant recreational opportunities, skilled workers, schools and classes, personal services (from hair cutting to physical training), music, craftspeople and artisans, pet care, parks – you name it.

Developers that want to build in the foothills should be required to first consider building within existing foothill communities that want and can accommodate development. Land zoned for agriculture (including foothill agriculture), among our greatest resources, should not be rezoned for greenfield development when there is adequate room for development within our existing development boundaries. **We have no need for resource-gobbling, growth-inducing "New Towns"** in our fragile foothills environments, and we don't want them. Their negative impacts greatly outweigh any foreseeable benefits.

On FEIR p. 4-49, the County states that Yokohl Ranch, the 10,000 house "new town" proposed to be built on agriculture-zoned grazing land in one of the most scenic areas of our foothills, "**will be considered on a separate timing track independent of the general plan 2030 update project**" and that "similar to the various environmental resource topics addressed in the RDEIR, the project level EIR for the Yokohl Ranch project anticipates addressing similar topics as part of its environmental review." While it is true that the County has ensured that Yokohl Ranch is being considered on a separate track, it is also true that the fundamental environmental resource topics to be addressed are indeed very similar to those addressed in the RDEIR, and that is why so many of the **commenters have repeatedly brought up the issue of "New Towns," since Yokohl Ranch is the embodiment of the County's push for these unwanted and unwarranted types of development**.

The County persists in equating "new towns" and "planned communities," with policies for them in GPR Part I Planning Framework, Section 5 (New Towns). We certainly agree with PF-5.1 (GPR, Part I, p. 2-67) that "the haphazard development of communities should be discouraged," except that we believe that such **haphazard development should not be allowed under the General Plan, which is, after all, supposed to plan development and not allow it to occur haphazardly**. And **we also definitely support**

mixed use development, with a "mix of residential, commercial, industrial, public use areas and related facilities." But **this planned development should be directed to occur within existing development boundaries**, not on greenfields remote from existing infrastructure, services, jobs, customers, and workers. This is obviously **one of our most feasible ways to reduce adverse impacts on public, environmental, and economic health** – and it won't cost us anything! Thus planned communities are fine, but "new towns" and Corridor Areas are not.

On FEIR p. 4-49, the County states that the planned community area land use designation in GPR Land Use Chapter 4 "establishes areas suitable for comprehensive planning for long term community development ("new town" or planned communities) on large tracts of land" and "allows for master planning **where a community plan typically does not currently exist**." However, these areas are established solely by size (the apparently completely arbitrary 200 acre minimum). **Nowhere on the GPU's land use diagrams are areas designated for "New Towns" or "Corridor Areas." Only the existing developed areas are shown, with their (often new?) development boundaries**.

The County states that planned communities will "have a balance of land uses that support economic growth and promote an exceptional quality of life." **Never does the County give any reason why these planned communities should not provide these benefits within existing communities' development boundaries or explain why, contrary to responsible planning and smart growth principles, they should be allowed to develop outside of these boundaries and off the map**.

The GPU documents should be revised to clearly explain the reasons for the County's decision to provide for and promote the development of New Towns and Corridor Areas. **The land use maps and diagrams should be revised** to show where these types of development would be allowed to occur. **The FEIR and the CAP should be revised** to account for them.

The County states that it is not required to provide any cost-benefit analysis for its plans, but how can one of the poorest counties in the State afford not to look at the likely **economic ramifications** of these decisions being made? And the County says that the GPU is not designed to deal with existing problems, but only with the future, but **how can our county have a successful and sustainable future if the GPU is not designed to deal with the problems we have now and the causes that created them**, which will continue to impact the health of our residents, communities, economy, and environment?

Chapter 4 LU-1.1, GPR p. 4-22, states that **the County "shall promote the principles of smart growth and healthy communities in UDBs and HDBs," including** walkable neighborhoods, a mix of residential densities, a strong sense of place, mixing land uses, directing growth toward existing communities, building compactly, discouraging sprawl, encouraging infill, preserving open space, creating a range of housing opportunities and choices, and encouraging connectivity between new and existing development.

Surprisingly inserted into this well-accepted and frequently endorsed list of smart growth principles is "*Utilizing planned community zoning to provide for the orderly pre-planning and long term development of large tracks [sic] of land* which may contain a variety of land uses, but are under unified development control." Utilizing planned community zoning **only** within UDBs and HDBs would mean that the areas

where planned communities could be located would be on the maps. That, of course, is not the case for the proposed Yokohl Ranch development or any other such prospective "New Towns," which the County apparently reserves the right to locate anywhere that someone owns or controls the development rights to at least 200 acres. **Yokohl Ranch, of course, would <u>not</u> meet most of the principles of smart growth and healthy communities that the County claims in the GPU it "shall promote."**

Is the key to the County's push for "New Towns" that they are "on large tracts of land [200 acres minimum]**, typically under unified ownership or development control?"** This qualifier allows a small minority of the county's residents to be exempt from the development guidelines applied to everyone else and so to be potentially able to build wherever they own or control these "large tracts of land" without regard to the public's vision, priorities, health, or welfare. Yokohl Ranch is a particularly egregious example of such a "new town" because it is definitely not designed to meet the County's housing needs, is hugely wasteful of resources, and destroys a beloved scenic byway and its heritage rangelands, world-class Native American cultural sites, historic condor foraging areas, watersheds, viewsheds, sycamore alluvial and oak woodlands, habitat, and open space. Why should a small minority be allowed to locate major development where it is not needed, would otherwise not be allowed, creates significant adverse environmental impacts, and the majority of county residents don't want it to go?

The County states (FEIR, p. 4-49) that "**Yokohl Ranch is a future project considered in the cumulative impacts analysis on pg 5-6 of the RDEIR** and is considered to be consistent with CEQA." Page 5-6 of the RDEIR states that on September 13, 2005, the County "received a request from the J.G. Boswell Company and the Eastlake Company to initiate the formal process to amend the Tulare County General Plan, including the Foothill Growth Management Plan (FGMP) to change the land use designation for the 36,000 acre Yokohl Ranch property from 'Extensive Agriculture' to 'Planned Community Area.' According to the applicants, the proposed amendment will result in master planned communities that balance the needs for housing, neighborhood commercial uses, recreation, ranching operations and open space. As such 40% (14,400 acres) of the ranch is proposed for development with 60% (21,600 acres) of the property to remain as untouched open space and ranchlands. The developed portions of the ranch will include the Village of Yokohl Ranch, an active adult community accessible to Yokohl Drive; and a Ranch Resort Lodge Enclave located in the northern reaches of the site, approximately four miles south of Lake Kaweah."

This description on RDEIR p. 5-6 gives no idea of the expected population, the miles of new roads that would have to be built, the miles of new utilities infrastructure that would have to be built, the lack of water, the number of golf courses, the reservoir and dam, the density and intensity of development, the risk of wildland fire, or almost any other environmental factor that would have to be considered if Yokohl Ranch were to be developed. It doesn't even mention that three main developments are proposed for the property. **Nowhere is the reader** (whether average citizen, Planning Commissioner, or County Supervisor) **able to see how the County has identified and quantified any of these impacts for a new town of 30,000 people built entirely on greenfields remote from any existing infrastructure or services except for a narrow, crumbling county road. Not to mention that no water supply has been identified.**

On RDEIR p. 5-4, the County states that for some impact issue areas such as air quality, traffic, and water supply, **the cumulative setting is "defined by** specific regional boundaries (air basin, regional roadway network, etc.) or projected regional or area-wide conditions [unspecified], contributing to cumulative impacts. For the remaining impact issue areas [also unspecified], the cumulative setting is based on development anticipated within the County and the surrounding counties." **How can anyone begin to tell from a description such as this what consideration was given to the proposed Yokohl Ranch development (or any of the other GPAs and GPIs listed)?** While the County asserts that it was taken into consideration, **there is no way to evaluate this claim or to get any idea of the magnitude or share of the proposed development's impacts**. The County could just as easily have said that the Yokohl Ranch impacts were not considered, and who would be able to say which assertion was valid? **This problem typifies much of the RDEIR and FEIR and it should be corrected, so that the public and decision-makers would have actual information, rather than dubious generalizations and unsupported assertions, on which to base comments and decisions** .

The County states (FEIR, p. 4-49) that density bonuses "may be granted" per the Government Code to mixed use areas to encourage development of affordable housing units, compact development, and reduction of air impacts and global warming, and that "consistent with the guidance provided in the General Plan 2030 Update, Master Development Plans and Area Development Plans are required to assist in the consideration of Mixed Use development proposals." Is this meant to imply that density bonuses "may" be a factor in the development of Yokohl Ranch as the developer "assists" in "considering" mixed use development proposals? **This provides no assurance whatsoever that any mixed use or other smart growth type of development will be required in this gigantic, resource-wasting, leapfrog "new town."**

The County goes on to cite some legal cases, which, it claims, mean that it doesn't have to get into any more detail about the Yokohl Ranch "new town" in the GPU EIR. **Perhaps the County may not legally be required to present more factual , honest, and adequate analysis of the proposed "new towns"** (and Corridors development) that it's pushing in the GPU**, but it is clearly in the interest of its residents and of informed and rational decision-making for the County to fully develop and disclose the reasoning** behind these emphatic new policies **and to clearly and accurately compare the general costs and benefits** (including economic, environmental, health and safety, etc.) **of pursuing this type of development compared with development directed into existing development boundaries, and it should revise the GPU documents to do so**.

"The approach taken with Yokohl **Ranch allows the decision makers to separately consider the impact of Yokohl Ranch** from those of the currently proposed General Plan in the RDEIR" (FEIR, p. 4-50), and that is certainly a means to **irresponsibly avoid an honest laying-out of the impacts of this type of development**, which, if approved, in the case of Yokohl Ranch alone would either comprise a very substantial percentage of the growth projected to occur in the unincorporated county (close to 40%?) during the GPU horizon, or, if the proposed 30,000 residents come largely from outside the county, would greatly exacerbate the County's problems with air quality and greenhouse gas emissions, water supply and quality, traffic and LOS, loss of agricultural and open space lands and habitat, affordable housing, etc.

Stating that "it would be *speculative* to determine whether Yokohl Ranch as proposed or an alternative would be approved, approved with modifications, or denied" (FEIR, p. 4-50) is disingenuous and smacks of deliberately ignoring the facts. With three opportunities to act on Yokohl Ranch so far, the Supervisors have voted 5-0 every time in favor of proceeding with the project as Boswell has proposed it, despite substantial public input to the contrary. **It is the County's responsibility** to take a long, hard, full-disclosure look at what the impacts of this precedent-setting project are likely to be and to determine how they could be mitigated, with the project as proposed or as it might likely be modified, and to include this information in the GPU EIR.

This is not mere "speculation"; it is proper planning, which always, of course, must be to a degree speculative, since none of us can know the future with complete certainty, but can only put together the best information available to us and then plan accordingly. **"New Towns" and new "Corridors" developments are 800-pound gorillas** that the GPU says we can deal with later. But, as many commenters have insisted, **the County must honestly deal with them now, before it turns them loose on an unwilling citizenry, which has already said plainly it doesn't want them.**

As for the next steps outlined for the Yokohl Ranch project, they appear to allow far too much to happen when far too little is known. Basing the Draft EIR on a broad and general Master Development Plan and Area Development Plan could presumably enable development to begin (grading, tree removal, road construction, water diversion, dam construction, utility corridor construction, etc.) long before (in some cases possibly many years before) the specifics of the actual developments – and their impacts – can be known. Meanwhile, many thousands of acres have been rezoned and eliminated from agricultural uses, yet specific financing and governing plans have not been prepared and approved.

Why is the County so eager to embrace this "new town" development? What makes it appropriate or desirable for Tulare County, which already has thousands of vacant homes, lots, and commercial buildings? **What should we learn from studying Boswell's 10,000-house EastLake development in San Diego County?** Do we want to foresee having to construct a toll road in Tulare County as had to be done in San Diego County to handle the massive gridlocked traffic that was produced by Boswell's EastLake development there? Do we want to see our foothills bulldozed into stairsteps and platforms and covered with cookie cutter houses, fast food joints, gas stations, stoplights, and traffic, without regard for our rural heritage, productive extensive agricultural lands, air quality, GHG emissions, wildfire potential, habitat, water supply and quality, and quality of life? Who benefits and who pays with development such as this, and what are the long-term consequences?

The "next steps" for Yokohl (p. 4-50) continue to keep deferring the specific information about the proposed development, while approvals of FGMP plan amendments, rezoning, and adoption of a Master Development Plan are given in advance of being able to determine the specific development plans and thus the possible environmental impacts of the whole project. How can this satisfy CEQA requirements? Note also that "Steps 4 **& 5**" are listed (p. 4-50), **but the discussion stops at #4** (p. 4-51).

The General Plan and the FGMP should not be amended and the property should not be rezoned unless and until a sufficiently detailed plan for development and a corresponding EIR have been submitted to

enable the County to determine whether the amendments and rezoning should be permitted. And development of "New Towns" and Corridor Areas should not be considered unless and until we have used up the land and properties available within the already-extensive development boundaries of our existing communities that desire and can accommodate development.

The "new towns" and Corridors are completely inconsistent with the GPU's many policies indicating support of responsible growth principles and our existing communities, and protection of our agricultural and open space lands and scenic landscapes. **We need to grow smarter in Tulare County and protect and capitalize on the resources that make us unique; they are our heritage and should be our legacy.**

P. O. Box 44151
Lemon Cove, CA 93244-0151
November 16, 2011

Dave Bryant, Div. Manager
Special Projects
Tulare County Resource Management Agency
5961 S. Mooney Blvd.
Visalia, CA 93277

Mr. Bryant:

Tulare County has demonstrated both neglect and/or gross mismanagement in its handling of small unincorporated communities, yet is eager to consider and accommodate "newtowns " before the problems of its historic towns are meaningfully addressed. Before you allow out of county investors to develop new communities to be occupied by folks from everywhere who don't even now know they will be living here, please consider the presently occupied and neglected communities . Could we please wash the breakfast dishes before we start dinner!

Respectfully,
/s/
Bill Pensar

From: Maria Flores
To: Bryant, David; Planning Commission
Date: 11/16/2011 8:24 AM
Subject: Fwd: FOR THE COMMISSIONERS PLEASE
Attachments: Master response comments.wpd

>>> "kb" <kebodner@att.net> 11/16/2011 8:10 AM >>>
The attached comments are with respect to the proposed FEIR.

I urge you to recommend AGAINST certification of the FEIR in its current form.

Thank you,

Karen Bodner

Three Rivers

Karen Bodner
42480 Kaweah Drive
Three Rivers, CA

November 16, 2011

Tulare County Planning Commission

Nancy Pitigliano; Bill Whitlatch; Wayne Millies, Chair; Melvin Gong; John Elliott; Ed Dias; Charlie Norman; Gil Aguilar; Doug Silveria; Jack Ritchie

5961 S. Mooney Blvd.
Visalia, CA 93277-9394

Commissioners:

As the officials responsible for advising the Supervisors on planning issues, I urge (beg, plead, entreat) you to recommend against certification of this FEIR. In the alternative, and I join with those who will groan when they hear this, I ask you to send it back to RMA with instructions to please, finally, comply with the law and get it right this time.

An EIR is a planning tool. Its purpose is not just to generate a lot of paper and eat up millions of hours and taxpayer dollars. As explained by the California Court of Appeal, the purpose of an EIR "is to demonstrate to an apprehensive citizenry that the agency has, in fact, analyzed and considered the ecological implications of its action. (*People ex rel. Department of Public Works v. Bosio*, 47 Cal. App. 3d 495) and CEQA Guidelines 15003(d).

The apprehensive citizenry who submitted extensive comments in response to the DEIR and to the RDEIR, remain decidedly un-reassured by the proposed FEIR. Adding to this apprehension is the concern that, if the County decision-makers – you, and the Board of Supervisors – accept at face value the misleading representations made in the FEIR's Executive Summary and Master Responses we will unknowingly adopt a General Plan Update that is not what it is represented to be, and not what we want it to be.

LEGAL RED HERRINGS

Throughout the FEIR, the County inexplicably cites and quotes caselaw that seemingly has little or no relevance to the purported "response." Thus, although Master Response 2 has nothing to do with materials submitted to the County other than comment letters

from concerned citizens and agencies, it nevertheless asserts that "the lead agency does not have a duty to respond to "non-project-specific secondary materials submitted in support of the comments." (*Environmental Protection & Information Center v. California Dept. of Forestry and Fire Protection* (2008) 44 Cal.4th 459, 484)" and protests that – although we're dealing here with comments submitted pursuant to procedures set by the County – "comments/issues" must be 'fairly presented' to the agency... Evidence must be presented in a manner that gives the agency the opportunity to respond with countervailing evidence... The City cannot be expected to pore through thousands of documents to find something that arguably supports CREED's belief the project should not go forward." (*Citizens for Responsible Equitable Environmental Development v. City of San Diego* (4th App. Dist, June 10, 2011, Case No. D057524) 196 Cal. 4th 515. (See also *Save the Plastic Bag Coalition v. City of Manhattan Beach* (CA Supreme Court, July 14, 2011) 51 Cal.4th 310, 322 [Comments should not rely upon non-project specific "generic studies."]

The only conclusion possible is that the County is trying to suggest that such materials had, in fact, been submitted and that the comments were inherently unreasonable.

In Master Response 3, the FEIR cites a host of legal decisions (*Koster v. County of San Joaquin* (1996) 47 Cal.App.4th 29); *Endangered Habitats League Inc. v. County of Orange* (2005) 131 Cal.App.4th 777; *(1991) Sacramento Old City Assn. v. City Council of Sacramento*, 229 Cal.App.3d 1011) to support its assertion that implementation measures need not be included in a general plan. *See* FEIR at 4-10. Yet (as acknowledged in the FEIR's parenthetical following the case names) in each of the cases cited, it was the fact that *the lead agency had already affirmatively committed to mitigate according to a* ***specified performance standard*** *or had provided a "menu" of specific alternate measures to be selected from in the future* that permitted deferred identification of the mitigation measures (not policy implementation measures) to be applied.

Here, we don't even have the general level of detail challenged but upheld in Koster.

Master Response 3 also misrepresents the substance of CEQA §15097(b) in saying that the annual report required by Govt Code§65400 is both a sufficient implementation measure for the General Plan's goals and policies, and to ensure development is consistent with the General Plan (FEIR at 4-10). CEQA Section 15097 has nothing to do with implementation – it requires an agency to establish a monitoring or reporting program "to ensure that the mitigation measures and project revisions identified in the EIR or negative declaration are implemented." (The text of §15097(b) reads

> Where the project at issue is the adoption of a general plan, specific plan, community plan or other plan-level document (zoning, ordinance,

regulation, policy), the monitoring plan shall apply to policies and any other portion of the plan that is a mitigation measure or adopted alternative. The monitoring plan may consist of policies included in plan-level documents. The annual report on general plan status required pursuant to the Government Code is one example of a reporting program for adoption of a city or county general plan.)

And as further explicated in subsection (c),

> "Reporting" generally consists of a written compliance review that is presented to the decision making body or authorized staff person. A report may be required at various stages during project implementation or upon completion of the mitigation measure. "Monitoring" is generally an ongoing or periodic process of project oversight. .... (1) **Reporting is suited to projects which have readily measurable or quantitative mitigation measures** or which already involve regular review. ... (2) Monitoring is suited to projects with complex mitigation measures, such as wetlands restoration or archeological protection, which may exceed the expertise of the local agency to oversee, are expected to be implemented over a period of time, or require careful implementation to assure compliance.

CEQA §15097©).

Master Response 9 cites CEQA Guidelines §15126.6 as requiring a less detailed analysis of alternatives to the project. (Similarly, the RDEIR says "As provided in Section 15126.6(d) of the CEQA Guidelines, the significant effects of each alternative are identified in less detail than those of the proposed project.") But 15126.6(d) doesn't say a lead agency either can or should assess alternatives in less detail. It says the "EIR **shall include sufficient information about each alternative to allow meaningful evaluation, analysis and comparison** with the proposed project."

THE MASTER RESPONSES

Despite the County's claims to the contrary, few substantive changes were made either to the GPU or to the original DEIR in response to the comments submitted in 2008. While the County did add elements to the RDEIR that comments pointed out should have been included in the first place, and updated necessary baseline data, the only other significant revision was simply the reformatting and rearranging of pre-existing GPU elements to create the RDEIR . The vast majority of substantive portions of the GPU that were addressed in the DEIR are essentially the same now as they were in

2008. The County simply chose to disregard the thousands of thoughtful comments made in response to the DEIR, although those comments remain relevant to the provisions of the current RDEIR - they reflect the concerns of the public – and they should have been addressed.)

Adding insult to injury, in the FEIR's **Master Response 2 ("Previous Comment Letter and the RDEIR")**, the County dismisses both the concerns of, and the efforts put in by, County residents (and the California Attorney General) by asserting that "the County does not have the duty to decipher what comments the public or agencies believe to still be applicable or inapplicable from their 2008 letters." The FEIR cites dicta from inapposite caselaw, whining that it should not be "expected to pore through thousands of documents to find something that arguably supports" the expressed criticisms. FEIR at 4-2 – 4-3. As the architect of the EIR's reorganization, it should have been a simple matter for the County to associate the comments with the relocated provisions – especially since the County purportedly reviewed those comments while evaluating whether to revise and reissue the EIR. Instead, the County played "hide the ball" and put the burden on the public to decipher where provisions had been moved to and what if anything had been changed between releases – in a much shorter time frame than the County had to work with.[1]

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[1] The FEIR hides the ball as well. For example, hidden in Master Response 2's reaction to comments questioning the enforceability of the GPU's goals and policies, is the unrelated statement that "The updated Goals & Policies Report (Part I of the General Plan Update) refines the "project" that is evaluated in this RDEIR." FEIR at 4-5

The "refinement" consists of **entirely deleting** from the Environmental Impact Report the language that draws attention to the county's unique open spaces - i.e., the *environment*. (" Tulare County is also known for its unique open space area. The County contains Mt. Whitney, the tallest mountain in the 48 contiguous states, as well as various well known parks and open space areas including portions of Sequoia National Forest, Giant Sequoia National Monument, Inyo National Forest, and Kings Canyon National Park. Sequoia National Park is entirely contained within the County. Tulare County contains approximately 4,840 square miles within its borders and can be divided into three general topographical zones: a valley region; a foothill region east of the valley area; and a mountain region just east of the foothills. The eastern third of the County is generally comprised of public lands, which include not only the parks and forests listed above, but also the Mountain Home State Forest, Golden Trout Wilderness Area, and portions of the Dome Land and South Sierra Wilderness Areas. The County also contains one State park and two national wildlife refuges. The Colonel Allensworth Historic State Park, located in the southwestern corner of the County, provides picnic and camping areas and an interpretive museum. The Pixley National

Wildlife Refuge provides a wintering area for migratory waterfowl as part of the Pacific Flyway, and provides habitat for the endangered blunt-nosed leopard lizard, the San Joaquin kit fox, and the Tipton kangaroo rat. The Blue Ridge National Wildlife Refuge was established to protect habitat for the California condor. Figures identifying many of the County' s unique environmental resources are provided throughout the various sections of the RDEIR.") RDEIR 2-1, 2-2.

The FEIR continues the game: in Chapter 3, entitled "Responses to Comments," the FEIR explains that "where changes to the RDEIR text result from these responses to comments, those changes are presented in Chapter 2." FEIR at 3-3. But as indicated by the title of Chapter 2 itself, even the County acknowledges that only "Minor Revisions" have been made. The revisions identified in chapter 2 correct typographical errors and copy a section from elsewhere in the RDEIR into the Executive Summary, as required. Chapter 2 then refers readers to a "Correctory Table" and a "Summary of Changes" matrix to identify global changes made. But the FEIR contains neither a Correctory Table nor a Summary of Changes matrix! How is the public to learn what has been changed? How are you?

(Table 4-1 claims that there are 24 new (as compared to the 2008 DEIR) policies, 75 with minor revisions and 125 with revised text. It also claims 13 new IMs, 28 IMs with minor revisions, and 69 with revised texts. But they haven't been identified. How are reviewers supposed to find them? Shouldn't all of these have been identified "to facilitate review of the document"?)

Our apprehension is heightened by the FEIR's approach to public comments. Instead of taking advantage of the requirement that the FEIR respond to received comments as an opportunity to enhance the public's understanding of the County's process, by actually *responding* to our concerns, the "Master Responses" put forth in the FEIR are unhelpful, and in many ways, insulting.

In many cases, the Master Responses simply pull text directly from the RDEIR and repeat it as a purported "response." For example, compare the summary of "key revisions" at FEIR 4- 4 with the summary of "Updated Topics", RDEIR ES-6 & 7. They are identical. By refusing to actually address the comments and concerns raised, the County is thumbing its nose at both CEQA and county citizens who made the effort to be involved.

In a disturbing pattern, the rest of the Master Responses follow the same dismissive and condescending approach taken in Master Response 2, misrepresenting the concerns raised, liberally citing inapposite legal authorities, and responding to questions that had not been asked:

Master Response 3: Implementation and Enforcement of General Plan Policy Language

A great many comments questioned the sufficiency of the Implementation Measures in the GPU, as many policies have no IM at all, and many of those that do employ only

permissive or discretionary language. **Master Response 3** minimizes the extent of these concerns by referring only to "several" commentors who questioned the sufficiency of the IM s.

Master Response 3 asserts that "in compliance with state law," the GPU consists of policies and objectives which will be implemented through the later adoption of ordinances and site-specific plans. In support of its assertion, this Response cites a number of statutes. Unfortunately, while the cited statutes do, in fact, authorize the County to adopt zoning ordinances and area plans, they **do not excuse the insufficiency or complete lack of Implementation Measures** in the GPU. In fact, the same provision of the California State General Plan Guidelines quoted by the County in the General Plan Update to define an Implementation Measure concludes by saying that "***Each policy must have at least one implementation measure***". *Guidelines at 16, emphasis added.* The County has repeatedly omitted this sentence from its citations of that provision. **If County decision-makers rely on the representations in the FEIR alone, our GPU and FEIR will be legally insufficient.**

The "response" then goes on to instruct that a program-level EIR is not required to analyze site-specific impacts or provide the level of detail that would be required in a site-specific EIR. Non-compliance with the General Plan guidelines is then justified by arguing that it is "not feasible" to list "every potential implementation measure which will be adopted over the 20 year horizon" of the Plan or to "provide the text of every potential ordinance." But Section 15168 (5) of the CEQA Handbook specifically instructs that "A program EIR will be most helpful in dealing with subsequent activities **if it deals with the effects of the program as specifically and comprehensively as possible.** With a good and detailed analysis of the program, many subsequent activities could be found to be within the scope of the project described in the program EIR, and no further environmental documents would be required."

Here, the County was never asked to list "every potential" IM or potential ordinance. What was and is requested is simply what is required by the provision the County itself cited: a measurable action, procedure, program, or technique to guide the County in carrying out each general plan policy over the next 20 years. There is simply no justification for having a substantial number of policies with NO Implementation Measure at all.

When it finally gets around to addressing the supposed topic of the response, Master Response 3 skates around public concerns that Implementation Measures couched in terms of "may," "encourage," "support" and "should" are weak at best, by asserting – without authority – that "typical planning practice suggests that the use of the term 'shall' in constructing policies is preferred for site specific projects; but is not necessarily

required in broad legislative policy. " FEIR at 4-8. It quotes the OPR General Plan Guidelines as approving use of "should" to communicate a clear commitment that permits flexibility if circumstances so dictate. Id. What the FEIR does not do is to complete the Guidelines' thought. In the sentence following that quoted, the Guidelines warn that "use of the word 'should' to give the impression of more commitment than actually intended is a common but unacceptable practice. It is better to adopt no policy than to adopt a policy with no backbone." Guidelines at 15. Having skipped over the warning, the FEIR concludes that only substantial compliance is required for "directory" provisions using the word "should." (Who determines how substantial is substantial enough? Using what as a measure??)

The Response completely fails to address the significance of supposed implementation measures that use the completely discretionary or wishful terms "may", "support," and "encourage." (Nor does it note that under Tulare County's own Ordinance Code (Section 145), use of the word "may" is defined as completely permissive – as a result, not even substantial compliance would be required for those Implementation Measures .)

In another example of the FEIR cherry-picking only the legal language that supports its position while ignoring the entire provision the FEIR leaps from a statement in the General Plan Guidelines that endorses "a degree" of flexibility with respect to diagrams and text to conclude that strict enforcement of development restrictions or mandatory language could lead to absurd results (such as forcing development into areas with greater hazards). It chooses not to notice, however, the rule that immediately preceded it:

> As a general rule, ... the general plan's text should be detailed enough so that the users of the plan, whether staff, elected and appointed officials, or the public, can reach the same general conclusion on the appropriate use of any parcel of land at a particular phase of a city's or county's physical development. Decision-makers should also be able to use a general plan, including its diagram or diagrams, in coordinating day-to-day land use and infrastructure decisions with the city's or county's future physical development scheme." General Plan Guidelines at 14.

Without stronger language in the IM s and policies, everything is open to the discretion of a changing roster of decision makers with the result that inconsistent results are inevitable.

But no one has suggested a site-specific, parcel-by-parcel analysis. The fact that the County is preparing a programmatic EIR does not mean that generalized impacts cannot be assessed in more detail than the County has grudgingly provided.

Master Response 4: Level of Detail for the General Plan and the Programmatic Nature of the RDEIR

In response to those who questioned whether the General Plan and/or EIR contained sufficient information and detail to satisfy the requirements of State planning law and CEQA, Master Response 4 reiterates that the General Plan Update's function is "not to prescribe all of the land use and environmental standards in the county, but to set general policies and provide direction for implementing those policies" and spends a great deal of time explaining why the County is not required to do more than meet the minimum standards set forth in the Government Code and CEQA. Although it cites numerous authorities in other contexts, the FEIR cites no authority for its assertion that "[r]elegation of more specific regulatory details and requirements to implementing plans, regulations, and ordinances is common practice." FEIR at 4-12.

The FEIR repeatedly justifies its need for almost complete discretion in all things by citing the County's "diverse geographic area encompassing approximately 4,840 square miles of valley, foothill, and mountain geographic areas" which present "unique planning challenges." But in insisting that clear planning detail must yield to the County's need for extraordinary flexibility, Master Response 4 conveniently ignores the fact that the actual area under the County's jurisdiction (after removing the approximately 2,520 square miles of state or federal lands outside the County's planning jurisdiction, the 130 square miles under the jurisdiction of the eight incorporated cities within the County, and the Tule reservation lands) is reduced by almost half, to only 2190 square miles. As such, it is nowhere near the largest California county; other counties have managed to prepare adequate General Plans – why can't Tulare County?

The County's argument that it cannot predict where development will occur and that it "cannot be practically and feasibly addressed or analysis [sic] in detail at this level of planning" is as absurd as that of the person who claims he couldn't be expected to take precautions to prevent his cow from wandering because it's impossible to know exactly where the cow would go, and whether it would cause damage or how much.

The GPU asserts that most development is expected to occur in and around existing cities and communities. Why then could the impact on those areas not be assessed? The GPU also anticipates and indeed champions the formation of various development "corridors" and new towns within that reduced 2190 square mile area. Surely the County could come up with *some* level of detail and analysis to indicate where in the actual 2190 square miles of the County such developments might be appropriate (and

where clearly not appropriate) and what the anticipated impacts of locating such developments there would be. At the very least, the County should assess what the environmental impact would be on the sizable areas destined to become development corridors.

The County's statement that it has considered development more generally, e.g., a specific number of homes to be developed in a certain market area, is entirely unsubstantiated – those "specific numbers" don't appear anywhere in the GPU or in any of the various versions of the EIR. What the Plan does spell out is that it will permit creation of entire new towns and development corridors in unspecified areas. How then can there be any meaningful analysis at all?

The FEIR asserts that mitigation monitoring and reporting programs to be implemented at some point in the future will suffice to ensure compliance with the GPU's vague policies. But if the County had properly used the EIR process as a planning tool, rather than viewing it as an impediment to free rein, if the County had created a preferred alternative that established reliable UDBs, HDBs, and MSCs without the giant loopholes provided by the corridor and new town provisions, then maybe compliance with the state-mandated annual reporting provision would indeed provide a good measure of compliance. But it does nothing here, where development is potentially open-ended.

Master Response 5: Land Use Diagram, Land Use Designations, and Build-out Assumptions

The FEIR characterizes concerns expressed over the lack of detail in the land use diagram and land use designations as "confusion as to why... [they] are not as specific as those typically found in City, or individual specific plan land use diagrams and designations." FEIR at 4-13.

As one of those people who feels the diagrams are inadequate, I can tell you I am not at all confused, and since I have no experience with any form of EIR other than this one, I was in no way comparing the GPU to any other form of EIR.

The FEIR's assertion that the GPU will focus urban development into "specific and limited areas of the County" "thereby limiting sprawl and preserving the vast majority of the County's open space resources" is untenable when the GPU policies expressly create new possibilities for development "corridors" and new towns that are locationally limited only in that they must encompass a minimum acreage. As has been pointed out many times, in all of the planning and visioning workshops and many of the previous

comments, the residents of Tulare County want new growth to occur in and around the County's existing communities, not in newly-developed and remote areas away from existing infrastructure. (While requiring developers to provide the infrastructure when establishing a new development is a step in the right direction, it doesn't address the long-term consequences of permitting development away from established urban centers - increased traffic, emissions, loss of open space, habitat, and productive lands.)

The County claims it has "only limited control over growth and cannot control external factors such as... the intent of individual property owners." FEIR at 4-23. While most of the other factors cited in this paragraph (Project Build-Out) are unquestionably beyond the County's control (i.e., birth and death rates, infrastructure constraints), the County has no less control over these factors than any other entity preparing an EIR, it certainly does have control over how a property owner uses its property. All properties in the county are currently covered by zoning regulations; it is inherently within the County's power to control what may be done with or on property within the respective zones – regardless of the owner's "intent." While the FEIR's assertion that "development on any particular parcel is largely speculative", FEIR at 4-23, is accurate insofar as it goes, development on any particular parcel within a designated zone is not; accordingly, designating areas in which development may and may not take place would ensure that development on any parcel within that zone would be consistent with the planned growth characteristics of that area or zone. It's called "planning." The County's position is a poorly-disguised reliance on its previously-made explicit preference to rely purely on market forces to determine where growth occurs in the County. (And to the extent that where development may occur in any area may actually be speculative, that is only because the Plan purposely avoids providing substantial guidance!)

The FEIR's repetition of the same excuses as to why it cannot – or chooses not to – provide the kind of meaningful information that would allow the public to know where to expect development in the future is inexcusable. As is the FEIR's insistence on framing the Master Responses in terms that misrepresent the concerns actually raised in submitted comments in order to make the "responses" appear reasonable.

The assumptions made in the FEIR's description of the environmental analysis are also unsupportable; how reasonable can they be when the largest anticipated developments – corridors and new towns - are completely excluded from the analysis? (As the FEIR points out, it is entirely appropriate to discuss the impacts of reasonably foreseeable growth.)

Master Response 6: Water Supply Evaluation Assumptions and Methodology

Does the evaluation of water needs assess the differences between residential/ housing demands and the demands of un-irrigated agricultural uses? Much of the land designated for large-scale development (as opposed to organic growth into designated urban development zones) will occur in non-prime farmland if the GPU policies are applied – that is, along and into the foothills, where most ag uses are not irrigated.

Master Response 7:General Plan Implementation Measures

Please see comments above under Master Response 3.

This response again provides simply more excuses and improper citations – for example, on page 4-33 the FEIR justifies the absence of implementation measures for many of the proposed policies by citing the GPU itself as the authority that permits such omissions! And while categorizing the policies into four divisions (of which, according to the FEIR, only one actually needs implementation measures), it gives no indication of which policies in the GPU fall into which categories.

Master Response 7 again cites CEQA 15097(b) inappropriately - see comment to Master Response 3 above – and again reasserts the inaccurate and misleading statement that each policy need not have its own individual Implementation Measure. As noted above, the General Plan Guidelines specifically state that **each policy must have *at least* one Implementation Measure**. Because an IM may be adjusted over time to accommodate changing circumstances, it does not mean that the baseline can start at "no measure at all."

Master Response 8: Foothill Growth Management Plan

Once again, the Master Response belittles the efforts of those who submitted comments on the FGMP portion of the GPU and RDEIR by characterizing the comments as "expressing confusion as to how and why changes were made" to the FGMP. Master Response 8 also misrepresents the nature of the comments by condescendingly answering the unasked question of "why the FGMP looks different". With respect to my own comments, there was absolutely no discussion of how the unacknowledged revision of the FGMP "looks."

Following the guidance of the CEQA Handbook ("Comments are most helpful when they suggest additional specific alternatives or mitigation measures that would provide better ways to avoid or mitigate the significant environmental effects." §15168), I personally submitted several hundred pages of detailed comments and suggestions

focused entirely on the FGMP in response to both the DEIR and RDEIR. I can unflinchingly say I was not at all "confused" in doing so. Aside from the correction of typographical errors identified in my comments, I have been able to identify only one comment that the County acted on, and neither this Master Response nor the "individual" responses to my comments are truly responsive to my expressed concerns. Nothing has changed; I believe it is futile to raise the concerns again here, and I refer you to my previous comments (attached to the FEIR (without the attachments) as Comment Letter I19).

Master Response 8 repeats the misleading contention that the FGMP has been modified "without affecting or changing the fundamental land use goals of the FGMP" and only to eliminate "outdated or obsolete policies" – such as, apparently, the three currently-existing FGMP policies that require the County to protect foothill agriculture from encroachment of development, to require zoning to protect the viability of foothill agriculture, and to limit residential development density in Success Valley. The new, "improved" FGMP also manages to eliminate implementation measures that currently exist – a full 33% of the FGMP policies now have no IM s at all; others have been weakened. See Bodner/Olecki comments, Comment Letter I19 to the RDEIR.

Master Response 9: Range of Alternatives Addressed in the RDEIR.

"Alternatives analysis is the essence of project planning. However, often alternatives evaluations in EIRs entail assessment of one or more alternatives that the project proponent has no intention of ever implementing. One of the most frequent public comments, justified or not, is that a specific alternatives analysis process is biased in favor of the proposed project alternative." Daniel G. Conaty, *Reforming How CEQA is Applied: A Look at the Process Through the Eyes of a Practitioner*, The Environmental Monitor, Fall 1996 (at http://ceres.ca.gov/planning/ceqa/CEQA_reform.html).
Had the County used the alternatives analysis process here as a planning mechanism to create a "Planned Alternative" as the "Preferred Alternative" instead of doggedly adhering to its pre-ordained preference, we could all have avoided this costly and time-consuming morass of multiple releases, responses, revisions, and dissatisfaction.[2]

While citing the relevant portions of CEQA to justify its perfunctory consideration of

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[2] The County is apparently also ignoring the input of this Planning Commission. During the early alternatives development process, the Commission directed planning staff to develop an additional city and community centered growth alternative. Instead, planning staff concluded – without demonstrating how or why – that the "suggested alternative scenario was not significantly different than [the pre-existing] Alternative 2. Therefore this alternative scenario is not discussed further." RDEIR at 4-18.

"alternatives" that were seemingly designed to fail, Master" Response 9 consists of merely conclusory assertions that the RDEIR's treatment of alternatives meets the minimum standards set by CEQA - and, that by implication, the County had no obligation to do any more.

Throughout the FEIR the County makes clear that rather than approaching the EIR process as a planning tool, since completion of the initial visioning process, the County has instead viewed compliance with CEQA as merely a procedural exercise that must be gotten through. To justify having done the minimum required, as briefly demonstrated above, the FEIR is replete with citations to CEQA provisions and caselaw, often incomplete, inaccurate, or taken out of context. The FEIR pays lip service to the letter of the law while ignoring its purpose; WORSE, IT AFFIRMATIVELY MISLEADS THOSE IT SHOULD BE ADVISING BY MISREPRESENTING THE LEGAL LEGS ON WHICH IT CLAIMS TO STAND. In short, the County appears to have merely done as little as possible to get by an expected judicial review.

The County asserts that because the "RDEIR provides a narrative description of each alternative and a discussion of the impacts of each as compared to the proposed project as well as several tables comparing the alternatives with the proposed project (RDEIR Chapter 4)" it is *ipso facto* "sufficient to allow meaningful evaluation, analysis, and comparison with the proposed project". But as the sheer number of critical comments submitted to the County indicates, the **public** clearly finds this EIR **insufficient**.

The County also insists that "These alternatives are considered within a context of whether they reduce or avoid significant impacts as compared to the proposed project and in the light of the constraints of feasibility." However, in comparing the alternatives, the County also assumed that "similar to the proposed project," each Alternative included "all of the proposed policies and implementation measures contained in the Goals and Policies Report." See Chapter 4, RDEIR and introduction to each alternative.

By incorporating the same proposed policies and implementation measures, the FEIR ensured that no alternative would emerge as able to avoid most or all of the anticipated significant environmental impacts. As instructed in California's General Plan Guidelines, "Alternative plan proposals should be developed and examined . . . to enable a community to weigh its possible directions. Besides the objectives, **the varying plans should contain alternative sets of principles, policies, standards, and plan proposals**." California General Plan Guidelines 2003 at page 43 (available at http://opr.ca.gov/docs/General_Plan_Guidelines_2003.pdf). Moreover, "[t]o the extent possible, the alternatives should be developed with implementation measures in mind."

Id.

Master Response 9 attempts to explain away the RDEIR's explicit acknowledgment that each alternative incorporates the policies and implementation measures of the proposed project by pointing to the general statements introducing each alternative noting that population distributions differ under the various alternatives (albeit very slightly in some cases) and that some adjustments would have to be made to accommodate the differences. The fact remains, however, that the policies and IM s remain intact.

Moreover, the RDEIR itself projects that, whichever Alternative is selected, 26-32% of the total population in the County will reside in the unincorporated area in 2030 (RDEIR Table 4-1) Again, the nearly identical outcomes in terms of future population distribution are predetermined by the incorporation of the GPU's flawed policies and implementation measures into each "alternative."

The FEIR seriously mischaracterizes and misrepresents the nature of its Alternative 5, the "confined growth" alternative, when it says it is important "because it addresses many of the concerns expressed by various community members, in particular those concerns submitted by the Tulare County Citizens for Responsible Growth and expressed in their Healthy Growth Alternative." FEIR at 4-37. In fact, the "confined growth" alternative varies significantly from the TCCRG Healthy Growth Alternative. *See RDEIR Comment Letter I23.*

The FEIR declined to analyze the proposed Healthy Growth Alternative "because it is a variation on RDEIR Alternative 5 and does not offer significant environmental advantages in comparison with the alternatives presented in the EIR. The County previously (RDEIR) explained that it created Alternative 5 – which it characterized as the "confined growth" alternative – based on TCCRG's comments advocating a Healthy Growth Alternative. However, as explained by the RDEIR the "primary objective of this alternative is to minimize significant and unavoidable impacts to open space areas, agricultural lands, and aesthetic resources."

BUT these were not the primary objectives of the TCCRG Healthy Growth Alternative. The very first goal of the Healthy Growth Alternative was to "promote a balanced and functional mix of land uses consistent with community values and resource availability." Other objectives focused on utilization of existing infrastructure, water supply, environmental conditions, proximity to jobs, transit, schools, and civic and commercial centers, and the desire of the community to accommodate additional growth. See 2008 TCCRG comment letter.

CONCLUSION

The FEIR reminds us that no decision has yet been made as to whether to adopt the proposed project or one of the alternatives, or to create a hybrid.

Those of us in the "apprehensive public" hope for the best but expect the worst. Why? Because the FEIR repeatedly and pointedly identifies the grounds on which the County may choose not to adopt the environmentally superior alternative:

> It is important to understand, however, that the mere inclusion of an alternative in an EIR does not constitute definitive evidence that the alternative is in fact "feasible." The ultimate decision regarding the feasibility of alternatives lies with the ultimate decision-maker for a project, which in this case is the County of Tulare Board of Supervisors. Such determinations are to be made in statutorily mandated findings addressing potentially feasible means of reducing the severity of significant environmental effects. One finding that is permissible, if supported by substantial evidence, is that "specific economic, legal, social, technological, or other considerations . . . make infeasible the . . . alternatives identified" in the EIR .

RDEIR at 4-1.

I can't express how deeply disappointed and discouraged I've become as a result of this process.

Good morning, Chairman Millies, Commissioners, Staff, and Fellow Citizens.

My name is Laurie Schwaller. I live at 43857 South Fork Drive, Three Rivers.

Thank you for continuing the public hearing and for this opportunity to comment on the proposed General Plan Update.
We certainly understand that the County would like to get to the adoption stage of this long drawn-out process. So would we!

Along with various agencies and organizations, many Tulare County citizens, like us, have been responding to this planning effort for about the last six years -- attending meetings; reading thousands of pages of documents; and contributing written and oral comments through the comment periods and public hearings.

We have been hoping to help shape a plan that will provide for healthy, responsible, and sustainable land use and development for all of us, and for our children.

Unfortunately, Instead of revising the plan documents constructively in response to the hundreds of specific questions and suggestions it has received from over 90 commenters, including the State Attorney General, the County has chosen to present in the draft FEIR a set of eleven broad "Master Responses," which it claims will provide the commenters with "a complete picture" regarding their concerns.

But these Master Responses do not suffice, because they and the FEIR continue not to deal honestly and effectively with the fundamental flaws pervading the General Plan Update documents.

And, hundreds of the comments are not being addressed at all, except to say that they will be "forwarded to County decision makers for their consideration." Well, at this point, that would be you!

If the County had made from the outset a good faith, well-focused effort to respond constructively to the vision and inputs of its citizens, the requirements of State law, and the large existing body of good planning knowledge and examples, the General Plan Update could have been successfully completed at a much earlier date, would have been a much more satisfactory plan, and would not be facing the threat of litigation due to its major inadequacies.

The citizens and taxpayers of Tulare County, not to mention its overtaxed staff, certainly do not deserve to have the expense and effort of litigation imposed upon them when these could be averted by thorough and responsive action on the part of our decision-makers.

That's why we're counting on you to address these issues comprehensively and responsibly before moving to adopt the proposed plan. Thank you for your work on behalf of a successful General Plan Update.

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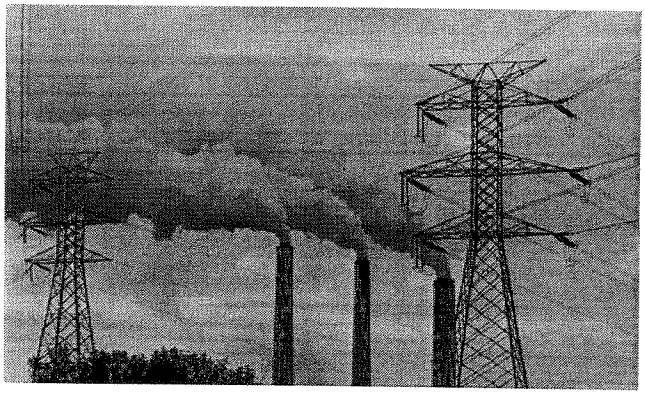
World headed for irreversible climate change in five years, IEA warns

If fossil fuel infrastructure is not rapidly changed, the world will 'lose for ever' the chance to avoid dangerous climate change

Fiona Harvey, environment correspondent
guardian.co.uk, Wednesday 9 November 2011 05.01 EST



Any fossil fuel infrastructure built in the next five years will cause irreversible climate change, according to the IEA. Photograph: Rex Features

The world is likely to build so many fossil-fuelled power stations, energy-guzzling factories and inefficient buildings in the next five years that it will become impossible to hold global warming to safe levels, and the last chance of combating dangerous climate change will be "lost for ever", according to the most thorough analysis yet of world energy infrastructure.

Anything built from now on that produces carbon will do so for decades, and this "lock-in" effect will be the single factor most likely to produce irreversible climate change, the world's foremost authority on energy economics has found. If this is not rapidly changed within the next five years, the results are likely to be disastrous.

"The door is closing," Fatih Birol, chief economist at the International Energy Agency, said. "I am very worried – if we don't change direction now on how we use energy, we will end up beyond what scientists tell us is the minimum [for safety]. The door will be closed forever."

If the world is to stay below 2C of warming, which scientists regard as the limit of safety, then emissions must be held to no more than 450 parts per million (ppm) of carbon dioxide in the atmosphere; the level is currently around 390ppm. But the world's existing infrastructure is already producing 80% of that "carbon budget", according to the IEA's analysis, published on Wednesday. This gives an ever-narrowing gap in which to reform the global economy on to a low-carbon footing.

If current trends continue, and we go on building high-carbon energy generation, then by 2015 at least 90% of the available "carbon budget" will be swallowed up by our energy

and industrial infrastructure. By 2017, there will be no room for manoeuvre at all – the whole of the carbon budget will be spoken for, according to the IEA's calculations.

Birol's warning comes at a crucial moment in international negotiations on climate change, as governments gear up for the next fortnight of talks in Durban, South Africa, from late November. "If we do not have an international agreement, whose effect is put in place by 2017, then the door to [holding temperatures to 2C of warming] will be closed forever," said Birol.

But world governments are preparing to postpone a speedy conclusion to the negotiations again. Originally, the aim was to agree a successor to the 1997 Kyoto protocol, the only binding international agreement on emissions, after its current provisions expire in 2012. But after years of setbacks, an increasing number of countries – including the UK, Japan and Russia – now favour postponing the talks for several years.

Both Russia and Japan have spoken in recent weeks of aiming for an agreement in 2018 or 2020, and the UK has supported this move. Greg Barker, the UK's climate change minister, told a meeting: "We need China, the US especially, the rest of the Basic countries [Brazil, South Africa, India and China] to agree. If we can get this by 2015 we could have an agreement ready to click in by 2020." Birol said this would clearly be too late. "I think it's very important to have a sense of urgency – our analysis shows [what happens] if you do not change investment patterns, which can only happen as a result of an international agreement."

Nor is this a problem of the developing world, as some commentators have sought to frame it. In the UK, Europe and the US, there are multiple plans for new fossil-fuelled power stations that would contribute significantly to global emissions over the coming decades.

The Guardian revealed in May an IEA analysis that found emissions had risen by a record amount in 2010, despite the worst recession for 80 years. Last year, a record 30.6 gigatonnes (Gt) of carbon dioxide poured into the atmosphere from burning fossil fuels, a rise of 1.6Gt on the previous year. At the time, Birol told the Guardian that constraining global warming to moderate levels would be "only a nice utopia" unless drastic action was taken.

The new research adds to that finding, by showing in detail how current choices on building new energy and industrial infrastructure are likely to commit the world to much higher emissions for the next few decades, blowing apart hopes of containing the problem to manageable levels. The IEA's data is regarded as the gold standard in emissions and energy, and is widely regarded as one of the most conservative in outlook – making the warning all the more stark. The central problem is that most industrial infrastructure currently in existence – the fossil-fuelled power stations, the emissions-spewing factories, the inefficient transport and buildings – is already contributing to the high level of emissions, and will do so for decades. Carbon dioxide, once released, stays in the atmosphere and continues to have a warming effect for about a century, and industrial infrastructure is built to have a useful life of several decades.

Yet, despite intensifying warnings from scientists over the past two decades, the new infrastructure even now being built is constructed along the same lines as the old, which means that there is a "lock-in" effect – high-carbon infrastructure built today or in the next five years will contribute as much to the stock of emissions in the atmosphere as previous generations.

The "lock-in" effect is the single most important factor increasing the danger of runaway climate change, according to the IEA in its annual World Energy Outlook, published on Wednesday.

Climate scientists estimate that global warming of 2C above pre-industrial levels marks the limit of safety, beyond which climate change becomes catastrophic and irreversible. Though such estimates are necessarily imprecise, warming of as little as 1.5C could cause dangerous rises in sea levels and a higher risk of extreme weather – the limit of 2C is now inscribed in international accords, including the partial agreement signed at Copenhagen in 2009, by which the biggest developed and developing countries for the first time agreed to curb their greenhouse gas output.

Another factor likely to increase emissions is the decision by some governments to abandon nuclear energy, following the Fukushima disaster. "The shift away from nuclear worsens the situation," said Birol. If countries turn away from nuclear energy, the result could be an increase in emissions equivalent to the current emissions of Germany and France combined. Much more investment in renewable energy will be required to make up the gap, but how that would come about is unclear at present.

Birol also warned that China – the world's biggest emitter – would have to take on a much greater role in combating climate change. For years, Chinese officials have argued that the country's emissions per capita were much lower than those of developed countries, it was not required to take such stringent action on emissions. But the IEA's analysis found that within about four years, China's per capita emissions were likely to exceed those of the EU.

In addition, by 2035 at the latest, China's cumulative emissions since 1900 are likely to exceed those of the EU, which will further weaken Beijing's argument that developed countries should take on more of the burden of emissions reduction as they carry more of the responsibility for past emissions.

In a recent interview with the Guardian recently, China's top climate change official, Xie Zhenhua, called on developing countries to take a greater part in the talks, while insisting that developed countries must sign up to a continuation of the Kyoto protocol – something only the European Union is willing to do. His words were greeted cautiously by other participants in the talks.

Continuing its gloomy outlook, the IEA report said: "There are few signs that the urgently needed change in direction in global energy trends is under way. Although the recovery in the world economy since 2009 has been uneven, and future economic prospects remain uncertain, global primary energy demand rebounded by a remarkable 5% in 2010, pushing CO_2 emissions to a new high. Subsidies that encourage wasteful consumption of fossil fuels jumped to over $400bn (£250.7bn)."

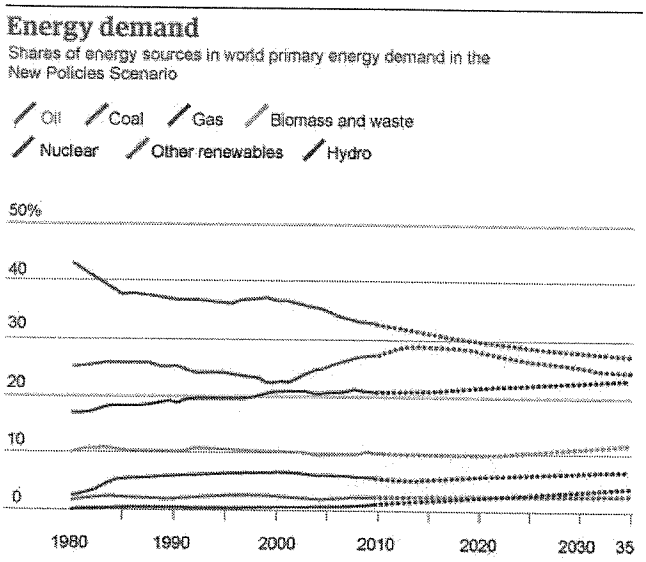
Meanwhile, an "unacceptably high" number of people – about 1.3bn – still lack access to electricity. If people are to be lifted out of poverty, this must be solved – but providing people with renewable forms of energy generation is still expensive.

Charlie Kronick of Greenpeace said: "The decisions being made by politicians today risk passing a monumental carbon debt to the next generation, one for which they will pay a very heavy price. What's seriously lacking is a global plan and the political leverage to enact it. Governments have a chance to begin to turn this around when they meet in Durban later this month for the next round of global climate talks."

One close observer of the climate talks said the $400bn subsidies devoted to fossil fuels, uncovered by the IEA, were "staggering", and the way in which these subsidies distort the market presented a massive problem in encouraging the move to renewables. He added that Birol's comments, though urgent and timely, were unlikely to galvanise China and the US – the world's two biggest emittters – into action on the international stage.

"The US can't move (owing to Republican opposition) and there's no upside for China domestically in doing so. At least China is moving up the learning curve with its

deployment of renewables, but it's doing so in parallel to the hugely damaging coal-fired assets that it is unlikely to ever want (to turn off in order to) to meet climate targets in years to come."



Energy demand

Source: IEA

Christiana Figueres, the UN climate chief, said the findings underlined the urgency of the climate problem, but stressed the progress made in recent years. "This is not the scenario we wanted," she said. "But making an agreement is not easy. What we are looking at is not an international environment agreement — what we are looking at is nothing other than the biggest industrial and energy revolution that has ever been seen."

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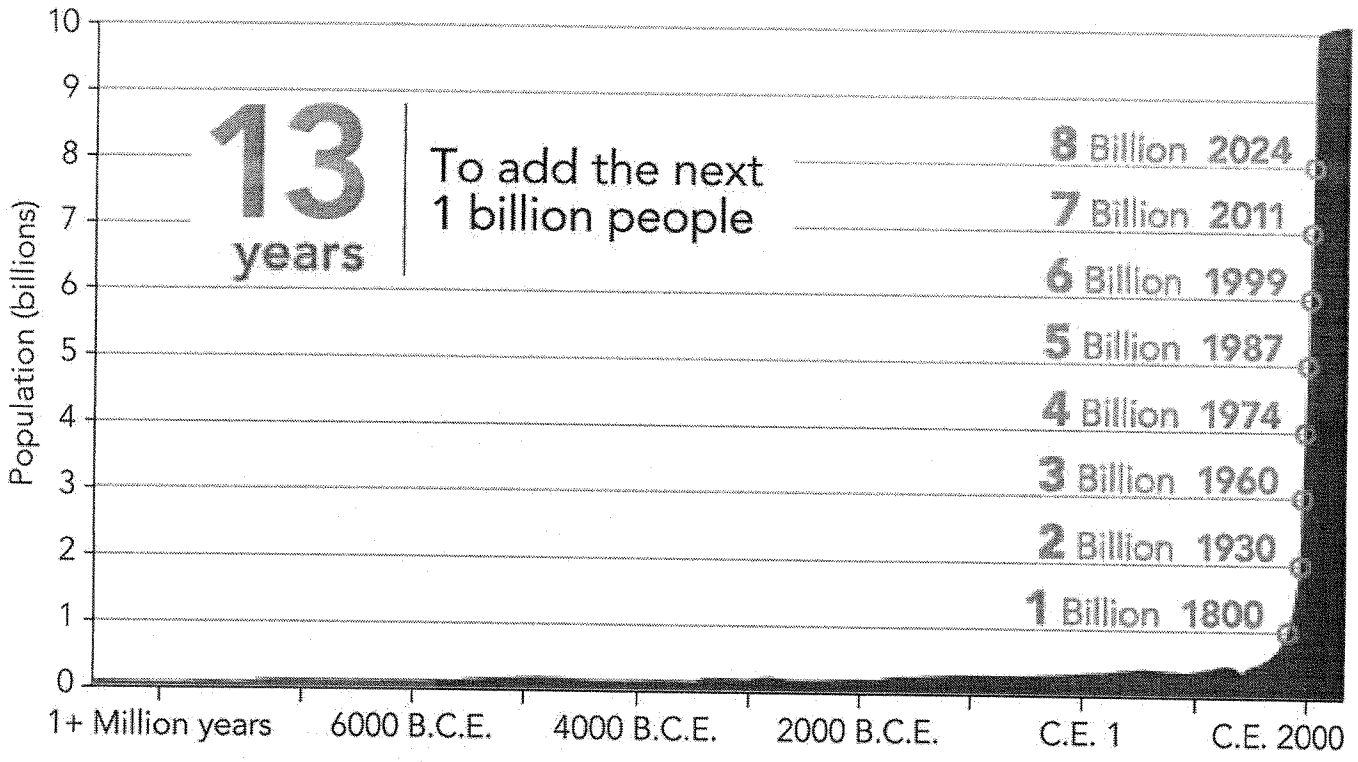
Historic and Projected Population Growth



SOURCES: CARL HAUB, POPULATION REFERENCE BUREAU (PRB), 2010; U.N. POPULATION DIVISION (UNPD), 2011

On May 3, 2011, the United Nations released The 2010 Revision of *World Population Prospects*. The facts on these two pages are from the UN Press Release. http://esa.un.org/unpd/wpp/index.htm

The graph above uses PRB data from 2010. The UN projects that population will reach 8 billion in 2025. The 2011 PRB data projects that population will reach 8 billion in 2023. Reprinted with permission from RightsLink.

Glossary

Medium variant: The population projection most often cited, which assumes the global fertility rate will reach 2.17 in 2045-2050 (down from 2.45 today). In this variant, the fertility rate of each country moves toward 2.1 by 2100 (so that countries with low fertility see an increase and those with high fertility continue to see a decline).
High variant: Fertility is projected to remain 0.5 children above the fertility in the medium variant over most of the projection period.
Low variant: Fertility is projected to remain 0.5 children below the fertility in the medium variant over most of the projection period.
Constant fertility variant: For each country, fertility remains constant at the level estimated for 2005-2010.
Medium-fertility countries: Countries where fertility has been declining but whose estimated level was still above 2.1 children per woman in 2005-2010.
High-fertility countries: Countries that until 2010 had no fertility reduction or only an initial decline.
Low-fertility countries: Countries with total fertility at or below 2.1 children per woman in 2005-2010.

Border Guards Bangladesh distribute rice from the government in Dhaka, Bangladesh. Photo: Zahidul Salim, Courtesy of Photoshare

In the News

Attempts to Defund Planned Parenthood

States across the country (11 at publication time) are banning funding to Planned Parenthood clinics through Medicaid and Title X. This is illegal according to federal law, and Planned Parenthood is fighting back through the court system. In the meantime, clinics are forced to deny low-income patients services that federal law dictates should be covered by any qualified provider they choose.

This attack on access to reproductive health care is a move by anti-choice policymakers to deny funding to any organization that provides or counsels on abortion, even though Medicaid dollars can only be used for abortion services in the case of rape, incest, and threat to the woman's life.

Abortion consumes a mere 3 percent of Planned Parenthood's expenditures each year. The bulk of the organization's expenses go toward providing birth control, cancer screenings, and antenatal care.

Federal judges in Kansas and Indiana have granted temporary injunctions to Planned Parenthood affiliates in those states, blocking enforcement of the law to deny federal funding to the group.

Evangelicals Practice Safe Sex—Using Birth Control

A study by the Guttmacher Institute found that 99 percent of all American women who have ever had sex have used some form of modern contraception.

One surprising result of the study was the high prevalence of contraceptive use among people who identify as Evangelical. In fact, 74 percent of Evangelicals currently use modern contraception—higher than any other religious group (68 percent for Catholics and 73 percent for mainstream Protestants). More than 40 percent of Evangelicals use male or female sterilization as a method of birth control.

Only 2 percent of Catholic women use natural family planning (periodic abstinence, temperature rhythm, and cervical mucus tests), the method recommended by the Church.

Births Down Again in 2010

According to preliminary figures for 2010, births in the U.S. fell by 3 percent, to about 4 million. The poor economy and lower levels of immigration are offered as explanations for this trend that has continued into its third year, after an all-time high of 4.3 million births in 2007.

Births declined in 2010 for every age group, except women 40 and older. Demographers believe the drop in the birth rate could be a tempo effect—women having children later and thus artificially lowering the fertility rate.

IUDs/Implants Most Effective Methods

Used by only 5.5 percent of American women who use contraception, the intrauterine device (IUD) is slowly making a comeback. The American College of Obstetricians and Gynecologists released a report touting the benefits of IUDs, which have among the highest effectiveness rates of all available methods. Only 0.8 percent of women using the copper IUD become pregnant within one year; the rate is even lower for the hormonal IUD, at 0.2 percent. Hormonal implants (Implanon) have a failure rate of 0.05 percent. The 1.5 inch long rod is inserted in the upper, inner arm and releases progestin for up to three years.

Of every 100 women using the birth control pill, nine will become pregnant, mostly due to incorrect or inconsistent use. User error is very low with long-acting reversible contraceptives (LARC) because they are meant to be forgotten once put in place by a trained provider.

"LARC methods are the best tool we have to fight against unintended pregnancies, which currently account for 49 percent of U.S. pregnancies each year," said Dr. Eve Espey, coauthor of the report, in a press release. "The major advantage is that after insertion, LARCs work without having to do anything else. There's no maintenance required."

Common barriers to the use of LARC are high initial cost; difficulty finding a provider who carries and knows how to insert the method; lack of knowledge about the method; and a distrust in the method due to injuries and infections caused by the first IUD, the Dalkon Shield, in the early 1970s.

$11 Billion Price Tag

Unintended pregnancies cost American taxpayers $11 billion a year in health care expenditures for women and their infants, according to two separate studies by the Guttmacher Institute and the Brookings Institution. Women who experience unintended pregnancies are more likely to

Global warming

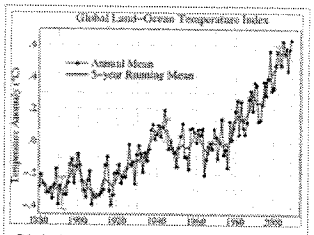
From Wikipedia, the free encyclopedia

Global warming refers to the rising average temperature of Earth's atmosphere and oceans and its projected continuation. In the last 100 years, Earth's average surface temperature increased by about 0.8 °C (1.4 °F) with about two thirds of the increase occurring over just the last three decades.[2] Warming of the climate system is unequivocal, and scientists are more than 90% certain most of it is caused by increasing concentrations of greenhouse gases produced by human activities such as deforestation and burning fossil fuel.[3][4][5][6] These findings are recognized by the national science academies of all the major industrialized countries.[7][A]

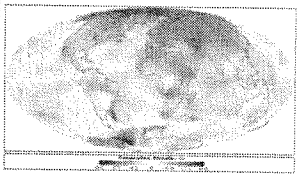
Climate model projections are summarized in the 2007 Fourth Assessment Report (AR4) by the Intergovernmental Panel on Climate Change (IPCC). They indicate that during the 21st century the global surface temperature is likely to rise a further 1.1 to 2.9 °C (2 to 5.2 °F) for their lowest emissions scenario and 2.4 to 6.4 °C (4.3 to 11.5 °F) for their highest.[8] The ranges of these estimates arise from the use of models with differing sensitivity to greenhouse gas concentrations.[9][10]

An increase in global temperature will cause sea levels to rise and will change the amount and pattern of precipitation, and a probable expansion of subtropical deserts.[11] Warming is expected to be strongest in the Arctic and would be associated with continuing retreat of glaciers, permafrost and sea ice. Other likely effects of the warming include more frequent occurrence of extreme weather events including heatwaves, droughts and heavy rainfall events, species extinctions due to shifting temperature regimes, and changes in agricultural yields. Warming and related changes will vary from region to region around the globe, though the nature of these regional changes is uncertain. [12] In a 4 °C world, the limits for human adaptation are likely to be exceeded in many parts of the world, while the limits for adaptation for natural systems would largely be exceeded throughout the world. Hence, the ecosystem services upon which human livelihoods depend would not be preserved.[13]

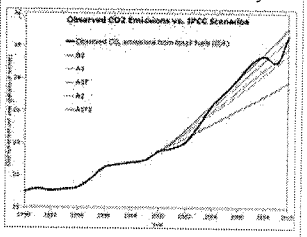
Proposed responses to global warming include mitigation to reduce emissions, adaptation to the effects of global warming, and geoengineering to remove greenhouse gases from the atmosphere or reflect incoming solar radiation back to space. The primary international effort to prevent dangerous anthropogenic climate change ("mitigation") is coordinated by the 194-nation UNFCCC.[14] The Kyoto Protocol is their only legally binding emissions agreement and only limits emissions through the year 2012.[15] Afghanistan and the USA are the only nations in the UNFCCC that have not rafitied the original protocol,[16] and as of October 2011 several others have refused to extend the emissions limits beyond 2012.[17] Nonetheless, in the 2010 Cancun Agreements, member nations agreed that urgent action is needed to limit global warming to no more than 2.0 °C (3.6 °F) above pre-industrial levels.[18][B] Current scientific evidence, however, suggests that 2°C is the "threshold between 'dangerous' and 'extremely dangerous' climate change",[19] that this much warming is possible during the lifetimes of people living today,[20] and that steep reductions in global emissions must be made by 2020 in order to have a 2-out-of-3 chance of avoiding global warming in excess of 2°C.[21]



Global mean land-ocean temperature change from 1880–2010, relative to the 1951–1980 mean. The black line is the annual mean and the red line is the 5-year running mean. The green bars show uncertainty estimates. Source: NASA GISS



The map shows the 10-year average (2000–2009) global mean temperature anomaly relative to the 1951–1980 mean. The largest temperature increases are in the Arctic and the Antarctic Peninsula. Source: NASA Earth Observatory[1]



Fossil fuel related CO2 emissions compared to five of IPCC's emissions scenarios. The dips are related to global recessions. Data from IPCC SRES scenarios (http://www.ipcc.ch/ipccreports/sres/en Data spreadsheet included with International Energy Agency's "CO2 Emissions from Fuel Combustion 2010 – Highlights" (http://www.iea.org/co2hig and Supplemental IEA data (http://www.guardian.co.uk/environme -emissions-nuclearpower) . Image source: Skeptical Science

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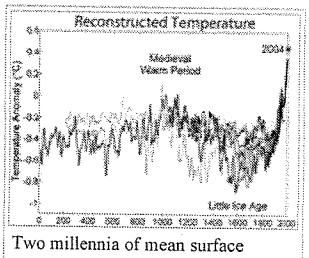
Observed temperature changes

Main article: Instrumental temperature record

Evidence for warming of the climate system includes observed increases in global average air and ocean temperatures, widespread melting of snow and ice, and rising global average sea level.[22][23][24] The Earth's average surface temperature, expressed as a linear trend, rose by 0.74 ± 0.18 °C over the period 1906–2005. The rate of warming over the last half of that period was almost double that for the period as a whole (0.13 ± 0.03 °C per decade, versus 0.07 °C ± 0.02 °C per decade). The urban heat island effect is estimated to account for about 0.002 °C of warming per decade since 1900.[25] Temperatures in the lower troposphere have increased between 0.13 and 0.22 °C (0.22 and 0.4 °F) per decade since 1979, according to satellite temperature measurements. Climate proxies show the temperature to have been relatively stable over the one or two thousand years before 1850, with regionally varying fluctuations such as the Medieval Warm Period and the Little Ice Age.[26]



Two millennia of mean surface temperatures according to different reconstructions from climate proxies, each smoothed on a decadal scale, with the instrumental temperature record overlaid in black.

Recent estimates by NASA's Goddard Institute for Space Studies (GISS) and the National Climatic Data Center show that 2005 and 2010 tied for the planet's warmest year since reliable, widespread instrumental measurements became available in the late 19th century, exceeding 1998 by a few hundredths of a degree.[27][28][29] Current estimates by the Climatic Research Unit (CRU) show 2005 as the second warmest year, behind 1998 with 2003 and 2010 tied for third warmest year, however, "the error estimate for individual years ... is at least ten times larger than the differences between these three years."[30] The World Meteorological Organization (WMO) *statement on the status of the global climate in 2010* explains that, "The 2010 nominal value of +0.53 °C ranks just ahead of those of 2005 (+0.52 °C) and 1998 (+0.51 °C), although the differences between the three years are not statistically significant..."[31]

Temperatures in 1998 were unusually warm because the strongest El Niño in the past century occurred during that year.[32] Global temperature is subject to short-term fluctuations that overlay long term trends and can temporarily mask them. The relative stability in temperature from 2002 to 2009 is consistent with such an episode.[33][34]

Temperature changes vary over the globe. Since 1979, land temperatures have increased about twice as fast as ocean temperatures (0.25 °C per decade against 0.13 °C per decade).[35] Ocean temperatures increase more slowly than land temperatures because of the larger effective heat capacity of the oceans and because the ocean loses more heat by evaporation.[36] The Northern Hemisphere warms faster than the Southern Hemisphere because it has more land and because it has extensive areas of seasonal snow and sea-ice cover subject to ice-albedo feedback. Although more greenhouse gases are emitted in the Northern than Southern Hemisphere this does not contribute to the difference in warming because the major greenhouse gases persist long enough to mix between hemispheres.[37]

The thermal inertia of the oceans and slow responses of other indirect effects mean that climate can take centuries or longer to adjust to changes in forcing. Climate commitment studies indicate that even if greenhouse gases were stabilized at 2000 levels, a further warming of about 0.5 °C (0.9 °F) would still occur.[38]

Initial causes of temperature changes (External forcings)

External forcing refers to processes external to the climate system (though not necessarily external to Earth) that influence climate. Climate responds to several types of external forcing, such as radiative forcing due to changes in atmospheric composition (mainly greenhouse gas concentrations), changes in solar luminosity, volcanic eruptions, and variations in Earth's orbit around the Sun.*[39] Attribution of recent climate change focuses on the first three types of forcing. Orbital cycles vary slowly over tens of thousands of years and at present are in an overall cooling trend which would be expected to lead towards an ice age, but the 20th century instrumental temperature record shows a sudden rise in global temperatures.[40]

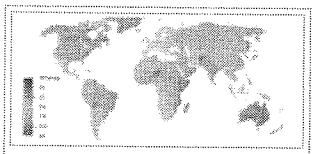
Greenhouse gases

Main articles: Greenhouse gas, Greenhouse effect, Radiative forcing, and Carbon dioxide in Earth's atmosphere

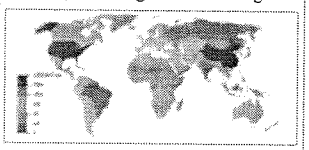
The greenhouse effect is the process by which absorption and emission of infrared radiation by gases in the atmosphere warm a planet's lower atmosphere and surface. It was proposed by Joseph Fourier in 1824 and was first investigated quantitatively by Svante Arrhenius in 1896.[41]

Naturally occurring amounts of greenhouse gases have a mean warming effect of about 33 °C (59 °F).[42][C] The major greenhouse gases are water vapor, which causes about 36–70 percent of the greenhouse effect; carbon dioxide (CO_2), which causes 9–26 percent; methane (CH_4), which causes 4–9 percent; and ozone (O_3), which causes 3–7 percent.[43][44][45] Clouds also affect the radiation balance through cloud forcings similar to greenhouse gases.

Human activity since the Industrial Revolution has increased the amount of greenhouse gases in the atmosphere, leading to increased radiative forcing from CO_2, methane, tropospheric ozone, CFCs and nitrous oxide. The concentrations of CO_2 and methane have increased by 36% and 148% respectively since 1750.[46] These levels are much higher than at any time during the last 800,000 years, the period for which reliable data has been extracted from ice cores.[47][48][49][50] Less direct geological evidence indicates that CO_2 values higher than this were last seen about 20 million years ago.[51] Fossil fuel burning has produced about three-quarters of the increase in CO_2 from human activity over the past 20 years. The rest of this increase is caused mostly by changes in land-use, particularly deforestation.[52]



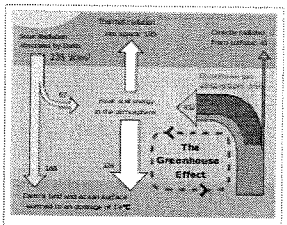
Per capita greenhouse gas emissions in 2005, including land-use change.



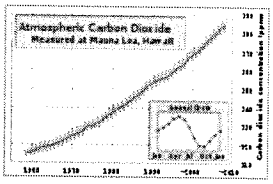
Total greenhouse gas emissions in 2005, including land-use change.

Over the last three decades of the 20th century, gross domestic product per capita and population growth were the main drivers of increases in greenhouse gas emissions.[53] CO_2 emissions are continuing to rise due to the burning of fossil fuels and land-use change.[54][55]:71 Emissions can be attributed to different regions. The two figures opposite show annual greenhouse gas emissions for the year 2005, including land-use change. Attribution of emissions due to land-use change is a controversial issue.[56] [57]:289

Emissions scenarios, estimates of changes in future emission levels of greenhouse gases, have been projected that depend upon uncertain economic, sociological, technological, and natural developments.[58] In most scenarios, emissions continue to rise over the century, while in a few, emissions are reduced.[59][60] Fossil fuel reserves are abundant, and will not limit carbon emissions in the 21st century.[61] Emission scenarios, combined with modelling of the carbon cycle, have been used to produce estimates of how atmospheric concentrations of greenhouse gases might change in the future. Using the six IPCC SRES "marker" scenarios, models suggest that by the year 2100, the atmospheric concentration of CO_2 could range between 541 and 970 ppm.[62] This is an increase of 90–250% above the concentration in the year 1750.



Greenhouse effect schematic showing energy flows between space, the atmosphere, and earth's surface. Energy exchanges are expressed in watts per square meter (W/m^2).



This graph, known as the "Keeling Curve", shows the long-term increase of atmospheric carbon dioxide (CO_2) concentrations from 1958–2008. Monthly CO_2 measurements display seasonal oscillations in an upward trend; each year's maximum occurs during the Northern Hemisphere's late spring, and declines during its growing season as plants remove some atmospheric CO_2.

The popular media and the public often confuse global warming with the ozone hole, i.e., the destruction of stratospheric ozone by chlorofluorocarbons.[63][64] Although there are a few areas of linkage, the relationship between the two is not strong. Reduced stratospheric ozone has had a slight cooling influence on surface temperatures, while increased tropospheric ozone has had a somewhat larger warming effect.[65]

Particulates and soot



Ship tracks over the Atlantic Ocean on the east coast of the United States. The climatic impacts from particulate forcing could have a large effect on climate through the indirect effect.

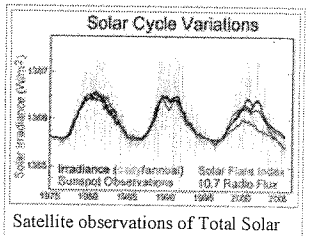
Global dimming, a gradual reduction in the amount of global direct irradiance at the Earth's surface, has partially counteracted global warming from 1960 to the present.[66] The main cause of this dimming is particulates produced by volcanoes and human made pollutants, which exerts a cooling effect by increasing the reflection of incoming sunlight. The effects of the products of fossil fuel combustion—CO_2 and aerosols—have largely offset one another in recent decades, so that net warming has been due to the increase in non-CO_2 greenhouse gases such as methane.[67] Radiative forcing due to particulates is temporally limited due to wet deposition which causes them to have an atmospheric lifetime of one week. Carbon dioxide has a lifetime of a century or more, and as such, changes in particulate concentrations will only delay climate changes due to carbon dioxide.[68]

In addition to their direct effect by scattering and absorbing solar radiation, particulates have indirect effects on the radiation budget.[69] Sulfates act as cloud condensation nuclei and thus lead to clouds that have more and smaller cloud droplets. These clouds reflect solar radiation more efficiently than clouds with fewer and larger droplets, known as the Twomey effect.[70] This effect also causes droplets to be of more uniform size, which reduces growth of raindrops and makes the cloud more reflective to incoming sunlight, known as the Albrecht effect.[71] Indirect effects are most noticeable in marine stratiform clouds, and have very little radiative effect on convective clouds. Indirect effects of particulates represent the largest uncertainty in radiative forcing.[72]

Soot may cool or warm the surface, depending on whether it is airborne or deposited. Atmospheric soot directly absorb solar radiation, which heats the atmosphere and cools the surface. In isolated areas with high soot production, such as rural India, as much as 50% of surface warming due to greenhouse gases may be masked by atmospheric brown clouds.[73] When deposited, especially on glaciers or on ice in arctic regions, the lower surface albedo can also directly heat the surface.[74] The influences of particulates, including black carbon, are most pronounced in the tropics and sub-tropics, particularly in Asia, while the effects of greenhouse gases are dominant in the extratropics and southern hemisphere.[75]

Solar variation

Main article: Solar variation



Satellite observations of Total Solar Irradiance from 1979–2006.

Variations in solar output have been the cause of past climate changes.[76] The effect of changes in solar forcing in recent decades is uncertain, but small, with some studies showing a slight cooling effect,[77] while others studies suggest a slight warming effect.*[39][78][79][80]

Greenhouse gases and solar forcing affect temperatures in different ways. While both increased solar activity and increased greenhouse gases are expected to warm the troposphere, an increase in solar activity should warm the stratosphere while an increase in greenhouse gases should cool the stratosphere.*[39] Radiosonde (weather balloon) data show the stratosphere has cooled over the period since observations began (1958), though there is greater uncertainty in the early radiosonde record. Satellite observations, which have been available since 1979, also show cooling.[81]

A related hypothesis, proposed by Henrik Svensmark, is that magnetic activity of the sun deflects cosmic rays that may influence the generation of cloud condensation nuclei and thereby affect the climate.[82] Other research has found no relation between warming in recent decades and cosmic rays.[83][84] The influence of cosmic rays on cloud cover is about a factor of 100 lower than needed to explain the observed changes in clouds or to be a significant contributor to present-day climate change.[85]

Studies in 2011 have indicated that solar activity may be slowing, and that the next solar cycle could be delayed. To what extent is not yet clear; Solar Cycle 25 is due to start in 2020, but may be delayed to 2022 or even longer. It is even possible that Sol could be heading towards another Maunder Minimum. While there is not yet a definitive link between solar sunspot activity and global temperatures, the scientists conducting the solar activity study believe that global greenhouse gas emissions would prevent any possible cold snap.[86]

Feedback

Main article: Climate change feedback

Feedback is a process in which changing one quantity changes a second quantity, and the change in the second quantity in turn changes the first. Positive feedback increases the change in the first quantity while negative feedback reduces it. Feedback is important in the study of global warming because it may amplify or diminish the effect of a particular process.

The main positive feedback in the climate system is the water vapor feedback. The main negative feedback is radiative cooling through the Stefan–Boltzmann law, which increases as the fourth power of temperature. Positive and negative feedbacks are not imposed as assumptions in the models, but are instead emergent properties that result from the interactions of basic dynamical and thermodynamic processes.

Imperfect understanding of feedbacks is a major cause of uncertainty and concern about global warming.[*citation needed*] A wide range of potential feedback process exist, such as Arctic methane release and ice-albedo feedback. Consequentially, potential tipping points may exist, which may have the potential to cause abrupt climate change.[87]

For example, the "emission scenarios" used by IPCC in its 2007 report primarily examined greenhouse gas emissions from human sources. In 2011, a joint study by NSIDC-(US) and NOAA-(US) calculated the additional greenhouse gas emissions that would emanate from melted and decomposing permafrost, even if policymakers attempt to reduce human emissions from the currently-unfolding A1FI scenario to the A1B scenario.[88] The team found that even at the much lower level of human emissions, permafrost thawing and decomposition would still result in 190 ± 64 Gt C of permafrost carbon being added to the atmosphere on top of the human sources. Importantly, the team made three extremely conservative assumptions: (1) that policymakers will embrace the A1B scenario instead of the currently-unfolding A1FI scenario, (2) that all of the carbon would be released as carbon dioxide instead of methane, which is more likely and over a 20 year lifetime has 72x the greenhouse warming power of CO2, and (3) their model did not project additional temperature rise caused by the release of these additional gases.[88][89] These very conservative permafrost carbon dioxide emissions are equivalent to about 1/2 of all carbon released from fossil fuel burning since the dawn of the Industrial Age,[90] and is enough to raise atmospheric concentrations by an additional 87 ± 29 ppm, beyond human emissions. Once initiated, permafrost carbon forcing (PCF) is *irreversible*, is strong compared to other global sources and sinks of atmospheric CO2, and due to thermal inertia will continue for many years even if atmospheric warming stops.[88] A great deal of this permafrost carbon is actually being released as highly flammable methane instead of carbon dioxide.[91] IPCC 2007's temperature projections did not take any of the permafrost carbon emissions into account and therefore underestimate the degree of expected climate change.[88][89]

Other research published in 2011 found that increased emissions of methane could instigate significant feedbacks that amplify the warming attributable to the methane alone. The researchers found that a 2.5-fold increase in methane emissions would cause indirect effects that increase the warming 250% above that of the methane alone. For a 5.2-fold increase, the indirect effects would be 400% of the warming from the methane alone.[92]

Climate models

Main article: Global climate model

A climate model is a computerized representation of the five components of the climate system: Atmosphere, hydrosphere, cryosphere, land surface, and biosphere.[93] Such models are based on physical principles including fluid dynamics, thermodynamics and radiative transfer. There can be components which represent air movement, temperature, clouds, and other atmospheric properties; ocean temperature, salt content, and circulation; ice cover on land and sea; the transfer of heat and moisture from soil and vegetation to the atmosphere; chemical and biological processes; and others.[94]

Although researchers attempt to include as many processes as possible, simplifications of the actual climate system are inevitable because of the constraints of available computer power and limitations in knowledge of the climate system. Results from models can also vary due to different greenhouse gas inputs and the model's climate sensitivity. For example, the uncertainty in IPCC's 2007 projections is caused by (1) the use of multiple models with differing sensitivity to greenhouse gas concentrations, (2) the use of differing estimates of humanities' future greenhouse gas emissions, (3) any additional emissions from climate feedbacks that were not included in the models IPCC used to prepare its report, i.e., greenhouse gas releases from permafrost.[88]

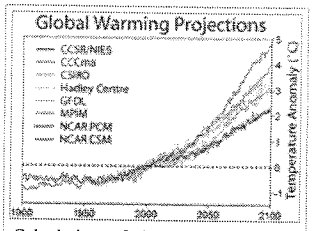
The models do not assume the climate will warm due to increasing levels of greenhouse gases. Instead the models predict how greenhouse gases will interact with radiative transfer and other physical processes. One of the mathematical results of these complex equations is a prediction whether warming or cooling will occur.[95]

Recent research has called special attention to the need to refine models with respect to the effect of clouds[96] and the carbon cycle.[97][98][99]

Models are also used to help investigate the causes of recent climate change by comparing the observed changes to those that the models project from various natural and human-derived causes. Although these models do not unambiguously attribute the warming that occurred from approximately 1910 to 1945 to either natural variation or human effects, they do indicate that the warming since 1970 is dominated by man-made greenhouse gas emissions.*[39]

The physical realism of models is tested by examining their ability to simulate current or past climates.[100]

Current climate models produce a good match to observations of global temperature changes over the last century, but do not simulate all aspects of climate.[52] Not all effects of global warming are accurately predicted by the climate models used by the IPCC. Observed Arctic shrinkage has been faster than that predicted.[101] Precipitation increased proportional to atmospheric humidity, and hence significantly faster than current global climate models predict.[102][103]

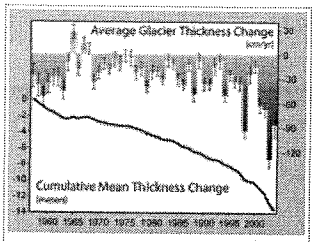


Calculations of global warming prepared in or before 2001 from a range of climate models under the SRES A2 emissions scenario, which assumes no action is taken to reduce emissions and regionally divided economic development.

Expected effects

Main articles: Effects of global warming and Regional effects of global warming

"Detection" is the process of demonstrating that climate has changed in some defined statistical sense, without providing a reason for that change.[104] Detection does not imply attribution of the detected change to a particular cause.[104] "Attribution" of causes of climate change is the process of establishing the most likely causes for the detected change with some defined level of confidence.[104] Detection and attribution may also be applied to observed changes in physical, ecological and social systems.[105]

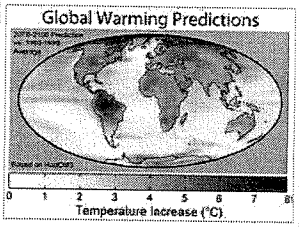


Sparse records indicate that glaciers have been retreating since the early 1800s. In the 1950s measurements began that allow the monitoring of glacial mass balance, reported to the WGMS and the NSIDC.

Natural systems

Global warming has been detected in a number of systems. Some of these changes, e.g., based on the instrumental temperature record, have been described in the section on temperature changes. Rising sea levels and observed decreases in snow and ice extent are consistent with warming.[106] Most of the increase in global average temperature since the mid-20th century is, with high probability,[D] attributable to human-induced changes in greenhouse gas concentrations.[107]

Even with current policies to reduce emissions, global emissions are still expected to continue to grow over the coming decades.[108] Over the course of the 21st century, increases in emissions at or above their current rate would very likely induce changes in the climate system larger than those observed in the 20th century.



The geographic distribution of surface warming during the 21st century calculated by the HadCM3 climate model if a business as usual scenario is assumed for economic growth and greenhouse gas emissions. In this figure, the globally averaged warming corresponds to 3.0 °C (5.4 °F).

In the IPCC Fourth Assessment Report, across a range of future emission scenarios, model-based estimates of sea level rise for the end of the 21st century (the year 2090–2099, relative to 1980–1999) range from 0.18 to 0.59 m. These estimates, however, were not given a likelihood due to a lack of scientific understanding, nor was an upper bound given for sea level rise. On the timescale of centuries to millennia, the melting of ice sheets could result in even higher sea level rise. Partial deglaciation of the Greenland ice sheet, and possibly the West Antarctic ice sheet, could contribute 4–6 metres (13 to 20 ft) or more to sea level rise.[109]

Changes in regional climate are expected to include greater warming over land, with most warming at high northern latitudes, and least warming over the Southern Ocean and parts of the North Atlantic Ocean.[108] Snow cover area and sea ice extent are expected to decrease, with the Arctic expected to be largely ice-free in September by 2037.[110] The frequency of hot extremes, heat waves, and heavy precipitation will very likely increase.

Ecological systems

In terrestrial ecosystems, the earlier timing of spring events, and poleward and upward shifts in plant and animal ranges, have been linked with high confidence to recent warming.[111] Future climate change is expected to particularly affect certain ecosystems, including tundra, mangroves, and coral reefs.[112] It is expected that most ecosystems will be affected by higher atmospheric CO_2 levels, combined with higher global temperatures.[113] Overall, it is expected that climate change will result in the extinction of many species and reduced diversity of ecosystems.[114]

Social systems

Vulnerability of human societies to climate change mainly lies in the effects of extreme weather events rather than gradual climate change.[115] Impacts of climate change so far include adverse effects on small islands,[116] adverse effects on indigenous populations in high-latitude areas,[117] and small but discernable effects on human health.[118] Over the 21st century, climate change is likely to adversely affect hundreds of millions of people through increased coastal flooding, reductions in water supplies, increased malnutrition and increased health impacts.[119]

Future warming of around 3 °C (by 2100, relative to 1990–2000) could result in increased crop yields in mid- and high-latitude areas, but in low-latitude areas, yields could decline, increasing the risk of malnutrition.[116] A similar regional pattern of net benefits and costs could occur for economic (market-sector) effects.[118] Warming above 3 °C could result in crop yields falling in temperate regions, leading to a reduction in global food production.[120] Most economic studies suggest losses of world gross domestic product (GDP) for this magnitude of warming.[121][122]

Responses to global warming

Mitigation

Main article: Climate change mitigation

See also: Fee and dividend

Reducing the amount of future climate change is called mitigation of climate change. The IPCC defines mitigation as activities that reduce greenhouse gas (GHG) emissions, or enhance the capacity of carbon sinks to absorb GHGs from the atmosphere.[123] Many countries, both developing and developed, are aiming to use cleaner, less polluting, technologies.[55]:192 Use of these technologies aids mitigation and could result in substantial reductions in CO_2 emissions. Policies include targets for emissions reductions, increased use of renewable energy, and increased energy efficiency. Studies indicate substantial potential for future reductions in emissions.[124]

To limit warming to the lower range in the overall IPCC's "Summary Report for Policymakers"[125] means adopting policies that will limit emissions to one of the significantly different scenarios described in the full report.[126] This will become more and more difficult, since each year of high emissions will require even more drastic measures in later years to stabilize at a desired atmospheric concentration of greenhouse gases, and energy-related carbon-dioxide (CO2) emissions in 2010 were the highest in history, breaking the prior record set in 2008.[127]

Since even in the most optimistic scenario, fossil fuels are going to be used for years to come, mitigation may also involve carbon capture and storage, a process that traps CO_2 produced by factories and gas or coal power stations and then stores it, usually underground.[128]

Adaptation

Main article: Adaptation to global warming

Other policy responses include adaptation to climate change. Adaptation to climate change may be planned, e.g., by local or national government, or spontaneous, i.e., done privately without government intervention.[129] The ability to adapt is closely linked to social and economic development.[124] Even societies with high capacities to adapt are still vulnerable to climate change. Planned adaptation is already occurring on a limited basis. The barriers, limits, and costs of future adaptation are not fully understood.

Geoengineering

Another policy response is geoengineering of the climate.[130] Geoengineering encompasses a range of techniques to remove CO_2 from the atmosphere or to reflect incoming sunlight.[130] Little is known about the effectiveness, costs or potential side effects of geoengineering options.[130] As most geoengineering techniques would affect the entire globe, deployment would likely require global public acceptance and an adequate global legal and regulatory framework, as well as significant further scientific research.[131]

Views on global warming

Main articles: Global warming controversy and Politics of global warming

See also: Scientific opinion on climate change and Public opinion on climate change

There are different views over what the appropriate policy response to climate change should be.[132] [133] These competing views weigh the benefits of limiting emissions of greenhouse gases against the costs. In general, it seems likely that climate change will impose greater damages and risks in poorer regions.[134]

Global warming controversy

The **global warming controversy** refers to a variety of disputes, significantly more pronounced in the popular media than in the scientific literature,[135][136] regarding the nature, causes, and consequences of global warming. The disputed issues include the causes of increased global average air temperature, especially since the mid-20th century, whether this warming trend is unprecedented or within normal climatic variations, whether humankind has contributed significantly to it, and whether the increase is wholly or partially an artifact of poor measurements. Additional disputes concern estimates of climate sensitivity, predictions of additional warming, and what the consequences of global warming will be.

In the scientific literature, there is a strong consensus that global surface temperatures have increased in recent decades and that the trend is caused mainly by human-induced emissions of greenhouse gases. No scientific body of national or international standing disagrees with this view,[137][138] though a few organisations hold non-committal positions.

From 1990-1997 in the United States, conservative think tanks mobilized to undermine the legitimacy of global warming as a social problem. They challenged the scientific evidence; argued that global warming will have benefits; and asserted that proposed solutions would do more harm than good.[139]

Politics

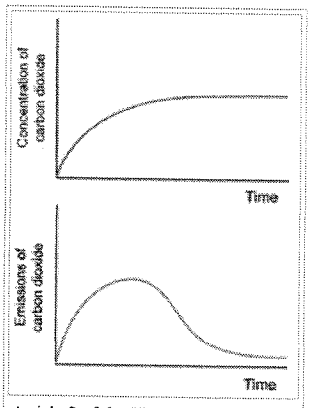
Most countries are Parties to the United Nations Framework Convention on Climate Change (UNFCCC).[142] The ultimate objective of the Convention is to prevent "dangerous" human interference of the climate system.[143] As is stated in the Convention, this requires that GHG concentrations are stabilized in the atmosphere at a level where ecosystems can adapt naturally to climate change, food production is not threatened, and economic development can proceed in a sustainable fashion.

The Framework Convention was agreed in 1992, but since then, global emissions have risen.[133][144] During negotiations, the G77 (a lobbying group in the United Nations representing 133 developing nations)[145]:4 pushed for a mandate requiring developed countries to "[take] the lead" in reducing their emissions.[146] This was justified on the basis that: the developed world's emissions had contributed most to the stock of GHGs in the atmosphere; per-capita emissions (i.e., emissions per head of population) were still relatively low in developing countries; and the emissions of developing countries would grow to meet their development needs.[57]:290 This mandate was sustained in the Kyoto Protocol to the Framework Convention,[57]:290 which entered into legal effect in 2005.[147]

In ratifying the Kyoto Protocol, most developed countries accepted legally binding commitments to limit their emissions. These first-round commitments expire in 2012.[147] US President George W. Bush rejected the treaty on the basis that "it exempts 80% of the world, including major population centers such as China and India, from compliance, and would cause serious harm to the US economy."[145]:5

At the 15th UNFCCC Conference of the Parties, held in 2009 at Copenhagen, several UNFCCC Parties produced the Copenhagen Accord.[148] Parties associated with the Accord (140 countries, as of November 2010)[149]:9 aim to limit the future increase in global mean temperature to below 2 °C.[150] A preliminary assessment published in November 2010 by the United Nations Environment Programme (UNEP) suggests a possible "emissions gap" between the voluntary pledges made in the Accord and the emissions cuts necessary to have a "likely" (greater than 66% probability) chance of meeting the 2 °C objective.[149]:10–14 The UNEP assessment takes the 2 °C objective as being measured against the pre-industrial global mean temperature level. To having a likely chance of meeting the 2 °C objective, assessed studies generally indicated the need for global emissions to peak before 2020, with substantial declines in emissions thereafter.

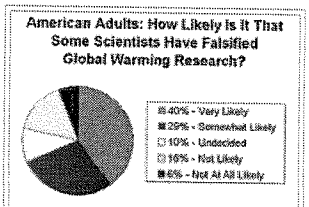
The 16th Conference of the Parties (COP16) was held at Cancún in 2010. It produced an agreement, not a binding treaty, that the Parties should take urgent action to reduce greenhouse gas emissions to meet a goal of limiting global warming to 2 °C above pre-industrial temperatures. It also recognized the need to consider strengthening the goal to a global average rise of 1.5 °C.[151]



Article 2 of the UN Framework Convention refers explicitly to "stabilization of greenhouse gas concentrations."[140] In order to stabilize the atmospheric concentration of CO_2, emissions worldwide would need to be dramatically reduced from their present level.[141]

Public opinion

In 2007–2008 Gallup Polls surveyed 127 countries. Over a third of the world's population was unaware of global warming, with people in developing countries less aware than those in developed, and those in Africa the least aware. Of those aware, Latin America leads in belief that temperature changes are a result of human activities while Africa, parts of Asia and the Middle East, and a few countries from the Former Soviet Union lead in the opposite belief.[153] In the Western world, opinions over the concept and the appropriate responses are divided. Nick Pidgeon of Cardiff University said that "results show the different stages of engagement about global warming on each side of the Atlantic", adding, "The debate in Europe is about what action needs to be taken, while many in the U.S. still debate whether climate change is happening."[154][155] A 2010 poll by the Office of National Statistics found that 75% of UK respondents were at least "fairly convinced" that the world's climate is changing, compared to 87% in a similar survey in 2006.[156] A January 2011 ICM poll in the UK found 83% of respondents viewed climate change as a current or imminent threat, while 14% said it was no threat. Opinion was unchanged from an August 2009 poll asking the same question, though there had been a slight polarisation of opposing views.[157]



Based on Rasmussen polling of 1,000 adults in the USA conducted 29–30 July 2011.[152]

A survey in October, 2009 by the Pew Research Center for the People & the Press showed decreasing public perception in the United States that global warming was a serious problem. All political persuasions showed reduced concern with lowest concern among Republicans, only 35% of whom considered there to be solid evidence of global warming.[158] The cause of this marked difference in public opinion between the United States and the global public is uncertain but the hypothesis has been advanced that clearer communication by scientists both directly and through the media would be helpful in adequately informing the American public of the scientific consensus and the basis for it.[159] The U.S. public appears to be unaware of the extent of scientific consensus regarding the issue, with 59% believing that scientists disagree "significantly" on global warming.[160]

By 2010, with 111 countries surveyed, Gallup determined that there was a substantial decrease in the number of Americans and Europeans who viewed Global Warming as a serious threat. In the United States, a little over half the population (53%) now viewed it as a serious concern for either themselves or their families; a number 10 percentage points below the 2008 poll (63%). Latin America had the biggest rise in concern, with 73% saying global warming was a serious threat to their families.[161] That global poll also found that people are more likely to attribute global warming to human activities than to natural causes, except in the USA where nearly half (47%) of the population attributed global warming to natural causes.[162]

On the other hand, in May 2011 a joint poll by Yale and George Mason Universities found that nearly half the people in the USA (47%) attribute global warming to human activities, compared to 36% blaming it on natural causes. Only 5% of the 35% who were "disengaged", "doubtful", or "dismissive" of global warming were aware that 97% of publishing US climate scientists agree global warming is happening and is primarily caused by humans.[163]

Researchers at the University of Michigan have found that the public's belief as to the causes of global warming depends on the wording choice used in the polls.[164]

In the United States, according to the Public Policy Institute of California's (PPIC) eleventh annual survey on environmental policy issues, 75% said they believe global warming is a very serious or somewhat serious threat to the economy and quality of life in California.[165]

A July 2011 Rasmussen Reports poll found that 69% of adults in the USA believe it is at least somewhat likely that some scientists have falsified global warming research.[166]

A September 2011 Angus Reid Public Opinion poll found that Britons (43%) are less likely than Americans (49%) or Canadians (52%) to say that "global warming is a fact and is mostly caused by emissions from vehicles and industrial facilities." The same poll found that 20% of Americans, 20% of Britons and 14% of Canadians think "global warming is a theory that has not yet been proven."[167]

Other views

Most scientists agree that humans are contributing to observed climate change.[54][168] National science academies have called on world leaders for policies to cut global emissions.[169] However, some scientists and non-scientists question aspects of climate-change science.[170][171][168]

Organizations such as the libertarian Competitive Enterprise Institute, conservative commentators, and some companies such as ExxonMobil have challenged IPCC climate change scenarios, funded scientists who disagree with the scientific consensus, and provided their own projections of the economic cost of stricter controls.[172][173][174][175] In the finance industry, Deutsche Bank has set up an institutional climate change investment division (DBCCA),[176] which has commissioned and published research[177] on the issues and debate surrounding global warming.[178] Environmental organizations and public figures have emphasized changes in the current climate and the risks they entail, while promoting adaptation to changes in infrastructural needs and emissions reductions.[179] Some fossil fuel companies have scaled back their efforts in recent years,[180] or called for policies to reduce global warming.[181]

Etymology

The term *global warming* was probably first used in its modern sense on 8 August 1975 in a science paper by Wally Broecker in the journal *Science* called "Are we on the brink of a pronounced global warming?".[182][183][184] Broecker's choice of words was new and represented a significant recognition that the climate was warming; previously the phrasing used by scientists was "inadvertent climate modification," because while it was recognized humans could change the climate, no one was sure which direction it was going.[185] The National Academy of Sciences first used *global warming* in a 1979 paper called the Charney Report, it said: "if carbon dioxide continues to increase, [we find] no reason to doubt that climate changes will result and no reason to believe that these changes will be negligible."[186] The report made a distinction between referring to surface temperature changes as *global warming*, while referring to other changes caused by increased CO_2 as *climate change*.[185]

Global warming became more widely popular after 1988 when NASA climate scientist James Hansen used the term in a testimony to Congress.[185] He said: "global warming has reached a level such that we can ascribe with a high degree of confidence a cause and effect relationship between the greenhouse effect and the observed warming."[187] His testimony was widely reported and afterward *global warming* was commonly used by the press and in public discourse.[185]

See also

- Glossary of climate change
- History of climate change science
- Index of climate change articles

Notes

A. ^ The 2001 joint statement was signed by the national academies of science of Australia, Belgium, Brazil, Canada, the Caribbean, the People's Republic of China, France, Germany, India, Indonesia, Ireland, Italy, Malaysia, New Zealand, Sweden, and the UK.[188] The 2005 statement added Japan, Russia, and the U.S. The 2007 statement added Mexico and South Africa. The Network of African Science Academies, and the Polish Academy of Sciences have issued separate statements. Professional scientific societies include American Astronomical Society, American Chemical Society, American Geophysical Union, American Institute of Physics, American Meteorological Society, American Physical Society, American Quaternary Association, Australian Meteorological and Oceanographic Society, Canadian Foundation for Climate and Atmospheric Sciences, Canadian Meteorological and Oceanographic Society, European Academy of Sciences and Arts, European Geosciences Union, European Science Foundation, Geological Society of America, Geological Society of Australia, Geological Society of London-Stratigraphy Commission, InterAcademy Council, International Union of Geodesy and Geophysics, International Union for Quaternary Research, National Association of Geoscience Teachers (http://www.nagt.org/index.html) , National Research Council (US), Royal Meteorological Society, and World Meteorological Organization.

B. ^ Earth has already experienced almost 1/2 of the 2.0 °C (3.6 °F) described in the Cancun Agreement. In the last 100 years, Earth's average surface temperature increased by about 0.8 °C (1.4 °F) with about two thirds of the increase occurring over just the last three decades.[2]

C. ^ Note that the greenhouse effect produces an average worldwide temperature *increase* of about 33 °C (59 °F) compared to black body predictions without the greenhouse effect, not an average *surface temperature* of 33 °C (91 °F). The average worldwide surface temperature is about 14 °C (57 °F).[42]

D. ^ In the IPCC Fourth Assessment Report, published in 2007, this attribution is given a probability of greater than 90%, based on expert judgement.[189] According to the US National Research Council Report – *Understanding and Responding to Climate Change* – published in 2008, "[most] scientists agree that the warming in recent decades has been caused primarily by human activities that have increased the amount of greenhouse gases in the atmosphere."[54]

1. ^ 2009 Ends Warmest Decade on Record (http://earthobservatory.nasa.gov/IOTD/view.php?id=42392) . NASA Earth Observatory Image of the Day, 22 January 2010.
2. ^ [a] [b] [Notes-FullReport] *America's Climate Choices* (http://www.nap.edu/openbook.php?record_id=12781&page=1) . Washington, D.C.: The National Academies Press. 2011. p. 15. ISBN 978-0-309-14585-5. http://www.nap.edu/openbook.php?record_id=12781&page=1. "The average temperature of the Earth's surface increased by about 1.4°F (0.8°C) over the past 100 years, with about 1.0°F (0.6°C) of this warming occurring over just the past three decades"
3. ^ "Warming of the climate system is unequivocal, as is now evident from observations of increases in global average air and ocean temperatures, widespread melting of snow and ice and rising global average sea level." IPCC, Section 1.1: Observations of climate change (http://www.ipcc.ch/publications_and_data/ar4/syr/en/mains1.html) , in IPCC AR4 SYR 2007.
4. ^ "Three different approaches are used to describe uncertainties each with a distinct form of language. * * * Where uncertainty in specific outcomes is assessed using expert judgment and statistical analysis of a body of evidence (e.g. observations or model results), then the following likelihood ranges are used to express the assessed probability of occurrence: virtually certain >99%; extremely likely >95%; very likely >90%....." IPCC, Treatment of Uncertainty (http://www.ipcc.ch/publications_and_data/ar4/syr/en/mainssyr-introduction.html) , in IPCC AR4 SYR 2007.
5. ^ IPCC, Section 2.4: Attribution of climate change (http://www.ipcc.ch/publications_and_data/ar4/syr/en/mains2-4.html) , in IPCC AR4 SYR 2007.
6. ^ [Notes-SciPanel] America's Climate Choices: Panel on Advancing the Science of Climate Change; National Research Council (2010). *Advancing the Science of Climate Change* (http://www.nap.edu/catalog.php?record_id=12782) . Washington, D.C.: The National Academies Press. ISBN 0309145880. http://www.nap.edu/catalog.php?record_id=12782. "(p1) ... there is a strong, credible body of evidence, based on multiple lines of research, documenting that climate is changing and that these changes are in large part caused by human activities. While much remains to be learned, the core phenomenon, scientific questions, and hypotheses have been examined thoroughly and have stood firm in the face of serious scientific debate and careful evaluation of alternative explanations. * * * (p21-22) Some scientific conclusions or theories have been so thoroughly examined and tested, and supported by so many independent observations and results, that their likelihood of subsequently being found to be wrong is vanishingly small. Such conclusions and theories are then regarded as settled facts. This is the case for the conclusions that the Earth system is warming and that much of this warming is very likely due to human activities."
7. ^ [Notes-SciAcademy Statement] "Joint Science Academies' Statement" (http://nationalacademies.org/onpi/06072005.pdf) (PDF). http://nationalacademies.org/onpi/06072005.pdf. Retrieved 2010-08-09.
8. ^ Meehl *et al.*, Chap. 10: Global Climate Projections (http://www.ipcc.ch/publications_and_data/ar4/wg1/en/ch10.html) , Mean Temperature (http://www.ipcc.ch/publications_and_data/ar4/wg1/en/ch10s10-es-1-mean-temperature.html) , in IPCC AR4 WG1 2007.
9. ^ Schneider Von Deimling, Thomas; Held, Ganopolski, Rahmstorf (2006). "Climate sensitivity estimated from ensemble simulations of glacial climate" (http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.172.3264&rep=rep1&type=pdf) . *Climate Dynamics*. http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.172.3264&rep=rep1&type=pdf. Retrieved 20 July 2011.

10. ^ Meehl *et al.*, Chap. 10: Global Climate Projections (http://www.ipcc.ch/publications_and_data/ar4/wg1/en/ch10.html) , Section 10.5: Quantifying the Range of Climate Change (http://www.ipcc.ch/publications_and_data/ar4/wg1/en/ch10s10-5.html) , in IPCC AR4 WG1 2007.
11. ^ [Notes-Lu-2007] Lu, Jian; Vecchi, Gabriel A.; Reichler, Thomas (2007). "Expansion of the Hadley cell under global warming" (http://www.atmos.berkeley.edu/~jchiang/Class/Spr07/Geog257/Week10/Lu_Hadley06.pdf) (PDF). *Geophysical Research Letters* **34** (6): L06805. Bibcode 2007GeoRL..3406805L (http://adsabs.harvard.edu/abs/2007GeoRL..3406805L) . doi:10.1029/2006GL028443 (http://dx.doi.org/10.1029%2F2006GL028443) . http://www.atmos.berkeley.edu/~jchiang/Class/Spr07/Geog257/Week10/Lu_Hadley06.pdf.
12. ^ IPCC, Section ??? in IPCC AR4 SYR 2007.
13. ^ Warren, Rachel (Jan 2011). "The role of interactions in a world implementing change adaptation and mitigation solutions to climate" (http://rsta.royalsocietypublishing.org/content/369/1934/217.full.pdf+html) . *Phil. Trans. R. Soc. A* **369** (1934): 217–241. Bibcode 2011RSPTA.369..217W (http://adsabs.harvard.edu/abs/2011RSPTA.369..217W) . doi:10.1098/rsta.2010.0271 (http://dx.doi.org/10.1098%2Frsta.2010.0271) . PMID 21115521 (http://www.ncbi.nlm.nih.gov/pubmed/21115521) . http://rsta.royalsocietypublishing.org/content/369/1934/217.full.pdf+html.
14. ^ "Article 2" (http://unfccc.int/essential_background/convention/background/items/1353.php) . *The United Nations Framework Convention on Climate Change.*. http://unfccc.int/essential_background/convention/background/items/1353.php. "The ultimate objective of this Convention and any related legal instruments that the Conference of the Parties may adopt is to achieve, in accordance with the relevant provisions of the Convention, stabilization of greenhouse gas concentrations in the atmosphere at a level that would prevent dangerous anthropogenic interference with the climate system. Such a level should be achieved within a time-frame sufficient to allow ecosystems to adapt naturally to climate change, to ensure that food production is not threatened and to enable economic development to proceed in a sustainable manner. Such a level should be achieved within a time-frame sufficient to allow ecosystems to adapt naturally to climate change, to ensure that food production is not threatened and to enable economic development to proceed in a sustainable manner", excerpt from the founding international treaty which entered into force on 21 March 1994.
15. ^ "Kyoto Protocol" (http://unfccc.int/kyoto_protocol/items/2830.php) . United Nations Framework Convention on Climate Change. 2011. http://unfccc.int/kyoto_protocol/items/2830.php. Retrieved November 3, 2011.
16. ^ "Kyoto Protocol: Status of Ratification" (http://unfccc.int/kyoto_protocol/status_of_ratification/items/2613.php) . United Nations Framework Convention on Climate Change. http://unfccc.int/kyoto_protocol/status_of_ratification/items/2613.php. Retrieved 2011-10-17.
17. ^ . http://www.businessweek.com/news/2011-10-14/no-deal-on-kyoto-co2-goals-risks-collapse-of-un-summit-eu-says.html.
18. ^ " (http://unfccc.int/resource/docs/2010/cop16/eng/07a01.pdf#page=2) 2010 United Nations Climate Change Conference (COP16/CMP6)". *Report of the Conference of the Parties on its sixteenth session, held in Cancun from 29 November to 10 December 2010, Addendum, Part Two: Action taken by the Conference of the Parties at its sixteenth session; Decisions Adopted by the Parties.* Cancun Mexico: UNFCCC. 15 March 2011. p. 3. http://unfccc.int/resource/docs/2010/cop16/eng/07a01.pdf#page=2. Retrieved 26 October 2011. "[D]eep cuts in global greenhouse gas emissions are required according to science, and as documented in the Fourth Assessment Report of the Intergovernmental Panel on Climate Change, with a view to reducing global greenhouse gas emissions so as to hold the increase in global average temperature below 2 °C above preindustrial levels, and that Parties should take urgent action to meet this long-term goal, consistent with science and on the basis of equity; also recognizes the need to consider, in the context of the first review, as referred to in paragraph 138 below, strengthening the long-term global goal on the basis of the best available scientific knowledge, including in relation to a global average temperature rise of 1.5 °C;"
19. ^ Anderson, Kevin and Alice Bows (Jan 2011). "Beyond 'dangerous' climate change: emission scenarios for a new world" (http://rsta.royalsocietypublishing.org/content/369/1934/217.full.pdf+html) . *Phil. Trans. R. Soc. A* **369** (1934): 20-44. doi:10.1098/rsta.2010.0290 (http://dx.doi.org/10.1098%2Frsta.2010.0290) . http://rsta.royalsocietypublishing.org/content/369/1934/217.full.pdf+html. "The analysis suggests that despite high-level statements to the contrary, there is now little to no chance of maintaining the global mean surface temperature at or below 2°C. Moreover, the impacts associated with 2° C have been revised upwards, sufficiently so that 2°C now more appropriately represents the threshold between 'dangerous' and 'extremely dangerous' climate change."
20. ^ "Warming could exceed safe levels in this lifetime" (http://www.reuters.com/article/2011/10/23/us-warming-idUSTRE79M2L720111023) . *Reuters.* Oct 23, 2011. http://www.reuters.com/article/2011/10/23/us-warming-idUSTRE79M2L720111023.
21. ^ Rogelj, Joeri; William Hare, Jason Lowe, Detlef P. van Vuuren, Keywan Riahi, Ben Matthews, Tatsuya Hanaoka, Kejun Jiang & Malte Meinshausen (2011). "Emission pathways consistent with a 2°C global temperature limit". *Nature Climate Change.* doi:10.1038/nclimate1258 (http://dx.doi.org/10.1038%2Fnclimate1258) .
22. ^ "Climate Change: A Summary of the Science (Sept 2010)" (http://royalsociety.org/WorkArea/DownloadAsset.aspx?id=4294972963) (PDF). Royal Society (UK). http://royalsociety.org/WorkArea/DownloadAsset.aspx?id=4294972963.
23. ^ USGRCP (n.d.). "Key Findings. On (website): Global Climate Change Impacts in the United States" (http://www.globalchange.gov/publications/reports/scientific-assessments/us-impacts/key-findings) . U.S. Global Change Research Program website. http://www.globalchange.gov/publications/reports/scientific-assessments/us-impacts/key-findings. Retrieved 2010-04-17.
24. ^ IPCC, Summary for Policymakers, Chapter 1: Observed changes in climate and their effects (http://www.ipcc.ch/publications_and_data/ar4/syr/en/spms1.html) , in IPCC AR4 SYR 2007.
25. ^ Trenberth *et al.*, Ch. 3, Observations: Atmospheric Surface and Climate Change (http://www.ipcc.ch/publications_and_data/ar4/wg1/en/ch3.html) , [section needed] p. 244 (http://www.ipcc.ch/pdf/assessment-report/ar4/wg1/ar4-wg1-chapter3.pdf) , in IPCC AR4 WG1 2007.
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External links

Research

- NASA Goddard Institute for Space Studies (http://www.giss.nasa.gov/) – Global change research
- NOAA State of the Climate Report (http://www.ncdc.noaa.gov/sotc/global/2011/2) – U.S. and global monthly state of the climate reports
- Climate Change at the National Academies (http://dels.nas.edu/Climate/Climate-Change/Reports-Academies-Findings) — repository for reports
- Nature Reports Climate Change (http://www.nature.com/climate/index.html) — free-access web resource
- Met Office: Climate change (http://www.metoffice.gov.uk/climatechange/) — UK National Weather Service
- Global Science and Technology Sources on the Internet (http://www.istl.org/01-fall/internet.html) — commented list of internet resources
- Educational Global Climate Modelling (http://edgcm.columbia.edu/) (EdGCM) — research-quality climate change simulator
- DISCOVER (http://discover.itsc.uah.edu/) — satellite-based ocean and climate data since 1979 from NASA
- Global Warming Art (http://www.globalwarmingart.com/) — collection of figures and images

Educational

- What Is Global Warming? (http://green.nationalgeographic.com/environment/global-warming/gw-overview.html) — by National Geographic
- Global Climate Change Indicators (http://www.ncdc.noaa.gov/indicators/) – from NOAA
- NOAA Climate Services (http://www.climate.gov/#understandingClimate) – from NOAA
- Global Warming Frequently Asked Questions (http://www.ncdc.noaa.gov/oa/climate/globalwarming.html) — from NOAA
- Understanding Climate Change – Frequently Asked Questions (http://www.ucar.edu/news/features/climatechange/faqs.jsp) — from UCAR
- Global Climate Change: NASA's Eyes on the Earth (http://climate.jpl.nasa.gov/) — from NASA's JPL and Caltech
- OurWorld 2.0 (http://ourworld.unu.edu/en/series/climate/) — from the United Nations University
- Pew Center on Global Climate Change (http://www.pewclimate.org/) — business and politics
- Best Effort Global Warming Trajectories – Wolfram Demonstrations Project (http://demonstrations.wolfram.com/BestEffortGlobalWarmingTrajectories/) — by Harvey Lam
- Koshland Science Museum – Global Warming Facts and Our Future (http://www.koshland-science-museum.org/exhibitgcc/) — graphical introduction from National Academy of Sciences
- Climate Change: Coral Reefs on the Edge (http://site.videoproject.com/coralreefs/) — A video presentation by Prof. Ove Hoegh-Guldberg, University of Auckland
- Climate Change Indicators in the United States (http://www.epa.gov/climatechange/indicators.html) Report by United States Environmental Protection Agency, 80 pp.
- Global Warming (http://chemistry.beloit.edu/Warming/index.html)
- Video on the effects of global warming on St. Lawrence Island in the Bering Sea (http://www.pbs.org/wgbh/nova/extremeice/thin_01_q_300.html)

Related information

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Categories: Global warming | Climate change | Climate history | Economic problems

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November 16, 2011

The General Plan looked great upon first reading the Value Statement and the Framework Concepts. And I was excited.
I would like read two of the Framwork Concepts;

Concept 1: Agriculture
One of the most identified assets in Tulare County is the rich agricultural land on the valley floor and in the
foothills. The General Plan identifies agriculture not only as an economic asset to the County but also as a
cultural, scenic, and environmental element to be protected.

Concept 3: Scenic Landscapes
The scenic landscapes in Tulare County will continue to be one of its most visible assets. The Tulare County
General Plan emphasizes the enhancement and preservation of these resources as critical to the future of the
County. The County will continue to asses the recreational, tourism, quality of life, and economic benefits that
scenic landscapes provide and implement programs that preserve and use this resource to the fullest extent.

However, as I read the Policies and Implementation Measure as well as the Corridors Framework Plan which promotes development in unidentified corridors along the County's scenic highways, major regional transportation arterys and through out the county, I realized that there clearly was a disconnect.

What initially appeared to be a plan based on protecting ag land and it's economy, its rural heritage, open space, a quality of life and its related values was really a plan that encouraged leap frog development or what I like to call it a market driven plan.

Now, I can understand how our BOS would be in favor of a market driven plan. TC is financial struggling to put it mildly and A Market Driven Plan would appear to solve immediate problems. It could help generate revenue. Through creating construction jobs, permits and development fees, and attracting certain kinds of business to help grow and development the county. But that market driven kind of plan has proven to be harmful in the long term because the costs is sprawl that creates air pollution and water shortage which ultimately out weigh the short term benefits. Also, encouraging New town Development will slowly and incrementally carve up our agricultural land and scenic open space and erode out agricultural based economy and a way of life that attracts tourism.

I'm in favor of a city centered heathy growth alternative. This type of planning will protect our ag land and its economy. It will create communities that live closer to their work which will cut down on a car driven way of life

which will reduce air pollution. It will create a life style which will encourage walking and other alternatives means of transportation which will support a healtier life style. And the by-product of all of this will encourage businesses that will want to move their businesses here.

However, If the BOS is in favor of a market driven plan then they should write a more honest plan where the value statements, the framework concepts, and its guiding principles are consistent with the its Policies and Implementation Measures and its Corridor Framework Plan. The way it is written right now it is not. And as a result is inconsistent, confusing and misleading.

Kathleen Gunther-Seligman
46136 South Fork Drive
Three Rivers, California 93271

November 16, 2011

Several times I stood in front of this planning commission as a representative of Tulare County Citizens for Responsible Growth to comment on early drafts of the General Plan. Almost three years later, Tulare County has new draft of its General Plan and I now submit my statement as a concerned resident and a mother – yet in the matters that concern this planning commission, nothing has changed. The General Plan remains a weak and "planless" plan that does nothing to responsibly direct growth and ignores the concerns of its citizens. The Tulare County Citizens for Responsible Growth's Healthy Growth Alternative remains our best plan for Tulare County's future.

My husband and I were raised in Tulare County and after an extended time away, we decided that our hearts still resided in this county and we chose to move back. We were called back by a rural lifestyle, by the Sierra, by the smell of orange blossoms in the spring, by the idea of living in a place where people were still connected to the land.

And we're happy here, but there are times we question our decision to return. Like when the smog is so bad we can't see the Sierra from just a few miles away. Like when we hear that a sprawling new city is planned in an area we associate with biking, cattle grazing, and wildflowers. Like when I read that our changing climate threatens our pollinators, our water supply, and the very foundation upon which this County stands – agriculture. Like when I hear that my child is tremendously more likely to develop asthma than are kids almost anywhere else in the country, just because he lives in Tulare County. Like when I review the latest version of the General Plan and environmental impact report and realize that, despite thousands of pages of comments by concerned citizens, and millions of dollars of taxpayer money, our Board of Supervisors have done almost nothing to improve this critically flawed General Plan.

Please, please reject this General Plan and this FEIR. Please, please encourage our Supervisors adopt the principles laid out in TCCRG's Healthy Growth Alternative. They are not radical nor are they groundbreaking. They're smart. And they're being adopted by counties all over California. If Tulare County wants to pull itself off the lists of poorest air quality, worst quality of life, highest levels of poverty...then we need to be brave enough to make some changes and to protect the parts of this county that those of us who live here – who *choose* to live here – care about. A good, strong General Plan that wisely plans for growth is a critical first step.

Sincerely,

Sarah Campe
46101 South Fork Dr.
Three Rivers, CA

Communities Represented:

Alpaugh	Poplar
Cutler	Tonyville
Ducor	Tooleville
East-Orosi	Seville
Earlimart	Sultana
Lindsay	Pixley
Orosi	Porterville
Plainview	West Goshen

Nonprofit Organizations Represented:
California Rural Legal Assistance (CRLA)
Californians for Pesticide Reform (CPR)
Center on Race, Poverty & the Environment (CRPE)
Community Water Center (CWC)
Environmental Justice Coalition for Water (EJCW)
Proyecto Campesino (PC)

November 15, 2011

David Bryant
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Phone: (559) 733-6291
Fax: (559) 730-2653

RE: Comments on the Tulare County General Plan Update

On behalf of the A.G.U.A. Coalition, we would like to submit the following comments on the Tulare County General Plan:

The General Plan Fails to Adequately Address Drinking Water Contamination and Disparately Impacts Low-Income Communities of Color in Tulare County

The General Plan update almost completely fails to mention the fact that there are existing communities in Tulare County that lack a safe and affordable source of clean drinking water despite a significant discussion of this issue in the General Plan's background report. For example, the Public Facilities "existing Conditions" overview contains a general discussion of public services such as water services that are provided to County residents by the County or special districts, but does not even mention that at least Alpaugh, Cutler-Orosi, Ducor, East Orosi, Matheny Tract, Tipton, Tonyville, Seville and Tooleville,are all dependent upon water with contaminants such as nitrates, arsenic, DBCP, over-chlorinatation, bacteria and disinfectant byproducts in excess of state or federal standards.

Notably absent from the County's "existing conditions" in the County's water element is any discussion or analysis of groundwater contamination with the exception of generalized statements that the Kings River and Kaweah watersheds "tend to be high in nitrates" and that water quality in the foothills tends to be diminished due to nitrates. This

fails adequately address nitrate contamination facing Tulare County's residents. Similarly, the water element fails to mention the prevalence of other contaminants in groundwater including arsenic, DBCP and bacteria.

A vast majority of the communities dependent on contaminated groundwater are from areas that are the most impoverished in Tulare County. Additionally, these Communities also tend to have significantly higher proportions of people of color when compared with Tulare County as a whole. The County's failure to adequately address drinking water in the General Plan, disparately impacts low-income Communities of color in Tulare County. This raises serious Civil Rights and Fair Housing concerns, including violations of Government Code § 65008, the California Fair Employment and Housing Act (Government Code § 12900 et seq.) and Government Code § 11135.

The General Plan Fails to Plan for Existing Communities that Meet the Plan's Definition of a Hamlet

The General Plan defines a hamlet as: "an unincorporated area that shares many of the characteristics of a community but on a smaller scale." The General Plan further states that the "following criteria are used to define an unincorporated area as a "hamlet" for purposes of the General Plan:

Generally located in the Valley region of the County but may be located in the Foothill region, and should be identified in the Foothill Growth Management Plan,
A population of over 100 persons,
the population resides in the area more than nine months out of the year, and

A definable core that contains at least three of the following features:
Special district or town council,
Grocery store or other commercial establishment,
Wastewater system,
Community water system,
Public school,
Post office, and
Community center or other community gathering location (church, Veterans Memorial Hall, etc.)

A.G.U.A.
Asociación de Gente Unida por el Agua
Working to ensure our Central Valley water is free of contamination so that it is safe, clean and affordable.
Trabajando para asegurar que el agua de nuestro Valle Central este libre de contaminación para que sea sana, limpia y economica.

The General Plan fails to include the Communities of Matheny Tract and Tooleville as hamlets although they meet the above definition of a hamlets as set out in the General Plan:

Matheny Tract is a community of over 1,000 residents with a population that resides in the area year round. The Community is served by the Pratt Mutual Water Company, has a community water system, a grocery store and has several churches that serve as gathering locations. The community suffers from an almost complete lack of infrastructure including a lack of potable drinking water, a sewer system, streetlights, sidewalks, well paved roads and stormwater drainage. The County's most recent draft Housing Element states that the County has not invested resources to improves the community's infrastructure in the past 30 years.

Tooleville: is a community of over 300 persons that reside in the area year round. The community is served by the Tooleville Mutual Water Company, has both a community water system and a sewer system, has an area designated for community gatherings and is served by one small commercial establishment. The community's drinking water has recently tested above the legal limit for nitrate and the community suffers from other infrastructure deficits including street lighting, well paved roads, sidewalks and stormwater drainage.

We are also concerned that other communities were excluded "hamlet" designation.

The failure to designate Matheny Tract and Tooleville, and possibly other communities, as hamlets unfairly denies the residents of these areas the benefits of many General Plan's goals and policies that would directly improve the conditions in these impoverished areas. This includes planning framework goal 3 which purports to "provide a realistic planning area around each unincorporated hamlet to clearly delineate the boundaries of each hamlet, provide a framework for economic development, the provision of public services, and an outstanding quality of life." Matheny Tract and Tooleville will also be left out the policies for hamlets designed to reach planning framework goal 3, including PF 3.3 which requires the preparation of "Hamlet Plans." This policy involves the creation of plans for hamlets including a land use diagram and an analysis of the short and long term ability to provide necessary urban services including the availability and sufficiency of long-term water supplies.

As these communities meet the definition of hamlets and have severe services deficits, Tulare County must designate these areas as hamlets so that they benefit from policies to

ensure the "outstanding quality of life" promised to the other hamlets in the County. Additionally, as Matheny Tract and Tooleville are comprised with significantly more people of color when compared with the County as a whole, the failure to designate these areas as

hamlets (and to allow them to gain the benefits of such a designation) implicates federal and state fair housing and civil rights concerns-including violations of Government Code § 65008, the California Fair Employment and Housing Act (Government Code § 12900 et seq.) and Government Code § 11135.

Planning Framework 5's Policy Diverts County Resources Away From Existing Communities and Conflicts With the Requirements of SB 375

Planning Framework 5 allows for the development of new communities in Tulare County. To the extent that new town development diverts the County's resources away from existing communities of color, P.F. 5 threatens to violate Civil Rights and Fair Housing Laws referenced above.

Furthermore, PF 5 also conflicts with Land use policy 1.1 which implements smart growth goals and conflicts with the goals, policies and standards set out in Senate Bill 375.

The Land Use Element's industrial Development Policies do not sufficiently Protect Existing Communities

Land Use Policy 5.1 encourages the development of industrial uses in "appropriate" locations. However, this policy fails to define or describe an "appropriate" location. This program must include language to ensure that no community or communities are disproportionately burdened with industrial land uses to ensure compliance with Civil Rights and Fair Housing Laws.

Civil Rights and Fair Housing Concerns

All of the issues addressed in the above sections, address the thousands of residents of Tulare County that lack potable drinking water, sewer systems, streetlights, stormwater

drainage and other necessary infrastructure to ensure that they have a safe and healthy place to live. A vast majority of these residents live in the unincorporated areas of Tulare County- which has a significantly higher proportion of people of color and low-income residents when compared with Tulare County as a whole. The General Plan's failure to include required and necessary solutions to improve conditions in these communities results in a disparate impact on low-income, people of color in Tulare County. This raises serious concerns of violations of State and Federal Fair Housing and Civil Rights Law including including violations of Government Code 65008, the California Fair Employment and Housing Act (Government Code § 12900 et seq.), Government Code § 11135 and the Federal Fair Housing Act (42 U.S.C. § 12131 et seq).

Sincerely,

Jesus Quevedo

Representattive of the A.G.U.A. Coalition

SIERRA CLUB

KERN-KAWEAH CHAPTER

Comments on FEIR
Tulare County
General Plan
2030 Update

SIERRA CLUB

KERN-KAWEAH CHAPTER

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November 15, 2011



David Bryant, Project Planner
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Re: Comments on the Tulare County General Plan 2030 Update
Final Environmental Impact Report (FEIR)

Dear Mr. Bryant:

The County's responses to our 2010 comments are inadequate and do not in any meaningful way address the concerns raised in our prior comment letters. The responses consist primarily of a reiteration and justification of the RDEIR rather than any consequential corrections of the deficiencies noted. The land use, conservation and safety element **are not in compliance with Assembly Bill No. 162**, (approved October 10, 2007, and part of the 2007 California flood legislation). The FEIR contains a **flawed project description, improper baselines, flawed analysis of impacts, and fails to propose measurable and enforceable mitigation and to examine a reasonable range of alternatives**. Further, we believe the County has failed to comply with the mandatory language, i.e., "shall" in the last sentence of **CEQA Guidelines §15088.5(f)** ("In no case shall the lead agency fail to respond to pertinent comments or significant environmental issues") and in **§§15120(c)** and **15123(b)** (listing mandatory content for an EIR's Summary). As a result, the FEIR remains fundamentally flawed. The General Plan and FEIR must be revised and recirculated.

The responder quotes on FEIR pages 4-8 and 5-63 from the Governor's Office of Planning and Research General Plan Guidelines page 14, "given the long-term nature of a general plan, its diagrams and text should be general enough to allow a degree of flexibility in decision-making as time changes." We agree in principle with this language appearing under the subsection "Diagram" of the section "DEFINING THE PARTS OF A GENERAL PLAN." At the same time, we recognize it must be read in context with other relevant, more specific portions of the General

Plan Guidelines on pages 14 to 17 (Chapter 1 General Plan Basics) and pages 136 to 138 (Chapter 7 CEQA and the General Plan) which are set forth below. We have underlined some portions. We believe these sections from the General Plan Guidelines more accurately describe the level of detail appropriate for the General Plan 2030 Update than do Response to Comment III-1 to 4 (FEIR pages 5-62 to 5-64) and Master Response #3, #4, and #7 (FEIR pages 4-7 to 4-13 and 4-33 to 4-34).

Similarly, we believe, that in addition to the CEQA Guidelines sections cited in the response to our comments, portions of §§ 15152, 15168, and 15355 are also informative and have included them below. Here again we have underlined some parts.

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involves time increments of five years. Geologic hazards, on the other hand, persist for hundreds or thousands of years. Sewer, water, and road systems are generally designed with a 30- to 50-year lifespan. Capital improvement planning is typically based upon a five- or seven-year term. Economic trends may change rapidly in response to outside forces.

Differences in time frame also affect the formulation of general plan goals, objectives, policies, and implementation measures. Goals and objectives are longer term, slowly evolving to suit changing community values or to reflect the success of action programs. Specific policies tend to be shorter term, shifting with the political climate or self-imposed time limits. Implementation programs tend to have the shortest span because they must quickly respond to the demands of new funding sources, the results of their own activities, and the jurisdiction's immediate needs and problems.

"The general plan shall consist of a statement of development policies and shall include a diagram or diagrams and text setting forth objectives, principles, standards, and plan proposals." (§65302)

Most jurisdictions select 15 to 20 years as the long-term horizon for the general plan. The horizon does not mark an end point, but rather provides a general context in which to make shorter-term decisions. The local jurisdiction may choose a time horizon that serves its particular needs. Remember that planning is a continuous process; the general plan should be reviewed regularly, regardless of its horizon, and revised as new information becomes available and as community needs and values change. For instance, new population projections that indicate that housing will be needed at a greater clip than anticipated, an unexpected major development in a neighboring jurisdiction that greatly increases traffic congestion, or a ballot initiative that establishes an urban growth boundary may all trigger the need to revise the general plan. A general plan based upon outdated information and projections is not a sound basis for day-to-day decision-making and may be legally inadequate. As such, it will be susceptible to successful legal challenge.

DEFINING THE PARTS OF A GENERAL PLAN

A general plan is made up of text describing goals and objectives, principles, standards, and plan proposals, as well as a set of maps and diagrams. Together, these constituent parts paint a picture of the community's future development. The following discussions help to clarify the meanings of these and other important terms.

Development Policy

A development policy is a general plan statement that guides action. In a broad sense, development policies include goals and objectives, principles, policies, standards, and plan proposals.

Diagram

A diagram is a graphic expression of a general plan's development policies, particularly its plan proposals. Many types of development policies lend themselves well to graphic treatment, such as the distribution of land uses, urban design, infrastructure, and geologic and other natural hazards.

A diagram must be consistent with the general plan text (§65300.5) and should have the same long-term planning perspective as the rest of the general plan. The Attorney General has observed that "...when the Legislature has used the term 'map,' it has required preciseness, exact location, and detailed boundaries...." as in the case of the Subdivision Map Act. No such precision is required of a general plan diagram (*67 Cal.Ops.Atty.Gen. 75,77*).

As a general rule, a diagram or diagrams, along with the general plan's text, should be detailed enough so that the users of the plan, whether staff, elected and appointed officials, or the public, can reach the same general conclusion on the appropriate use of any parcel of land at a particular phase of a city's or county's physical development. Decision-makers should also be able to use a general plan, including its diagram or diagrams, in coordinating day-to-day land use and infrastructure decisions with the city's or county's future physical development scheme.

At the same time, given the long-term nature of a general plan, its diagram or diagrams and text should be general enough to allow a degree of flexibility in decision-making as times change. For example, a general plan may recognize the need for and desirability of a community park in a proposed residential area, but the precise location of the park may not be known when the plan is adopted. The plan would not need to pinpoint the location, but it should have a generalized diagram along with policies saying that the park site will be selected and appropriate zoning applied at the time the area is subdivided. In this sense, while zoning must be consistent with the general plan, the plan's diagram or diagrams and the zoning map are not required to be identical.

Goal

A goal is a general direction-setter. It is an ideal future end related to the public health, safety, or general welfare.

A goal is a general expression of community values and, therefore, may be abstract in nature. Consequently, a goal is generally not quantifiable or time-dependent.

Although goals are not mentioned in the description of general plan contents in §65302, they are included here for several reasons. First, defining goals is often the initial step of a comprehensive planning process, with more specific objectives defined later, as discussed in Chapter 3. Second, goals are specifically mentioned in the statutes governing housing element contents (§65583). Third, while the terms "goal" and "objective" are used interchangeably in some general plans, many plans differentiate between broad, unquantifiable goals and specific objectives. Either approach is allowable, as flexibility is a characteristic of the general plan.

Examples of goals:

- Quiet residential streets
- A diversified economic base for the city
- An aesthetically pleasing community
- A safe community

Goals should be expressed as ends, not actions. For instance, the first example above expresses an end, namely, "quiet residential streets." It does not say, "Establish quiet residential streets" or "To establish quiet residential streets."

Objective

An objective is a specified end, condition, or state that is an intermediate step toward attaining a goal. It should be achievable and, when possible, measurable and time-specific. An objective may pertain to one particular aspect of a goal or it may be one of several successive steps toward goal achievement. Consequently, there may be more than one objective for each goal.

Examples of objectives:

- The addition of 100 affordable housing units over the next five years.
- A 25 percent increase in downtown office space by 2008.
- A 50 percent reduction in the rate of farmland conversion over the next ten years.
- A reduction in stormwater runoff from streets and parking lots.

Principle

A principle is an assumption, fundamental rule, or doctrine guiding general plan policies, proposals, standards, and implementation measures. Principles are based on community values, generally accepted planning doctrine, current technology, and the general plan's objectives. In practice, principles underlie the process of developing the plan but seldom need to be explicitly stated in the plan itself.

Examples of principles:

- Mixed use encourages urban vitality.
- The residential neighborhoods within a city should be within a convenient and safe walking distance of an elementary school.
- Parks provide recreational and aesthetic benefits.
- Risks from natural hazards should be identified and avoided to the extent practicable.

Policy

A policy is a specific statement that guides decision-making. It indicates a commitment of the local legislative body to a particular course of action. A policy is based on and helps implement a general plan's objectives.

A policy is carried out by implementation measures. For a policy to be useful as a guide to action it must be clear and unambiguous. Adopting broadly drawn and vague policies is poor practice. Clear policies are particularly important when it comes to judging whether or not zoning decisions, subdivisions, public works projects, etc., are consistent with the general plan.

When writing policies, be aware of the difference between "shall" and "should." "Shall" indicates an unequivocal directive. "Should" signifies a less rigid directive, to be honored in the absence of compelling or contravening considerations. Use of the word "should" to give the impression of more commitment than actually intended is a common but unacceptable practice. It is better to adopt no policy than to adopt a policy with no backbone.

Solid policy is based on solid information. The analysis of data collected during the planning process provides local officials with the knowledge about trends, existing conditions, and projections that they need to formulate policy. If projected community conditions are not in line with a general plan's objectives, local legislative bodies may adopt policies that will help bring about a more desirable future.

Examples of policies:

- The city shall not approve a parking ordinance vari-

ance unless the variance pertains to the rebuilding of an unintentionally destroyed non-conforming use.

- The city shall not approve plans for the downtown shopping center until an independently conducted market study indicates that the center would be economically feasible.
- The city shall give favorable consideration to conditional use permit proposals involving adaptive reuse of buildings that are designated as "architecturally significant" by the cultural resources element.

Standards

A standard is a rule or measure establishing a level of quality or quantity that must be complied with or satisfied. Standards define the abstract terms of objectives and policies with concrete specifications.

The Government Code makes various references to general plan standards. For example, §65302(a) states in part that the land use element must "...include a statement of the standards of population density and building intensity recommended for the various districts and other territory covered by the plan." Other examples of statutory references to general plan standards include those found in §66477 (the Quimby Act) and §66479 (reservations of land within subdivisions). Of course, a local legislature may adopt any other general plan standards it deems desirable.

Examples of standards:

- A minimally acceptable peak hour level of service for an arterial street is level of service C.
- The minimum acreage required for a regional shopping center is from 40 to 50 acres.
- High-density residential means 15 to 30 dwelling units per acre and up to 42 dwelling units per acre with a density bonus.
- The first floor of all new construction shall be at least two feet above the base flood elevation.

Plan Proposal

A plan proposal describes the development intended to take place in an area. Plan proposals are often expressed on the general plan diagram.

Examples of plan proposals:

- First Street and Harbor Avenue are designated as arterials.
- The proposed downtown shopping center will be located within the area bound by D and G Avenues and Third and Fourth Streets.
- A new parking structure shall be located in the vicinities of each of the following downtown intersections: First Street and A Avenue, and Fifth Street and D Avenue.

Implementation Measure

An implementation measure is an action, procedure, program, or technique that carries out general plan policy. Each policy must have at least one corresponding implementation measure.

Examples of implementation measures:

- The city shall use tax-increment financing to pay the costs of replacing old sidewalks in the redevelopment area.
- The city shall adopt a specific plan for the industrial park.
- Areas designated by the land use element for agriculture shall be placed in the agricultural zone.

Linking Objectives to Implementation

The following examples show the relationships among objectives, policies, and implementation measures. The examples are arranged according to a hierarchy from the general to the specific—from goals to implementation measures. In an actual general plan, there might be more than one policy under each objective, more than one implementation measure under each policy, etc.

Goal:

- A thriving downtown that is the center of the city's retail and service commercial activities.

Objective:

- Development of a new regional shopping center in the downtown.

Policy:

- The city shall not approve discretionary projects or building permits that could impede development of the downtown regional shopping center.

Implementation measures:

- The city shall adopt an interim zoning ordinance restricting further development in the general vicinity of the proposed downtown shopping center

until a study has been completed determining its exact configuration.

- During the interim zoning period, the city shall adopt a special regional shopping center zoning classification that permits the development of the proposed downtown mall.
- Upon completion of the study, the city council shall select a site for the downtown mall and shall apply the shopping center zone to the property.

Goal:

- Affordable, decent, and sanitary housing for all members of the community.

Objective:

- 500 additional dwelling units for low-income households by 2010.

Policy:

- When a developer of housing within the high-density residential designation agrees to construct at least 30 percent of the total units of a housing development for low-income households, the city shall grant a 40 percent density bonus for the housing project.

Implementation measure:

- The city shall amend its zoning ordinance to allow for a 40 percent density bonus in the high-density residential zone.

COMMUNITY PLANS, AREA PLANS, AND SPECIFIC PLANS

Area and community plans are part of the general plan. A specific plan, on the other hand, is a tool for implementing the general plan but is not part of the general plan. The following paragraphs look briefly at each of these types of plans.

"Area plan" and "community plan" are terms for plans that focus on a particular region or community within the overall general plan area. An area or community plan is adopted by resolution as an amendment to the general plan, in the manner set out in §65350, et seq. It refines the policies of the general plan as they apply to a smaller geographic area and is implemented by ordinances and other discretionary actions, such as zoning. The area or community plan process also provides a forum for resolving local conflicts. These plans are commonly used in large cities and counties where there are a variety of distinct communities or regions.

As discussed earlier, an area or community plan must be internally consistent with the general plan of which it is a part. To facilitate such consistency, the general plan should provide a policy framework for the detailed treatment of specific issues in the various area or community plans. Ideally, to simplify implementation, the area or community plans and the general plan should share a uniform format for land use categories, terminology, and diagrams.

Each area or community plan need not address all of the issues required by §65302 when the overall general plan satisfies these requirements. For example, an area or community plan need not discuss fire safety if the jurisdiction-wide plan adequately addresses the subject and the area or community plan is consistent with those policies and standards. Keep in mind that while an area or community plan may provide greater detail to policies affecting development in a defined area, adopting one or a series of such plans does not substitute for regular updates to the general plan. Many of the mandatory general plan issues are most effectively addressed on a jurisdiction-wide basis that ties together the policies of the individual area or community plans.

A specific plan is a hybrid that can combine policy statements with development regulations (§65450, et seq.). It is often used to address the development requirements for a single project such as urban infill or a planned community. As a result, its emphasis is on concrete standards and development criteria. Its text and diagrams will address the planning of necessary infrastructure and facilities, as well as land uses and open space. In addition, it will specify those programs and regulations necessary to finance infrastructure and public works projects. A specific plan may be adopted either by resolution, like a general plan, or by ordinance, like zoning.

Specific plans must be consistent with all facets of the general plan, including the policy statements. In turn, zoning, subdivisions, and public works projects must be consistent with the specific plan (§65455). See Chapter 9 for more about specific plans. The publication *A Planner's Guide to Specific Plans,* by the Governor's Office of Planning and Research (OPR), is another good source of information.

ELEMENTS, ISSUES, AND FLEXIBILITY

In statute, the general plan is presented as a collection of seven "elements," or subject categories (see §65302). These elements and the issues embodied by each are briefly summarized below. They are discussed in detail in Chapter 4.

CHAPTER 7

CEQA and the General Plan

All statutory references are to the California Government Code unless otherwise noted.

Adopting or amending a general plan or a general plan element is subject to the California Environmental Quality Act (CEQA, Public Resources Code §21000, et seq.) and often requires preparation and consideration of an environmental impact report (EIR). The primary purpose of an EIR is to inform decision-makers and the public of the potential significant environmental effects of a proposal, less damaging alternatives, and possible ways to reduce or avoid the possible environmental damage. This information enables environmental considerations to influence policy development, thereby ensuring that the plan's policies will address potential environmental impacts and the means to avoid them. This chapter discusses some aspects of the relationship between the general plan and its EIR. Refer to the Bibliography for sources of more detailed information about CEQA and its requirements.

EIR PREPARATION

The procedure for preparing and using an EIR is described in detail in the state CEQA Guidelines (Title 14, California Code of Regulations, §15000, et seq.), so we will not review the entire process here. The following discussion highlights some of the key points that are particularly important when preparing an EIR for a new general plan, an element, or a comprehensive revision. Since the environmental document for a privately initiated general plan amendment is usually project-specific, we will not discuss it at any length.

A general plan for which an EIR is prepared is considered a project of statewide, regional, or areawide significance (CEQA Guidelines §15206). Projects of statewide, regional, or areawide signficance have some specific requirements for scoping, review and mitigation monitoring, as discussed later in this chapter.

To the extent feasible, the planning process and the environmental analysis should proceed concurrently, sharing the same information. The plan EIR, to a certain extent, can be seen as describing the relationship between the proposed density and intensity of land use described by the plan and the carrying capacity of the area.

The EIR must describe the existing local and regional physical environment, emphasizing those features that are likely to be affected by the plan and the environmental constraints and resources that are rare or unique to the area. It should describe existing infrastructure, such as roads, water systems, and sewage treatment facilities, along with their capacities and current levels of use. It should also discuss any inconsistencies between the proposed plan and adopted regional plans as they may relate to environmental issues.

The EIR must describe the significant environmental effects that may result from the plan's policies and proposals. Effects that are found to be insignificant need only a brief discussion in the EIR (CEQA Guidelines §15006(p)). When a new general plan or a revision is being considered, the EIR must evaluate the proposed plan's or revision's effects on both the existing physical conditions of the actual environment and the environment envisioned by the existing general plan (*Environmental Planning and Information Council v. County of El Dorado (1982) 131 Cal.App.3d 354*).

In addition to the direct impacts of any immediate projects that will occur under the general plan, the EIR must focus on the secondary effects that can be expected to follow from the plan's adoption, including cumulative and growth-inducing effects. The general plan EIR need not be as detailed as an EIR for the specific projects that will follow (CEQA Guidelines §15146). Its level of detail should reflect the level contained in the plan or plan element being considered (*Rio Vista Farm Bureau Center v. County of Solano (1992) 5 Cal.App.4th 351*). At the same time, however, the lead agency cannot defer to later tiered EIRs its analysis of any significant effect of the general plan (*Stanislaus Natural Heritage Project, Sierra Club v. County of Stanislaus (1996) 48 Cal.App.4th 182*).

The EIR must identify mitigation measures and alternatives to avoid or minimize potential impacts, to the extent feasible. The general plan EIR is a particularly useful tool for identifying measures to mitigate the cumulative effects of new development. For example, a general plan might anticipate a significant increase in industrial employment in the community. If this proposal would lead to increased automobile commuting, the EIR could identify measures to reduce peak-hour traffic volumes, such as new transit routes or improved bicycle facilities. Where other agencies are responsible for mitigating the effects of the general plan,

they should be identified in the EIR. Pursuant to Public Resources Code §21081.6, the general plan must incorporate the approved mitigation measures identified in the EIR into its policies and plan proposals.

Several alternative draft plans are typically considered en route to adopting a general plan. Similarly, the EIR for the plan must describe a reasonable range of alternatives and analyze each of their effects (CEQA Guidelines §15126). Consistent with CEQA, the alternative plans should share most of the same objectives. Each of the alternatives should avoid or lessen one or more of the significant effects identified as resulting from the proposed plan. A reasonable range of alternatives would typically include different levels of density and compactness, as well as different locations and types of uses for future development. In a situation where the proposal is yet to be selected from among the alternatives, the competing alternatives should not all have the same level of impacts.

The EIR must also evaluate the "no project" alternative. This would describe what physical changes might reasonably be expected to occur in the foreseeable future if the new or revised general plan were not adopted, based on the existing general plan (if any) and available infrastructure and services.

Special studies prepared for the general plan will yield information useful to the EIR. For example, the traffic model developed to analyze the circulation impacts of proposed land use intensities should be used during EIR preparation to evaluate traffic impacts and alternative approaches to minimizing those impacts.

The EIR must analyze the cumulative effects of the plan's policies and proposals on the environment. For example, a planning policy authorizing rural residential uses in or near wild lands could cumulatively increase the potential severity of fire damage by hindering wildfire suppression efforts. Increased traffic could contribute to cummulative air quality impacts in ozone non-attainment areas.

Growth-inducing impacts must also be analyzed. These may include any policies, proposals, and programs of the general plan likely to stimulate community growth and development. Examples include plans for street and highway improvements in undeveloped areas, a proposal for wastewater treatment plant expansion, and proposals for the expansion of employment in basic industries, any of which is likely to increase pressure for or facilitate residential and other development.

TIMING

The CEQA process runs concurrently with the development, review, and approval of the general plan, element, or general plan revision. These parallel processes should be carefully synchronized so that neither time nor work will be wasted through unnecessary delay or duplication. When developing a draft work program for the general plan, staff should lay out the schedule for preparing the EIR. Pay particular attention to the point at which sufficient information will be available to prepare an informative NOP. The draft EIR must reflect the draft plan and examine the various alternative plans being proposed, so it should not be released for review until the draft plan is nearing completion. Try to anticipate the number and extent of changes that may be made to the draft plan as it moves through planning commission hearings. Time the release of the draft EIR after a preferred plan alternative has been identified. Otherwise, if the major changes in the plan necessitate substantial changes in the draft EIR, the EIR may need to be recirculated. If the planning process works as it should, with all levels of decisionmakers well informed, this uncertainty can be avoided.

PUBLIC REVIEW OF THE EIR

Prior to writing the draft EIR, the city or county must send a Notice of Preparation (NOP) of the EIR describing the draft general plan proposal to a number of parties, including all affected state responsible and trustee agencies, the State Clearinghouse, any large water agency that may provide domestic water in the planning area, and the other agencies listed under §65352, to solicit their input. Their responses are intended to identify important issues and focus the scope and content of the draft EIR. In addition, the city or county must provide for at least one scoping meeting to receive input on the scope and content of of the draft EIR (Public Resources Code §21083.9).

The draft EIR (incorporating the comments from the NOP) must be circulated among interested local and regional agencies and the public for review. Copies of the draft EIR should be made available in local libraries. Copies must also be sent to the State Clearinghouse within OPR for distribution to state agencies. The 45-day review period for a general plan's draft EIR offers a formal opportunity to comment on the potential environmental impacts of the proposed plan and the adequacy of the environmental analysis.

CEQA does not require a public hearing on the draft EIR, but many localities choose to hold one or more EIR hearings in conjunction with their consideration of the draft general plan. If a city or county does hold a separate hearing on the draft EIR, it should clearly advise attendees to direct their comments to the ad-

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equacy of that draft EIR (as opposed to their opinions about the draft general plan). Some cities and counties choose to hold a hearing during the draft EIR's review period to provide the opportunity for public comment. After the end of the draft EIR's review period, the jurisdiction must prepare a final EIR containing the comments received during the review period and its written responses to those comments.

ADOPTION AND CERTIFICATION

Before adopting the general plan, element, or revision for which the EIR was prepared, the city council or county board of supervisors must consider the final EIR, certify its adequacy, and make explicit findings explaining how the significant environmental effects identified in the EIR have been or should be mitigated or explain why mitigation measures and identified alternatives are not feasible (CEQA Guidelines §15091). The city or county cannot approve the general plan unless the approved plan will not result in a significant effect on the environment or, more commonly, the city or county has eliminated or substantially lessened all significant effects where feasible and made a written statement of overriding considerations explaining the reasons why any remaining unavoidable significant effects are acceptable (CEQA Guidelines §15093). The jurisdiction must also adopt a mitigation monitoring or reporting program to ensure that the mitigation incorporated into the plan in accordance with the EIR will be implemented.

PROGRAM AND MASTER EIRS

In order to minimize the need to reanalyze a series of projects related to the general plan, CEQA and the state CEQA Guidelines encourage using a general plan EIR to address subsequent discretionary projects, such as adopting zoning ordinances and approving specific capital improvement or development projects that are consistent with the general plan. This streamlined approach to environmental review is commonly called "tiering" (CEQA Guidelines §15152). By using a tiered approach, the environmental review for a subsequent project can be limited to those project-specific significant effects that either were not examined or not examined fully in the general plan EIR.

Later environmental analysis for more specific actions can be tiered from the general plan EIR in several ways. The following paragraphs present a brief discussion of program EIRs, master EIRs, tiering under Public Resources Code §21083.3, and the use of certain statutory exemptions.

Program EIRs

The program EIR prepared for a general plan examines broad policy alternatives, considers the cumulative effects and alternatives to later individual activities where known, and contains plan-level mitigation measures. Later activities that have been described adequately under the program EIR will not require additional environmental documents. When necessary, new environmental documents, such as a subsequent or supplemental EIR or a negative declaration, will focus on the project-specific impacts of later activities, filling in the information and analysis missing from the program EIR.

The "project" being examined in the program EIR is the general plan, element, or revision. The CEQA Guidelines recommend that program EIRs deal with the potential effects of a general plan, element, or revision "as specifically and comprehensively as possible." A good rule of thumb is that the program EIR's level of detail should be commensurate with the level of detail contained in the general plan element (*Rio Vista Farm Bureau Center v. County of Solano (1992) 5 Cal.App.4th 351*).

A program EIR should pay particular attention to the following EIR components:

- The significant environmental effects, including cumulative effects of anticipated later activities under the plan or element.
- Mitigation measures, including plan-wide measures.
- Alternatives to the basic policy considerations set forth by the plan or element.

When evaluating a later activity to determine whether it is eligible for consideration under a program EIR, OPR suggests the following sequential approach.

First, the lead agency must determine whether the activity meets both of the following criteria and, if so, adopt findings to that effect:

1. It is consistent with the plan or element for which the program EIR was certified. A general plan amendment obviously would not qualify (*Sierra Club v. County of Sonoma (1992) 6 Cal.App.4th 1307*).
2. It incorporates the feasible mitigation measures and alternatives developed in the program EIR. (Additional mitigation measures and alternatives may also be applied when a subsequent or supplemental EIR is prepared.)

Second, the lead agency must evaluate the later ac-

CEQA GUIDELINES

15152. TIERING

(b) Agencies are encouraged to tier the environmental analyses which they prepare for separate but related projects including general plans, zoning changes, and development projects. This approach can eliminate repetitive discussions of the same issues and focus the later EIR or negative declaration on the actual issues ripe for decision at each level of environmental review. Tiering is appropriate when the sequence of analysis is from an EIR prepared for a general plan, policy, or program to an EIR or negative declaration for another plan, policy, or program of lesser scope, or to a site-specific EIR or negative declaration. Tiering does not excuse the lead agency from adequately analyzing reasonably foreseeable significant environmental effects of the project and does not justify deferring such analysis to a later tier EIR or negative declaration. However, the level of detail contained in a first tier EIR need not be greater than that of the program, plan, policy, or ordinance being analyzed.

(c) Where a lead agency is using the tiering process in connection with an EIR for a large-scale planning approval, such as a general plan or component thereof (e.g., an area plan or community plan), the development of detailed, site-specific information may not be feasible but can be deferred, in many instances, until such time as the lead agency prepares a future environmental document in connection with a project of a more limited geographical scale, as long as deferral does not prevent adequate identification of significant effects of the planning approval at hand.

15168. PROGRAM EIR

(b) Advantages. Use of a program EIR can provide the following advantages. The program EIR can:
(1) Provide an occasion for a more exhaustive consideration of effects and alternatives than would be practical in an EIR on an individual action,
(2) Ensure consideration of cumulative impacts that might be slighted in a case-by-case analysis,
(3) Avoid duplicative reconsideration of basic policy considerations,
(4) Allow the Lead Agency to consider broad policy alternatives and programwide mitigation measures at an early time when the agency has greater flexibility to deal with basic problems or cumulative impacts, and
(5) Allow reduction in paperwork.

(c) (5) A program EIR will be most helpful in dealing with subsequent activities if it deals with the effects of the program as specifically and comprehensively as possible. With a good and detailed analysis of the program, many subsequent activities could be found to be within the scope of the project described in the program EIR, and no further environmental documents would be required.

15355. CUMULATIVE IMPACTS

"Cumulative impacts" refers to two or more individual effects which, when considered together, are considerable or which compound or increase other environmental impacts.

(a) The individual effects may be changes resulting from a single project or a number of separate projects.

(b) The cumulative impact from several projects is the change in the environment which results from the incremental impact of the project when added to other closely related past, present, and reasonably foreseeable probable future projects. Cumulative impacts can result from individually minor but collectively significant projects taking place over a period of time.

As noted in the citations above, the definition of cumulative impacts includes two or more individual effects. These individual effects may be changes resulting from a single project, not just from separate projects. Cumulative impacts are two or more individual effects which, when considered together, compound or increase other environmental impacts as well as those which when considered together are considerable. We believe the County, contrary to the General Plan Guidelines and CEQA Guidelines, has in a number of impact analyses **failed to properly consider that category of cumulative impacts which are individual effects which result from a single project**, i.e., the General Plan 2030 Update which provides for the long term, comprehensive plan for the physical development of the County. **For example**, the County's impact analysis of the General Plan 2030 Update's effect on **water quality** as less than significant before and after mitigation, fails to consider the cumulative effect on water quality of the nine significant and unavoidable impact summaries of Impacts 3.6-2 (RDEIR page 3.6-40), 3.6-5 (RDEIR page 3.6-52), 3.6-6 (RDEIR page 3.6-55), 3.9-1 (RDEIR page 3.9-36), 3.9-2 (RDEIR page 3.9-50), 3.9-3 (RDEIR page 3.9-55), 3.11-1 (RDEIR page 3.11-32), 3.11-2 (RDEIR page 3.11-35), and 3.11-3(RDEIR page 3.11-38).

Another example is the FEIR's contention that **Yokohl Ranch Project** is "a separate project on a separate track" even though it is a project under the jurisdiction of the County and will be, if approved, part of the long term physical development of the County. Undoubtedly, some of its impact analyses will tier off the General Plan Update. The County's current General Plan dating from 1964 will be superceded by the General Plan 2030 Update, so even if the Yokohl ranch

Project were to be approved prior to the General Plan 2030 update, it would largely be subsumed by General Plan 2030 Update when approved. (The Goals and Policies Report, Part I, page 1-7 lists provisions of the existing 1964 General Plan which will be deleted by the General Plan 2030 Update.) CEQA Guidelines §15168(b) and the General Plan Guidelines at pages 136 and 138 are informative in this regard. Page 136, "The general plan EIR is a particularly useful tool for identifying measures to mitigate the cumulative effects of new development" (for example Yokohl Ranch Project). Page 138 "The program EIR prepared for a general plan examines broad policy alternatives, considers the cumulative effects and alternatives to later individual activities where known, (for example Yokohl Ranch Project) and contains plan-level mitigation measures." Page 138, "A program EIR should pay particular attention to the following EIR components: The significant environmental effects of anticipated later activities under the general plan . . . (for example, Yokohl Ranch Project) Mitigation measures, including plan-wide measures."

The response at line 11, FEIR page 5-62, incorrectly identifies the many attachments to our May 26, 2010, comment letter "as comment letters submitted on the previously published 2008 DEIR. As we noted in our letter at FEIR page 3-155, only eight of the 48 attachments were prior comment letters on the 2008 DEIR. The other 40 attachments were data or references submitted pursuant to CEQA Guidelines §15204(c). We ask if the responder failed to properly review the attachments prior to preparing responses?

The responder seems to assume, incorrectly, in the last paragraph on page 5-63 FEIR that the 2008 version of the General Plan 2030 Update was "adopted" or "approved" and posits such as an explanation of why Table ES-3, page ES-8 RDEIR is an adequate presentation of mitigation required in an EIR's summary, CEQA Guidelines §15123(b)(1). Of course, the General Plan 2030 Update, whether in the 2008 version or the 2010 version, is still pending approval; and the RDEIR replaced the 2008 DEIR. See page ES-5, RDEIR which states "This Recirculated Draft EIR (RDEIR [which supercedes the original DEIR])." Those same new policies and implementation measures intended as mitigation contained in the 2008 version and repeated in the 2010 version are still pending approval.

We disagree with the statement starting on line 6, page 5-64 FEIR "As discussed in Master Response #5 and RDEIR pages 2-17, 2-24, and 2-25, the proposed General Plan focuses future growth within established community areas." We believe this is a totally inaccurate description. See pages 2-19 through 2-21 RDEIR and Chapters 1, 2, 3 and 4 of Part II, Goals and Policies Report, which clearly describe the aggressive development which is envisioned in the Rural Valley Lands Plan, Corridors Framework Plan, Foothill Growth Management Plan, and the Mountain Framework Plan.

As an administrative matter, please note that three pages of our comments submitted May 26, 2010, contain incorrect page number cites when referencing Carole Clum's 2008 comments on the DEIR. Our page cites were to the original, handwritten version of Carole Clum's comments, rather than the later, typed version. Please note the following corrections:

- Page 22, Section I, Sierra Club 2010 comments on RDEIR, line 19: change "37 to 46" to "32 to 37". Make same changes to page 3-179 FEIR.
- Page 18, Section II, Sierra Club 2010 comments on RDEIR, line 15: change "25-26, 28, 31-36, 37-46, 53-54, 56-63" to "21-22, 23, 26-31, 32-37, 42-43, 44-50". Make the same changes to page 3-212 FEIR.
- Page 43, Section II, Sierra Club 2010 comments on RDEIR, line 21: change "24 through 72" to "21 through 59." Make the same changes to page 3-238, FEIR.

Our detailed comments are described seriatim in the Table of Contents and adhere to a format similar to our May 26, 2010, comment letter.

Sincerely,

Carole A. Clum

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\ttachments:

1. County of Tulare General Plan 2030 Update Background Report Correctory Information #2, February 26, 2008

2. County of Tulare General Plan 2030 Update Goals and Policies Report and Background Report Correctory Information, January 25, 2008

3. Public Comments of J. Peter Clum to Board of Supervisors Meeting May 18, 2010, with packet provided each supervisor

4. Chapter 2, Implementing California Flood Legislation into Local Land Use Planning: A Handbook for Local Communities, October 2010, California Department of Water Resources

5. (a) Tulare County Flood Damage Prevention Ordinance, Ordinance Code of Tulare County, Part VII, Chapter 27;
   (b) June 10, 2011, amendment;
   (c) FEMA e-mail of October 18, 2011, from Jane Hopkins to Jake Raper, Tulare County;
   (d) Tulare County e-mail of October 19, 2011, from James May to Jane Hopkins [FEMA]

6. March 23, 2011, Minutes of Tulare County Flood Control Commissioners Meeting

7. April 29, 2011, Minutes of Tulare County Flood Control Commissioners Meeting

8. July 19, 2011, Minutes of Tulare County Flood Control Commissioners Meeting

9. March 28, 2011, Minutes of Tulare County Water Commission Meeting

10. Page 12, The Human Costs of Nitrate-contaminated Drinking Water in the San Joaquin Valley, March 23011, Eli Moore and Eyal Matalon, The Pacific Institute

11. March 22, 2010 Meeting Minutes of Tulare County Water Commission

12. State of the Air 2011 American Lung Association 25 U.S. Cities Most Polluted by Short-term Particle Pollution (24-hour PM 2.5), 25 U.S. Cities Most Polluted by Year-round Particle Pollution (Annual PM 2.5), 25 Most Ozone Polluted Cities; 25 Counties Most Polluted by Short-term Particle Pollution (24-hour PM 2.5), 25 Counties Most Polluted by Year-round Particle Pollution (Annual PM 2.5), 25 Most Ozone Polluted Counties

13. Toxic shower threatens Valley air, July 15, 2010, Fresno Bee

14. SBX2-1 Nitrate in Groundwater Report to the Legislature, June 9, 2011, draft, expected to be presented to legislature March 2012

15. Tulare County Disadvantaged Community Water and Sewer Issues, November 2010

16. California Water Quality Control Plan for the Tulare Lake Basin, Second Edition, Revised January 2004

17. Lake Isabella Dam Inundation Zone, 24 Hour Evacuation Map for Northwest Kern County

18. Lake Isabella Dam Inundation Zone, Peak Inundation Depth for Bakersfield

19. Experienced Lawmen Vie for County's Top Job, May 27, 2010, Valley Voice

20. Tulare County Sheriff's Department Operating Budgets, August 30, 2010

21. California's Divided Fortunes, February 2, 2010, Wall Street Journal

22. Paid Advertisement, Tulare County General Plan 2030 Update Background Information, March 25, 2010

23. Notice of Availability, Recirculated Draft Environmental Impact Report, March 25, 2010

24. Michael Brandman Associates' Statements of Professional Services

25. Attorney General's letter of November 4, 2009, to San Joaquin Valley Air Pollution Control District

26. New Melt Record for Greenland Ice Sheet, Science Daily, January 21, 2011

27. James May's 2009 Report on Risk of Flooding and Levee Failure

28. Tulare County Grand Jury Findings 2005/2006, Flood Potential on St. Johns River Levee Districts I and II

29. FEMA letter of December 27, 2010, to Chairman, Tulare County Board of Supervisors with FEMA memorandum for Tulare County dated September 14, 2010

30. FEMA e-mail of October 24, 2011, from Jane Hopkins to James May, Tulare County

31. Tulare County, Resource Management Agency, Yokohl Ranch Project Cost Summary from FY2006/07 thru September 2011

32. Anticipated Flooded Areas Caused by Possible Failure of Lake Isabella Dam, 24 Hour Peak Inundation Map Extending into Tulare County

33. Tulare County Fire Department Budget Information for fiscal years 2003/2004 through 2011/2012

SECTION I

The County's Interpretation of CEQA Guidelines §15088.5(f)(1) is Incomplete and Misleading and Requires Restarting the Public Comment Period

The County's response to this comment does not address our concerns raised in our comment at page 3-160 FEIR. The County does not address the last sentence of CEQA Guidelines §15088.5(f) which provides **"In no case shall the lead agency fail to respond to pertinent comments on significant environmental issues."** The County asserts in the last paragraph on page 4-3 FEIR "Because of the substantive revisions, previous comments are generally no longer be (sic) applicable to the currently proposed 2010 draft of the General Plan (project) . . . ." Later, the County states in the last paragraph on page 5-64 FEIR "Previous comments are not (sic) longer applicable to the currently proposed General Plan (project) . . . ."

One example of the County's failing to respond to pertinent comments on significant environmental issues raised in prior comment letters is the County's failure to respond to Peter Clum's comments on the 2008 DEIR starting at page 3-631 FEIR. On page 3-640 to 3-641, attention is drawn to the concerns the County's own Environmental Health Department has with many existing public water systems with unsafe drinking water and concerns that **water quality will continue to decline** with decreasing surface water deliveries, groundwater overdrafting, and land use practices. Enclosures (19), (20) and (21), which most people would consider project specific materials, were attached to this 2008 letter. See pages 3-811 to 3-821 FEIR. The RDEIR does not address these concerns expressed by the Tulare County Environmental Health Department, despite the fact they were specifically raised again in our comment letter of May 26, 2010. See page 3-176 to 3-178 FEIR. The FEIR does not respond to either.

Additionally, Peter Clum's 2008 comment letter at page 3-641 FEIR raised concerns about the **project exposing people to existing water quality problems,** let alone deteriorating water quality, "by bringing development and people into the area affected." CEQA Guidelines §15126.2(a). This was raised again in our May 26, 2010, letter at pages 3-176 to 3-178 FEIR. The RDEIR did not address this issue nor is it responded to in the FEIR.

Another example is the County's failure to address **inaccurate and incomplete data in Table 4-5, page 4-107 DEIR** which purports to show the ability of 21 unincorporated communities to meet population growth demands of the General Plan buildout to 2030. This table was challenged by Carole Clum in her 2008 comments on the DEIR (page 3-829 FEIR) starting at page 3-861 and supported in much detail in enclosure (10) to her 2008 letter. See pages 3-918 to 3-938 FEIR. In his comment letter on the 2008 DEIR, Peter Clum also challenged this table. See page 3-634 FEIR and pages 3-661 to 3-688 FEIR. Instead of responding to these issues in the 2010 RDEIR, the county simply republished without explanation the faulty information contained in Table 4-5 of the 2008 DEIR as Table 3.9-9 at page 3.9-17 RDEIR.

Our letter of May 26, 2010, raised these same concerns about the data in the same table which was reprinted in the RDEIR. See pages 3-178 to 3-180 FEIR. (Please note the citation on page 3-179 FEIR, line 19, to pages "37 to 46" should be changed to "32 to 37.") In the FEIR, the County's response is to state that the commenter did not explain what was incorrect in Table 3.9-9 RDEIR or the previous 2008 DEIR Table and in any case there were no significant differences. See Response to Comment III-39 at page 5-81 FEIR. Anyone reviewing our May 26, 2010, letter at pages 3-178 to 3-180 FEIR should have been able to figure out what the claimed incorrect information was despite the references in line 19 on page 3-179 to pages 37 to 46 instead of 32 to 37. (This error was caused when in our May 26, 2010, comment letter we reformatted Carole Clum's earlier handwritten 2008 comment letter on the DEIR in a typed format and included it as attachment 39 to our letter, thus changing the pagination.) Even without referring to Carole Clum's handwritten 2008 comment letter, a professional consultant should have been able to determine the correct page numbers since there was an overlap of page numbers. In any case, there could have been no confusion because in the next line of our letter the reader is clearly steered to enclosure (10). Additionally, we note in its response to comment III-39 on page 5-871 FEIR, the County states "Furthermore, the preparer of the RDEIR did review all comments received on the 2008 Draft EIR for the proposed project (please see Master Response #2). No significant differences were identified between the information provided by the commenter and the technical data collected for Table 3.9-9. Consequently, no significant changes to Table 3.9-9 were made."

One final comment on the County's response to our concerns about the interpretation of CEQA Guidelines §15088.5(f)(1), is that once again the **County extols the lengthy public comment periods** it has provided the public. For both the DEIR and RDEIR, it provided a 60 days comment period. It has made the FEIR available to the public on August 30, 2011, for review prior to public hearings before the Planning Commission and Board of Supervisors, something it did not have to do. While these time periods are appreciated in light of the quantity of material to be reviewed, we would be more grateful if the County would respond in a meaningful way to the comments submitted instead of just going through the formalities. That having been said, we have simply read too many times in relation to the DEIR about the County's circulating the original DEIR **"for an extended period of over 90 days** (January 14, 2008 through April 15, 2008) to allow for maximum public involvement and input." See first paragraph page 4-3 FEIR. Thereafter, the responder states a copy of the Notice of Completion, including extensions of the 2008 DEIR comment period, was attached to the RDEIR as part of Appendix A. Appendix A of the DEIR is the April 25, 2006 Notice of Preparation with related materials rather that the 2008 Notice of Completion. The only reason the comment period lasted over 90 days was that the County decided it was required to restart the DEIR formal comment period after being challenged over omission of materials from the DEIR and cited to case law which required the County to restart the comment period. See Peter Clum's letter of February 7, 2008, which begins at page 3-651. A number of telephone conversations with personnel at Tulare County Resource Management Agency and Tulare County Counsel followed. Attachment 1 is the letter dated February 26, 2008, by which the County extended the comment period, after providing the materials left out of the DEIR. It is no coincidence this extension provided a comment period of slightly more that 45 days, the minimum time required for a comment period on a

general plan EIR. The County chose to term this required additional time for public comment as an extension. We believe, in the interest of transparency, it should have been called what it was, i.e., a restarting of the comment period. Attachment 2 reflects an earlier letter of January 25, 2008, from the County making available a large number of listed documents which has been omitted from the DEIR. This omission/correction went unchallenged, and the letter pointedly notes "The comment period regarding the Draft Environmental Impact Report will not change . . . ."

The RDEIR's Summary Fails to Comply with CEQA's Mandatory Content Requirements and Constitutes a Violation of CEQA's Informational Purposes.

As an initial matter, we note the County could have corrected this error early on in the process. Letters from Carole and Peter Clum dated April 26, 2010, (pages 3-386 to 3-388 FEIR) and May 5, 2010, (page 3-390 FEIR) drew the County's attention to the defective summary, asked that it be corrected, and that the 60 days public comment period on the RDEIR be restarted. By letter dated May 14, 2010, the County missed the opportunity to correct the defective summary. Thereafter, during public comment period at the Tulare County Board of Supervisors weekly meeting on May 18, 2010, Peter Clum asked the Board of Supervisors to direct the Resource Management Agency to correct the summary and restart the public comment on the RDEIR. Attachment 3 includes his written public comments and the information package provided each supervisor. No response was ever received.

The County's response to this comment does not address the mandatory content requirements for an EIR's summary explicitly set forth in CEQA Guidelines §§15120(c) and 15123(b). Rather, the County ignores the mandatory language, choosing instead to suggest on pages 5-46 and 5-63 FEIR under Response to Comment I4-1 and III-3 the "CEQA analysis" of the RDEIR only applies to those required additional mitigating policies and implementation measures first identified in the 2010 RDEIR and not to all the other new or revised policies and implementation measures first listed in the 2008 Goals and Policies Report but still pending environmental analysis when they were again listed as new or revised policies or implementation measures in the 2010 Goals and Policies Report. The responder seems to pursue this misdirection or misunderstanding[1] by omitting the words "additional mitigation policies or implementation measures" which were so carefully used in line 12, page ES-8 RDEIR. Such a suggestion is not only wrong but also misleading. First, the Goals and Policies have not yet been adopted as the General Plan 2030 Update has not been approved. Second, the RDEIR expressly superceded the DEIR (see first sentence page ES-5 RDEIR). Third, the FEIR has not yet been certified per CEQA Guidelines §15090. The language set forth in lines 13 and 14, page ES-8 RDEIR "Table ES-4 presents a summary of impacts and mitigation measures identified in this RDEIR including those proposed in the RDEIR" means exactly what it says, not what the County is now suggesting it meant to say.

We note the County has made some additions, which it terms insignificant, to the RDEIR's summary which are set forth at pages 2-3 to 2-6 FEIR. These additions do not include a listing of the many missing mitigation measures set forth in the Goals and Policies Report, General Plan 2030 Update and discussed in the RDEIR. These additions, despite the heading to the contrary on page 2-5 FEIR, contain no identification of the "Issues to be resolved including the

[1] Perhaps the person preparing this response did think the 2010 Goals and Policies had been previously approved. In this regard, please see the number 3 paragraph on the second page of Carole and Peter Clum's letter of April 26, 2010, at page 3-387 FEIR and included in attachment 3 of this comment letter on the FEIR.

choice among alternatives and whether or how to mitigate the significant effects" as required by CEQA Guidelines §15123(b)(3).

The County compounds the errors noted above by republishing the same defective summary contained in the RDEIR again in the FEIR (pages ES-1 to ES-32) without even including in the FEIR summary the additions it did make to the RDEIR summary.

The County's position seems to be that it does not have to follow the mandatory language contained in the CEQA Guidelines §§15120(c) and 15123(b), and that it can choose to ignore, without consequence, the sections' clear informational purpose. We ask where are the public and the decision makers to look for an accurate summary and in how many places? We ask how can that which the CEQA Guidelines states the summary **shall contain** be determined by the County to be insignificant? (emphasis added)

Dumbing Down of Significance Criteria for Impacts 3.6-2, 3.6-5, and 3.8-6 from that of the 2008 DEIR and CEQA Guidelines Appendix G

Our concern here is with the wording of certain impact summaries. The responder to this comment has indicated the reason for changing the impact statements was "to more efficiently describe the specific impact being addressed by the analysis." See page 5-67 FEIR. We ask what is meant by "to more efficiently describe the specific impact being addressed by the analysis"? "To more efficiently describe" certainly does not include making the impact statement more informative. A reading of each Impact Statement will confirm that it does result in fewer and substituted words thereby making the impact summary less descriptive and undermining the public disclosure and informational purposes of the impact statement. The same consulting firm (ESA) prepared the 2008 DEIR and 2010 RDEIR. So, did the "efficiencies" of wording impact statements change; or were there certain impact statements the County decided were too descriptively alarming or revealing?

Failure to Establish the Environmental Setting and Thresholds of Significance for Forestry Resources and to Analyze Impacts on Them

The responder to this comment offers no reason why the County has elected not to establish the environmental setting for forestry resources, not to establish thresholds of significance to determine whether the General Plan's impact on the existing forestry resources is significant, and not to do an impact analysis. The concern is what impact the conversion of forested lands will have on greenhouse gases, watersheds, water supply, water quality, runoff volume and velocity, flood risk, soil erosion, and wildfires. This should have been addressed as a separate impact and is especially important in light of the County's aggressive development plans in the foothills and mountain areas. The responder simply is not portraying a complete description when stating on page 5-70 FEIR "the proposed General Plan focuses future growth within established community areas."

A quick review of pages 2-19 to 2-21 RDEIR clearly depicts the pronounced effect which the Rural Valley Lands Plan, Corridors Framework Plan, Foothill Growth Management Plan, and Mountain Framework Plan will have on the foothill and mountain areas. See also Goals and Policies Report Part II, Chapter 1-Rural Valley Lands Plan, Chapter 2-Corridors Framework Plan, Chapter 3-Foothill Growth Management Plan, and Chapter 4-Mountain Framework Plan. Unless we locate new growth in the right areas, the forests, streams, rivers and lakes that receive precipitation and runoff will become increasingly degraded and the natural functions of forests and watersheds which collect and cleanse our water supplies will diminish. Forests improve water quality, prevent soil erosion, provide wildlife habitat, and sequester atmospheric carbon dioxide. Loss of forest and conversion of forest land to non-forest uses injures these functions. Conversion of forest land to non-forest uses exposes people and development to the increased danger of wildfire and increases wildfire risk. Wildfires adversely impact water supply, water quality, runoff volume and velocity, flood risk, soil erosion, and wildlife habitat.

Failure to Comply with Assembly Bill No. 162 Approved October 10, 2007, Which Amends and Adds to Certain Sections of the Government Code Relating to Local Planning

The County has addressed this noncompliance with A.B.162 in its Response to Comments III-22 at page 5-71 FEIR and III-119 at page 5-119 FEIR. Despite its suggestions to the contrary, the County has not complied with the statutory provisions identified in our May 26, 2010, comment letter or that portion of the Government Code Section 65302(a) also amended by A.B. 162. In addition to the comments below, see also our comments in Section II, pages 23-24. Government Code Section 65302(a) amended the land use element by adding the requirement **"The location and designation of the extent of the uses of the land for public and private uses shall consider the identification of land and natural resources pursuant to paragraph (3) of subdivision (d)."** Government Code Section 65302(d)(3) is that portion of A.B. 162 which added the requirement that **"the conservation element shall identify rivers, creeks, streams, flood corridors, riparian habitats, and land that may accommodate floodwater for purposes of groundwater recharge and stormwater management."**

On September 23, 2011, after conclusion of the Tulare County Flood Control Commission meeting, the Tulare County Flood Control District Engineer, Tulare County Resource Management Agency Flood Control Division, upon inquiry, stated that no land had been identified yet for retention basins. The Tulare County Flood Control Commission was recently reconstituted and commenced monthly meetings on March 23, 2011. We have attached minutes from its meetings of March 23, April 29, and July 19, 2011, and minutes from the March 28, 2011 Tulare County Water Commission meeting, all of which indicate the County is starting to move in the right direction, but has not complied with A.B. 162. Attachments 6, 7, 8 and 9 respectively.

A.B. 162 is part of the 2007 California flood legislation and has mandatory and discretionary provisions. The provisions of A.B. 162 which we address in our May 26, 2010 comment letter and herein are mandatory provisions. Prior to approving the General Plan, the County is required to comply with these provisions by including the appropriate text, tables, and maps in the General Plan. It has not yet done so. Thinking about it is a step in the right direction but does not constitute compliance. **To avoid land use conflicts, the requirements of A.B. 162 must be complied with while the General Plan is being drafted not after it is approved.** "The intent is to conserve areas used for groundwater recharge and stormwater management and to minimize urban development in these areas." See page 32 of Attachment 4. We ask, if the County has not complied with the conservation element language, how could it have possibly complied with the change to the land use element?

Certain provisions of A.B. 162 relating to the safety element may be complied with by "counties that have flood plain management ordinances that have been approved by FEMA that substantially comply with this section, or have substantially equivalent provisions to this subdivision in their general plans, may use that information in the safety element to comply with this subdivision and shall summarize and incorporate by reference into the safety element the other general plan provisions or the flood plain ordinance, **specifically showing how each**

requirement of this subdivision has been met." Government Code Section 65302(g)(4). The County has not done this.

The Tulare County Flood Damage Prevention Ordinance is attached for review. Attachment 5(a). The County claimed in the second paragraph of page 3.6-53 RDEIR that this ordinance had been approved by FEMA and substantially complies with A.B. 162. We note that as a result of a FEMA Community Assistance Visit (CAV) to Tulare County in August 2010, the Tulare County Flood Damage Prevention Ordinance was determined by FEMA to have serious problems. The purpose of the CAV was "to provide your [Tulare County] staff with the most current information on the National Flood Insurance Program (NFIP), give them an opportunity to discuss concerns they might have had, and assess the County's enforcement of the local flood plain management ordinance that was adopted to meet requirements of the NFIP." By letter dated December 27, 2010, the County was advised of the need to update the ordinance and forward a copy to FEMA. Attachment 29. The County amended six sections of the ordinance, effective date June 10, 2011, Attachment 5(b) and forwarded the same to FEMA on October 19, 2011, Attachment 5(d), after receiving a follow-up inquiry from FEMA on October 18, 2011, Attachment 5(c). By e-mail of October 24, 2011, FEMA advised the County a number of deficiencies still existed in its ordinance which required correction before the Flood Damage Prevention Ordinance could be deemed NFIP compliant. Attachment 30.

We certainly hope the County's Flood Damage Prevention Ordinance is further amended to meet FEMA's requirements. In any case, we do not believe the Flood Damage Prevention Ordinance satisfies those portions of the requirements of A.B. 162 which we address in this letter and our May 26, 2010 comment letter.

Population Growth and Distribution

The County's response at page 5-72 FEIR does not address our concern that one or more employees of ESA were utilizing different population projection numbers and net growth distribution percentages when drafting the RDEIR. Merely stating the correct population split is reflected in Table 5-1 and 2-11 RDEIR and more fully described on page 2-24 RDEIR does not establish the employee who drafted this paragraph pertaining to Cumulative Setting on page 5-4 RDEIR was using the correct percentage. We note that the 2008 DEIR uses the correct percentage at page 8-5. So someone changed the percentages in the RDEIR either by accident or purposely. A 50 percent chance either way.

Failure to Adequately Consider the Potential Significant Impacts Identified in the Yokohl Ranch Project Initial Study Evaluation of Environmental Impacts

We disagree with the County's response on this issue and have earlier addressed it in some detail at pages 11 and 12 of the first portion of this letter.

As an initial matter, we note the statement in Master Response #1, page 4-8 FEIR, that "Approximately 30 percent (9,500 acres) of the Ranch is proposed for development with approximately 70 percent (26,000 acres) of the property to remain open space and ranchlands" has not been a correct statement of the acreage subject to development since at least the release of the RDEIR. At page 15 of our May 26, 2010, comment letter on the RDEIR, page 3-172 FEIR, after the asterisk "We note that as of date of the RDEIR, the County lists 40% (14,400 acres) of the ranch is proposed for development with 60% (21,600 acres) of the property to remain as open space and ranchlands. See page 5-6 RDEIR."

Page 4-9 FEIR states, "The proposed 2010 General Plan is a policy document to provide a long term, comprehensive plan for the physical development of the County." As noted in our May 26, 2010, comment letter, the Yokohl Ranch Project, if approved, will be a substantial portion of this long-term comprehensive plan for the physical development of the County. (See pages 3-174 to 3-175 FEIR). The development of the Yokohl Ranch Project will represent at least a partial accomplishment of one of the General Plan's objectives "and to provide the framework for planning new self sustaining communities." See pages ES-3 and 2-5 RDEIR; pages ES-8 and 1-4 FIER. This objective did not appear in the 2008 DEIR. See pages ES-7 and 2-6 DEIR. What was the reason for the change? Was it to better define the first objective to which it was added or to promote the Yokohl Ranch Project, the planning for which was continuing to move forward? We fail to see how the added objective of new self-sustaining communities will assist the accomplishment of the first part of the objective to which it was attached, i.e., "Provide opportunities for small unincorporated communities to grow or improve quality of life" even with the words added between 2008 and 2010 "and their economic viability."

Since fiscal year 2006/2007 through September 2011, the County has spent $3,240,049.58 (all reimbursed by the J.G. Boswell Company) on the Yokohl Ranch Project, Attachment 31. Further, while attending the September 23, 2011, meeting of the Tulare County Flood Control Commission, we heard the Flood Control District Engineer, Tulare County Resource Management Agency Flood Control Division, state that the County hoped to have on board within the next four to six weeks a new engineer who would be working 50 percent on flood control and 50 percent on Yokohl Ranch review. These actions by the County are indicative of a strong commitment to the Yokohl Ranch Project. **Whether or not approved, the Yokohl Ranch Project is exactly the type of new town development permitted by the General Plan 2030 Update which must be analyzed as part of the General Plan.**

The vast majority of the Yokohl Ranch Project even though commenced as a General Plan Initiative under the existing general plan of 1964 will be developed under the General Plan 2030 Update. Portions of its environmental analysis will tier off the General Plan 2030 Update. The

General Plan 2030 Update when approved will cancel out most of the 1964 General Plan. See page 1-7 Goals and Policies Report Part I. Yokohl Ranch Project should be considered to be a development envisioned/encouraged by the General Plan 2030 Update. As noted on page 136 General Plan Guidelines, "The General Plan is a particularly useful tool for identifying measures to mitigate the cumulative effects of new development." Page 137 General Plan Guidelines provides "The EIR must analyze the cumulative effects of the plan's policies and proposals on the environment. For example, a planning policy authorizing rural residential uses in or near wild lands could cumulatively increase the potential severity of fire damage by hindering wildfire suppression efforts." Page 138 General Plan Guidelines provides "The program EIR prepared for a general plan examines broad policy alternatives, considers the cumulative effects and alternatives to later individual activities where known, and contains plan-level mitigation measures." The "cumulative effects" within the meaning of the above quotation are those contemplated by **the first clause** of CEQA Guidelines § 15355(a), **"the individual effects may be changes resulting from a single project**." In this case, the single project is the General Plan 2030 Update. (emphasis added)

Also instructive are CEQA Guidelines §§ 15152(c), 15168(b)(1-4) and 15168(c)(5) which are set forth earlier in the text of this letter as are the above pages of the General Plan Guidelines. Some excerpts therefrom: "Where a lead agency is using the tiering process in connection with an EIR for a large scale planning approval, such as a general plan . . . the development of detailed, site-specific information may not be feasible but can be deferred . . . as long as deferral does not prevent adequate identification of significant effects of the planning approval at hand." "Use of a program EIR can provide the following advantages. The program EIR can: Provide an occasion for a more exhaustive consideration of effects and alternatives than would be practical in an EIR on an individual action," "Ensure consideration of cumulative impacts that might be slighted in a case-by-case analysis," . . . "Allow the Lead Agency to consider broad policy alternatives and programwide mitigation measures **at an early time** when the agency has far greater flexibility to deal with basic problems or cumulative impacts," . . . "A program EIR will be more helpful in dealing with subsequent activities if it deals with the effects of a program as specifically and comprehensively as possible. . ." (emphasis added)

We believe the County's approach on this issue is contrary to the intended purpose of the General Plan Guidelines and CEQA sections cited, has undermined the environmental and informational purpose of CEQA, and has "prevented adequate identification of significant effects of the planning approval at hand." Under the County's approach, the environmental impacts assessment has resulted in an environmental analysis in which the impacts of the General Plan 2030 Update are less than the sum of the individual projects which will occur under the General Plan buildout. As indicated in our May 26, 2010, comment letter, pages 3-174 to 3-176 FEIR, the RDEIR's environmental analysis as less than significant both before and after mitigation of impacts 3.6-1, 3.6-3, 3.6-4, 3.7-1, 3.7-3, and 3.8-6 is fundamentally flawed and must be redone.

Failure to Analyze and Mitigate for the Public Health Impacts Resulting from Air Quality and Water Quality Impacts of the General Plan Update

We offer a number of additional comments on the County's inadequate response on this issue at pages 5-73 to 5-78 FEIR. First, please refer to our comments in the first portion of this letter addressing water quality at page 11. See also our comments in Section II, pages 7-18.

The FEIR contains nothing more than an abbreviated, generic reference to public health effects resulting from the General Plan 2030 Update's impacts on our air and water quality. The County cites "a description of the health effects associated with air quality contaminants in Table 3.3-1". Pages 5-73 to 5-74 FEIR. We note the impact analysis of Impact 3.3-4 (The proposed project could expose sensitive receptors to substantial pollution concentrations that could affect public health) at pages 3.3-25 to 3.3-27 RDEIR contains no reference to Table 3.3-1, pages 3.3-3 to 3.3-4 RDEIR. Impact 3.3-4 was added to the RDEIR, perhaps in response to Peter Clum's comments on the 2008 DEIR, pages 3-638 to 641 FEIR. "An adequate EIR requires more than raw data; it requires also an analysis that will provide decision makers with sufficient information to make intelligent decisions." *County of Amador v. El Dorado County Water Agency* (3d Dist. 1999) 76 Cal.App.4th 931, 955.

In reply to our comments about **water quality** issues in our May 26, 2010 letter, the responder at page 5-75 FEIR refers us to the RDEIR's analysis of Impact 3.6-1: The proposed project could violate water quality standards or wastewater discharge requirements, or otherwise degrade water quality. The impact summary on page 3.6-37 RDEIR assesses the level of significance both before and after mitigation as less than significant. This analysis is an example of failure to consider the cumulative impacts of **two or more individual effects resulting from a single project,** i.e., the General Plan 2030 Update, **"which, when considered together compound or increase other environmental impacts."** CEQA Guidelines §15355(a). (emphasis added) Please review the following list of impacts discussed in the RDEIR at the corresponding pages of the RDEIR. The General Plan 2030 Update's assessment of all these impacts was **potentially significant before mitigation** and **significant and unavoidable after mitigation**.

Impact 3.6-2 (page 3.6-40): The proposed project would result in impacts to groundwater supply, recharge, and secondary impacts to groundwater resources.

Impact 3.6-5 (page 3.6-52): The proposed project would expose people or structures to flood hazards from development within a 100-year Flood Hazard Area or from increased rates or amounts of surface runoff from development.

Impact 3.6-6 (page 3.6-55): The proposed project would expose people or structures to flood hazards from failure of a levee or dam.

Impact 3.9-1 (page 3.9-36): The proposed project would require new or expanded water supplies, facilities and entitlements.

Impact 3.9-2 (page 3.9-50): The proposed project could result in wastewater treatment demand in excess of planned capacity that cannot be met by new or expanded facilities.

Impact 3.9-3 (page 3.9-55) The proposed project would produce substantial amounts of solid waste that could exceed the permitted capacity of a landfill serving the County.

Impact 3.11-1 (page 3.11-32) The proposed project would have a substantial adverse effect, either directly or through habitat modifications, on a variety of special status species.

Impact 3.11-2 (page 3.11-35) The proposed project would have a substantial adverse effect on riparian habitat or other sensitive natural communities.

Impact 3.11-3 (page 3.11-38) The proposed project would have a substantial adverse effect on "federally protected" wetlands and other waters.

Reviewing this list of nine impacts rated significant and unavoidable after mitigation and then considering the cumulative impact of each of the nine individual significant and unavoidable impacts on a tenth impact, i.e., water quality, we ask how is it possible that the RDEIR at page 3.6-57 could conclude that prior to and after mitigation the General Plan's impact on water quality could be less than significant?

On page 5-78 FEIR the responder states "It should also be noted that existing conditions, such as existing groundwater overdraft and existing water quality issues, are not impacts of the proposed project . . . " We would simply comment again that while that may be true, **exposing people and development to existing adverse conditions is an impact of the project.** "The EIR shall also analyze any significant environmental effects the project might cause by bringing development and people into the area affected." CEQA Guidelines §15126.2(a). The FEIR fails to do so. Attachment 10 lists some of the health concerns of exposing people to high concentrations of nitrates. Page 12, The Human Costs of Nitrate-contaminated Drinking Water in the San Joaquin Valley, March 2011, Eli Moore and Eyal Matalon, The Pacific Institute.

The RDEIR Contains a Defective Water Baseline and Inadequately Analyzes and Mitigates the General Plan's Water Supply Impacts

- The FEIR's response to comments quotes on a number of occasions "The FEIR was not required to resolve the [existing] overdraft problem, a feat that was far beyond its scope." *Watsonville Pilots Association v. City of Watsonville* (2010) 183 Cal.App.4th 1059, 1094. We do not disagree with this quotation. Even if the General Plan 2030 Update contained enforceable mitigation policies and implementation measures with performance standards pertaining to water supply and use, which it does not, it is beyond the capabilities of Tulare County to resolve this issue during the life of the General Plan.

  We note the language in *Watsonville* two sentences above the one quoted, which provides "The FEIR concludes that the impact of the new development contemplated by the 2030 General Plan will be [1] offset by decreased water usage associated with the conversion of farmland and [2] the City's water conservation measures. Thus the overdraft problem will remain [3] but will not be exacerbated." (bracketed numbers added.) These two sentences raise **three notable points of differentiation between the facts in the City of Watsonville 2030 General Plan and the Tulare County General Plan 2030 Update.**

  (1) The water supply evaluation's demand/supply approach of conversion of agricultural lands to urban use is similar if not the same in both with **one very important difference**. The evaluation in *Watsonville* dealt with conversion of groundwater only, that is, converting "X" amount of agricultural groundwater use to urban groundwater use. In Tulare County, the "success" of the water supply evaluation relies on the conversion of agricultural surface and groundwater use to urban. How much of that agricultural surface water will be available for conversion to urban use is not known. See pages 3.6-41 to 43 and 3.9-39 to 40 RDEIR. At the Tulare County Water Commission meeting of March 22, 2010, Carole Clum heard Commissioner Kapheim state the following after a presentation by Mr. Young of Tully and Young, Inc. on the Tulare County General Plan 2030 Update water supply evaluation: Almost all cities draw their water supply from groundwater. Converting irrigated land (water entitlements) to residential, industrial, and commercial uses is unrealistic and improbable because a developer buys the farmland but not its water rights. Water irrigation districts withdraw water from that land when it is no longer used for agriculture. The Tulare County Water Commission meeting minutes (summarized) for March 22, 2010, are attached as Attachment number 11.

  (2) The City of Watsonville 2030 General Plan policies and measures required the City to "adopt a Water Demand Offset Ordinance" which would require new development to have "zero impact" on water usage. "This ordinance shall require applicants for new water service to offset at least the amount of water

the new development is projected to use so that there is a 'zero impact' on the City's water supply. Applicants for new service could accomplish the offset requirements by paying for water conservation measures such as low-flow fixture retrofits or synthetic turf retrofits for existing customers within City limits." Citation at page 1092. Tulare County's General Plan 2030 Update has no such measure. The mitigation measures are mostly vague and often subject to the whim of the interpreter, and lack measurable, enforceable performance standards. **We urge Tulare County to adopt a mitigation measure like the Water Demand Offset Ordinance in *Watsonville* which would require new development to have 'zero impact' on water usage.** Instead, the County has relied on the often repeated chorus "no additional feasible mitigation available." We ask, "why not?"

(3) Unlike the City of Watsonville 2030 General Plan, the Tulare County General Plan 2030 Update will exacerbate groundwater overdraft. There is no dispute on this. See pages 3.6-41 to 43, 3.9-39 to 40, and 3.9-47 RDEIR. See also the RDEIR's summary as significant and unavoidable of both Impact 3.6-2: The proposed project would result in impacts to groundwater supply, recharge, and secondary impacts (page 3.6-40 RDEIR) and Impact 3.9-1: The proposed project would require new or expanded water supplies, facilities, and entitlements (page 3.9-36 RDEIR).

- We next turn to what we believe is a disingenuous statement at lines 10 and 11, page 5-80 FEIR. "It should also be noted that the proposed project is expected to reduce water use below existing levels (baseline), as described on RDEIR pages 3.9-11 and 3.9-47." We are not reassured by this statement. First, there are serious supply issues. Second, the actual language on RDEIR page 3.9-11 which presumably the writer is referring to is "The reduction in water demand also translates into a **potential reduction in County-wide demand."** This language does not occur in isolation. On the preceding RDEIR page, line 7 appears the language "Thus, it is assumed that there will be a **slight reduction in water demand . . . ."** On page 3.9-11 four lines below the language "a potential reduction in County-wide demand" appears the language "On the County-wide scale, **this reduction is negligible**, especially . . .". Then three lines lower appears the language "the **slight reduction in demand** assumed to occur from the displacement of irrigated agricultural lands with mixed use urban demand **could be considered negligible**." (emphasis added)

The first line of page 3.9-47 RDEIR states "As demonstrated in this analysis, the actions contemplated in the proposed project are not anticipated to cause overall demand in the County to vary from within the range of demands seen historically and documented by DWR . . ." This description still does not square with the FEIR's statement "It should be noted that the proposed project is expected to reduce water demand below existing levels (baseline), as described on RDEIR pages 3.9-11 and 3.9-47" page 5-80 FEIR.

Additionally, and most importantly, the above quoted language on page 5-80 FEIR is the **opposite** of the language in the impact analysis for Impact 3.9-1: The proposed project would require new or expanded water supplies and entitlements. On page 3.9-36 RDEIR, in lines 2 and 3 of the impact analysis, appears the language "Additional land use development consistent with the proposed project would **increase the demand for water**, . . ." (emphasis added) then, starting with line 14, "Increases in water demand that would occur subsequent to the proposed project would be determined by future water use and management practices and the intensity and distribution of future land uses. Although both water supply and demand vary over time, the long term objective is to ensure that these two variables are held in balance, and that demand does not exceed supply for a prolonged period of time."

We ask, given this language we have quoted from the RDEIR, is it prudent for the FEIR to state, without qualification, that "the proposed project is expected to reduce water use below existing levels (baseline), as described on RDEIR page 3.9-11 and 3.9-47." Intentionally or not, this statement is misleading. How does this serve the informational purposes of CEQA?

- Response to comment III-40 at page FEIR 5-81 notes a minor revision has been made to page 3.9-39 RDEIR "to note that the Success Reservoir has not been recently enlarged." The sentence on page 3.9-39 now reads "Additional benefits are expected to be realized with the implementation of the seismic retrofit of Success Dam and the possible future enlargement of Success Reservoir." Page 2-10 FEIR. The FEIR did not deem this portion of our comment letter of May 26, 2010, (page 3-180 FEIR) worthy of any further discussion. The FEIR **fails to respond to** our comment that "Lake Success has not been filled to more than two-thirds capacity since 1999 due to structural flaws and an inadequate spillway discovered in 1999 during testing and assessment." We also noted that the seismic retrofit of Success Dam had not been funded. More minor matters as far as the FEIR is concerned? Since our comment letter of May 26, 2010, we have learned that remediation funding for Success Dam is 20 years off, according to Army Corps of Engineers California Southern Manager Calvin Foster during a telephone conversation with Carole Clum on September 23, 2011. He advised enlargement funding would come later. He stated local officials want to tie the enlargement and remediation together, but that may not happen. More time-consuming models must be run on Lake Success Dam and funds have to be allocated for the modeling. Lake Success Dam has a lower priority than a less safe dam, like Lake Isabella Dam. See also page 2 of Tulare County Water Commission meeting minutes, March 28, 2011. Attachment 9.

- Our comment letter of May 26, 2010, raised concerns about the General Plan 2030 Update allowing aggressive development in the foothills and mountains and the RDEIR's failure to evaluate water supply issues in the foothills and mountains. See pages 3-184 to 3-186 FEIR. There simply is **no reasoned analysis of the *Vineyard* principles relative to the circumstances and impacts of providing water from the fractured rock aquifers**

in the foothills and mountains to meet the development permitted by the General Plan 2030 Update. *Vineyard Area Citizens for Responsible Growth, Inc. v. City of Rancho Cordova* 40 Cal.4th 412 (2007). We also raised concerns that "The General Plan's aggressive development plans in the corridors, rural valley lands, foothills and mountain areas seem to reject the science that **development of watershed and aquifer recharge lands will impair water supply reliability and quality.**" See page 3-185 FEIR. The FEIR's Response to Comments III-53 to 55 is considered inadequate, nonresponsive and conclusory. Once again at pages 5-85 to 5-86 the FEIR tries to minimize the aggressive development the General Plan would permit in the foothill and mountain areas. We disagree that development in the foothill and mountain areas is limited by the General Plan 2030 Update. A review of RDEIR pages 2-19 to 2-21 as well as the Goals and Policies Report, Part II, Chapter 1 – Rural Valley Lands Plan, Chapter 2 -Corridors Framework Plan, Chapter 3 – Foothill Growth Management Plan, and Chapter 4 – Mountain Framework Plan establishes quite the opposite.

- We also note the **RDEIR does not address** a significant change affecting aquifer recharge when it discusses conversion of agricultural land to urban uses, i.e., **the loss of aquifer recharge from percolation when water is no longer applied to agricultural land**, an issue in addition to urbanization reducing permeable surfaces.

- We conclude with a quote from page 786, Guide to CEQA, Remy, Thomas, Moose, and Manley, 11th Edition (2007): "The Courts have done their part by suggesting, if not holding, that the proper forum for making tough decisions regarding water supply and land use planning is the general plan EIR." The FEIR suggests the Tulare County Supervisors are not willing to make these tough decisions and want it to be business as usual in Tulare County.

The RDEIR's Analysis of the General Plan's Alternatives, Growth-Inducing Impacts, Cumulative Effects, Significant and Unavoidable Impacts and Significant Irreversible Environmental Changes is Flawed.

We reject the FEIR's responses (pages 4-36 to 4-38 and 5-86 to 5-90 FEIR) to our concerns about the RDEIR's treatment of these topics as nothing more than a reiteration of earlier flawed environmental analysis which invalidates its conclusions. The Healthy Growth Alternative does offer significant environmental advantages over the other alternatives and must be analyzed by the County.

SECTION II

Impact 3.2-1 The proposed project would result in a substantial increase in vehicular traffic.

I11-63 The County claims that, as lead agency it has discretion to set its own significance criteria, that "this EIR has tailored Appendix G to suit the unique qualities and characteristics of the project area given the mandates to analyze site specific characteristics. The significance thresholds were also updated to more efficiently describe the specific impact being addressed by the analysis." See page 5-67 of FEIR volume I.

What is so unique to this project about analyzing a substantial increase in vehicular traffic? Environmental Impact Reports must include specific information about how projects may adversely affect the environment. The RDEIR's wording of this impact statement established "its threshold(s) of significance without regard to whether those standards were broad enough to encompass the scope of the project..." *Protect the Historic Amador Waterways v. Amador Water Agency* (3d Dist. 2004) 116 Cal.App.4th 1099 [11 Cal.Rptr.3d 104]. This is a general plan for growth over the next twenty years. The impact statement wording must identify impacts that may be deemed significant.

Although Appendix G "is only a suggested form, and lead agencies are free to use different formats," lead agencies "should normally address the questions from this checklist that are relevant to a project's environmental effects in whatever format selected." CEQA Guidelines Appendix G, "Evaluation of Environmental Impacts," item 8.

We are not satisfied with the explanation that this wording is more efficient. How does a much less descriptive impact statement describe the full extent of impact of the General Plan buildout and formulation of mitigation?

I11-64 The County admits funding sources may be unreliable or may be insufficient to complete all the necessary improvements and funding programs are not fully developed at this time (Background Report, pages 5-27, 4th and 6th paragraphs) and that Level of Service (LOS) will deteriorate. The County blames this LOS deterioration mostly due to city growth. (Goals and Policies Report, last paragraph page 3.2-31) Actually dairy milk trucks are destroying roads on the west side of the county. And development proposed in the Corridor Plan, Foothill Growth Management Plan, New Towns, and Mountain Service Areas will strain roadways, intersections, streets, highways, and freeways to the breaking point. Policy TC-1.16 states the LOS standard for Tulare County is "D". Goals and Policies Report, page 13-7.

The RDEIR found this impact Significant and Unavoidable. We maintain the Level of service will plummet to "E" and "F".

I11-65 We were not expressing our opinion that County road maintenance, particularly for rural roads, is already inadequate, and would deteriorate further as a result of the General Plan 2030 Update. We were relating the professional judgment of Johnny Wong, Head of Tulare County Transportation Operations.

The existing deficiencies and roadway dust will be magnified by the scope of the General Plan 2030 Update over the coming twenty years. This is a public health issue and an air quality issue not addressed by the RDEIR. If the funding is not available, the County cannot adequately repair the less traveled, lower priority roads. Impact fees, which have not been developed or adopted, are not guaranteed in TC Implementation Measure #5 to cover the full cost of maintaining public roads installed with new development.

Policy TC-1.5 Public Road System Maintenance. "The County shall give priority for maintenance of roadways identified by the Tulare County Pavement Management System..." will not solve road deterioration problems in rural areas. According to Tony Bolland, second in command of Tulare County Transportation Operations, in a telephone conversation with Carole Clum on September 13, 2010, the Pavement Management System is a nationally used strategy for classifying road conditions and used to prioritize pavement repair. The priority for pavement repair goes to roads most frequently traveled. Because materials used to repair pavement (oil, rock, fuel) are increasingly more expensive and the County has limited money for road repair, the strategy is to keep the best roads in good condition. It costs much less money to repair a segment of a good road than to repair a segment of a poor road. Eventually, after years of keeping good roads good, there will be much less repair needed on them and money "will trickle down" to fair and poor roads. (This is optimistic.) Mr. Bolland also said heavy trucks, especially milk trucks, cause the most damage to County roads. There are 324 very large dairies in Tulare County.

A larger population, more industry, distribution centers, more and larger dairies, and sprawl development will pound more miles of roads. The Pavement Management System does not address road width or shoulder width and shoulder condition. It is not a panacea for narrow foothill and mountain roads with crumbling, narrow, or non-existent shoulders. Foothill roads are the least traveled roads.

I11-66 This comment from the Background Report shows existing conditions of roads, ability to fund repairs to roads and bridges and therefore the ability to support new development proposed during the scope of the General Plan Update.

I11-67 Deteriorating roadway conditions will compromise safety. See our response to I11-65.

Why do you list six policies and two implementation measures that do not mitigate the impact of increased traffic: maintaining a database, non-existent impact fees and assessment districts, and weak wording such as "shall work to enhance funding," "within the constraints of funding," "shall give priority for maintenance to roadways identified by the Tulare County Pavement Management system?"

Impact 3.2-1 The Proposed Project Would Result in a Substantial Increase in Vehicular Traffic. Additional Comments.

The RDEIR states the proposed project would result in significant and unavoidable impacts on vehicular traffic in the county. Stronger policies and implementation measures would reduce the impact. Almost all the policies and implementation measures for the Transportation and Circulation Element (TC-1.1 through TC-01.19 and LU-1.10, LU-4.4, LU-5.4) contain weak language ("shall give priority to," "shall consider," "shall give consideration to," "shall strive," shall work with," "shall require an analysis") and loopholes ("within the constraints of funding," "whenever possible," "where warranted"). Effective mitigation requires mandatory policies with measurable performance standards and near term deadlines. A good feasible mitigation would require all new development to offset its vehicular impact 1:1 by funding public transit, Class 1 bicycle lanes, and pedestrian trails. The best the county can do is Policy TC-1.16 County Level of Service (LOS) Standards (Goals and Policies Report, page 13-7), "The County shall strive to develop and manage its roadway system (both segments and intersections) to meet a LOS of "D" or better in accordance with LOS definitions established by the Highway Capacity Manual." Currently there are thirteen roadway segments identified as "E" or "F" in Table 3.2-7 RDEIR page 3.2-27. LOS D is defined by CAL TRANS as "Is a crowded segment of roadway with a large number of vehicles restricting mobility and stable flow. Speed and freedom to maneuver are seriously restricted and the driver experiences a generally poor level of comfort and convenience." See Goals and Policies Report page 13-7. High standards indeed.

Since the county cannot keep its existing roads in good repair now, as stated by the head of Tulare County's Transportation Operations, Johnny Wong, how will the county maintain the many additional miles of roads and interchanges necessary to serve the sprawling development proposed in the Planning Framework, Corridors, Rural Valley Lands Plan, FGMP, and Mountain Framework?

An environmentally superior project alternative such as the Healthy Growth Alternative proposed by the Tulare County Citizens for Responsible Growth should have been included and chosen by the RDEIR. It directs almost all future population growth into existing cities and communities and avoids much of the impact on highways, freeways, streets and interchanges.

Impact 3.3-3 The proposed project could conflict with or obstruct implementation of an applicable air quality plan.

III-70 The FEIR on page 5-96 states "woodstoves and greenwaste burning do contribute to levels of PM 10 and PM 2.5, these levels are considered relatively minor (less than 10% of total emissions." "Therefore a ban on fireplace, woodstoves, and greenwaste burning is not considered an effect [sic] means of substantially reducing project-related PM 10 and PM 2.5 emissions."

Since the San Joaquin Valley is in non-attainment for PM 2.5 and PM 10 now, every measure to reduce particulate matter is important and effective. We will take a 10% reduction any day. Ten percent is incrementally significant. At what point does it become an effective mitigation measure? 20%? 30%? 40%? Banning fireplaces and woodstoves in new development and all greenwaste burning would be more effective mitigation measures than the General Plan's unenforceable, unmeasurable and deferred policies and implementation measures. Saying it is not an effective means of substantially reducing project PM 10 and PM 2.5 emissions is wrong on two counts. It does not have to be a substantial mitigation to satisfy CEQA and it appears to be a conclusory statement unsupported by evidence. Greenwaste should be chipped and shredded on site, not hauled to a landfill.

The County has the authority and duty to regulate air quality not just because the General Plan conflicts with an applicable air quality plan, but because it adversely affects the health and welfare of the residents of this county and region.

The Sierra Club did not request banning of burning for fire protection.

Carole Clum commented on Air Quality policies and implementation measures in her comments on the DEIR. The RDEIR and FEIR failed to respond to the pertinent comments on air quality. See pages 3-352 through 3-358 of the FEIR.

We would like to comment here on the wholly unrealistic policy AQ-4.4 Wood Burning Devices. "The County shall require the use of natural gas where service is available or the installation of low-emission, EPA-certified fireplace inserts in all open hearth fireplaces in new homes, as required by SJVAPCD Rule 4901-Woodburning Fireplaces and Woodburning Heaters. The County shall promote the use of natural gas over wood products in space heating devices and fireplaces in all existing and new homes."

- Natural gas service is not available in rural valley areas of the County or foothills and mountains where there are no natural gas trunk lines.

- Inserts in open hearth fireplaces are not energy efficient, and are polluting.

- How will the County promote the use of natural gas over wood products? There is no implementation measure for this policy.

- New rural homes must be heated by electricity, propane, geothermal, or solar means, if natural gas is not available.

Since the County finds our request for 2:1 mitigation for air quality impacts infeasible, we propose 1:1 mitigation to offset air quality impacts of new development.

Instead of the air polluting sprawl development proposed by the General Plan 2030 Update and all the miles of roads necessary to service the development, choose the Healthy Growth Alternative proposed by the Tulare County Citizens for Responsible Growth. See Sarah Campe's comments FEIR Volume II page 3-1449, for a definition of the Healthy Growth Alternative.

The FEIR claims "the SJVAPCD has the primary responsibility for regulating stationary source emissions within Tulare County and preparing the air quality plans (or portions thereof) for its jurisdiction." This is not a good explanation of why it would be infeasible for the County to eliminate particulate matter pollution from greenwaste burning, open hearths and woodstoves in new development.

The FEIR response consists of reiteration of the RDEIR's impact analysis and mitigation measures. The response fails to suggest any policies and/or implementation measures which correct the deficiencies noted in our comments in the RDEIR.

Impact 3.3-4 The proposed project could expose sensitive receptors to substantial pollutant concentrations that could affect public health.

III-71 The Sierra Club recommends the RDEIR choose the Healthy Growth Alternative proposed by the Tulare County Citizens for Responsible Growth.

Why didn't the RDEIR publish the results of the public workshops and meetings held by the Technical Advisory Committee cited on page 7, Appendix A, RDEIR? We should not have to search a website to find this information. The 2008 General Plan listed the issues Tulare County citizens were most concerned about: air quality, water quality and reliability, continued conversion of agricultural land to residential development, and the need to diversify the economic base to provide higher paying year-round employment. This information has been deleted from the March 25, 2010 General Plan along with any reference to the Technical Advisory Committee's (TAC) recommendations. Laurie Schwaller of TCCRG has raised this subject repeatedly in her RDEIR comments, at the Three Rivers Town Hall meetings, and to the Board of Supervisors at the August 30, 2011 workshop with the Board of Supervisors and Planning Commission during the Public Comment period. This is bad faith. These workshop results and the TAC recommendations were ignored. This is unresponsive governance.

Our questions concerning the number and percentage of residents in Tulare County who are sensitive receptors and would be adversely affected by air pollution caused by this General Plan at buildout were ignored. Also our comment that the County not burn branches when clearing foothill roadsides to maintain fire buffers were ignored. This is a County practice in Three Rivers. The County owns a chipper/shredder. It should use it exclusively to dispose of branches it clears along roads in the foothills and mountains. It would lessen the chance of starting a wildfire.

Impact 3.3-4: The proposed project could expose sensitive receptors to substantial pollution concentrations that could affect public health. Additional Comments.

The RDEIR rated this project's impact on public health as significant and unavoidable. The American Lung Association's State of the Air 2011 report gives Tulare County and the metropolitan area of Visalia-Porterville failing grades now for its ozone, year round particle pollution and short term particle pollution. See Attachment 12. Ultra fine particulate matter in the San Joaquin Valley threatens residents' health. See Attachment 13, Toxic shower threatens Valley Air. The county must adopt all feasible mitigation measures and a less air polluting project alternative to the General Plan Update to improve public health.

Impact 3.6-1 The proposed project could violate water quality standards or waste discharge requirements, or otherwise degrade water quality.

III-72 How is the anticipated Yokohl Ranch Project not part of the proposed project? If it is approved, it will exist in Tulare County. New Towns (Planned Community Areas) are part of the Planning Framework. See General Plan, Volume II PF-5 New Towns, page 2-67. Its impacts are part of the County's impacts. The Board of Supervisors passed a General Plan Amendment Initiation for Yokohl Ranch Project in February 2007. See RDEIR page 5-6. On September 13, 2005, the Tulare County RMA received a request from J.G. Boswell Company and the Eastlake Company to initiate the formal process to amend the Tulare County General Plan. See RDEIR page 5-6. Please see Executive Summary RDEIR, page ES-3, and RDEIR page 2-5, noting the very first objective of the General Plan Update, first bullet is:

- Provide opportunities for small unincorporated communities to grow or improve quality of life and their economic viability and to provide the framework for planning new self-sustaining communities.

Interestingly enough, in the 2008 DEIR (dated December 2007) on page 2-6 the first objective contains no language referring to providing the framework for planning new self-sustaining communities but rather ends with the word "life." The only reason this wording was added in 2010 was to facilitate New Towns such as Yokohl Ranch. How can you in good faith argue New Towns are not part of the General Plan? What are the reasons for substantial changes in the 2010 FGMP from the 2008 FGMP? See Karen Bodner and Michael Olecki's comments of May 26, 2010, and chart of revised policies of the FGMP and Implementation Measures, page 3-1395 of FEIR Volume II.

Are not the objectives and FGMP part of the General Plan? If not, what is? What is the plan about? Doesn't it envision the buildout to 2030?

III-73 The FEIR cannot "fail to respond to pertinent comments on significant environmental issues." See CEQA Guidelines Section 15088.5(f). The FEIR fails to respond to pertinent comments on water quality raised by Carole Clum's 2008 comments on the DEIR contained on pages 3-876 through 3-879 (specific recommendations on policy wording) and 3-884 through 3-888 (specific recommendations on implementation measures) of FEIR Volume II and Carole Clum's Fact Checking on Tables 4-4 and 4-5 in DEIR on pages 3-918 through 3-938 of FEIR Volume II. Table 4-5 is a "Summary of Domestic Water Supply Conditions for Unincorporated Communities in Tulare County." Table 4-5 appears in the 2008 DEIR on pages 4.107-119 and in the 2008 Background Report. Table 4-5 appears again, unchanged, despite her detailed information proving its inaccuracies, as Table 3.9-9 in RDEIR on page 3.9-17. The information gathered by Carole Clum demonstrates the INADEQUATE BASELINE FOR WATER SUPPLY and significant water quality problems in unincorporated communities in 2008.

Nitrate contamination of groundwater is prevalent and spreading. See Attachment 14. SBX2-1 Nitrate in Groundwater Report in Tulare Lake Basin by Dr. Thomas Harter, U.C. Davis. Urban development depends almost exclusively on groundwater and should not occur over contaminated aquifers. The number one source of nitrate contamination of groundwater is agriculture. Converting agricultural land to urban uses is a public health threat. See Attachment 14. SBX2-1 Nitrate in Groundwater Report in Tulare Lake Basin.

New dairies or the expansion of existing dairies are not discouraged by the General Plan. Future dairy projects hypothetically may have further environmental review. See page 5-99 FEIR under Response to Comment III-73. That doesn't mean the County will disapprove them. Buildout should probably not occur on dairy land because dairies rely on groundwater and dairies are the number two source of nitrate contamination of groundwater, according to the preliminary results of Dr. Harter's study. See Attachment 14. Besides, who would want to live near a dairy? The odors are horrible.

The General Plan is not enforceable. Master Response #3 does not allay our skepticism. Such a general approach without detail, deferring mitigation, with no performance standards, discretionary language, and weak or non-existent implementation measures defeats the goals. Everything is flexible. Why do we have a plan? Indeed, is this a plan?

The RDEIR did not respond to environmental impacts on water supply Carole and Peter Clum raised in our comments on the DEIR. You can't dodge those legitimate environmental concerns.

The Tulare County Association of Governments (TCAG) is distributing an 8 page pamphlet "Tulare County Clean Storm Water Program." TCAG is very concerned now about existing polluted storm water run-off from industry, business, and homes (from cars, yards, impervious surfaces, fertilizers and pesticides applied to lawns) flowing into irrigation canals, streams, and rivers. The aggressive development proposed by the General Plan Update 2030 and the increase in impervious surfaces will aggravate storm water run off.

We address septic systems policies and implementation measures in our response to III-74.

RDEIR Hazardous Materials and Public Safety is scary reading. The list of hazardous materials does not include propane gas suppliers' central locations and the trucks transporting propane all over the County.

The Response to III-73 is hopelessly redirecting. The last paragraph on page 5-99 of the FEIR Volume I refers the reader to ten separate places, one of them, impervious surfaces, refers the reader to Response to Comment III-55 and four other places.

Response to III-55 refers the reader to seven different locations. Is this strategy meant to confuse, discourage, and exhaust the reader? We never could find "the Table on page 3.10-15 of the RDEIR." It should not be so hard to determine the FEIR's response to our comments.

III-74 The policies and implementation measures listed in the FEIR which regulate the use of septic systems and minimize impacts to water quality and public health are not measurable, not enforceable, not clear, or are deferred. See FEIR page 5-101.

PFS-3.1 . . . maintain adequate standards for private sewage disposal systems (e.g., septic tanks) to protect water quality and public health. (What are these standards?)

PFS-Implementation Measure #5 . . . shall conduct a study . . .

PFS-Implementation Measure #6 . . . shall prepare and distribute information . . .

PFS-Implementation #7 . . . shall consider amendments . . .

FGMP-9.5 Alternate Sewage disposal . . . may allow unconventional methods of disposing of sewage effluent . . .
(The alternative methods listed (soil absorption mounds, aerobic septic tanks, or evapotranspiration systems) are less safe methods of sewage disposal than leach fields. This is not reassuring.)

The state of California wants to move away from septic systems to wastewater treatment plants with tertiary treatment. Wastewater treatment plants with tertiary treatment do not exist in the unincorporated county. See Table 3.9-10 Summary of Sanitary Sewer Service for Unincorporated Areas of Tulare County, RDEIR pages 3.9-19. Twenty-six communities are listed in the table. In thirteen communities effluent water is discharged to agricultural irrigation channels. In eleven communities effluent water is discharged into disposal ponds. In two instances effluent water is used to irrigate pastures. Obviously developing these areas will impact well water quality since the wastewater is treated only to primary, advanced primary, or secondary levels, not tertiary levels. Domestic wells are shallow.

The RDEIR has found Impact 3.9-2 (The proposed project could result in wastewater treatment demand in excess of planned capacity that cannot be met by new or expanded facilities.) to be Significant and Unavoidable. The RDEIR projects population growth in the unincorporated county by the year 2030 to be 78,490 people. See RDEIR, Table 5-1 on page 5-2. These people will be disposing of their wastewater mainly by septic systems. However, the 26 communities which treat their wastewater (see RDEIR Table 3.9-10 on page 3.9-19) will struggle with a lack of capacity and an inability to

finance expansion or increase the level of treatment. Almost all of the 26 communities in Table 5-4 are disadvantaged communities.

III-75 What level of detail does the County deem appropriate for mapping hazardous waste sites? None? Surely the RCRA (Resource Conservation and Recovery Act of 1976) small, medium, and large sites, hazardous waste generators, leaking underground storage tanks, Cortese List sites, Superfund cleanup sites, and landfills should be on one County-wide map with flood hazard zones, dam inundation zones, and levee failure zones overlaying the same County map. How can the County comply with A.B. 162 Wolk without this information? Isn't this vital information needed when planning the location of recharge basins?

III-76 How does the RDEIR's 3.4 Energy and Global Climate Change, Wildland Fire Hazards, page 3.4-19 warning of "potential for significant increases in the number of fires escaping initial attack" not address the inadequacy of the RDEIR's finding of Less than Significant on Impact 3.6-1? Bare, burned over slopes during intense storms predicted by climate change will result in substantial soil erosion, siltation, surface run off, flooding and the degradation of water quality. Isn't the 14,400 acre anticipated Yokohl Ranch Project in the foothills of Tulare County? Isn't foothill soil thin, overlaying rock? Won't there be extensive and intensive grading on slopes in the anticipated Yokohl Ranch Project? Doesn't the General Plan 2030 Update propose aggressive development in the foothills and valley of Tulare County? How can the RDEIR find Impact 3.6-1 Less Than Significant? **That is how the RDEIR is inadequate.**

III-77 This FEIR response to our comment neglects the CEQA requirement that the General Plan must mitigate or avoid the impact of the project on water quality. There are no mandatory, enforceable policies with performance standards. There is no mitigation. Obviously the large scale development and the potential mixed use in many planning areas will worsen water quality. So, there was no avoidance. This impact analysis conflicts with Impact 3.9-2 and Impact 3.9-3 which the RDEIR found Significant and Unavoidable. Furthermore, Impact 3.6-2 analyzes the project's impact on depleting groundwater supplies and recognizes impacts to groundwater supply and recharge to be significant and unavoidable. The impact analysis of Impact 3.6-2 recognizes that one of the impacts is "impacts to water quality." See RDEIR page 3.6-42 under Groundwater Overdraft.

III-78 The response that "all of these (individual inadequate) policies have been proposed as part of a comprehensive system and should not be viewed individually." defies reason. This is like bundling thousands of sub prime mortgages and rating the whole as AAA.

III-79 What are the public health consequences of water quality impacts of the General Plan? The reader is directed to Section I of the Sierra Club's comments on page 3-176 of the FEIR. See Enclosures 19 and 20 which express concern Tulare County health officials have with issues of deteriorating water quality, which they believe will be exacerbated

by continuing overdrafting of groundwater, on pages 3-811 through pages 3-818 of the FEIR. We ask you. Who is in a better position to judge water quality impacts on public health – the County's own Environmental Health Department or consultants hired to respond to comments?

Impact 3.6-1 The proposed project could violate water quality standards or waste discharge requirements or otherwise degrade water quality. Additional Comments.

The lack of consideration of the current level of groundwater contamination in the impact analysis is an egregious oversight. The prognosis for the spread of nitrate contamination was ignored.

At the Tulare County Water Commission on June 13, 2011, Dr. Thomas Harter, groundwater hydrologist with U.C. Davis, presented the preliminary results of his study of nitrates in groundwater in the Central Valley and the Salinas Valley. The study was funded by SBX 2-1. See Attachment 14, SBX2-1 Nitrate in Groundwater Report to the Legislature June 9, 2011. The final report will be released in March 2012. Following is a summation of the preliminary findings and answers to questions asked by members of the Tulare County Water Commission:

- Nitrate is the most common groundwater pollutant.
- Nitrate occurs at shallow depths where domestic wells are.
- Most domestic well owners do not treat the water.
- Tulare Lake basin is the most affected groundwater basin in California.
- The leading nitrate loading source is agriculture, followed distantly by dairy corrals/lagoons and far more distantly by septic systems, wastewater treatment plants, food processing plants, golf courses, and stormwater runoff.
- The nitrate problem will likely worsen and not improve for several decades (50 year time lag) at which time some wells will fall below MCL for nitrates. Others will persist at two-three times MCL (Maximum Contaminant Level).
- All remediation solutions are costly, both in capital costs and operation costs, unless the community is hooked up to a nearby uncontaminated water system.
- Treatment is unaffordable for most small communities.
- There are promising funding options for remediations, but no funding is available now for feasibility studies and planning.
- There are higher operation and maintenance costs for small systems.
- Some people in small communities with nitrate contamination will have no other option but to move.
- Reducing nitrogen use on crops must include reduction in watering in order not to drive nitrogen deeper than the root zone and into the groundwater zone where domestic wells extract water. In irrigated land nitrates penetrate rapidly to depth.

- Most nitrate contamination of groundwater occurs on the east side of the valley (including Visalia, Exeter, Lindsay, Porterville and Tulare) where irrigated agriculture first began in the Central Valley and where the soil is more porous.
- Much of nitrate concentration on the east side is above the drinking water limit.
- Most of the dairies have at least one domestic well that exceeds nitrate MCL.
- In the valley portion of Tulare County all wells will reach nitrate contamination in 100 years.
- Often wells with nitrate contamination are taken off line. Deeper wells are then driven.
- Some deep wells are contaminated with nitrates.
- Multiple contamination of wells will increase in the future. It is more expensive to remediate more than one contaminant. Some east side wells are contaminated with arsenic from a Chilean fertilizer imported in the 1950s and 1960s.

End of Report

Nitrate contamination of groundwater is a public health issue and an environmental issue. Any development in nitrate contaminated groundwater areas that includes dairies, wastewater treatment plants, septic systems, food processing plants, stormwater run off, or golf courses will degrade water quality further.

If there is a certain amount of contamination of groundwater existent, the contamination will increase as urban water demand rises and groundwater pumping increases. As the water table declines, groundwater quality is impacted. See Groundwater Overdraft, RDEIR page 3.6-42. The impact on groundwater will not remain the same. The proposed project will put more and more people on formerly irrigated land with a consequent larger demand for groundwater. More people will be exposed to contaminated water, creating a public health risk.

Tulare County has not adopted local ordinances to administer groundwater management. RDEIR, Local groundwater Management Programs, page 3.6-8.

See Appendix G Water Supply Evaluation page 24-27, for a more detailed discussion of groundwater quality, groundwater use and overdraft in Tulare County, and population growth within and near Tulare County.

"Groundwater has historically accounted for 41% of total water supply in Tulare Lake hydrological region (Tulare HR), among the highest percentages in the state (Tully and Young [Appendix G], page 25, 2009). In addition, the sum total use of groundwater in Tulare HR is higher than the total groundwater use in any other HR. The Kings, Tule, and Kaweah basins were all among 11 basins identified by DWR in 1980 as being in a 'critical condition of overdraft.' RDEIR, Groundwater Use and Overdraft in Tulare County, on page 3.6-26, second paragraph. Footnote #7 quotes Water Code §12924, 'A basin is subject to critical conditions of overdraft when continuation of present water management practices would probably result in significant adverse overdraft-related environmental, social, or economic impacts.' As of 2003, this determination has not been revisited" (Tully and Young, page 25, 2009).

California Water Plan, DWR 1998, states 56% of California's overdraft is in the Tulare Lake Basin. It identifies the region as in "critical condition of overdraft" and says it is not sustainable.

"Groundwater is particularly important as a water source in the region." Appendix G, page 24, last paragraph.

"The majority of domestic water purveyors in unincorporated areas of the County would continue to be dependent upon groundwater to meet their water needs." RDEIR page 3.6-41, last paragraph.

"In some of the unincorporated urban development areas, there are concerns that adequate water supplies cannot be achieved through sustainable ground water management, that is, without creating declining groundwater levels, and adversely affecting existing wells. Such concerns are heightened by the fact that most of these areas are presently dependent on groundwater supplies." RDEIR page 3.6-42, second paragraph.

"Cities in the region, including Visalia, Exeter, Fresno, Bakersfield, and others rely on groundwater for much or all of their water supply. Increases in urban demand resulting from population growth may be offset by decreases in other forms of water use (i.e. agricultural water conversion) or increases in water efficiency. But the nature and extent of agricultural water conversion and water use efficiency is not known. Moreover, the hydrogeologic implication of increased localized pumping in groundwater basins (i.e. the potential for cones of depression) are not known. Current regional trends suggest that future urban growth may rely on groundwater supplies to meet demand." RDEIR page 3.6-42, fourth paragraph.

In addition to its increase in demands for groundwater, urbanization may negatively affect groundwater recharge due to increase in impervious surfaces.

Urbanization generally reduces the amount of permeable surfaces for percolation of water into underlying basins. Urban planning efforts that include development of permeable surfaces in urban settings, infiltration basins, and other measures for stormwater capture can offset such effects, while providing flood control benefits." RDEIR page 3.6-42, fifth paragraph.

Tulare County does not require permeable surfaces in new development. There are no County infiltration basins. There are no required measures for stormwater capture.

"If future legislation changes the way groundwater (and surface) water are regulated in California, it could change the way the resource can be used in Tulare County." RDEIR page 3.6-43, fifth paragraph.

The RDEIR should not have found Impact 3.6-1: "The proposed project could violate water quality standards or waste discharge requirements or otherwise degrade water quality" less

than significant. The proposed project will make significant and unavoidable impacts on water quality.

The RDEIR downplays groundwater quality contamination and difficulty of treatment and delivery of safe drinking water. "In most areas of Tulare County, groundwater quality is acceptable for agricultural and urban uses through normal treatment and delivery operations. Where local impairments exist, the primary constituents of concern are high TDS, nitrate, arsenic, and organic compounds such as herbicides, pesticides and fertilizers, as well as instances of radiological parameters such as uranium and radium 228. However, these are not of significant concern across most of the sub-basins." RDEIR page 3.6-27 paragraph one under Water Quality, underlining added.]

The reader should open the Background Report to Appendix C. Water Resources pages C-6 through C-18 and C-20 through C-21. Groundwater contaminants are listed watershed by watershed. Contaminants not included in the RDEIR are listed: bacteriological, viral, pathogenic, chloride, dry cleaning solvents, petroleum fuels, phenols, hydrogen sulfide, methane, natural gas, microsand, and salts. Many of these contaminants are not removed by "normal treatment": arsenic, radiological parameters, dry cleaning solvents, methane, etc.

Terra Bella I.D., Lindsay-Strathmore Irrigation District, Strathmore PUD and Delano-Earlimart I.D. rely on blending of well water with surface water from the Friant-Kern Canal which is not a reliable water supply. To obtain safe drinking water some communities must have water piped in from nearby water districts. This is costly and not a "normal delivery operation." Special drilling techniques and/or well head treatment are needed on the west side of Deer Creek/White River watershed to achieve compliance with Safe Drinking Water Act compliance.

At present there is no affordable method to remove arsenic.

In November 2010 a collaboration by Self Help Enterprises, Community Water Center, Tulare County Environmental Health, and Keller and Wegley Engineering produced a spreadsheet titled "Tulare County – Disadvantaged Community Water and Sewer Issues." See Attachment 15.

Table 3.9-10, Summary Of Sanitary Sewer Service For Unincorporated Areas Of Tulare County in RDEIR, Page 3.9-19, lists service providers, percent of capacity, and estimated number of hookups for future development. What is not addressed by this table is the capacity and willingness of these service providers to serve the huge amount of effluent pumped from thousands of septic tanks of new development proposed by the General Plan Update. Most of the new development will use septic systems. The Water Quality Control Plan for the Tulare Lake Basin (revised in 2004) written by the California Regional Water Quality Control Board Central Valley Region (See Attachment 16) lays out the options for septic disposal on pages IV-9 through IV-11:

- Small sewage treatment plants
- Discharges to navigable waters
- Discharges to land

Here are the problems.

Small sewage treatment plants "Every three years, septage should be pumped from the average septic tank. Commercial liquid waste haulers provide this service. Small sewage treatment plants that may be in a rural area of septic tank users are reluctant to accept pumpings from individual waste disposal systems and vault toilets because of the extremely variable nature of the waste and its potential adverse affect on the plant's operation. Where regional wastewater plants have been funded with federal or state grants, one condition of the award typically requires provision for septage. Where this variability can be accommodated, haulers may find the hauling distance too great and the fees too large. As a result, illegal dumps of this waste sometimes occur and cause aesthetic and public health problems." See Attachment 16. California Water Quality Control Plan for the Tulare Lake Basin, page IV-9. third paragraph under Septage. Of the 26 service providers listed in Table 3.9-10. All 26 service providers are small sewage treatment plants because they treat less than 1 million gallons a day.

"The Regional Water Board recommends construction of facilities for septic tank pumpings at municipal sewerage treatment plants where the waste will not interfere with treatment or cause nuisances." See Attachment 16, page IV-9, fifth paragraph under Septage. There is no provision for construction of these facilities in the General Plan.

Discharges to navigable waters
"The following policy shall govern waste discharges to navigable waters in the Tulare Lake Basin:

- Discharges to surface waters will not be considered a permanent solution when the potential exists for wastewater reclamation.

- Discharge to ephemeral streams or to streams that have limited dilution will not be considered a permanent solution unless it is accomplished in such a manner as to safeguard the public health and prevent nuisances, and the wastewater is of such quality that it benefits stream flow augmentation.

- Dischargers in mountain areas must evaluate land disposal as an alternative. Where studies show that year-round land disposal is not practicable, dischargers must evaluate dry season land disposal as an alternative." See Attachment 16, page IV-9, under Discharges to Navigable Waters.

Are irrigation channels considered navigable waters? Thirteen of the twenty six service providers in Table 3.9-10 RDEIR page 3.9-19 discharge to agricultural irrigation channels. There are effluent quality limits on discharge to navigable waters on page IV-10. Will the sanitary sewer service providers meet these standards?

Discharges to land "Wastewater treatment facilities that discharge to land in a manner that waste may infiltrate below ground surface and degrade groundwater must also comply with effluent limits. The excellent quality of ground waters along the easterly edge of the Basin should be protected by encouraging the application or disposal of consolidated treated effluents to the west, toward the drainage trough of the valley." See Attachment 16, page IV-10, under Discharges to land. Where are the irrigated pastures which are receiving effluent disposal? The RDEIR does not provide this information.

"The levels of treatment required of all domestic wastewater facilities with land disposal are as follows:

1. Primary: Primary treatment is acceptable only under exceptional circumstances, typically a relatively minor discharge in an isolated location where there is little risk of nuisance or water quality degradation. Treatment and disposal in some instances could be provided by septic tanks and a leach field. Increased amounts of wastewater or nuisance conditions would require an upgrade in level of treatment. (Five of the 26 service providers treat wastewater only to primary level. They should not hook up any more customers.)

2. Advanced Primary: This treatment may be satisfactory for smaller facilities in outlying or remote areas where the potential for odors and other nuisances is low. (Six of the service providers treat wastewater to the advanced primary level.)

    Earlimart straddles Highway 99 proposed development corridor. A large subdivision is proposed there.

    Poplar CSD is a hamlet. Development is proposed there. It has an urban development boundary.

    Terra Bella is along Highway 65 development corridor. It has serious nitrate contamination of its groundwater. It has an urban development boundary.

    Delft Colony is very small and remote.

    Tooleville is just outside Exeter on the east side along the proposed, to-be-widened Highway 65 development corridor. It is on the east side of the valley.

Traver is remote, small, and along Highway 99 proposed development corridor. It has an urban development boundary.

3. Secondary Treatment: Secondary treatment should remove 85% or reduce to 30 mg/L, whichever is more restrictive, of both 5-day BOD and suspended solids. Secondary treatment may be required where public access to wastewater is not precluded." See Attachment 16, page IV-10 under Discharges to Land." (Eleven of the service providers discharge to disposal ponds.) "smaller facilities (less than 1 million gallons per day) in close proximity to an urbanized area or using particular methods of effluent disposal . . . will also be required to provide 80 percent removal or reduction to 40 mg/1, whichever is more restrictive, of both 5 day BOD and suspended solids." (All but Lemon Cove SD and London CSD have hamlet development (HDB) or urban development planned (UDB). Tooleville is on the edge of Exeter, which has a large Urban Area Boundary.)

This is a direct impact to ground water quality not addressed by RDEIR.

Proliferation of small treatment plants in developed areas is undesirable. Most small communities do not have adequate resources to properly manage, treat and dispose of wastewater in an urban environment. Typical problems involve nuisance and groundwater pollution." See Attachment 16. Water Control Plan for the Tulare Lake Basin Second Edition, page IV-12, under Consolidations.

The General Plan Update proposes to locate more than 78,000 people in the unincorporated areas of the County. Almost all of these new households will be on domestic septic systems. The additional septage will degrade groundwater and be a public health issue which could be avoided if the General Plan directed almost all new development to the incorporated cities which have large municipal wastewater treatment plants (Healthy Growth Alternative). As it stands, the impact to groundwater quality will be Significant and Unavoidable.

If the County wants to direct development to the unincorporated areas, it should follow the "fix it first" strategy by enlarging and raising the treatment level at the 26 sanitary sewer districts. Then new development can be accommodated.

In the Biological Resources section of the RDEIR on page 3.11-31 the reader finds the project's impact on Impact 3.11-1 and 3.11-3 to be Significant and Unavoidable.

Impact 3.11-1: The proposed project would have substantial adverse effect, either directly or through habitat modifications, on a variety of special status species. Under Impact Analysis for this impact on page 3.11-32, we read "Indirect **water quality** and supply related impacts to habitat and associated special status species could also result from increased erosion, sedimentation, temperature, and contamination associated with new urban

development or intensification of agricultural uses (see Impacts 3.6-1, 3.7-1, 3.7-4, and 3.7-5)."

Impact 3.11-3: The proposed project would have a substantial adverse effect on "federally protected" wetlands and other waters. Under Impact Analysis for this impact on page 3.11-39, we read "Wetlands habitats are sensitive to changes in water availability and **water quality**. These habitats could be indirectly impacted by surface water and groundwater related impacts resulting from increased erosion, sedimentation, temperature and contamination associated with construction of new urban development or intensification of agricultural land uses.

If Impact 3.11-1 and 3.11-3 are significant and unavoidable, how did the RDEIR find Impact 3.6-1 (violate water quality standards, or waste discharge requirements, or otherwise degrade water quality) Less than Significant? **This is an example of the cumulative effect of individual impacts of a single project not being properly analyzed.** CEQA Guidelines Section 15355. Cumulative Impacts provides "Cumulative effects refers to two or more individual effects which, when considered together, are considerable or which compound or increase other environmental impacts."

Impact 3.6-2 The proposed project would result in impacts to groundwater supply, recharge, and secondary impacts to groundwater resources.

III-81 This shortening of the impact statement is a deliberate attempt to detract from the significance of the impact and hinders impact analysis and evaluation of mitigation measures.

III-82 All the policies and implementation measures the response directed us to were discretionary or deferred.

III-84 The Sierra Club stands on the information Carole Clum collected to refute data in Table 3.9-9 in the RDEIR. Show us the information you collected to verify the data in Table 3.9-9 Summary of Domestic Water Supply Conditions. There are glaring differences between the table "data" and the information Carole Clum collected when she telephoned each CSD, PUD, JPA and MWD more than once and documented in her comments in 2008. She found blatant differences between Table 3.9-9 contents and each water agency's capacity to serve existing population, capacity to serve projected population, water quality, infrastructure conditions, metering, and ability to fund needed improvements. This took a lot of her time. We suspect the consultants either did not want to spend the time verifying the information or were told to gloss over the disparities.

You claim to have substantially revised the DEIR and recirculated it. However, you did not address the serious discrepancies Carole Clum documented. Response to Comment III-39 said there were no significant differences. The information Carole Clum gathered undermines the water baseline and water supply analysis.

III-86 Since the County considers an offset of 2:1 for water demand of new development to exceed the requirements of CEQA and infeasible, offset new water demand 1:1.

Impact 3.6-3 The proposed project could substantially alter the existing drainage pattern of the area, including the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on or off-site or substantially increase the rate or amount of surface run-off in a manner which would result in on or off-site flooding.

III-88 The FEIR did not address our comments on the project's impacts to foothills and mountains, grading on steep slopes, and cut and fill grading. The RDEIR does not analyze Impact 3.6-3 on foothills of industrial, commercial, and residential development over the next 20 years.

III-89 Putting the Yokohl Ranch Project aside for a moment, the General Plan permits aggressive mixed use development in the foothills and mountains. This is noted in our comments on Impact 3.6-3. We fault the county for failing to respond to our comment.

III-91 The four specific policies you list are discretionary. The fifth policy concerns aesthetics of and secondary use of a water retention basin.

III-92 The county is relying on state and federal regulations applying to climate change. We are faulting your lack of analysis of the effects of climate change, specifically more intense storms, on run-off, siltation, erosion and flooding, especially in the foothills and mountains. You have failed to respond to this comment.

III-95 No, we were directing our comment to Impact 3.6-3, the impact under analysis. We asked "what are the criteria for finding the GPU's impact on soil erosion and siltation Less Than Significant? What is the threshold of significance? You did not answer our comment.

III-96 We are not asking for complicated and overlapping policies. We are asking for effective policies that avoid or mitigate adverse environmental impacts. The County has the authority and duty to minimize impacts to soil erosion, siltation, run off, and flooding.

Impact 3.6-4 The proposed project could create or contribute run off water which would exceed the capacity of existing storm water drainage systems or provide substantial additional sources of polluted run off.

III-98 This is an inadequate response to our comment. Planned storm water drainage systems are very important.

III-100 This is an inadequate response. The County does not define "substantial" in its policies or implementation measures. What are the performance standards? All the policies are weak and unenforceable. The response raises nothing new.

III-101 The General Plan must mitigate or avoid adverse impacts of the proposed project. The purpose of stating the existing conditions is to emphasize the dire state we are in now and how important mitigation or avoidance is in the future, considering the scope of the project. Despite claims that urban development will occur on agricultural land and thus eliminate agricultural sources of pollutants, there will be plenty of development in the foothills and mountains where there is almost no irrigated agriculture. Urbanization brings impervious surfaces and its own run off pollutant sources. This is an inadequate response to our comment.

III-102 The General Plan must mitigate or avoid adverse impacts of the proposed project. The purpose of stating the existing conditions is to emphasize the dire state we are in now and how important mitigation or avoidance is in the future, considering the scope of the project. This is an inadequate response to our comment.

III-103 See above response.

III-104 The response does not adequately respond to our comments. We claimed the RDEIR has a faulty baseline and a failure to comply with the information disclosure requirement of CEQA. You did not address the issue of a threat to public health by adverse groundwater quality impacts resulting from this project. The response raises nothing new.

III-105 The response raises nothing new. Immediate decreases in GHG emissions would not immediately reduce wildfire risk in foothills, on slopes, and in chaparral. There is a very long time lag before levels of GHGs decline. Very limited development and non-combustible construction materials in wildland/urban interface is what is needed. This response does not adequately respond to our comments.

III-106 The County is not in compliance with A.B. 162. This is an inadequate response.

III-107 This is an inadequate response. The County is not in compliance with A.B. 162. It has not identified all flood prone areas, levee inundation zones, and Lake Isabella Dam inundation zone in Land Use and Safety elements.

III-108 This is an inadequate response. There is a real need for one flood hazard zone map covering all of Tulare County, not 50-60 small maps on line. The flood hazard information should be drawn from the National Flood Insurance Program maps published by FEMA and information about flood hazards that is available from the United States Army Corps of Engineers.

III-109 This is a totally inadequate response to the flooding hazards we raised.

Impact 3.6-5 The proposed project would expose people or structures to flood hazards from development within a 100 year Flood Hazard Area or from increased rates or amounts of surface water.

III-113 The Health and Safety Policy HS-5.9 cited as limiting development in flood areas has no measurement or performance standards and no implementation measure. It is not likely to be enforced. This is not an adequate response to our comments.

III-114 This is an inadequate response. Why are Low Impact Development practices "not possible?" These are effective mitigation measures, recommended by the Regional Water Quality Control Board.

III-116 This is an inadequate response to our comments.

III-117 At best, this statement is misleading. "At this time there is no site specific development proposed in the General Plan." The County has been working closely with J.G. Boswell and the Eastlake Company for 10 years. Their consultants wrote the FGMP and New Towns, Planning Framework PF-5.1.

III-119 The County has not yet designated potential water retention basins, according to James May, Tulare County Flood Control District Engineer on September 23, 2011, after the Flood Control Commission meeting. Staff (an engineer who will spend 50% of his time on flood control) will probably be hired in October 2011. A new Flood Control Master Plan has yet to be developed, according to James May at the same meeting. We are attending the monthly Flood Control Commission meetings. This is an inadequate response.

III-120 This is an inadequate response.

Impact 3.6-5 The proposed project would expose people or structures to flood hazards from development within a 100-year Flood Hazard Area or from increased rates or amounts of surface water. Additional Comments.

The General Plan 2030 Update is not compliant with A.B. 162 which requires a Safety Element with:

flood hazard zone maps
FEMA National Insurance Program maps
information about flood hazards from Army Corps of Engineers
levee protection zones
levee and floodwall inundation zones

historical data on flooding including maps of

- areas that are vulnerable to flooding after wildfires
- sites that have been repeatedly damaged by flooding

identification of existing and planned development in flood hazard zones, including structures, roads, utilities, and essential public facilities

There are no flood hazard zones for foothill and mountain areas delineated on Figure 3.6-5 Flood Hazards on page 3.6-31 RDEIR. Flooding has occurred in Three Rivers, a foothill community, sweeping away bridges, homes, and a hotel in 1955. "Both the Three Rivers and Springville areas suffered heavy damages in the floods of 1950, 1955, 1963, 1966 and 1969 and it is known that floods of the same and possibly greater magnitude have occurred at intervals since 1844." Tulare County Flood Control Master Plan 1971, Page 46. The historical data on flooding provided by the 1971 Tulare County Flood Control Master Plan, the 1967 Flood Plain Information Report of the Army Corps of Engineers which depicts the flood plain of the Kaweah River and its North, Middle and South Forks, and the 1962 Blain-Westfall Associates, Consulting Engineers' report on flood problems of the Three Rivers vicinity are not provided in the General Plan Update Safety Element. A.B. 162 requires inclusion of historic data on areas repeatedly damaged by flooding.

In December 1966, rainfall was so intense over the watershed of the Tule River that it produced an uncontrolled spill at Success Dam." Tulare County Flood Control Master Plan 1971, page 2. According to Calvin Foster, Southern California Manager of the Army Corps of Engineers in a telephone conversation with Carole Clum on November 8, 2011, the uncontrolled spill was 6,000 cubic feet per second. The Corps now considers this spill to be a once in every 30-35 year event.

"Flows of the Kaweah and Tule Rivers (and occasionally even the Kern) which cannot be controlled by the reservoirs and distribution systems will ultimately end up in the Tulare Lake area, along with flows of unregulated foothill streams in excess of the volume which can be dispersed through percolation, channel storage, etc." Tulare County Flood Control Master Plan, page 2.

The Flood Control Master Plan is out of date. It makes recommendations for 25 year and 50 year flood events, instead of 100 year flood events required by FEMA. It does not take into consideration more intense storms predicted for global climate change. And it does not consider 40 years of development in the foothills and a large anticipated New Town expected to begin construction in Yokohl Valley in 2012. In the past 40 years more agricultural land has been laser leveled, obliterating natural drainage patterns. Considerable urban development has occurred in the valley, obstructing natural valley distributaries. The County needs a new flood control master plan that reflects the real risk of flooding.

On page 3.6-29 RDEIR, second paragraph, we read, "The jurisdiction of the Central Valley Flood Protection Board (formerly the Reclamation Board) extends into Tulare County, where it retains oversight of levees, and also has a review capacity over the Tulare County General Plan Safety Element. Tulare County is required to submit its draft Safety Element to the CVFPB for review at least 90 days prior to adopting the element. The CVFPB is required to respond with its written recommendations within 60 days. The Board is authorized to address the uses of land in areas subject to flooding that would offer protection from unreasonable flooding risks and to recommend methods and strategies for reducing flood risk and protecting flood areas (Government Code Sec. 65302.7)." What was the Board's response?

Impact 3.6-6 The proposed project would expose people or structures to flood hazards from failure of a levee or dam.

III-124 This response is inadequate. This impact analysis did not consider dam inundation from Lake Isabella Dam which, according to Army Corps of Engineers Southern California Manager Calvin Foster, has multiple problems: seepage, built on unconsolidated alluvium, on an active earthquake fault, and with spillway inadequacy. If it failed, it would inundate part of Kern, Kings, and southwestern Tulare County. We brought this up. You did not respond. This dam inundation zone does not appear on Figure 3.6-5 RDEIR page 3.6-31 or in Table 3.6-5 Flood Control Reservoirs in Tulare County RDEIR page 3.6-28.

There are no maps of levee protection zones; areas subject to inundation in the event of failure of levees or floodwalls; historical data and maps on flooding; and existing or planned development in flood hazard zones, including structures, roads, utilities, and essential public facilities, all of which are required in a Safety Element by A.B. 162 Wolk.

What a rationale! The County will need to balance levee and dam failure with other risks like fire hazard, geologic hazards, increasing sprawl, and critical habitat when determining where development goes. This is why the County needs flexibility. So, no outright bans for Tulare County. Instead of balancing risks, why don't you avoid them? Choose the Healthy Growth Alternative proposed by the Tulare County Citizens for Responsible growth.

The Table 3.6-5 Flood Control Reservoirs in Tulare County on RDEIR page 3.6-28 includes Pine Flat Lake which actually resides in Fresno County but omits Lake Isabella in Kern County which has an unsafe dam which could inundate southwestern Tulare County. See Attachment 17 Lake Isabella Dam Inundation Zone, 24 Hour Evacuation Map for Northwest Kern County.

Impact 3.6-6: The proposed project would expose people or structures to flood hazards from failure of a levee or dam. Additional Comments.

In 1998 the Army Corps of Engineers found shale alluvium base under Lake Success dam. There is a possibility a major earthquake could cause the dam to fail. The Corps has ordered the lake remain around half full. Remediation of the structural faults have not been funded by Congress as of June 2011. It will be 20 years, if ever, before Success Dam is strengthened, let alone raised. See comments on Impact 3.9-1 for conversation with Calvin Foster, Southern California Manager of Army Corps of Engineers.

In the RDEIR on page 3.6-33 under Dam Failure Inundation the RDEIR states, "The inundation area below Success Dam covers the city of Porterville." The potentially unstable base remains and climate change models predict more frequent and more intense storms.

All the levees in Tulare County are poorly constructed, sited, and maintained. See Attachment 27, James May's 2009 Report on Risk of Flooding and Levee Failure. See Attachment 28, Tulare County Grand Jury Findings 2005/2006.

The RDEIR did not analyze the effects of levee failure (especially levees on the St. John's River, Cottonwood Creek and Cross Creek) on people and the environment in Tulare County. The poor siting, construction, and maintenance of the levees and the General Plan's aggressive county-wide development exposes people and buildings in these levee inundation areas to injury, loss and death.

"A 1995 jurisdictional Agreement between Tulare County and the Bureau of Reclamation authorizes Tulare County's determination of flood controls for Cottonwood Creek, Cross Creek and the St. John's River. This agreement will cover the levee section, the waterside area between project levees, a 10-foot-wide strip adjacent to the landward levee toe, the area within 30 feet of the top to the banks with no levees, and within designated floodways adopted by the Flood Board." RDEIR page 3.6-7.

Allowing housing in levee inundation areas without adequate mitigation (repair of levees and irrigation channels or an extraordinary flood plain building code ordinance) constitutes non-compliance with A.B. 162. A.B. 162 requires the Safety Element of a general plan to identify, map, address evacuation routes, and specifically show how each requirement of this Safety Element has been met.

The County has failed to provide a peak dam inundation zone for the southwest corner of Tulare County which would flood if Lake Isabella Dam failed when the reservoir was full. This dam failure inundation zone is not depicted in Figure 3.6-5. Flood Control Reservoirs in Tulare County on page 3.6-28. The RDEIR includes the Pine Flat Dam in Fresno County which would inundate the northwest corner of Tulare County but does not include any data (reservoir, stream, owner, acre feet capacity, land it protects, and level of protection) on Lake Isabella Dam. Since there is no Tulare County peak inundation map for Lake Isabella dam failure, Carole Clum called Calvin Foster.

In the event of failure of Lake Isabella dam in Kern County, the southwest corner of Tulare County would be flooded during peak inundation, including the towns of Allensworth, Alpaugh, Angiola, Blanco, Creighton Ranch Preserve, Pixley National Wildlife Refuge, Waukena, Highway 43 and 56, according to Calvin Foster, Southern California Manager of the Army Corps of Engineers in a telephone conversation with Carole Clum on September 29, 2011. See Attachment 18, Lake Isabella Dam Inundation Zone, Peak Inundation Depth for Bakersfield, Kern County, CA. This can be found at http://www.kerncountyfire.org/ isabella.dam.php. Also see Attachment 17, Lake Isabella Dam Evacuation Map for Northwest Kern County. The

southwest corner of Tulare County lies in the historic Tulare Lake bed, the trough of the San Joaquin Valley.

Dave Lee of Tulare County Emergency Operations Command (EOC) on October 17, 2011 gave Carole Clum a current Cal EMA map of Lake Isabella Dam failure peak inundation affecting the city of Bakersfield. Mr. Lee also gave her a 2007 Kern County map of 24 hour evacuation zone for peak inundation that showed floodwaters extending into Tulare County. He noted on the map that the flood depth would be one to two feet in Tulare County. See Attachment 32. He suggested that, since this is a 2007 map and Lake Isabella is now less full on orders from the Army Corps of Engineers, the floodwaters would not reach the Tulare County line.

However, Lake Isabella Dam could fail in an intense storm during the rainy season. After the reservoir empties, more and more water would continue to flow through the breach, causing more and more of Kern and Tulare Counties to flood. Water flowing over home sites, hazardous waste sites and oil refineries in Bakersfield would bring pollution and debris into southwestern Tulare County. The RDEIR did not analyze the effects of a Lake Isabella Dam failure on people and the environment in Tulare County. In view of the county-wide development proposed by the General Plan 2030 Update, not considering the effects of Lake Isabella Dam failure constitutes non-compliance with A.B. 162. A.B. 162 requires the Safety Element of a general plan to identify, map, address evacuation routes, and specifically show how each requirement of the Safety Element has been met.

Impact 3.7-1 The proposed project could result in substantial soil erosion or loss of topsoil.

III-130 This is an inadequate response. If the RDEIR does not analyze all the causes of soil erosion, it cannot adequately assess the impact of this project.

III-131 This is an inadequate response, We are talking about grading for roads and house pads on steep slopes in foothills with thin soil. We have no faith in your new policies.

III-133 This is an inadequate response. You have ignored our litany of chronic soil erosion problems in the foothills. The more foothill development the worse the problem will become.

III-134 This is an inadequate response.

III-135 This is an inadequate response. Leaving the anticipated Yokohl Ranch Project aside for the moment, aggressive residential, commercial, and industrial development is proposed for the foothills and mountains. Address this comment. All the policies cited in the Water Resources, Health and Safety Elements and Foothill Growth Management Plan are weak and unenforceable.

III-136 We don't buy this explanation.

Impact 3.8-3 Development under the proposed project could be located on a hazardous waste site.

CEQA Appendix G Environmental Checklist Form wording for this impact is:

"Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and as a result, would it create a significant hazard to the public or the environment?"

What is the rationale for the 2010 RDEIR change of wording, other than to downplay the scope and magnitude of this impact and hinder formulation of mitigation measures?

Impact Summary

Level of Significance Before Mitigation: Potentially Significant
Required Additional Mitigation Policies and Implementation Measures: New Policy HS-4.8 "Hazardous Materials Studies"
Resultant Level of Significance: Less than Significant

Impact Analysis

The impact analysis is faulty. There is no county-wide map of hazardous waste sites, transport corridors, Designated Safe Stopping Locations, and hazardous waste treatment facilities. The County's highly touted Geographic Information Systems department must provide boundaries for all these sites. The map must be overlaid with dam failure inundation zones, levee failure inundation zones, and FEMA-designated 100-year flood hazard zones. The map generated should be located in the Land Use Element of the General Plan and must guide future development in the County. The map must be in a Safety Element to determine unsuitable locations for flood control/recharge basins and areas to avoid in locating housing (Housing Element).

According to the 2010 Background Report, pages 8-37 through 8-44, there are 411 large hazardous waste generators, 206 small hazardous waste generators, seven permitted facilities for treating hazardous waste, three Designated Safe Stopping locations for shipments of explosives, 136 active cases of Leaking Underground Storage Tanks (LUST), nine LUST sites referred to RWQCB, 60 Site Cleanup Program Locations, Nine Cortese List sites, two Superfund sites, 21 Solid Waste Facilities and Transfer Stations, and one County-run household hazardous waste collection site in Tulare County. This is a total of 895 identified hazardous waste sites. In many cases the Background Report merely lists the hazardous waste site by city, not by address. In no case is the boundary of the site delineated.

And yet, the RDEIR claims in policy HS-4.8 Hazardous Materials Study:

"The County shall ensure that the proponents of new development projects address hazardous materials concerns through the preparation of Phase I or Phase II hazardous materials studies for each identified site a part of the design phase for each project. Recommendations required to satisfy federal or State cleanup standards outlined in the studies will be implemented as part of the construction phase for each project."

There is no implementation measure for this policy.

How will the proponents of these projects know they are in a hazardous materials zone? This is the county's responsibility.

All the mitigating policies and implementation measures listed on page 3.8-19 RDEIR are discretionary, deferred to 2020-2030, or concern handling or disposal of hazardous materials on public lands, except for HS-4.2. They fail to address impacts on the environment. Fatally, the County won't be developing regulations for placement of hazardous waste sites or standards for development near hazardous waste sites until 2020-2030. How can the General Plan Update safely plan development?

The RDEIR omitted information contained in the 2010 Background Report on Landfill and Disposal Site Locations. There are 21 locations of Solid Waste Facilities and Transfer Stations in Tulare County Table 8-5, page 8-43 of the 2010 Background Report.

The list of hazardous waste sites should have included a list of abandoned landfills, according to Sarge Green of the California Water Institute, Fresno State, in a telephone conversation with Carole Clum on October 10, 2011.

The RDEIR omitted information contained in the 2010 Background Report page 8-39 on Designated Safe Stopping Locations for shipments of explosives. There are a total of three locations in Tulare, Pixley, and Earlimart.

Hazardous materials are classified according to four properties: toxic, ignitable, corrosive, and reactive (CCR, Title 22, Chapter 11, Article 3). Background Report, page 8-26, under Hazardous Wastes. Why are propane suppliers and gas stations not included?

The impact analysis blithely states on page 3.8-18:

> "As a result of the programs implemented by the State and County, the likelihood of development subsequent to the proposed project to be located on an identified hazardous waste site is low. It can be assumed that site cleanup would occur prior to development on a hazardous waste site."

Unwarranted and unsubstantiated assumptions are being made here.

An adequate EIR, in addition to raw data, must provide an analysis that will provide decision makers with sufficient information to make intelligent decisions.

This Impact 3.8-3 should have been found Significant and Unavoidable.

Impact 3.8-6 The proposed project would expose people or structures to a significant loss, injury, or death involving wildland fires.

III-137 This is an inadequate response. The shortened wording obscures the extent of the impact and hinders impact analysis and evaluation of mitigation measures.

III-138 This is an inadequate response. This response shows an astounding lack of understanding of the differing wildfire risk conditions in the foothills and mountains. Wildland fire risk will be significant and unavoidable in the Foothill Growth Management and Mountain Framework Plan Areas.

III-140 This response is inadequate. It is circular reasoning, a repetition of RDEIR analysis.

III-141 This response is inadequate. Address building standards in Foothill Growth Management Plan and Mountain Framework Plan areas.

III-143 Attachments 24, 25, 26 were included to support the contention that building in wildland areas places people and structures at an increased risk of fire.

III-144 This response is inadequate. Chaparral grows on south and west slopes in foothills.

III-145 This response is inadequate. This is an attempt to minimize known significant risks of building in wildland/urban interface.

III-146 This response is inadequate.

III-147 This response is inadequate.

III-148 This response is inadequate.

III-150 This response does not address the judgment of the Tulare County Fire Department in the Background Report, page 7-73 under Existing Conditions.

III-151 This is an inadequate response. The County must prohibit New Towns in wildland/ urban interface or mandate non-combustible building materials for all new construction in wildland/urban interface. AVOID OR MITIGATE. ONE OR THE OTHER.

III-152 This is an inadequate response. The RDEIR misrepresented the significance of this impact as Less Than Significant.

III-153 This is an inadequate response consisting of reiteration of RDEIR analysis.

III-155 This is an inadequate response. The anticipated Yokohl Ranch Project was not referred to in this comment.

III-156 This is an inadequate response.

III-157 This is an inadequate response.

III-158 This is an inadequate response.

III-159 This is an inadequate response.

III-160 The inclusion of Background Report Fire Hazards, and Existing Conditions and Fire Hazard Severity demonstrates the need for avoidance or stronger mitigation.

III-161 Nothing is too specific if it saves injury, lives and loss of property. The County is clearly not interested in reducing the impact of this proposed project on people or structures in the wildland/urban interface. This is an inadequate response.

Impact 3.8-6: The proposed project could expose people or structures to a significant risk of loss, injury, or death involving wildland fires. Additional Comments.

The RDEIR judged this impact as Less than Significant. See RDEIR page 3.8-33.

Since global climate change is predicted to increase wildfire risk in the Sierra Nevada mountains by two to fourfold[1] and the ability of local fire departments and CAL FIRE to fight wildfire is diminishing, public safety, air quality, and the environment are threatened by Tulare County's General Plan Update, which encourages aggressive industrial, commercial, and residential growth in the foothills and mountains.

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[1] Scientists Estimate Impact Of Temperature Change

If global temperatures rise, fueled by carbon-dioxide emissions, there will be long-term consequences in rainfall, crop production and wildfires, according to a report issued Friday by the National Research Council, a nonprofit that provides science-policy advice to the government.

Friday's report attempts to quantify the potential impact of temperature change on the environment.

Not all scientists agree that man-made emissions are fueling a warming of the climate, but many are concerned about what carbon-dioxide output now could mean into the future. The report estimates that for every one degree increase in global temperature, rainfall would rise or fall 5% to 10%, in different regions, corn crops would be reduced by that same amount and the amount of area burned by wildfires would increase two to fourfold. *Shirley S. Wang Wall Street Journal 7/17/10*

Unless the Tulare County General Plan severely restricts building in the wildland/ urban interface or strengthens its building code in the wildland/urban interface to require all exterior building materials be non-combustible, the County is endangering its present and future foothill and mountain residents. This is placing people in harm's way. CEQA Guidelines Section 15126.2. The presence of a New Town in the foothills raises the risk of wildfires because most fires are human-caused. Major development in the foothills will lead to environmental degradation.

Burnt-over hills without vegetation means greater soil erosion, sedimentation in streams and rivers, degraded water quality, increased flooding and less GHG absorption.

Climate Change Effects on Wildfires in the West Will Expose People to Greater Risk

A Retired U.S. Forest Service top manager warns in the Audubon magazine July-August 2011 issue, pages 40-43, wildfires can now reach megafire status, burning through more than a million acres. "Embers launched from crown fires can reach two and a half times as high as the burning tree, starting fires up to two miles ahead of the fire front." (Audubon magazine July-August issue, page 40) More than three million acres have burned each year since 1999. These megafires are very difficult to fight and extremely costly in money and firefighters' lives.

Smoke, debris and flames rise from wildfires, creating winds that fan the fire. Megafires trigger changes in regional ecology, burning so hot they "sterilize soils and unhinge energy, water, and carbon cycles. Smoke billowing from blazes alters atmospheric chemistry, causing ozone alerts thousands of miles away. In addition, burning forests release vast quantities of greenhouse gases, notably carbon dioxide. Some fish populations crash after big fires, and other established species lost their competitive advantages and virtually disappear."

"The Rocky Mountain Climate Organization reports that from 2003 to 2007, the 11 western states warmed an average of 1.7 degrees Fahrenheit, or 70 percent more than the global average. Many forecasters believe that in the coming decades, the West will continue to experience later winters, less snowfall, earlier spring runoff, and generally drier conditions," according to Anthony Westerling.

"As a result, conditions are solidly in place for a political and pyrotechnical firestorm in many forested areas. The western fire season is now 205 days, 78 days longer than in 1986. What's more, there have been four times as many fires that wiped out more than a thousand acres than there were in the 1970-1986 period, and six times as much acreage has burned, according to an influential article in 'Science' in 2006 by Anthony Westerling, a researcher at the University of California-Merced. Westerling demonstrated a strong link between climate change and increased wildfires."

University of Colorado geographer Tania Schoennagel in the same Audubon article says "to control fire risk, we must control development in wildlands."

Homeowners insurance premiums have gone up in the wildland/urban interface. Now counties must charge developers the full cost of putting out fires in the forested foothills and mountains.

In a telephone conversation on August 11, 2001, between CAL FIRE Unit Chief Kirk Swartzlander and Carole Clum, Chief Swartzlander stated CAL FIRE had its statewide budget cut by $30 million for fiscal year 2011-2012. He also stated that three years ago the Milo fire station at one end of Yokohl Valley was abandoned for monetary reasons. The personnel and engine were transferred to a new fire station in Bear Creek, farther from the proposed development of Yokohl Ranch. Springville fire station was abandoned at the same time and its engine and personnel were transferred to Bear Creek, which now has two engines and six firefighters in fire season. Chief Swartzlander said it would take 15 minutes for a Bear Creek fire engine to reach the nearest portion of the proposed Yokohl Ranch New Town, longer than from the abandoned Milo fire station. Jim Bryant, dispatcher for CAL FIRE, said it could take 20 minutes to reach far reaches of the Yokohl Valley Project in a telephone conversation with Carole Clum on October 12, 2011. Yokohl Ranch development, with its 10,000 homes, three hotels, resort, commercial center and regional recreation center will sprawl over 14,400 acres. Are two engines adequate? Chief Swartzlander said a new, large CAL FIRE station is tentatively planned for opening in 2031 at Spruce and Road 196. This is quite far in the future, after the new town is predicted to be completed, and is theoretical and unfunded. Considering the continuing, worsening economic crises in the federal, state and county governments, this tentative plan is unrealistic. And, since infrastructure costs always outweigh real estate taxes and sales taxes brought in by new development, this future CAL FIRE station is unlikely to be built. Tulare County cannot afford to build or maintain adequate infrastructure for large scale development in rural areas of the valley or the foothills.

According to the 2009 California Climate Adaptation Strategy published by the California Natural Resources Agency, "increased wildfire has been identified as one of the most potentially significant climate change impacts to forested ecosystems. Climate change research predicts increased numbers and acres of wildfire. Wildfire occurrence statewide could increase from 57 percent to 169 percent by 2085 under the A2 (higher) emissions scenario." Page 111 paragraph 2.

"Climate change will greatly influence the size, severity, duration, and frequency of fires." Page 111 paragraph 4.

Larger and more frequent wildfires will impact California's economy by increasing fire suppression and emergency response costs, damages to homes and structures, interagency post-fire recovery costs, and damage to timber, water supplies, recreation use and tourism." Page 111, paragraph 8.

"Management options for adapting to the threat of increased fires must address public health, public safety and ecosystem protection. Fire prevention measures, including suppression, prevention and building codes, can reduce the occurrence, extent and damage of wildfires." Page 111, paragraph 9, underlining added.

Impact 3.11-2: "The proposed project would have a substantial adverse effect on riparian habitats or other sensitive natural communities." This was found by the RDEIR to be Significant and Unavoidable on page 3.11-35 of the RDEIR. In the Impact Analysis on the following page the RDEIR states, "Additional impacts will result from a continued increased incidence of fire due to human activity." (Underlining added.)

We ask again, how could the RDEIR have found Impact 3.8-6 Less than Significant?

"The EIR must analyze the cumulative effects of the plan's policies and proposals on the environment. For example, a planning policy authorizing rural residential uses in or near wildlands could cumulatively increase the potential severity of fire damage by hindering wildfire suppression efforts. Increased traffic could contribute to cumulative air quality impacts in ozone non-attainment areas." General Plan Guidelines, Chapter 7: CEQA and the General Plan, page 137.

Impact 3.8-? The Proposed Project could create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment. Additional Comments.

The above impact is listed in CEQA 2011 Statute and Guidelines Appendix G Environmental Check List Form under VIII. Hazards and Hazardous Materials (b). Inexplicably the FEIR has omitted this impact.

This is pertinent because asbestos occurs naturally in the foothills of Tulare County. Grading for development might release it. Explain why the County neglected to include this impact.

The Yokohl Ranch Project NOP/IS of February 2008 (Attachment 6 of May 26, 2010 comment letter FEIR pages 3-446 through 3-491) stated its impact to be potentially significant: "Phased development of the proposed planned community would be expected to increase the use of, transport of, and storage of hazardous materials at the property, in particular during construction. This issue will be addressed in the EIR. Naturally occurring asbestos in area rock formations will be considered part of this analysis."

As stated earlier in our comments, the Yokohl Ranch New Town will constitute a large portion of development in the County over the next 20-30 years.

Asbestos is a fibrous mineral dangerous to the health of humans. All grading and development is prohibited on soil or rock containing more than the current threshold for asbestos content of .25% as determined by California Air Resources Board (CARB) Method 435. State regulations for grading must be followed and the land must be sealed when construction is completed. If the sealant is permanent and impermeable (concrete) steps must be taken to capture all storm water runoff in order to avoid flooding and/or overtopping of a reservoir's dam. If the sealant is vulnerable to abrading, eroding, or dissolving, the sealant must be nontoxic and must be renewed upon failure. If the sealant is not permanent, annual inspection of the integrity of the sealant must be made by the County. A study must be required to determine where stormwater flow will carry sealant and asbestos fibers (swales, valleys, irrigation channels, stream beds, reservoirs) on site and off site. What will be the environmental impact of stormwater runoff, soil erosion and sedimentation on-site and off-site of asbestos and sealant bearing soil?

GEOCON Geotechnical Consultants prepared a geotechnical evaluation report on August 20, 2007 of Yokohl Ranch where a proposed New Town of 10,000 homes may be built. Large portions of the western and southern areas of the 36,000 acres are underlain by ultrabasic rock units containing serpentinite, likely to contain asbestiform minerals. One sample contained asbestos below threshold determined by California Air Resources Board. The areas containing ultrabasic rocks are the same areas designated for the most dense development, extensive and intensive cut and fill grading on steep slopes. The most western portion of the property is where the drinking water reservoir will be excavated. Deep excavation in soil bearing asbestos fibers is a threat to public health.

Impact 3.9-1 The proposed project would require new or expanded water supplies, facilities, and entitlements.

III-162 This is not an adequate response.

III-163 We addressed existing and probable future changes in water supply, "uncertainty over long-term availability of water supplies." This is an inadequate response.

III-164 If the county finds a 2:1 offset of water demand by new development to be infeasible and not required by CEQA, offset new water demand 1:1.

III-165 Please see Enclosure 4, Carole Clum's Fact Checking on Tables 4-4 and 4-5 in Draft EIR, FEIR page 3-661 through 3-688. Wastewater treatment plants with tertiary treatment do not exist in the unincorporated areas of Tulare County. See Summary of Sanitary Sewer Service for Unincorporated Areas of Tulare County, Table 7-2, Background Report. New wastewater treatment plants will have to be built, old plants expanded. What will be the environmental impacts? Will water quality be degraded? This is an inadequate response.

III-166 This is an inadequate response.

III-167 This is an inadequate response.

III-168 This is an inadequate response.

Impact 3.9-1: The proposed project would require new or expanded water supplies, facilities and entitlements. Additional Comments.

Tulare County does not presently have the reliable water supply it claims. The RDEIR on page 3.6-15 under Local Surface Water claims Lake Success's capacity is 82,300 acre feet. The U.S. Army Corps of engineers' Safe Dam Act Survey in 1998 found Lake Success dam was built on shale alluvium. There is a possibility a major earthquake could cause the dam to fail. In an abundance of caution, the Corps has decided the reservoir remain at 29,000 acre feet normally or 44,000 acre feet during Spring and early Summer snowmelt, according to Calvin Foster, Southern California Manager of the Army Corps of Engineers based in Porterville, in a telephone conversation with Carole Clum on June 13, 2011. Prior to discovery that the dam was vulnerable to a major earthquake because the base of the dam was round river rock, the reservoir capacity was 82,000 acre feet.

The 2012-2013 President's budget contains $18 million for purchase of land below the dam in preparation for remediation (thickening the dam up to Corps standards). This money is subject to federal committee discretion. The Corps will find out by October 2011 whether all the

money is allocated for purchase of the land. Funds for remediation will be allocated perhaps in some future budget year. If funding is provided, the spillway could be raised, adding another 28,000 acre feet to the dam for a total of 108,000 acre feet. Under the Safe Dam Act 640 Army Corps of Engineers dams are rated for safety, "1-5," "5" being the safest dam. Lake Isabella's Dam is a "1." Lake Success Dam is a "2." Forty to sixty dams need remediation. Presumably the least safe dams will be allocated remediation money first. All of this information came from Calvin Foster.

In Appendix G, Phase I Water Supply Evaluation for Tulare County on page 18, Table 3.2 Water Deliveries by Source, 2003, the Tule River water deliveries in Thousands of Acre Feet (TAF) needs a footnote recognizing the Lake Success reservoir must be less than half full now and for the forseeable future. More water will have to be released early in the season.

Table 3.6-3 Water Deliveries by Source, 2003, on page 3.6-20 must be altered to reflect this reality. The Tule 58.4 TAF should be footnoted. More water will have to be released early in the season (to avoid stressing the dam structure) when it is of little use to farmers and likely to exacerbate flooding. The Success Dam was not raised due to structural faults. Remediation of the structural faults has not been funded by Congress. It will be 20 years, if ever, before Success Dam is strengthened, let alone raised, according to Calvin Foster.

On page 3.6-33 under Dam Failure Inundation, the RDEIR refers to "the ongoing seismic remediation and enlargement projects of the Success Dam expected to begin construction in 2012." This was a hypothetical increase in water supply reliability. This wording has been changed to "future potential" enlargement of Success Dam.

Groundwater Overdrafting

At the First Annual Water Conference 2010 sponsored by Edison AgTAC on September 29, 2010 in Tulare, CA, Dr. Charles Burt, soil scientist and irrigation specialist at the Irrigation Training and Research Center at California Polytechnic State University in San Luis Obispo, CA, stated in a breakout session titled "Agricultural Efficiency" that in the near future California crops will have substantially more yield per acre, using more water and less petroleum per acre. This will result in more groundwater pumping since there is no new water to tap.

Dr. Burt also said approximately one million acre feet of water is lost to evapo-transpiration in the San Joaquin Valley per year. This will increase with Global Warming, leading to more groundwater pumping. Dr. Burt also noted we have about 2 million acre feet a year overdraft of groundwater in the San Joaquin Valley.

At the same conference, Ron Jacobsma, General Manager of Friant Water Authority, spoke of the San Joaquin River Settlement which will further reduce water supplies in the Friant Kern Canal in the future in order to restore the historic fishery on the San Joaquin River. This will lead to more groundwater pumping. In addition, land subsidence (due to groundwater overdrafting) has led to the sinking of one section of the Friant-Kern Canal. If full, the canal

would leak along this section. For years the Friant-Kern has run partially full, leading to more groundwater pumping. Mr. Jacobsma said the canal is 60 years old and it only loses water (out the sides) on wet years when water is higher in the canal. The canal is rarely emptied because of "structural issues."

At the same conference, Mark Larsen, General Manager of Kaweah Delta Water Conservation District (KDWCD), spoke of the extremely variable surface water supply between 1956-2008, from 17% of average water in the Kaweah River just below Terminus Damn to 330% of average water. During 2010, a wet year, KDWCD imported 140,000 acre feet of water. Tulare Irrigation District imported 35,000 acre feet of water. He spoke of the linear decline of the groundwater table in KDWCD, an average of 8-10" per year. There is more demand for water than there is water. This overdrafting comes at a price: water quality, land subsidence, wells going dry. Land subsidence damages roads, bridges, canals, underground pipes and building foundations. KDWCD commissioned Fugro West (2003, updated 2007) to complete a water resources investigation of the district to answer two questions (1) what is the safe yield of groundwater extraction and (2) how much groundwater is lost annually? Fugro West's response was 575,000 acre feet of groundwater per year is the safe yield for KDWCD. And depending on which method is used to calculate the amount of groundwater lost annually, the answer is 22,000 acre feet by the inventory method or 36,000 acre feet by the specific yield method. This investigation did not address increased groundwater pumping caused by global warming.

Mr. Larsen gave his assessment of future threats to water supply in his district:

- San Joaquin River Water Settlement
- development-because development gets 100% of its water from groundwater
- double and triple cropping by dairies

Mark Larsen said his district needs more water retention basins to capture heavy spring snow melt. As to the proposed Temperance Flat Dam, he reminded people it took 20 years to get the spill gates raised on Kaweah Dam and that was without any opposition.

The results of continued overdrafting of groundwater are degradation of water quality, land subsidence, and drying up of wells. There is no mitigation for these adverse impacts in the Tulare County General Plan Update (GPU),. These impacts are a true threat to public health and public welfare. The aggressive commercial, industrial, and residential growth envisioned by the GPU would rely almost solely on groundwater supply. The entire San Joaquin Valley is overdrafting groundwater now. The aggressive growth encouraged by the GPU will accelerate the adverse impacts of groundwater overdrafting. The December 12, 2006 GAMA Report of groundwater quality in Tulare County found 40% of the wells tested over the Maximum Contaminant Level of nitrates and/or other contaminants. Government has a responsibility to provide clean, accessible drinking water to its residents. It should not pursue development which will contaminate or dry up wells.

Impact 3.9-2 The Proposed Project could result in wastewater treatment demand in excess of planned capacity that cannot be met by new or expanded facilities.

CEQA Appendix G Environmental Checklist Form wording for this impact is:

"Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?"

What is the rationale for the 2010 RDEIR change of wording, other than to obscure the effect on the provider's existing commitments?

Impact Summary

Level of Significance Before Mitigation: Potentially Significant
Required Additional Mitigating Policies and Implementation Measures: No feasible mitigation
Resultant Level of Significance: Significant and Unavoidable

This impact analysis is faulty. Overburdening the 26 small wastewater treatment providers in the unincorporated areas (see Table 3.9-22, page 3.9-51 RDEIR) could have been avoided by directing almost all new development to areas served by large municipal wastewater treatment plants in the eight incorporated cities. The RDEIR should have analyzed and chosen the Healthy Growth Alternative proposed by the Tulare County Citizens for Responsible Growth.

More effective, enforceable mitigation measures and the County's financial commitment to expand capacity and level of treatment before directing growth to these small communities would be feasible mitigation.

The Water Quality Control Plan for the Tulare Lake Basin, Second Edition created by the California Regional Water Quality Control Board Central Valley Region (Attachment 16) warns of the reluctance of small sewage treatment plants to accept pumpings from domestic septic tanks and the resultant illegal dumping of waste that sometimes occurs. If the small treatment plants cannot handle many new hookups and don't want to accept pumpings from individual waste disposal systems, where does the septage go? What are the environmental impacts and public health impacts? These two impacts are not addressed in the RDEIR's analysis of the project's impacts on wastewater treatment. See Attachment 16, page IV-9.

It is a cop out for the Impact Analysis on page 3.9-50 RDEIR to state "Provision of adequate wastewater system capacity in urban areas of Tulare County is largely the responsibility of public agencies that are not directly under the jurisdiction of the County." Table 3.9-22, Year 2030 Wastewater Treatment Capacity Needs lists 26 small disadvantaged communities on page 3.9-51, RDEIR. Their populations range from 50-1500 people. Where will they get the money

to expand their facilities? New development is not bound to assist these wastewater treatment providers. Where is that mandated in the General Plan? Will the county obtain grant money? The County has the responsibility to upgrade County-owned and operated wastewater treatment facilities prior to permitting development in those service areas.

Eight wastewater treatment facilities have projects that are "currently planned, being implemented, or have been recently completed," page 3.9-52, RDEIR. One is "underway." The rest are pending funding. That's two out of 26.

"Policies contained in the Planning Framework, Water Resources, and Public Services and Utilities Elements that would reduce impacts relating to increased sanitary sewer demands are listed below by Planning Element," RDEIR page 3.9-52. We reviewed all these policies. They either have no implementation measures, are deferred to 2010-2015 or 2015-2020, contain discretionary language, allow exceptions, do not pertain to wastewater treatment facilities, only pertain to County-owned and operated facilities, do not pertain to unincorporated areas outside designated UDBs, have no performance standards, are unrealistic, or weak.

Impact 3.9-5 The proposed project would increase the need or use of fire protection services in the County.

III-169 This is an inadequate response.

III-171 This is no demonstrable commitment to mitigating this impact. This is an inadequate response.

III-172 We are asking that new development pay its full way (construction, maintenance and operations) so as not to impact fire services of existing development. What are the significant environmental impacts of the new or expanded facilities? This is an inadequate response.

III-173 Your response does not answer the question. How many new homes have to be built in a new rural area before a new fire station is built? How long do response times have to become before the County builds a new fire station closer to housing? This is an inadequate response.

III-174 The comment addresses the likelihood of future fire protection services in the County meeting the needs of the residents. This is an inadequate response.

III-175 This is an inadequate response.

III-176 Unenforceable policies do not protect public health. This is an inadequate response.

III-178 This is an inadequate response.

Impact 3.9-5 The proposed project would increase the need or use of fire protection services in the County. Additional Comments.

The RDEIR judged this impact as Less than Significant. See RDEIR page 3.9-59.

Both Impact 3.8-7 and Impact 3.9-5 rely on joint exercises (General Plan Policy HS-7.7) and mutual aid agreements (General Plan Policy HS-7.2) as mitigation measures to reduce the impact of fire risk of the General Plan Update's 20 years of aggressive development in rural valley areas and foothill and mountain areas.

Health and Safety Element Policy HS-7.7 Joint Exercises

The County shall encourage . . . fire (department) . . . to periodically conduct joint training exercises with the goal of developing the best possible coordinated action in the event of a natural or human-made disaster across all local jurisdictions.

"Joint exercises" are not defined. Neither are "local jurisdictions."

Since its inception in 2007 the Tulare County Fire Department has held a one day "spring exercise" per year with Tulare County fire departments and CAL FIRE, according to Tulare County Fire Chief Joe Garcia on June 29, 2010. It was not a "joint exercise." (Telephone conversation Chief Garcia/Carole Clum) One day a year is unlikely to develop "The best possible coordinated action in the event of a natural or human made disaster across local jurisdictions." It is likely that a disaster would cross county boundaries. Joint exercises with adjacent counties are needed to respond to disasters. The disasters most likely to occur in Tulare County include wildfires, flooding, earthquakes, terrorist bombing, and oil or gas spill or flare, all of which would require the coordinated effort of several counties' fire departments and HAZMAT teams. Fire Chief Joe Garcia was surprised to hear of the General Plan Policy to conduct joint exercises periodically.

Health and Safety Element Policy HS-7.2 Mutual Aid Agreement

The County shall participate in established local, State and Federal mutual aid systems. Where necessary and appropriate, the County shall enter into agreements to ensure the effective provision of emergency services . . .

Kings, Tulare, Kern, and Fresno County Fire Departments have mutual aid agreements. However, in recent fiscal years and fiscal year 2010-2011 all four counties have cut the budgets of their Fire Departments. Mutual aid agreements will not be as effective in the future. Certainly in the near future there will be fewer resources and a larger population spread over a larger area.

The State of California cut the budget for CAL FIRE by 10% in fiscal year 2009-2010. CAL FIRE fights wildfires in State Responsibility Areas (SRAs). Tulare County's foothills and mountains are SRAs. CAL FIRE is hoping there will not be a similar budget cut for fiscal year 2010-2011. (The State of California has a $20 billion deficit this year.) If it is necessary to close a CAL fire station in Tulare County, it will close the Visalia fire station, according to CAL FIRE Captain Paul Marquez on June 21, 2010.

Tulare County's Fire Department was asked to save as much money as possible during fiscal year 2009-2010. For fiscal year 2010-2011 there will be a budget cut of 4% ($550,000) according to Tulare County Fire Chief Joe Garcia on June 23, 2010. The 2009-2010 budget is $13,750,000. (Telephone conversation Chief Garcia/Carole Clum) Over the next 20 years at the time of buildout for the 2010 General Plan, there will be many more residents in the unincorporated areas of the County, especially in the foothills (New Town Yokohl Ranch) and mountains where wildfire risk is very high and extreme. There is no money for more fire fighting equipment, personnel, or stations. See RDEIR page 3.9-59. Response times will be slower, fire damage greater. It is folly to push aggressive growth into the foothills and mountains. The impact will be significant and unavoidable. There are 105 employees in the

Tulare County Fire Department; 76 respond to fire alarms according to Tulare Fire Chief Joe Garcia on June 29, 2010. (Telephone conversation Chief Garcia/Carole Clum)

Kern County's Fire Department had a budget of $130 million two years ago and will have a budget of $115 million for fiscal year 2010-2011, according to Deputy Fire Chief Mike Cody on June 24, 2010. The Fire Department does not know where the cuts will occur. They are hoping not to close any fire stations. There are 599 employees of the Kern County Fire Department; 511 employees respond to fire alarms. (Telephone conversation Nellie Luna, Kern County Fire Department Personnel Department/Carole Clum on July 16, 2010.)

Kings County Fire Department fell short $200,000 in fiscal year 2009-2010. They lost an entire engine company. No budget cut is expected for fiscal year 2010-2011 unless the State of California reduces its funding for fire fighting assistance outside Kings County. Kings County participated in a joint training session in May 2010 in Springville, California on wildland fires. This information was obtained from Kings County Fire Chief Jim Kilmer on June 25, 2010. The budget for fiscal year 2009-2010 was $8.1 million. There are 63 employees of the Kings County Fire Department; 60 employees respond to fire alarms, according to a staff member of the fire department on July 1, 2010. (Telephone conversation with Carole Clum)

Fresno County Fire Protection District (FCFPD) which covers the unincorporated areas of Fresno County had a budget of $20,253,605 for fiscal year 2009-2010. They expect a budget cut of 1% for fiscal year 2010-2011. They have participated in training exercises in search and rescue and water rescue but not wildland firefighting with the Tulare County Fire Department according to Michelle Martinas of FCFPD on June 25, 2010. There are 115 employees of FCFPD; 95 employees respond to fire alarms according to Fire Capt. John Dominguez on June 29, 2010. (Telephone conversation Capt. Dominquez/Carole Clum)

The Tulare County Fire Department is new, small, inexperienced, and underfunded. CAL FIRE protected all the unincorporated areas of Tulare County until 2007. Prior to the Board of Supervisors' termination of the CAL FIRE contract, the Insurance Services Office (ISO) rating for fire protection for the valley unincorporated areas was 7 and the rating for the foothill and mountain areas was 9, according to CAL FIRE Deputy Chief Julia Honer on June 25, 2010 in a telephone conversation with Carole Clum. (1 is the best score, 10 is the worst.) Now, according to the RDEIR on page 3.9-26, the average unincorporated County score is 8. In fact, according to a telephone conversation with a USAA insurance agent on June 25, 2010, some specific scores for foothill communities are: Three Rivers (10), Springville (10), and California Hot Springs (10). Valley community Terra Bella is rated 8 and Earlimart is rated 5-8. On the other hand, CAL FIRE has a large experienced workforce that is well equipped, relatively well funded and able to move men and equipment quickly.

Ian McDonald, CAL FIRE incident spokesman for the Canyon fire in Kern County on National Public Radio's California Report on September 7, 2011, stated that Mutual Aid agreements between county fire departments will not be as effective in the future. County fire

departments with reduced budgets will be less able to assist. The Canyon Fire burned 15,000 acres near Tehachapi. Mostly medium and small fire departments with limited resources assisted with firefighting. Multiple fires burning at the same time in California will be a challenge to fight.

If you live in the wildland-urban interface (WUI), it is not a question of IF a fire will occur, but WHEN. The WUI are areas in mountains, foothills, and canyons where adjacency to vegetated areas, difficulty of access, and weather patterns pose a greater risk of wildfire.

Larger and more destructive wildfires increasingly are putting people and properties at risk. The cost of fighting these fires continues to rise. Firefighters, stretched thin by large fires, are increasingly forced to choose which homes and businesses to save. Often these choices are based on which structures are most accessible and defendable.

There are three components of wildfire protection of businesses and homes in WUI:

Building materials	(non-combustible, ember-blocking)
Defensible space	(at least 100 feet)
Firesafe landscaping	(less flammable plants, non-flammable paths)

Tulare County's Board of Supervisors has compromised public safety and increased risk of damage to structures and the natural environment by canceling the contract with CAL FIRE, by underfunding the Tulare County Fire Department, and by proposing unlimited aggressive growth in remote valley areas and the mountains and foothills, which already have the worst ISO rating of 10 and by not maintaining rural county roads that were not built to present State and federal standards and have been deteriorating steadily for 20 years due to deferred maintenance.

The Automobile Club of Southern California in their July/August 2010 issue recommended the following construction standards for homes in wildfire risk areas:

- Class A materials in roofs
- Eaves and fascias boxed in or enclosed with non-combustive materials to repel embers
- Vents in attic and foundation screened with 1/8" mesh to keep embers out
- Dual pane or triple pane tempered glass windows

The Natural Resources Conservation Service, a division of the USDA, in their booklet "Living in the Foothills" recommends:

- Move woodpiles and storage tanks at least 50 feet from home
- Plan at least two escape routes (In most cases there is only one route out of a canyon in the foothills and mountains)
- Remove junk cars or other debris that would inhibit firefighters (or ignite a hotter fire)
- Build away from ridge tops (and steep canyons)

- Make sure your address is visible from the road. Use reflective numbers.

The Institute for Business and Home Safety (www.disastersafety.org) recommends:

- Use Class A roofing materials that are tested ASTM E108 OR UL 790
- Choose wall materials that resist heat and flames, such as cement, plaster, stucco and concrete masonry
- Install a spark arrestor in chimneys that is made from welded wire mesh with 1/2-inch openings
- Driveways must be at least 12 feet wide to accommodate fire fighting equipment. Note: Ninety percent of County roads in the foothills and mountains of Tulare County are not 24 feet wide. Therefore one fire truck could not pass another. See our comments on Impact 3.2-1 submitted on May 26, 2010.

For sustainable fire safe landscaping the University of California recommends:

- Use gravel, stone or concrete paths and low concrete walls as firebreaks
- Do not use bark, wood, or rubber mulch
- Avoid invasive plant species (they can fuel wildfires)
- Choose low growing, irrigated herbaceous plant materials near house
- Avoid wood decks, walkways and fences
- Choose California native plants or Mediterranean plants
- Remove dead vegetation (leaves, needles), dead branches, and dead trees. Trim tree branches 8 feet from the ground to prevent a fire fuel "ladder."
- Do not plant highly flammable plants such as:
  Palm trees
  Pampas grass (Cortaderia selloana
  Pine trees
  Eucalyptus trees

The Tulare County Fire Department must require and enforce these measures in all new development in the foothills and mountains in their Fire Protection Plans for every home, subdivision, and New Town.

The Tulare County Board of Supervisors voted in 2007 to cancel the contract with CAL FIRE and create its own fire department in order to save money and to have control of fire fighting staff, stations, and equipment, according to Supervisor Allen Ishida. The decision was touted as a big money saver ($1 million, according to Supervisor Ishida). More money needs to be provided to the Tulare County Fire Department to improve response times and build more fire stations or Tulare County needs to return to the contract with CAL FIRE to provide fire suppression coverage for the unincorporated areas of the County. Prior to 2007, if a homeowner in the foothills failed to remove weeds the prescribed distance (now 100' clearance) from all buildings on his property he received a warning notice. Upon a repeat inspection, if he did not clear the

weeds, he was fined for failure to comply. Now nothing happens to the homeowner except repeated notices to comply with clearance regulations (defensible space). There is no enforcement. This is a public safety issue which endangers all residents of the foothills and mountains, structures and the natural environment. CAL FIRE is independent of Tulare County government and therefore more likely to develop stronger, safer Fire Protection Plans for subdivisions and New Towns in the foothills and mountains.

Increased Risk of Wildfires and Lessened Ability to Fight Wildfires Will Lead to Larger Wildfires.

According to the California Report on Morning Edition news program on National Public Radio on September 14, 2010, there will be less state reimbursement for California fire departments fighting fires outside their jurisdictions.

Budget cuts are taking a toll on local fire departments' ability to fight regular fires within their jurisdiction. When a station is closed, a fire company has to come from farther away, giving a fire a chance to grow larger. Sometimes a neighboring fire department can't respond. It can't afford it. Either it is not getting funded by the state or there are delays in reimbursement from the state. There have been cuts and brown-outs (fire crews out of service) all over California.

Much of the funding of local fire departments comes from property tax revenues, which are declining. In addition to the afore-mentioned fiscal difficulties, there are the escalating costs of meeting higher federal standards.

Please see Attachment 33 for the Tulare County Fire Department Budget information for fiscal year 2003/2004 through fiscal year 2011/2012.

Impact 3.9-6 The proposed project would increase the need or use of law enforcement services in the County. Additional Comments.

CEQA Appendix G Environmental Checklist Form XIV(a) wording for this impact is: "Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for . . . police protection?"

What is the rationale for the RDEIR change of wording, other than to obscure the magnitude of this impact and hinder the development of feasible, effective mitigation?

Impact Summary

Level of Significance Before Mitigation: Potentially Significant
Required Additional Mitigation Policies and Implementation Measures: Revised Public Facilities and Services Implementation Measure #3
Resultant Level of Significance: Less than Significant

Impact Analysis

This impact contains an improper baseline, inadequate analysis, and inadequate mitigation.

The 2010 Background Report (Appendix B RDEIR) contains data from 2004 which is six years old. The baseline for this RDEIR is 2008-2009. See RDEIR page 3-5. The population of the unincorporated areas has grown since 2004. According to Capt. Greg Wright, budget officer for the Tulare County Sheriff's Department, on July 6, 2010 (telephone conversation with Carole Clum), there was a budget cut of $2.5 million for fiscal year 2009-2010. The Sheriff's Department is expecting a $2 million budget cut for fiscal year 2010-2011 but will not know the amount until union negotiations with the County are concluded in September or October 2010. The County needs to supply 2009 data. See Attachment 19, Experienced Lawmen Vie for County's Top Job.

In the RDEIR on page 3.9-61-62 under Impact Analysis we read:

> Implementation of the proposed project would increase overall demand on law enforcement services to the County. Future growth in accordance with buildout of the proposed project is expected to generate the typical range of service calls. New police facilities, vehicles, equipment, and personnel will be required in order to provide adequate response times to serve future growth. Therefore, the County's costs to maintain equipment and facilities and to train and equip personnel would also increase. Additionally, growth in existing rural areas would also increase the demand for law

enforcement facilities in those areas. However, the additional personnel and materials costs would be offset through the increased revenue, and fees generated by future development. In addition, future projects will be reviewed by the County on an individual basis and will be required to comply with requirements (i.e., impact fees, etc.) in effect at the time building permits are issued.

This is a generic analysis that could apply to anywhere in the United States. It is a bland, overly optimistic analysis of future police protection needs that assumes "a typical range of service calls" in the future when it is widely known that drug problems and gang problems are increasing. Tulare County Sheriff Bill Wittman referred to needing "to pull the organization through the hard times we face," referring to budget challenges. Woodlake Police Chief John Zapalac said "drugs and gang issues have gotten worse - based on county numbers, specifically in the unincorporated areas." See Attachment 19, Valley Voice newspaper article, May 27, 2010, pages 21 and 22. In the same article, Sheriff Wittman said, "I don't know of any county or city that's going to hire additional officers this year. We need to be as efficient as we can. When someone calls 911, people expect to have a deputy there. . . . We don't have the resources to put on more deputies. I hope the state has a plan and helps us develop resources to add more staff." "Both men agree having enough money to do their jobs is going to be a challenge." "We have to work harder. There's a level of service I want to provide the people of this county and will need to find resources to continue to do that – like reserves and volunteers (over 500 now), Wittman said."

Finally, "Zapalac said the case must be made to the Board of Supervisors that public safety is a priority. 'I will identify where there are shortages in staffing,' he said if elected, 'then seek the money to fill those positions.' "

So, does this sound like a sheriff's department that can give us the level of service we need for the projected 78,490 more people in unincorporated Tulare County in 2030? The U.S. Census Bureau estimates the 2010 population of Tulare County as 447,814. TCAG estimates Tulare County's 2030 population at 742,970. That is a 60% increase in population. Where will the money come from to provide an adequate level of service?

An assumption has been made that PFS Implementation Measure #3 will provide the necessary revenue to offset additional personnel and materials costs of future development.

However, IM #3 says, "The County shall develop and adopt an impact fee program for new development to provide financing mechanisms to ensure the provision, operation, and ongoing maintenance of appropriate public facilities and services" in 2010-2015.

What are "appropriate public facilities?" Will these as yet undeveloped and unadopted impact fees cover all the costs of necessary increased police protection? Will the impact fees be assessed only on planned communities, not small subdivisions or individual homes? Where will the money come from to finance necessary staffing, training, operations, and facilities that exist now? What will be the impact of the proposed project on need or use of law enforcement

services if the impact fees are not adopted until 2015? Suppose the Board of Supervisors (which seems to be allergic to impact fees) never adopts them? Impact fees should never be assessed on an individual project basis. Set a standard fee per house.

The four sheriff stations in Visalia, Porterville, Pixley, and Cutler-Orosi are not enough to protect residents in remote rural areas like Three Rivers which has two deputy sheriffs on duty eight hours a day to protect 2,700 residents who live way out four separate canyons. Public safety must be a County priority now and in the future.

The RDEIR fails to analyze "adverse physical impacts associated with the provision of new or physically altered governmental facilities," such as loss of groundwater recharge, increased stormwater runoff and soil erosion, loss of biological and cultural resources, increased risk of wildfires in foothills and mountains and even increased 100-year flood risk since the aggressive building, even in the floodplains, proposed by the 2010 General Plan will raise base flood levels and cause floodwaters to be diverted onto non-FEMA-designated floodplain property. Critical facilities such as fire and police stations will not be safe from floodwaters. Much of Tulare County's valley area will be subject to flooding due to constricted stream beds and irrigation channels choked with vegetation and trash, breached levees and poorly constructed levees, levees not set back far enough to handle floodwaters, undermined bridge piers, and grading by property owners. All these deficiencies add up to unpredictable flood flows. See Flood Potential in Tulare County, Attachment 22 of Sierra Club Kern-Kaweah Chapter's May 26, 2010 comments on the 2010 General Plan Update. All valley critical facilities are vulnerable to 100-year floods and will become obstructions (as will all buildings) to flood flow.

The Sheriff Department's budget has been declining since 2008/2009. See Attachment 20, Tulare County Sheriff's Department Operating budgets. This trend will probably continue since the price of housing (a major source of tax revenue for the county) is expected to decline for several more years. See Attachment 21, California's Divided Fortunes. It will be very difficult to find the money to build new sheriff stations in all the newly proposed development areas (ten transit corridors, New Towns, Mountain Service Centers, and the FGMP). Sheriff deputies will need to patrol much larger developed areas greatly increasing Vehicle Miles Traveled.

In Planning Framework, Criteria for New Towns (Planned Communities) PF-5.2 on page 2-68, there is no population or household threshold (for instance, 1000 people) requiring the New Town or County to build a sheriff or fire station on site. The criteria for New Towns in the Goals and Policies report on page 2-6y8 states only that the "county shall require that the project provide a full range of needed infrastructure and public services." This is a public safety issue as well as an environmental issue. Also see FGMP-10.3 Fire and Crime Protection Plan, page 3-15 of Goals and Policies Report under Foothill Growth Management Plan, which states "The County shall require that fire and crime considerations, including financing be incorporated into all proposed developments to ensure adequate emergency services are available and able to serve new development." This is vague.

With a twenty year build out and a proposed 10,000 homes, three hotels, a resort, a commercial area, and a regional recreation center spread out over a very large area, this will entail a lot of driving for Sheriff Deputies. In the American Lung Association State of the Air 2011 report, Tulare County and the metropolitan area of Visalia – Porterville ranked among the 25 counties and cities in the U.S. with the worst ozone air pollution, year round particle pollution, and short term particle pollution. In one category, ozone pollution, Visalia-Porterville was tied for second worst in the nation. See Attachment 12, State of the Air 2011.

If and when new Sheriff Department stations are built along the 10 transit corridors and the foothill areas slated for major development (Three Rivers, Springville, upslope from Porterville, and Yokohl Valley), there will be environmental impacts from their construction in the sparsely populated valley areas and the wildland/urban interface areas of the foothills. The RDEIR did not analyze this impact.

The mitigating policies and implementation measures for this impact are:

HS-1.8 Response Times Planning in GIS

The County shall utilize its Geographic Information Systems (GIS) technology to track fire and law enforcement response times and provide technical assistance to fire and law enforcement agencies.

Implementation Measure 10

The County shall work with other local agencies, including cities within the County, to develop coordinated GIS planning that identifies and maps the location of all public facilities and emergency response agencies. Contingency plans for emergency response and recovery should be incorporated into this mapping.

("Shall work with" does not show true commitment. "Should be incorporated" is weak and unenforceable. If the County does not know where all the homes, businesses, and industries are located, how can the Sheriff's Department respond with acceptable service ratios and response times?)

H.S.-1.10 Emergency Services Near Assisted Living Housing

In approving new facilities, such as nursing homes, housing for the elderly and other housing for the mentally and physically inform, to the extent possible, the County shall ensure that such facilities are located within a reasonable distance of fire and law enforcement stations.

(Remove "to the extent possible" and state the "reasonable distance." The County must set performance standards and require new development to conform to them.)

No Implementation Measure

HS-7.1 Coordinate Emergency Response Services with Government Agencies

The County shall coordinate emergency response with local, State, and Federal governmental agencies, community organizations, volunteer agencies, and other response partners during emergencies or disasters utilizing SEMS and NIMS.

Implementation Measure 18

(No comment.)

HS-7.2 Mutual Aid Agreement

The County shall participate in established local, State, and Federal mutual aid systems. Where necessary and appropriate, the County shall enter into agreements to ensure the effective provision of emergency services, such as mass care, heavy rescue, hazardous materials, or other specialized functions.

(In this time of great recession all neighboring city and county police departments are understaffed and under-equipped. They will not be as helpful in mutual aid as in the past. How will the County decide when it is "necessary and appropriate?" How is the standard "necessary and appropriate" to be measured and interpreted?)

No Implementation Measure

HS-7.3 Maintain Emergency Evacuation Plans

The County shall continue to create, revise, and maintain emergency plans for the broad range of natural and human-made disasters and response activities that could foreseeably impact Tulare County. . . .

Implementation Measure 19

The County shall periodically update the Emergency Operations Plan to meet current Federal and State emergency requirements.

(The County has failed to comply with California's A.B. 162 which pertains to flood risk. A.B. 162 requires changes to a general plan upon the next revision of the housing element on or after January 1, 2009. Tulare County's housing element was amended on March 23, 2010. The pertinent statutory provisions are Government Code section 65302(d)(3) and sections (g)(2)(A)(vii), (g)(2)(A)(viii), (g)(2)(A)(ix), and (g)(2)(A)(x). The revisions of "the conservation element shall identify rivers, creeks, streams, flood corridors, riparian habitats, and land that may accommodate floodwater for purposes of groundwater recharge and stormwater

management." The safety element shall identify information regarding flood hazards, including, but not limited to the following:

(1) Maps of levee protection zones,
(2) Areas subject to inundation in the event of failure of project or nonproject levees or floodwalls,
(3) Historical data on flooding, including locally prepared maps of areas that are subject to flooding after wildfires, and sites that have been repeatedly damaged, and
(4) Existing and planned development in flood hazard zones, including structures, roads, utilities, and essential public facilities.)

HS-7.4 Upgrading for Streets and Highways

The County shall evaluate and upgrade vital streets and highways to an acceptable level for emergency services.

(What is an acceptable level? The County needs to set performance standards. What are the vital streets and highways? In the foothills and mountains there is almost always only one way out. By our definition that way is vital. And yet 90% of the County's foothill and mountain roads are substandard. Road maintenance has been deferred for 20 years, causing accelerating deterioration. The County's first priority for road maintenance is the most frequently traveled roads [in and around Visalia,] the rest of us are poor cousins.)

No Implementation Measure

HS-7.5 Emergency Centers

The County shall require emergency backup systems to enable uninterrupted continuous operations as required by the California Essential Facilities Act.

No Implementation Measure

HS 7.6 Search and Rescue

The County should continue to provide search and rescue operation capabilities for the Tulare Sheriff's Department in mountainous areas, including those areas on the eastern side of the Sierra Nevada that are not served by all-weather roads.

("Should continue" does not show commitment. Since the County is encouraging planned communities, commercial recreation, industry, commerce, and subdivisions in the mountains, it must make a commitment to search and rescue capabilities. If the County cannot or will not

finance this, in the interest of public safety it must not allow future development in the mountains.)

No Implementation Measure

(This shows zero commitment.)

HS-7.7 Joint Exercises

The County shall encourage fire, law enforcement, emergency medical services, resource management, public health, and other governmental and non-governmental response partners to periodically conduct joint training exercises with the goal of developing the best possible coordinated action in the event of a natural or human-made disaster across all local jurisdictions.

(If the County doesn't require joint exercises, they won't happen. If the County doesn't maintain a strict schedule for the joint exercises, they will be delayed because all departments are busy. If joint exercises do not occur, the "best possible coordinated action" is not possible. There is no County commitment to this policy. "Periodically" needs to be defined.)

No Implementation Measure

(Joint exercises are not going to happen in Tulare County. This policy cannot be considered a mitigation.)

PF-5.2 Criteria for New Towns (Planned Communities)

(All thirteen elements of this policy lack performance standards. Element eleven (c) says the project shall provide needed infrastructure such as law enforcement but does not say all of the costs of new stations, staffing, maintenance, equipment, and any other necessary operating expenses will be paid in full by the New Town.)

No Implementation Measure

PFS-1.3 Impact Mitigation

The County shall review development proposals for their impacts on infrastructure (for example, sewer, water, fire stations, libraries, streets, etc.) New development shall be required to pay its proportionate share of the costs of infrastructure improvements required to serve the project to the extent permitted by State law. The lack of available public or private services or adequate infrastructure to serve a project, which cannot be satisfactorily mitigated by the project, may be grounds for denial of a project or cause for the modification of size, density, and/or intensity of the project.

(Police stations are not explicitly included in this policy. "Proportionate share of the costs of infrastructure improvements" is not all of the costs. How much is a "proportionate share?" How is this to be measured? If all of the costs are not covered, revenue will be siphoned off the law enforcement budget and the rest of us will receive a lower level of service. "May be grounds for denial" must be changed to "shall be grounds for denial." There is no true commitment here or performance standards.)

No Implementation Measure

PFS-7.3 Visible Signage for Roads and Buildings

The County shall strive to ensure all roads are properly identified by name or number with clearly visible signs.

(If the County cannot name or number every road and building with a clearly visible sign, they should hire a firm to do it. How will the police find us when we dial 911? Change "shall strive" to "shall." How can the County keep the public safe in the year 2030 with its expected 78,490 new residents in the unincorporated areas if it can't commit to naming and numbering every road and building with a clearly visible sign?)

No Implementation Measure

PFS-7.8 Law Enforcement Staffing Ratios

The County shall strive to achieve and maintain a staffing ratio of 3 sworn officers per 1000 residents in unincorporated areas.

(This is misleading. The County has fallen far short of this ratio. According to the RDEIR, page 5-2, in 2007 there were 144,090 residents in the unincorporated areas of the County. The baseline for the GPU is 2008-2009. See RDEIR page 3-5.)

According to a member of the Sheriff's Department on June 11, 2010, there are now 487 sworn officers in Tulare County. More than half of them are not available to respond to a 911 call during regular working hours.

239 are detailed to four jails in Visalia
66 are in the courts or some administrative job
137 are sworn officers on patrol (the ratio of these patrol officers to residents in the unincorporated areas is .95:1000.)
55 are in investigations (detectives)

If you add the 137 patrol officers to the 55 detectives, you get 192 sworn officers able to respond to a 911 call, a ratio of 1.5:1000 residents in the unincorporated areas. This is far less

than the 3.0 sworn officers per 1000 residents that the County is striving to achieve and maintain.

In the next fiscal year the Sheriff's Department is expecting a $2 million budget cut. How many sworn deputy sheriffs will be able to respond to a 911 call in the future?

At what point is a sheriff's station or fire station required to be built in a planned community or conglomeration of subdivisions and individual homes in the unincorporated areas? 1000 buildings? 2000? 5000? There are no performance standards. Until that police station or fire station is built and fully funded, response times and staffing numbers will be inadequate. Public safety will be at risk. Long distances traveled by sheriff deputies and firemen mean increased air pollution and greenhouse gas emissions and higher fuel costs for the Sheriff Department.

City-centered growth is the environmentally superior project alternative. The RDEIR should have chosen the Healthy Growth Alternative.

PFS-7.9 Sheriff Response Time

The County shall work with the Sheriff's Department to achieve and maintain a response time of:

- Less than 10 minutes for 90 percent of the calls in the valley region; and
- 15 minutes for 75 percent of the calls in the foothill and mountain regions

("Shall work with" does not show true commitment. How is this to be measured? The County controls the purse strings, employs the Sheriff's Department personnel, buys equipment, and can improve response times if that is a priority. The 2010 General Plan proposes aggressive growth in remote rural areas, foothills, and mountains. Longer response times endanger public safety and are not acceptable to Tulare County residents. The Sheriff's Department's response times now are totally inadequate, according to Police Chief John Zapalac of the City of Woodlake on June 3, 2010 in a telephone conversation with Carole Clum. In the valley it is 20 minutes for 90% of the calls. In the foothills the response time is one hour or maybe the next day.)

No Implementation Measure

PFS-7.10 Interagency Law Enforcement Protection Cooperation

The County shall continue to promote cooperative law enforcement agreements with the Sheriff's Department, California Highway Patrol (CHP), local city police, and adjacent county law enforcement agencies to provide added protection on a year around basis.

("Shall continue to promote" shows no strong commitment of time or money or performance standards.)

No Implementation Measure

PFS-7.11 Locations of Fire and Sheriff Stations/Sub-stations

The County shall strive to locate fire and sheriff sub-stations in areas that ensure the minimum response times to calls.

("Shall strive" shows no true commitment. How is this to be measured? If the police cannot reach homes and businesses in minimum response times because the development is too far flung, the County has no business pushing commercial, industrial, and residential development into those areas. The County is betraying the public trust and abandoning its duty to protect public health and safety with aggressive growth outpacing infrastructure's ability to serve residents adequately.)

No Implementation Measure

PFS-7.12 Design Features for Crime Prevention and Reduction

The County shall promote the use of building and site design features as a means for crime prevention and reduction.

(Instead of "promoting" the County should "require the use of building and site design features to deter crime. There is no true commitment or performance standards in this policy.)

No Implementation Measure

PFS Implementation Measure 10

(This Implementation Measure is about preparing and distributing educational materials on reuse, recycling, and composting.)

FGMP-10.2 Provision of Safety Services

The County shall ensure that development is located in areas of the foothills that can be adequately served by . . . the Sheriff's Department unless new facilities are proposed or required for the development.

(We residents in the foothills are not being adequately served now. All that needs be done is proposing new facilities? What are the performance standards for requiring a new sheriff sub-station? Where will the money come from? We have no impact fees on new development.)

No Implementation Measure

FGMP-10.3 Fire and Crime Protection Plan

The County shall require that fire and crime protection plan considerations, including financing, be incorporated into all proposed developments to ensure adequate emergency services are available and able to serve new development.

("Considerations" are not good enough. "Requirements" with performance standards and full funding are necessary. This policy shows no true commitment, performance standards or measurement standards.)

No Implementation Measure

In addition, on page 3.9-62 of the RDEIR the following undeveloped and unadopted Public Facilities and Services Implementation Measures "designed to ensure funding for County programs to provide adequate service levels" include the following:

Public Facilities and Services Implementation Measure #1, #2, #3

IM #1 concerns only County-owned and operated facilities.

IM #2 concerns only County-owned and operated facilities.

IM #3 concerns a future, not developed, not adopted, impact fee program which will not happen until 2010-2015 and may not cover all costs. This cannot be considered as a mitigating measure.)

Impact 3.9-8 The proposed project would increase the need or use of libraries and other community facilities.

III-180 This is an inadequate response.

III-182 This is an inadequate response.

III-183 This is an inadequate response. A one time impact fee, if levied, would not cover maintenance, salaries, books and magazine purchase budgets. Every library would get a smaller slice of the budget pie in the future.

III-186 This is an inadequate response.

III-188 This is an inadequate response.

III-189 This is an inadequate response.

SECTION III

FARMLAND CONVERSION

THE COUNTY'S RESPONSE TO COMMENT I11-190

This response is evasive and has not addressed many of the questions and issues raised in this comment. We have recommended a number of performance criteria for farmland loss mitigation, and the County has not responded to these recommendations. For example,

- The Plan should include a performance standard that specifies the ratio of preserved mitigation farmland to converted farmland.
- The Plan should include a performance standard that specifies the quality of the preserved replacement mitigation land.
- The Plan should include a policy that requires that a need for the project be demonstrated and that substantial evidence for this need demonstration be given when farmland is converted to urban use.

These and other recommendations and questions in this section have been ignored. This lack of response is a violation of CEQA. "The written response shall describe the disposition of significant environmental issues raised (e.g., revisions to the proposed project to mitigate anticipated impacts or objections). In particular, the major environmental issues raised when the Lead Agency's position is at variance with recommendations and objections raised in the comments must be addressed in detail giving reasons why specific comments and suggestions were not accepted. There must be good faith, reasoned analysis in response. Conclusory statements unsupported by factual information will not suffice." (Guidelines, §15088(c)). Failure to adequately respond to public comments is an *abuse of discretion*.

Policy AG-1.6, even with the minor changes, remains so vague as to be meaningless. To say "The County may develop an Agricultural Conservation Easement Program (ACEP)" leaves open the real possibility that the County may <u>not</u> develop an ACEP. CEQA requires, "A public agency shall provide that measures to mitigate or avoid significant effects on the environment are fully enforceable through permit conditions, agreements, or other measures." (Public Resources Code, §21081.6(b)). Policy AG-1.6 is *not enforceable*. It is established CEQA policy that a mitigation measure is legally inadequate if it is so undefined that it is impossible to gauge its effectiveness. Policy AG-1.6 is so vague that neither the public nor the decision-makers can understand their effect, and the EIR should not consider it to be effective mitigation for the General Plan's adverse significant impact on agricultural resources.

We note that many other responses that follow refer back to the County's response to this comment, compounding the evasiveness and ambiguity of this response.

THE COUNTY'S RESPONSE TO COMMENT I11-191

Agricultural Preservation Policy AG-1.6 and Agricultural Implementation Measure #15 violate CEQA's *prohibition against deferral*. CEQA prohibits deferral of mitigation measures unless it can be shown that practical considerations prevent formulation of mitigation measures, in

which case the agency can satisfy CEQA by (1) committing to eventually devising such measures, and (2) articulate specific performance criteria at the time of project approval. (San Joaquin Raptor Rescue Center v. County of Merced (2007) 149 Cal.App.4th 645, 670). As noted above, Policy AG-1.6 neither commits the County to developing an ACEP nor does it contain specific performance criteria. As we noted in comment I11-190, it is clearly feasible and practical to formulate specific performance criteria to guide conversion of farmland to urban use since other agencies have done so and since individual development projects elsewhere have agreed to such mitigation. *Without specific performance criteria*, it is impossible for the public and the decision-makers to evaluate the effectiveness of this policy. The General Plan should contain a detailed ACEP with specific performance criteria and implementation measures that commit the County to these performance criteria.

A "program" or "first tier" EIR is expressly not a device to be used for deferring the analysis of significant environmental impacts. *Stanislaus Natural Heritage Project v. County of Stanislaus* (1996) 48 Cal. App. 4th 182, 199. It is instead an opportunity to analyze impacts common to a series of smaller projects, in order to avoid repetitious analyses.

THE COUNTY'S RESPONSE TO COMMENT I11-192

Policy AG-1.17 relating to preservation of agricultural water resources is very important to the County's economy and way of life. The public deserves to be able to judge the effectiveness of this policy, and it cannot do so without more information as to how the policy will be implemented. *The County has not addressed the questions and issues in this comment.* For example, on page 3.4-16 of the RDEIR, the County admits that global warming could "lead to more frequent water shortages." The County does not address the effect of global warming on the implementation of Policy AG-1.17.

THE COUNTY'S RESPONSE TO COMMENT I11-193

In referring the questions in this comment to Master Response 1, the County seems to be replying that these questions "do not address environmental issues or CEQA concerns" and need not be answered in the FEIR. To the contrary, these questions and issues are meant to help determine the *internal consistency* of the General Plan, a well-litigated CEQA issue. In *not answering these questions*, the County has violated CEQA.

THE COUNTY'S RESPONSE TO COMMENT I11-196

This response admits, "the analysis of specific ranchette development was not conducted for the agricultural analysis of the RDEIR", and continues," As limited information is currently available as to the number, location, and extent of any proposed ranchette developments, the inclusion of this analysis is considered speculative." A primary reason that analysis of ranchette development may be speculative is that Policy AG-1.12 is so vague as to be ineffective. The FEIR should include performance criteria for Policy AG-1.12 so that analysis of the impact of proposed and future ranchette development would be firmer. The FEIR is deficient in *not having included performance criteria* and in not having analyzed ranchette development.

The County has *not addressed the questions and issues in this comment*. For example, the FEIR should address the American Farmland Trust ranchette development policy proposal referenced in this comment. CEQA Guidelines require that comments be, "addressed in detail giving reasons why specific comments and suggestions were not accepted. There must be good faith, reasoned analysis in response. Conclusory statements unsupported by factual information will not suffice." (Guidelines, sec. 15088(c)) The FEIR is deficient in this regard.

The Land Use Element allows one dwelling unit per ten acres, with minimum lot sizes of 10-80 acres, on land designated "Valley Agricultural" (Table 4.1 of the General Plan), allowing ranchette development while Policy AG-1.12 requires the County to "discourage the creation of ranchettes in areas designated Valley Agriculture and Foothill Agriculture." This is another instance of *internal inconsistency* of the General Plan. The response to comment I21-31 on this issue is evasive.

THE COUNTY'S RESPONSE TO COMMENT I11-198

This response is evasive and has not addressed the many questions and issues raised in this comment. We have recommended a number of performance criteria for farmland loss mitigation, and the County has not responded to these recommendations. Policy FGMP-5.1 is so vague as to be meaningless, and our comment has pointed out *internal inconsistencies*. Questions and other recommendations in this section have been ignored. For example, the County did not respond to the potential inconsistency of FGMP Implementation Measure #19 and Policy FGMP-9.1. This lack of response is a violation of CEQA.

AIR QUALITY

THE COUNTY'S RESPONSE TO COMMENT I11-204

In part, this response states, "The commenter did not reference the context or location of the terms consistent and reasonable mitigation therefore no further response on this question is possible." The reference to consistent and reasonable mitigation comes from Policy AQ-1.5, a policy statement contained in our letter and referenced in the County's own response I11-203. This response is, at best, in *error* and may be an attempt to evade the issue.

We suggested in this comment that the County require as a mitigation measure that new development participate in an Emissions Reductions Program, through which developers contract with the SJVAPCD to completely offset the emissions associated with their project through onsite design features and offsite pollution reduction projects. We noted that such a program was feasible since a number of developers in the southern San Joaquin Valley have participated in such a program. *Without presenting evidence*, the County replies, "The suggested mitigation measure is considered infeasible." CEQA Guidelines require that comments be, "addressed in detail giving reasons why specific comments and suggestions were not accepted. There must be good faith, reasoned analysis in response. Conclusory statements unsupported by factual information will not suffice." (Guidelines, sec. 15088(c)) The County

should present substantial evidence for the infeasibility of this potential mitigation measure. The FEIR is deficient in this regard.

THE COUNTY'S RESPONSE TO COMMENT I11-206

The County *erroneously responds* that this comment refers to Policy AQ-1.5, while the heading for this comment clearly lists reference to Policies AQ-2.2, AQ-4.2, AQ-4.3, and AQ-4.4.

Existing SJVAPCD rules should be baseline for the significant impact of the Plan on air quality. CEQA requires mitigation of significant impacts to the extent feasible. As noted in our comments I11-204 and I11-207, in addition to existing SJVAPCD rules, there are a number of *additional measures* the Plan could adopt or strengthen that would help address the significant impact of the Plan on air quality. The FEIR is deficient in not addressing these issues in detail.

THE COUNTY'S RESPONSE TO COMMENT I11-207

In referring the issues in this comment to Master Response 1, the County seems to be replying that these comments "do not address environmental issues or CEQA concerns" and need not be addressed in the FEIR. It is established CEQA policy that a mitigation measure is legally inadequate if it is so undefined that it is impossible to gauge its effectiveness. The policies referenced in this comment are so vague that neither the public nor the decision-makers can understand their effect, and the EIR should not consider these policies to be effective mitigation for the General Plan's adverse significant impact on air quality. The FEIR is deficient in not addressing these issues in detail.

The response states, "The EIR does not take quantitative emission reduction credit for the measures that use of the term "encourage."" The County is admitting that our assertion in this comment that the EIR should not consider these policies to be effective mitigation for the General Plan's adverse impact on air quality is correct. As noted above, there are a number of *additional measures* the Plan could adopt or strengthen that would help address the significant impact of the Plan on air quality. The FEIR is deficient in not addressing these issues in detail.

THE COUNTY'S RESPONSE TO COMMENT I11-209

In referring the issues in this comment to Master Response 1, the County seems to be replying that these comments "do not address environmental issues or CEQA concerns" and need not be addressed in the FEIR. It is established CEQA policy that a mitigation measure is legally inadequate if it is so undefined that it is impossible to gauge its effectiveness. The policies referenced in this comment are so vague that neither the public nor the decision-makers can understand their effect, and the EIR should not consider these policies to be effective mitigation for the General Plan's adverse significant impact on air quality. CEQA requires, "A public agency shall provide that measures to mitigate or avoid significant effects on the environment are fully enforceable through permit conditions, agreements, or other measures." (Public Resources Code, §21081.6(b)) The FEIR is deficient in not addressing these issues in detail.

THE COUNTY'S RESPONSE TO COMMENT I11-210

In referring the issues in this comment to Master Response 1, the County seems to be replying that these comments "do not address environmental issues or CEQA concerns" and need not be addressed in the FEIR. It is established CEQA policy that a mitigation measure is legally inadequate if it is so undefined that it is *impossible to gauge its effectiveness*. The implementation measures referenced in this comment are so vague that neither the public nor the decision-makers can understand their effect, and the EIR should not consider these measures to be effective mitigation for the General Plan's adverse significant impact on air quality. CEQA requires, "A public agency shall provide that measures to mitigate or avoid significant effects on the environment are fully enforceable through permit conditions, agreements, or other measures." (Public Resources Code, §21081.6(b)) The FEIR is deficient in not addressing these issues in detail.

The County ignores CEQA's prohibition against *deferral of the implementation program* unless it can be shown that practical considerations prevent formulation of mitigation measures, in which case the agency can satisfy CEQA by (1) committing to eventually devising such measures, and (2) articulate specific performance criteria at the time of project approval. (San Joaquin Raptor Rescue Center v. County of Merced (2007) 149 Cal.App.4th 645, 670. The proposed Land Use Implementation Measure #24 fails under this standard in part because it does not include "specific performance criteria".

A "program" or "first tier" EIR is expressly not a device to be used for deferring the analysis of significant environmental impacts. *Stanislaus Natural Heritage Project v. County of Stanislaus* (1996) 48 Cal. App. 4th 182, 199. It is instead an opportunity to analyze impacts common to a series of smaller projects, in order to avoid repetitious analyses.

THE COUNTY'S RESPONSE TO COMMENT I11-211

The FEIR does not quantify construction emissions, but nevertheless concludes without substantiation that, because of SJVAPCD regulations, construction related air pollution impacts would be less than significant. The FEIR is deficient in this regard.

A "program" or "first tier" EIR is expressly not a device to be used for deferring the analysis of significant environmental impacts. *Stanislaus Natural Heritage Project v. County of Stanislaus* (1996) 48 Cal. App. 4th 182, 199. It is instead an opportunity to analyze impacts common to a series of smaller projects, in order to avoid repetitious analyses.

THE COUNTY'S RESPONSE TO COMMENT I11-212

The County admits that "specific or individual project [air pollution] sources were not modeled" and attempts to justify underestimating this critical impact by saying this is "consistent with the programmatic nature of the RDEIR." The "programmatic" nature of the RDEIR is no excuse for its lack of detailed analysis. Indeed, the RDEIR grossly misconstrues both the meaning and requirements of a "program" EIR by referring to it as a document that "assesses and documents the broad environmental impacts of the program with the understanding that a more detailed site-specific analysis may be required to assess future projects implemented under the

program." RDEIR at 1-6. This approach is flawed, at the outset, because CEQA requires that a program EIR provide the in-depth analysis of a large project, looking at effects "as specifically and comprehensively as possible." CEQA Guidelines § 15168(a), (c)(5). Because it looks at the big picture, a program EIR must provide "more exhaustive consideration" of effects and alternatives than can be accommodated by an EIR for an individual action, and must consider "cumulative impacts that might be slighted by a case-by-case analysis." CEQA Guidelines § 15168(b)(1)-(2). The FEIR is deficient in not addressing these issues in detail.

THE COUNTY'S RESPONSE TO COMMENT I11-213

This response is evasive and has not addressed the issue raised in this comment. New research indicates that dairies are responsible for a far greater portion of ozone production than previously thought. The EIR should use the new information in the referenced article to incorporate ROG emissions from livestock feed into Tulare County emissions totals, or it should give substantial evidence that this is unnecessary.

THE COUNTY'S RESPONSE TO COMMENTS I11-214, I11-215, I11-216

CEQA requires mitigation of significant impacts to the extent feasible. As noted in our comments I11-204, I11-207, I11-215, and I11-216, there are a number of *additional feasible measures* the Plan could adopt or strengthen that would help address the significant impact of the Plan on air quality. The FEIR is deficient in not addressing these measures in detail.

THE COUNTY'S RESPONSE TO COMMENT I11-218

The County references a Climate Action Plan in order to reduce VMT. The County has not adopted a Climate Action Plan, and they have only committed to "consider" the adoption of such a Plan at some unspecified time in the future. The General Plan Update contains no Climate Action Plan nor does it contain specific feasible standards and implementation measures to reduce VMT. CEQA requires, "A public agency shall provide that measures to mitigate or avoid significant effects on the environment are fully enforceable through permit conditions, agreements, or other measures." (Public Resources Code, §21081.6(b)) As an SB 375 goal, VMT reduction is an important component in air pollution reduction. The FEIR should contain measures to reduce VMT.

THE COUNTY'S RESPONSE TO COMMENT I11-219

In a settlement with the Sierra Club and the California Attorney General, the City of Stockton agreed to monitor VMT as a key indicator of growth and jobs/housing goals and to keep the increase in VMT to an annual rate less than the population growth rate. The County responds that we have not provided a methodology to implement such a requirement. We would suggest that the County contact the City of Stockton to learn about their methodology and then address this potential additional mitigation measure for reducing the Plan's significant adverse impact on air quality in the FEIR.

The County's response that "The suggest (sic) requirement is therefore considered to be legally infeasible" is counterindicated by the above-mentioned agreement involving the California Attorney General.

THE COUNTY'S RESPONSE TO COMMENT I11-220

In referring the issues in this comment to Master Response 1, the County seems to be replying that these comments "do not address environmental issues or CEQA concerns" and need not be addressed in the FEIR. It is established CEQA policy that a mitigation measure is legally inadequate if it is so undefined that it is *impossible to gauge its effectiveness*. The goal and policies referenced in this comment are so vague that neither the public nor the decision-makers can understand their effect, and the EIR should not consider these measures to be effective mitigation for the General Plan's adverse significant impact on air quality. The FEIR is deficient in *not having included performance criteria* and in not addressing these issues in detail.

THE COUNTY'S RESPONSE TO COMMENT I11-221

This response is evasive and has not addressed the many questions and issues raised in this comment. In referring the issues in this comment to Master Response 1, the County seems to be replying that these comments "do not address environmental issues or CEQA concerns" and need not be addressed in the FEIR. It is established CEQA policy that a mitigation measure is legally inadequate if it is so undefined that it is *impossible to gauge its effectiveness*. The goal and policies referenced in this comment are so vague that neither the public nor the decision-makers can understand their effect, and the EIR should not consider these measures to be effective mitigation for the General Plan's adverse significant impact on air quality. The FEIR is deficient in *not having included performance criteria* and in not addressing these issues in detail.

TRAFFIC

THE COUNTY'S RESPONSE TO COMMENT I11-223

While we agree with the CEQA reference in this response that "an increase in traffic, by itself, is not necessarily an indicator of a potentially significant environmental impact" because other mitigating factors such as "restriping to provide bicycle lanes or creating dedicated bus lanes" may be at play, we can find no such actual commitments to other mitigating factors in the General Plan Update. The County has not recognized that the CEQA Guidelines 2009 Statement of Reasons continues with, "Even in such cases, however, any potential adverse air quality or other impacts would still have to be addressed as provided in other sections of the checklist." The County should specify what other mitigating factors offset the impacts of increased traffic, should quantify the effects of these other mitigating factors, and address the remaining adverse impacts.

The CEQA Guidelines 2009 Statement of Reasons states, "the lead agency has discretion to choose its own metric of analysis" of traffic impacts. This does not give the County discretion to choose traffic policies without regard to the impacts of these policies, as the County seems to imply in this response. It only allows the County to choose its own metric, in this case the Level of Service metric.

THE COUNTY'S RESPONSE TO COMMENT I11-224

In referring the issues in this comment to Master Response 1, the County seems to be replying that these comments "do not address environmental issues or CEQA concerns" and need not be addressed in the FEIR. It is established CEQA policy that a mitigation measure is legally inadequate if it is so undefined that it is *impossible to gauge its effectiveness.*

As they stand, the policies referenced in this comment are so vague and ineffectively worded and implemented that neither the public nor the decision-makers can understand or judge their effectiveness as traffic mitigation. Were they to be strengthened so as to be effective, their implementation could serve as feasible mitigation measures for reducing Traffic Impact 3.2-1. The FEIR is defective in not requiring strong enforceable performance standards and in *not evaluating the effectiveness and feasibility of strengthening and implementing these policies.* References to various other responses seem to be evasive and irrelevant to the thrust of this comment.

THE COUNTY'S RESPONSE TO COMMENT I11-225

This comment refers to Policy TC-1.18. The County's response focuses in error on Policy TC-1.8.

THE COUNTY'S RESPONSE TO COMMENT I11-226

In referring the issues in this comment to Master Response 1, the County seems to be replying that these comments "do not address environmental issues or CEQA concerns" and need not be addressed in the FEIR. It is established CEQA policy that a mitigation measure is legally inadequate if it is so undefined that it is *impossible to gauge its effectiveness.*

This response is evasive and has not addressed the questions raised in this comment. In order to evaluate the effectiveness of Policies TC-1.18 and TC-1.19, we asked for more specifics regarding the policies' "balanced" approaches, and the County has not responded. This lack of response is a violation of CEQA.

GLOBAL WARMING

THE COUNTY'S RESPONSE TO COMMENT I11-228

The response states, "The RDEIR has included all feasible measures which could minimize the significant adverse impacts of the proposed project on global climate change as required by CEQA (Pub. Res. Code §21002.1(b); (CEQA Guidelines §15126.4)." To the contrary, there are *a number of feasible mitigation measures not included in the RDEIR,* many of which are listed in our comment I11-229. It should be noted that many of these potential mitigation measures are feasible since they are in effect elsewhere; e.g., several projects in Bakersfield (BLI, Stockdale Ranch) have agreed to a transfer fee requirement, funding going to SJVAPCD for GHG emission reduction projects; others have agreed to fund retrofit projects for existing structures (Bakersfield Commons).

The County refers to response A8-11, in which they state, "While some policies contain needed flexibility, other policies and implementation measures throughout the General Plan typically

use the word "shall"", this in reference to Policy LU-6.3 which reads, "The County shall encourage school districts to locate new schools in areas that allow students to safely walk or bike from their homes." While inclusion of the word "shall" directs the County to take action, the action they must take is only to "encourage" an outcome, hardly enough to warrant confidence in any expected outcome. It is established CEQA policy that a mitigation measure is legally inadequate if it is so undefined that it is *impossible to gauge its effectiveness*.

THE COUNTY'S RESPONSE TO COMMENT I11-229

CEQA requires that "public agencies should not approve projects as proposed if there are feasible alternatives or feasible mitigation measures available which would substantially lessen the significant environmental effects of such projects." There are *a number of feasible mitigation measures not included in the RDEIR*, many of which are listed in this comment. It should be noted that many of these potential mitigation measures are feasible since they are in effect elsewhere; e.g., several projects in Bakersfield (BLI, Stockdale Ranch) have agreed to a transfer fee requirement, funding going to SJVAPCD for GHG emission reduction projects; others have agreed to fund retrofit projects for existing structures (Bakersfield Commons).

Section 15183.5 of the CEQA Guidelines requires the County to "specify measures or a group of measures, including performance standards, that substantial evidence demonstrates, if implemented on a project-by-project basis, would collectively achieve the specified emissions level." We included a list of potentially feasible mitigation measures to help address the significant adverse impact of the project on global warming. While it is clear that, in applying these recommendations to specific projects under the General Plan, there will be some that are not applicable, many nevertheless could be applied. The County should commit itself to a list of specific mitigation measures and choose among these based on performance criteria on a project-by-project basis to reduce the General Plan's impact on global warming. The list we have provided should be evaluated in this context. Such evaluation should follow CEQA Guidelines. "The written response shall describe the disposition of significant environmental issues raised (e.g., revisions to the proposed project to mitigate anticipated impacts or objections). In particular, the major environmental issues raised when the Lead Agency's position is at variance with recommendations and objections raised in the comments must be addressed in detail giving reasons why specific comments and suggestions were not accepted. There must be good faith, reasoned analysis in response. Conclusory statements unsupported by factual information will not suffice." (Guidelines, sec. 15088(c))

This response contains a list of policies and implementation measures that purportedly would "implement or support the measures recommended by the Attorney General for addressing global warming in general plans." As we noted in comments I11-190, 193, 205, 206, 207, 208, 209,210, 221, and others, most of the policies reputed to mitigate the impact are weakened by the use of words like "encourage" and " consider" and are unenforceable. CEQA requires, "A public agency shall provide that measures to mitigate or avoid significant effects on the environment are fully enforceable through permit conditions, agreements, or other measures." (Public Resources Code, §21081.6(b)) Because these policies are so vague and feeble, neither

the public nor the decision-makers can understand their effect, and the EIR should not consider these policies to be effective mitigation for the General Plan's impact on global climate change.

THE COUNTY'S RESPONSE TO COMMENT I11-230

According to the RDEIR on page 3.4-32, CO_2e emitted in Tulare County will increase from 5.2 million tons per year in 2007 to 6.1 million tons per year in 2030, an increase of 897,420 metric tons per year. This 17% greenhouse gas (GHG) increase is in stark contrast to the massive and difficult statewide reductions necessary to address the impact of global warming and to meet 2020 and 2050 goals. The RDEIR admits that this increase "places the proposed project in conflict with the (2020) goal of the State to reduce up to 174 million metric tons CO2e/yr." As noted in previous comments, there are feasible mitigation measures that Tulare County can adopt in order to help the State reach these goals. Inexplicably and without substantial supporting evidence, the response states, "The RDEIR has included all feasible measures which could minimize the significant adverse impacts of the proposed project on global climate change". To the contrary, *the County has not presented a good faith, reasoned analysis* of its rejection of the many potential and feasible mitigation measures suggested in our comment I11-229. The FEIR is deficient in not addressing these issues in detail.

THE COUNTY'S RESPONSE TO COMMENT I11-231

In referring the issues in this comment to Master Response 1, the County seems to be replying that these comments "do not address environmental issues or CEQA concerns" and need not be addressed in the FEIR. It is established CEQA policy that a mitigation measure is legally inadequate if it is so undefined that it is *impossible to gauge its effectiveness*.

The County does not respond to the suggestion that it implement the California Solar Initiative and the Million Solar Roofs Bill, statewide climate change initiatives included in the CARB Scoping Plan (see page 3.4-7 of the RDEIR), the sort of solutions to which AQ-1.7 commits the County. The Plan should contain specific measures that would implement these statewide climate change solutions.

THE COUNTY'S RESPONSE TO COMMENT I11-232

Policies contained in the DEIR and the CAP are vague and unenforceable. See our comment I11-233. The General Plan should contain specific, enforceable performance criteria for mitigating its impact on global warming.

The County refers to response A8-11, in which they state, "While some policies contain needed flexibility, other policies and implementation measures throughout the General Plan typically use the word "shall"", this in reference to Policy LU-6.3 which reads, "The County shall encourage school districts to locate new schools in areas that allow students to safely walk or bike from their homes." While inclusion of the word "shall" directs the County to take action, the action they must take is only to "encourage" an outcome, hardly enough to warrant confidence in any expected outcome. It is established CEQA policy that a mitigation measure is legally inadequate if it is so undefined that it is *impossible to gauge its effectiveness*. In addition, the response A8-11 contains a list of policies and implementation measures that

purportedly would "implement or support the measures recommended by the Attorney General for addressing global warming in general plans." As we noted in comments I11-190, 193, 205, 206, 207, 208, 209,210, 221, and others, most of the policies reputed to mitigate the impact are weakened by the use of words like "encourage" and " consider" and are unenforceable. CEQA requires, "A public agency shall provide that measures to mitigate or avoid significant effects on the environment are fully enforceable through permit conditions, agreements, or other measures." (Public Resources Code, §21081.6(b)) Because these policies are so vague and feeble, neither the public nor the decision-makers can understand their effect, and the EIR should not consider these policies to be effective mitigation for the General Plan's impact on global climate change.

THE COUNTY'S RESPONSE TO COMMENT I11-233
The County refers this comment to Master Response #10 which does not address the issues raised in this comment.

The RDEIR contains a long list of proposed General Plan policies and implementation measures that purport to mitigate the Plan's impact on global climate change. In addition, Chapter 5 of the draft Climate Action Plan contains 86 of these proposed General Plan policies that purport to fulfill "many sustainability and greenhouse gas reduction objectives." Of these 86, 33 are compromised by the use of the word "encourage", 12 are weakened by the use of the word "support", 9 commit the County only to "work with" other agencies in some nonspecific way, and 21 others are diluted by the use of phrases like "consider", "strive", "promote", "seek opportunities", "coordinate", "where feasible", "as appropriate", "develop", "create", and "examine the feasibility". Of the remaining few, several only commit the County to follow existing laws and regulations (e.g. utilize design standards required by the Streets and Highways code, comply with the California Fire Code).

CEQA requires, "A public agency shall provide that measures to mitigate or avoid significant effects on the environment are fully enforceable through permit conditions, agreements, or other measures." (Public Resources Code, §21081.6(b)). Because these policies are so vague and unenforceable, neither the public nor the decision-makers can understand their effect, nor should the EIR consider these policies to be effective mitigation for the General Plan's adverse significant impact on global climate change.

THE COUNTY'S RESPONSE TO COMMENT I11-235
The response to comment I11-73 *does not address the issues* raised in this comment.

The County says that it is "preparing an update to the Animal Confinement Facilities Plan (ACFP) that will provide an examination of all potential impacts in a comprehensive manner", and it is apparently revising the draft SEIR for the ACFP to comply with the Attorney General's request that dairies address global warming. CEQA case law has held that deferral of the specifics of mitigation is permissible where the lead agency commits itself to mitigation and, in the mitigation measure, either describes performance standards to be met in future mitigation or provides a menu of alternative mitigation measures to be selected from in the future (*California*

Native Plant Society v. City of Rancho Cordova (2009) 172 Cal.App.4th 603 [the details of exactly how the required mitigation and its performance standards will be achieved can be deferred pending completion of a future study]; *Endangered Habitats League Inc. v. County of Orange* (2005) 131 Cal.App.4th 777, 793 [deferred mitigation acceptable when performance standards are included]". We find no commitment to mitigation of the impact that dairies have on global warming nor do we find performance standards or a menu of alternative mitigation measures. *Such deferral is a violation of CEQA.*

THE COUNTY'S RESPONSE TO COMMENT I11-240

The County refers to Master Response #10, which does not address the specific issue raised in this comment. Section 15183.5 of the CEQA Guidelines requires the County to present "substantial evidence" for the 26% GHG emissions level, "below which the contribution to greenhouse gas emissions from activities covered by the plan would not be cumulatively considerable". The CAP and the FEIR are defective in that no such evidence has been presented.

CEQA requires significance determination to be made by comparing the project's impact to existing conditions, conditions that, in the case of global climate change, do not allow the atmosphere to absorb additional greenhouse gasses without risking catastrophic long-term consequences. Even small GHG emissions should be considered cumulatively significant.

THE COUNTY'S RESPONSE TO COMMENT I11-241

The County refers to Master Response #10. Responses are general and vague and not directed at the specific issues raised in this comment.

THE COUNTY'S RESPONSE TO COMMENT I11-242

The County refers to Master Response #10. Responses are general and vague and not directed at the specific issues raised in this comment.

ENERGY

THE COUNTY'S RESPONSE TO COMMENT I11-243

Without presenting substantial evidence, the FEIR considers Impact 3.4-1 (The proposed project could result in the wasteful, inefficient, or unnecessary consumption of energy by residential, commercial, industrial, or public uses associated with increased demand due to anticipated population growth in the County) to be less than significant. Most of the policies meant to mitigate this impact are weakened by the use of words like "encourage" and " consider". Because these policies are so vague and feeble, neither the public nor the decision-makers can understand their effect, nor should the EIR consider these policies to be effective mitigation for the General Plan's impact on energy conservation. The FEIR is deficient in not presenting substantial evidence for its insignificance conclusion for Impact 3.4-1.

THE COUNTY'S RESPONSE TO COMMENT I11-244

It is established CEQA policy that a mitigation measure is legally inadequate if it is so undefined that it is impossible to gauge its effectiveness. The goal and policies referenced in this comment are so vague that neither the public nor the decision-makers can understand their effect, and the EIR should not consider these policies to be effective mitigation for the General Plan's impact on energy conservation. The FEIR is deficient in not committing to specific performance standards to indicate how effectively this impact will be mitigated.

THE COUNTY'S RESPONSE TO COMMENT I11-245

Without presenting substantial evidence, the FEIR considers Impact 3.4-2 (The proposed project could result in the wasteful, inefficient, or unnecessary consumption of energy in the construction and operation of new buildings) to be less than significant. Most of the policies meant to mitigate this impact are weakened by the use of words like "encourage" and " consider". It is established CEQA policy that a mitigation measure is legally inadequate if it is so undefined that it is impossible to gauge its effectiveness. Because these policies are so vague and feeble, neither the public nor the decision-makers can understand their effect, nor should the EIR consider these policies to be effective mitigation for the General Plan's adverse impact on energy conservation. The FEIR is deficient in not presenting substantial evidence for its insignificance conclusion for Impact 3.4-2 and in not committing to specific performance standards to indicate how effectively this impact will be mitigated.

SECTION IV

Foothill Growth Management Plan, Planned Community Area Impacts.

CEQA Guidelines Section 15126.2 requires the environmental impact report to consider and discuss the significant environment impacts of the proposed project. "Direct and indirect significant effects of the project on the environment shall be clearly identified and described giving due consideration to both short-term and long-term effects." In the case of proposed commercial and residential development in the foothills and mountains, the impacts would include:

- increased demand on limited water supply in fractured rock
- alteration of upper watershed will diminish functioning of watershed which collects and cleans rainwater
- impoundment of streams may impair watershed and adversely effect vegetation and wildlife habitat
- extensive and intensive cut and fill grading on gentle to steep slopes will greatly increase soil erosion
- greatly increased soil erosion, stormwater run off, sedimentation and risk of flooding down slope on site and off site due to loss of all types of vegetation, alteration of natural topography, and impervious surfaces
- reduced surface water quality due to stormwater run off from lawns, driveways, roofs and roads
- disposal of treated wastewater in foothill development may contaminate irrigation canals downslope
- thousands of septic systems may pollute groundwater
- loss of GHG sequestration due to loss of mature oak trees
  (In the case of Yokohl Ranch New Town 14,400 acres will be developed.)
- increased GHG emissions due to VMTs generated by remote foothill and mountain development
- increased air pollution due to VMTs by commuters, construction workers, delivery trucks, service vehicles, tourists, and more frequent and extensive wildfires
- loss of wildlife habitat and biodiversity
- loss of foraging habitat for the critically endangered California condor
- loss of scenic quality of foothills and mountains
- increased risk of wildfires because:
  - use of combustible building materials
  - most fires are human caused
  - housing will be stacked up slopes and fires race up slopes
  - hard surfaces of roads, driveways, parking lots and roofs will create urban heat island effect which will dry out nearby oak woodlands and chaparral

- adverse effects of Climate Change on foothill development (higher temperatures, greater wildfire hazard, greater flood risk, and decreased water supply in Summer and early Fall)
- taxing County public service facilities (fire, police, library, landfills, schools, public health clinics)
- induced growth near New Towns due to highway improvements and new power and telephone lines
- exposing people to moderate, high, very high, and extreme wildfire risk in foothills and mountains. For extreme risk see chaparral areas on Habitat Map, RDEIR Figure 3.11-1, page 3.11-7.

Chaparral vegetation (dense growth of small shrubs and trees) is extremely flammable and grows on the south-facing and west-facing slopes in the foothills of Tulare County. A chaparral hillside can burn in seconds. Non-native annual grasses introduced by ranchers as feed for cattle are especially vulnerable to wildfires. Yokohl Valley has been ranch land for almost a century. "Introduced annual plant species increase the frequency of fire by leaving a large tall mass of plant debris above ground with a greater fuel mass . . ." (Bert Wilson, expert in revegetation and long time volunteer fireman, in his Las Pilitas Nursery "A Manual of California Plants," 1983.) "Native species (of grasses and wildflowers) produce small amounts of dead plant material that become an integral part of the important litter layer . . . making soil contact." (Bert Wilson, same source.) "Rye grass has a 6-12 inch deep root, inhibits the establishment of deeper root natives and also increases the frequency of fires." Fire is a natural occurrence in California. Native plants grow back from the seed bank below ground and from plant crowns. The county needs to protect native vegetation. It is what is holding the hillsides together. Native plants have root structures that can grow more than 15-25 feet deep. Grading and discing destroys the roots and leads to soil erosion on slopes, despite revegetation. Disturbance of slopes needs to be minimized. (Paraphrased from Bert Wilson. See his website www.laspilitas.com.)

The RDEIR fails to identify, describe and fully analyze the short term and long term effects of large scale development in the foothills and mountains.

There are no enforceable and measurable mitigations in the Tulare County General Plan Update for these significant environmental effects (increased GHG emissions, soil erosion, wildfire risk, air pollution, demand on water supply, and water quality degradation). Many of the changes and risks could be greatly mitigated or avoided by limiting development to infill and close-in outskirts of existing valley cities and towns with adequate infrastructure. New Towns are not an environmentally sound objective. New Towns are inconsistent with the county's first value statement in the General Plan Goals and Policies document, page A-1, "The beauty of the County and the health and safety of its residents will be protected and enhanced." (underlining added) or Assembly Bill 32.

Comments on Climate Action Plan

FEIR Responses III-246, III-248, III-249, III-251, III-252, III-253, III-254, III-256, III-260, III-261 are all inadequate responses consisting of reiteration of the RDEIR's impact analysis and mitigation measures. The responses fail to suggest any policies and/or implementation measures which correct the deficiencies noted in our comments in the RDEIR.

Despite claims to the contrary, the CAP is not an implementation measure.

On the second unnumbered page of the Climate Action Plan these words top the page:

> As an implementation measure to the Tulare County General Plan 2030 Update (General Plan Update), the County will consider the adoption of a Climate Action Plan in close proximity and subsequent to the adoption of the General Plan Update. (underlining added.)

The claim that "the CAP is an implementation measure of the 2030 General Plan Update (1.2 Climate Action Plan Purpose, page 1) is false. The county has explicitly stated the CAP is not part of the General Plan Update documents. It is not certain CAP will be adopted or even considered for adoption. The CAP is a hypothetical implementation measure.

The CAP is invalid because it was not submitted as part of the General Plan Update where it would have undergone environmental review.

Tulare County General Plan 2030 Update is a programmatic plan with a program level environmental impact report which the county intends to use as a first-tier EIR. See pages 1-5 and 1-6 RDEIR. As such, the CAP can only "[b]e adopted in a public process following environmental review." CEQA Guidelines Section 15183.5(b)(1)(F). The county stated in paid advertisements in local newspapers on March 25 and 26, 2010, concurrent with the publication of the Notice of Availability of the RDEIR, "[t]he Climate Action Plan is not a part of the formal General Plan Update documents but will be considered for approval subsequent to the adoption of the General Plan Update." See Attachment 22. The Notice of Availability makes no mention of the CAP or that it is a document being circulated for public comment. See Attachment 23.

According to CEQA Guidelines Section 15064.4(b)(3), the CAP must undergo "a public review process and must reduce or mitigate the project's incremental contribution of greenhouse gas emissions." There was no environmental review performed on the Climate Action Plan. The process should include public outreach strategies and assure that the positive and negative impacts of reducing emissions are borne equally by all. Diverse members of the community and public health professionals should have been included. This was a closed process. There were no public hearings.

There is a provision in CEQA Guidelines for a stand alone CAP which can be tiered off [CEQA Guidelines Section 15183.5(b)(1)(D) and (F)], but the guidelines require "performance standards that substantial evidence demonstrates, if implemented on a project-by-project basis, would collectively achieve the specified emissions level." The guidelines require the CAP be adopted in a public process following environmental review.

A Climate Action Plan should be developed and adopted along with the General Plan and Recirculated Draft Environmental Impact Report, informing the General Plan Policies, and Implementation Measures.

The CAP was written at the end of the process, from November 28, 2009 through February 26, 2010. See Attachment 24, Michael Brandman Associates' Statement of Professional Services. These documents were made available by the county in response to California Public Records Act requests and clearly reflect no hours had been billed prior to November 28, 2009 by the company which prepared the Climate Action Plan. In fact, the attachments reflect a contract date of December 8, 2009.

Because the Climate Action Plan would be adopted after approval (if ever) of the General Plan, it would seem to be severely limited in its ability to reduce or mitigate GHG emissions from circulation and land use elements already written and approved.

The Attorney General offers guidance on when to prepare a Climate Action Plan if the local government intends it to serve as its primary mitigation stategy for its General Plan:

> If a city or county intends to rely on a Climate Action Plan as a centerpiece of its mitigation strategy it should prepare a Climate Action Plan at the same time as its general plan update and EIR. This is consistent with CEQA's mandate that a lead agency must conduct environmental review at the earliest stages in the planning process and that it not defer mitigation. In addition, we strongly urge agencies to incorporate any Climate Action Plans into their general plans to ensure that their provisions are applied to every relevant project. Source: http://ag.ca.gov/globalwarming/pdf/CEQA GP FAQs.pdf

What is the county's rationale for not integrating the development of the Climate Action Plan with the development of the General Plan Documents? As a result of the county's failure to do so, neither the RDEIR or the Climate Action Plan adequately identify and quantify GHG emissions or analyze the impacts thereof. Both fail to impose feasible and enforceable mitigation measures and alternatives to reduce GHG emission impacts.

The GHG emission inventory of sources is incomplete and too general.

Table 5: Emissions by Sector in 2007 on page 39 is inadequate. Many emission sources are omitted. Electricity and mobile sources need to be broken into categories such as electricity use by agriculture, residential, commercial, and industrial. Mobile sources needs to be broken into at least three categories:

1. VMTs by cars and light pickups for commuting and VMTs traveled by CAL TRANS vehicles, delivery trucks and service trucks (mail, UPS, bottled water, propane delivery, diesel delivery, septic pumpers, trash trucks, etc.) and construction vehicles.

2. Through traffic on Highway 99.

3. Crops being transported to market, pickers' vehicles.

A comprehensive inventory of GHG emission sources should include the following direct and indirect sources:

1. County-owned and county-operated facilities, vehicles, equipment, greenwaste burning during road maintenance, and employee commutes, including both direct and indirect sources.

2. Community facilities, vehicles, equipment, other direct sources such as:

   Wildfires in grasslands/shrublands/forests (use FOFOEM model)
   Agricultural greenwaste burning (citrus groves, grapevine removal, fields less than 10 acres)
   Residential greenwaste burning
   Dairies/feedlots
   Manure sprayed agricultural fields
   CAFOs other than dairies
   Natural gas
   Propane (most of the buildings in the unincorporated county use propane, not natural gas)
   Farming operations such as fuel consumption, including propane
   Farming fertilizer and pesticide application
   Farming soil management
   Construction/demolition impacts: mobile sources on-road (e.g. worker commute trips, haul trucks, etc.) and off-road sources (e.g. construction vehicles and equipment, etc.)

Operational impacts:
- On road mobile sources (vehicle trips, delivery and repair trucks, commuting)
- Area sources (hearth and woodstoves, architectural coatings (repainting buildings), and landscape equipment (gasoline, natural gas, propane)

Cement plant
Quarrying gravel
Logging
Oil drilling, including gas flaring
Gas drilling
Rail freight
Through traffic on Highway 99
Airport emissions
Wastewater management
Ethanol plants
Power plants
Refineries
Cogeneration plants

3. Indirect sources such as:

Electricity use (e.g., electricity consumption [power plant emissions])
Water use – agricultural/residential/industrial/commercial
(Water is a big electricity user needed to treat, convey, heat, and treat wastewater, 19% of all energy use in California.)
Composting
Landfills
Manufacture of fertilizer (requires a significant amount of energy to produce)

It does not matter if the county does not have the authority to regulate any of the above sources. The county is required to make a good faith inventory of all known and reasonably known GHG sources. The inventory must be inclusive. If the CAP does not include a source because the county cannot figure it out, the county must document why it was unable to do so.

Table 5: Emissions by Sector on page 39, CAP does not break down GHG emissions by county-owned and county-operated vs. community sources of GHG emissions.

The county has total control of its facilities, vehicles, equipment and practices. It needs to lead by example in reducing its own carbon footprint. Ahwahnee Principles for Climate Change. www.lgc.org/ahwahnee/climate_change_principles.html.

The county has the ability to make significant cuts in its GHG emissions. According to Al Guzman, head of the county purchasing department, in a telephone conversation on May 17,

2010, the county's assets include administrative buildings, fire department buildings, sheriff's department buildings, libraries, vehicle repair shop, eight road maintenance yards, animal control facility, agricultural commissioner's buildings, Superior Court buildings, public defenders building, juvenile justice center, Boot Camp, Juvenile Hall, Bob Wiley Detention Center, County Counsel building, health clinics, child support centers, job resource center, schools, learning centers, Lake Patrol office, museum, five parks, street lights, traffic lights, buses, two boats, dump trucks, backhoes, bulldozers, excavators, propane powered forklifts, and three landfills.

Table 5: Emissions by sector in 2007 on page 39, identifies only five sectors as greenhouse gas emission sources: electricity, natural gas, mobile sources, solid waste and dairy/feedlots.

The categories are too general. The reader cannot tell what is or is not being inventoried. Where is the substantial evidence for these tallies? Many readily apparent GHG emissions are omitted. One obvious omission is propane. Burning propane and burning natural gas create very similar greenhouse gas emissions. Natural gas trunk lines and individual feeder lines to rural homes are prohibitively expensive. Consequently, almost all residences, businesses, industries, and dairies use propane for heating, cooking, and hot water. A typical commercial use is Eagle Mountain Casino which consumes 700,000 gallons of propane a year according to Jim Bailey, salesman for Delta Liquid Energy on March 10, 2011. Residences and agriculture are the two largest consumers of propane. Agricultural use includes forklifts, drying and roasting nuts, dairy sterilizers, and warming greenhouses. There are 27 propane suppliers (including independent operators) in the Tulare County area, according to David Coy, manager of Griggs Propane on March 10, 2011). Some of the companies are Delta Liquid Energy, Kings River, Red Triangle, Mike Bispo's, Cedar Pointe, Jack's Windmill, Hertz, Pope's, Don Rose, Dassell, Coast, Kamp's, Griggs, Suburban, Ferrellgas, CMC Propane, and Amerigas.

According to Griggs, Windmill, and Delta Liquid Energy, in Tulare County propane is used in residences, commercial buildings, agriculture, mobile homes, RV's, packing houses, greenhouses, and by plumbers, welders, barbeque grills, forklifts and pool heaters. It is sold by 27 dealers, liquor stores, general stores, groceries and U-Haul businesses. Communities served are Visalia outskirts, Tulare outskirts, Exeter outskirts, Farmersville, Porterville, Strathmore, Ducor, Pixley, Woodlake, Tule River Reservation, Alpaugh, Allensworth, Orosi, Dinuba, Ivanhoe, Lemon Cove, Three Rivers, Mehrten Creek, California Hot Springs, Badger, Sequoia Crest, and all the rural farmsteads.

The Climate Action Plan has deferred possible inclusion of five other GHG emission sources in the inventory to some vague time in the future (Appendix A, Future Inventories, Page A-11 of 23).

What is the justification for delayed inclusion of these sources? However, the inclusion of aircraft, sewage, rail, wildfires, and fertilizer still would not constitute a comprehensive inventory of GHG emission sources. The CAP needs to provide a comprehensive inventory of GHG sources now.

ANALYSIS

Under 1.2 – Climate Action Plan Purpose on page1, we read:

"The CAP follows a series of guiding principles to ensure that it is consistent with the County's values, objectives, and economy.

"• The CAP will focus on strategies that meet multiple County objectives and enhance the quality of life and well being of Tulare County residents."

The CAP should focus on reducing GHGs in sectors that produce the most GHGs, namely dairies and transportation. The resulting reduced air pollution and GHGs would improve the health and welfare of county residents.

"• CAP strategies that provide an economic return will receive a higher priority than strategies that increase costs for the County, or for business and residents."

The purpose of a Climate Action Plan is to reduce GHGs to AB 32 mandated goals. Has the county considered health care costs of air pollution to residents and the county's own health clinics? The county needs to consider the long-term savings of GHG and air pollution reductions, not just upfront costs. What is the cost of climate change? Finally, how will the county determine if a strategy will provide economic return? Ask realtors, developers, and dairymen?

"• The CAP will not duplicate strategies and programs that are better handled by other agencies."

CAP must reduce methane releases from dairies and other CAFOs because SJVAPCD is not doing enough, so it is not better handled by SJVAPCD. The county should not shirk its responsibility. Reducing methane emissions from dairies and other CAFOs is within its regulatory authority. Reducing GHGs from Vehicle Miles Traveled can easily be achieved by banning New Towns, abandoning Ten transit Corridors development, increasing density of residential housing by 100%, directing all growth to existing communities, and mandating a high standard of energy and water efficiency in new construction.

"• CAP implementation and monitoring will use existing data collection and reporting systems to the maximum extent possible."

This is not good enough. More data collection is necessary. There needs to be annual monitoring to determine if GHG emissions are being reduced, targets reached, and, if not, GHG reduction measures strengthened.

Three of the four steps the county describes under Climate Action Plan Description on page 3 are seriously deficient. As its first step the county prepared an inventory for the base year (2007) of the "most important" categories. Why not all sources of GHG emissions? How were the "most important" categories determined?

The third step identifies and describes the policies, regulations, and programs which apply to GHG sources in the county's emission inventories which will achieve reductions by target years. The many policies presented are almost all vague, discretionary and unenforceable. The county did not demonstrate that these policies will actually reduce GHG emissions.

The fourth step is development of a monitoring program and adaptation strategy which has been deferred to the future.

Under Tulare County's Role on page 3, the CAP claims it will focus on "emission sources within its regulatory authority, which are mainly related to land use and the local transportation system." The biggest source of GHG gas emissions in Tulare County is dairies/feedlots. "To some extent, the County can influence activities that provide greenhouse gas reductions such as water conservation and solid waste diversion and recycling." Actually, the county has great power to reduce GHG emissions through land use decisions, the building code, zoning, housing density, water conservation and efficiency, energy efficiency, the Housing Element, the Regional Transportation Plan, the Animal Confinement Facility Plan, banning New Towns, and solid waste diversion. What is missing is the will to reduce GHG emissions. There are a wide variety of feasible mitigations and a compact Healthy Growth Alternative to the aggressive sprawl proposed by the General Plan Update.

Under Addressing Climate Change Under CEQA on page 4, CAP claims "greenhouse gas emissions from an individual project will not result in a perceptible impact on global climate." This is not true if the project is a county general plan facilitating aggressive sprawl. This is certainly not true if the project is the proposed Yokohl Ranch, a New Town in a remote CAL FIRE designated very high wildfire risk foothill area of 10,000 homes, commercial district, hotels, resort, regional recreation facility, water treatment facility and wastewater treatment plant. According to the Attorney General in a November 4, 2009 letter to the SJVAPCD, "In the context of GHG emissions, the relevant question is whether the project's emissions, when considered in conjunction with past, current, and probable future projects, are cumulatively considerable." See Attachment 25. It is not the county's role to determine what is perceptible in terms of greenhouse gases. It is the county's responsibility to reduce its greenhouse gases. The CAP goes on to state, "Projects that demonstrate consistency with the policies, implementation measures, and emission reduction targets contained in the CAP would have a less than significant impact on climate change." Considering that the CAP policies and implementation measures are almost all ineffective, GHGs are guaranteed to increase.

The CAP continues "state targets should be feasible for the vast majority of projects to achieve." Where is the county's documentation that the GHG reduction targets are unachievable? Document why the county thinks each and every mitigation measure

recommended by the Attorney General and SJVAPCD are infeasible or prohibitively expensive. Significant impacts must be avoided by feasible mitigation or a project alternative. The county continues:

> Although it is technologically possible to reduce greenhouse gases if cost is not considered, the potential exists that a locally implemented measure will only serve to relocate the emissions to another place that does not require the new technology. Therefore, even if emission rates are lower in one place, it could have no effect on global climate if the emission-producing activity is shipped out of State or overseas.

If Tulare County placed public health and welfare of its residents first, it would not be so reluctant to reduce air pollution and GHG emissions. According to the RDEIR on page 3.3-12 in Table 3.3-3 SJVAPCD Attainment Status, the San Joaquin Valley is in non-attainment for state standards of PM 10, PM 2.5 and Ozone (severe). It is highly unlikely that requiring methane digesters for manure lagoons will drive dairies out of California. It is also highly unlikely that requiring energy efficiency, water conservation, solar panels, well insulated homes and compact, city centered growth will drive developers into Nevada, Arizona and Oregon. Land use cannot be shipped out of state or overseas. Where is the evidence that technological mitigation measures are not cost effective? The CAP must contain facts and analysis, not just the agency's bare conclusions or opinions. What is required is evidence that the additional costs or lost profitability are sufficiently severe as to render it impractical to proceed with the project.

<u>Section 2: Climate Change</u> on page 21, contains inaccurate and anemic descriptions of results of Climate Change on natural resources, agriculture, and public health and welfare.

The Climate Action Plan does not contain a robust, comprehensive, relevant description of climate change science, including the potential local impacts of climate change. It is not a good faith effort to educate the public and decision makers. It is not based on the most recent scientific climate models. It understates the severity of potential impacts on the county.

If the county does not create a comprehensive inventory of all its greenhouse gas emission sources and their total carbon dioxide emissions, how can the county or state determine if the AB 32 goals have been met in 2010 (reduce GHG emissions to 2000 levels) and in 2020 (reduce GHG emissions to 1990 levels).

The year 2010 has come and gone. No greenhouse gas reductions have been achieved. The 2010 General Plan Update contains vague, ineffective, unenforceable, and deferred mitigation measures for GHG emissions. The Climate Action Plan is more of the same. Only one conclusion can be reached; Tulare County does not intend to reduce greenhouse gas emissions.

In the Glossary on page vii, climate change is erroneously described as "persisting for an extended period (typically decades or longer)." It would be more accurate to describe the period as hundreds or thousands of years. The cause of climate change is described as due to

"natural internal processes or external forcings, or to persistent anthropogenic (man caused) changes in the composition of the atmosphere or in land use." This is an attempt to sow doubt and play down humans' activities as an important cause of climate change. It is also obtuse.

Under section 2.2.1 – Impacts to California, Water Supply pages 24-27, the CAP focuses hopefully on the most favorable scenario of the four potential climate change scenarios produced by the California Department of Water Resources, rather than the other three dire scenarios which predict decreased annual precipitation and considerably less water delivered by the State Water Project and Central Valley Project.

CAP claims "most global climate models project that anthropogenic . . . climate change will be a continuous and fairly gradual process through the end of this century. California is expected to be able to adapt to the water supply challenges posed by climate change, even at warmer and dryer projections." This sunny, reassuring, conclusory forecast needs documentation.

According to the Ocean Protection Council on March 10, 2010, a study of the thickness of the Greenland ice sheet warns of a worst case scenario for sea level rise of 60 inches by 2100 due to rapid melting of polar ice. (Does this meet the definition of gradual?) Global warming is occurring 2-3 times faster in the arctic regions. As glaciers melt away in Greenland, permafrost will thaw, releasing methane, a potent GHG, and carbon dioxide. Global warming will accelerate. The study was sponsored by World Wildlife Fund, the National Science Foundation and NASA. See Attachment 26.

Under Surface Water Quality, page 27, the description of climate change impacts is too brief, not specific enough, and fails to mention sedimentation resulting from increased runoff from predicted intense storms. Tulare County has many constricted irrigation canals clogged with vegetation and trash and has levees which were poorly built, too close to channels, and breached in many places. Consequently, flooding, according to the county flood control engineer, James May, will be extensive and flood flows unpredictable. See Attachment 27 "James May's 2009 Report on Risk of Flooding and Levee Failure." Flood waters would pick up pollutants from roads, lawns, garages, agricultural fields, dairies, industrial sites, and hazardous waste sites.

Under Amount of Precipitation on page 27, the CAP claims "An investigation of rainfall during November through March from 1930 through 1997 indicated significant increases in California rainfall (CDWR 2006)." There are recent scientific studies predicting the drying out of the entire southwest of the USA. See enclosures 9, 10, and 11 of Attachment 36 of Sierra Club Kern-Kaweah Chapter Comments dated May 26, 2010.

Under Wildland Fire Hazards on page 28, CAP claims, "In Southern California, the change in fire risks ranged from a decrease of 29 percent to an increase of 28 percent." Substantiate this with a scientific study. On the contrary, CAL FIRE in 2008 declared the foothills of Tulare County to be at very high risk of wildfire now. See 2010 RDEIR, Urban and Wildland Fire Hazards, Figure 3.8-2, page 3.8-31 and text on page 3.8-30, and text on pages 3.9-25 through 3.9-26, Fire

Prevention and Suppression. The "2009 California Climate Adaptation Strategy," California Natural Resource Agency states on page 50, "Wildfire occurrence statewide could increase from 57% to 169% by 2085.

Under Negative Impacts to Agriculture and Forestry on page 29, CAP soft pedals the impact of warmer temperatures on the number of insect pests able to reproduce during milder winters and attack trees and crops.

Under Sea Level Rise on page 29, CAP neglects to warn that saltwater intrusion into the Sacramento-San Joaquin Delta threatens the drinking water supply for millions of Californians and would contaminate the water supply in the State Water Project (California Aqueduct) which supplies irrigation water to agriculture in Tulare County. Clean water will become scarce and more expensive. A recent study predicts a sea level rise of 60" by 2100.

Under Negative Impacts to Public Health on page 29, CAP neglects to consider the increased potential risk of flooding under climate change and contamination of surface and groundwater by chemicals people store in their garages, agricultural fertilizers, pesticides, and herbicides, industrial chemicals, manure lagoons, feedlots, and septic systems. More intense storms are predicted by climate change models. Stormwater runoff will threaten public health. See Attachment 20, Jim May's Presentation to the Tulare County Water Commission on Stormwater, April 26, 2010.

CAP does not inform the public of the consequences to public health if temperatures rise to the upper warming range. How many more days of ozone formation would occur in the San Joaquin Valley? For Tulare County's air report card see pages 14-15, American Lung Association State of the Air 2011. www.lungusa.org/assets/documents/publications/state-of-the-air/state-of-air-2011-report.pdf. See Attachment 12.

Under Negative Impacts to Wildlife on page 29, CAP informs that "the potential for severe species loss is highly probable. This should have prompted CAP to focus on the two largest GHG emitters, dairies/feedlots and transportation. Instead "The CAP will not duplicate strategies and programs that are better handled by other agencies," top of page 2 in CAP.

Under Section 2.2.2 – Implications for Tulare County on page 30, of CAP, Increased Flooding, in the last sentence the CAP notes a number of communities, including Three Rivers, Woodlake, Lemon Cove, Springville, and Porterville as being at risk of increased flooding due to climate change because of their proximity to bodies of water. More than the foothill communities will "be exposed to increased flooding associated with the effects of climate change" as claimed by CAP. According to James May, flood control engineer for Tulare County, on July 27, 2009, in a report to the Tulare County Water Commission (Attachment 27 "James May's Report on Risk of Flooding and Levee Failure") many of the irrigation channels in the valley are constricted by shrubs and trees and trash. The levees on either side of these channels were poorly constructed of the wrong materials, not tall enough or broad enough and too close to the channels to contain floodwaters. Worse yet, the levees have been breached by property

owners. Mr. May said property owners have graded their land and therefore flood flows are unpredictable. Laser leveling of land by agriculture has caused traditional flooding to become sheet flooding over extensive areas. Since Tulare County's valley land is mainly irrigated agriculture, there are many channels and many bridges crossing them. Some bridge supports have been damaged by previous floods. There is no maintenance done on levees or irrigation channels by the county. Irrigation districts are not responsible for stormwater containment. See Tulare County Grand Jury findings 2005-2006, Flood Potential on St. Johns River, Attachment 28.

The valley portion of Tulare County is dominated by cropland, dairies, orchards, and cities. The foothills are dominated by cattle ranches. Almost all the residences in unincorporated Tulare County (except downtown Springville) are on septic systems. Flooding would cause failure of the septic systems. As flood waters advance and recede, they carry with them fecal coliform bacteria from septic fields, dairies, and cattle ranches; fertilizers, pesticides, fungicides, and herbicides from agricultural land; and gasoline, oil, and toxic chemicals from homes, garages, businesses and industries. The inundation of contaminated water raises the risk of typhoid, bacterial infections, and cancer. Floodwaters contaminate agricultural fields and irrigation channels.

Because Tulare County cannot afford to bring our levees up to safe standards, maintain channels, or create water retention basins to capture floodwaters, Tulare County should ban development in flood prone areas. The appropriate place for this is the Land Use Policies of the General Plan Update, as recommended in the 2009 California Climate Adaptation Strategy and the 2008 DWR's Managing An Uncertain Future: Climate Change Adaptation Strategies for California's Water.

Under Water Supplies on page 30, CAP states, "Few scientific studies have been performed on the effects of climate change on specific groundwater basins, groundwater quality, or groundwater recharge characteristics." The general effects of climate change are agreed upon by DWR in its 2008 "Managing an Uncertain Future; Climate Change Adaptation Strategies for California's Water" white paper, summary on page 2 and pages 3-6.

Long-term overdraft in the Tulare Basin is estimated to be about 1.4 million acre feet per year. See pages 78 and 158 of "Managing California's Water from Conflict to Resolution," Public Policy Institute of California, 2011. Hotter temperatures mean more evaporation, transpiration, and groundwater pumping.

Under Agriculture on page 30, CAP neglects to mention that higher temperatures mean greater evaporation and transpiration, thus higher water needs for crops which will lead to greater groundwater pumping. Higher year round temperatures mean more insects will survive the winter as adults and have a longer reproduction season leading to greater numbers of insect pests eating crops.

Under Public Health on page 31, CAP neglects to mention the increased risk of wildfires and flooding which could kill or injure people.

Under 2.2.3 – Climate Change Adaptation on page 31, CAP claims "there are adaptation strategies Tulare County can use that would minimize impacts from climate change to the County." All four of the policies listed are discretionary and contain language with no performance standards, such as "shall seek opportunities," "shall encourage" and "emphasize the importance of." The project touted as a water conservation measure occurred in Traver, a tiny community in Tulare County of 732 people. CAP ignores AB 162 Implementing California Flood Legislation into Local Land Use Planning which became law on October 10, 2007, and has an inception date specified "upon the next revision of the housing element on or after January 1, 2009." The county adopted a new housing element on March 23, 2010.

Under Flooding on page 31, CAP lists "general plan policies that would help prevent flooding include eighteen policies," almost all of which are discretionary or have no performance standards. Nowhere is there adherence to California's storm water runoff restrictions, the State Water Board's General Construction Storm Water Permit (Water Quality Order 99-08-DWQ), August 19, 1999. On December 8, 1999 the State Water Board amended Order 99-08-DWQ to apply to sites as small as one acre. In November 2010 the new construction Storm Water Permit was amended again with much more stringent requirements to control runoff. The following General Plan Policies are inadequate:

> FGMP-8.3 - Development of the Flood Plain
>
> Avoidance of permanent structures in the 100-year floodplain applies only to the foothills and mountains.
>
> HS-5.7 Mapping of Flood Hazard Areas The buck is passed to the developer to identify these areas. The county, as lead agency, is accountable for public safety. Developers have a financial interest in not identifying the flood prone areas.

This Flooding section completely ignores AB 162, which became law on October 10, 2007. The county had plenty of time to comply. AB 162 requires the Land Use element to identify and annually review areas subject to flooding and consider location of natural resources used for groundwater recharge and stormwater management. AB 162 requires a General Plan Conservation Element which will identify areas that may accommodate floodwater for groundwater recharge and stormwater management and in coordination with agencies develop water resources section. AB 162 requires the Safety Element to identify and revise new flood hazard information, establish goals, policies and mitigation measures to protect from the risk of flooding, and allow information in floodplain management ordinances to be used. AB 162 requires the Housing Element and Regional Housing Needs Assessment to consider and possibly exclude land that is not adequately protected, to avoid the risk of flooding. Legislative Counsel's Digest, AB 162, Wolk, Stats. 2007, c.369 pages 2776-2781, (A.B. 162)

Under Agriculture and Forest on page 32, CAP suggests several hypothetical future actions or technological improvements, including "crop switching, breeding, and improved management practices," "better monitoring of pests, weeds, and diseases," "shadow, showering, cool drinking water, changing feeding schedules, and adjusting livestock diets to reduce methane," "agricultural and forest land preservation and conservation," "smart growth policies and urban growth boundaries."

The eight General Plan Policies and Measures listed as adaptations to impacts from climate change are almost all discretionary with no performance standards, using terminology such as "shall identify," "shall actively support," "shall encourage," "shall maintain," and "shall consider appropriate incentives to encourage." These policies are not worth the paper they are printed on. One policy, AG-1.8, Agriculture within Urban Boundaries, sets very high standards for allowing preserves or Williamson Act land within a UDB; the county won't approve applications for them "unless it is demonstrated that the restriction of such land will not detrimentally affect the growth of the community involved for the succeeding 10 years, or that the property in question has special public values for open space, conservation, etc., or that the contract is consistent with the publicly desirable future use and control of the land in question. If proposed within a UDB of an incorporated city, the County shall give written notice to the affected city pursuant to Government Code §51233." (ERM-5.15 Open Space Preservation.)

Under Section 2.3 – California Regulatory Context on page 33, CAP does not list and describe AB 162 – Implementing California Flood Legislation into Local Land Use Planning.

The electricity and commercial/residential sector is the third largest source of community GHG emissions and an important target for reduction. Thus, energy conservation programs, water conservation, energy efficiency, and the use of a diverse array of clean alternative energy sources should be central to the community Climate Action Plan and a priority for timely adoption. Applied to new and existing development, green building ordinances, energy conservation retrofit measures, energy efficiency standards for new buildings, and incentives/ disincentives to reduce average square footage of new houses are among the measures that can be adopted. See website www.energy.ca.gov/energy_aware_guide. The Tulare County General Plan and CAP do not mandate energy conservation programs, water conservation, energy efficiency, clean alternative energy sources, or compact growth, as suggested by the Ahwahnee Principles for Climate Change. www.lgc.org/ahwahnee/climate_change_principles.html.

The best way to conserve electricity and natural gas/propane for cooling and heating residences and commercial buildings is passive solar construction with the maximum insulation in walls and ceilings. The Tulare County General Plan Update and CAP do not mandate green construction.

CAP contains no targets, no monitoring program, no performance standards, no adaptation strategy.

Under Section 7: Monitoring Program and Implementation Plan on page 83, CAP states "appropriate benchmarks and the means to track them will be developed within 12 months of adoption of the CAP." There follows a list of proposed benchmarks. So, there is no inventory tracking mechanism to monitor progress in achieving GHG emission reduction targets. There is also no enforcement commitment. There is no requirement for amendment to remedy excess emissions if AB 32 2020 goals are not met. There are no quantitative thresholds for industrial emissions or residential/commercial emissions. A Climate Action Plan should include measures that help the community to adapt to the unavoidable impacts of climate change. This will involve planning for sea level rise, decreasing water quality, shrinking water supplies, flooding, rising temperatures, and food shortages. None of this was done.

This Climate Action Plan is seriously deficient.

It does not reduce greenhouse gases. It does not identify all GHG sources. It does not document why many GHG sources were not included. There was no public outreach or comment on the CAP and no environmental review. The mitigation measures are almost entirely discretionary. The CAP was created after the GPU and RDEIR were completed. The most recent mainstream climate models were not cited. There is no monitoring program or enforcement commitment. There is no reduction target for 2020. As of May 12, 2011, Tulare County has paid the consultant more than $46,000.00 for a seriously deficient document. This amount reflects the total of six invoices submitted by Michael Brandman Associates for work on the Climate Action Plan. This total is current as of the May 12, 2011 release of documents by the county in response to California Public Records Act requests. See Attachment 24.

In the 2010 Recirculated Draft Environmental Report (RDEIR) for the Tulare County General Plan in Section 3.3 Air Quality under Environmental Setting, paragraph 4 on page 3.3-9, the RDEIR implies the San Joaquin Valley receives much air pollution from upwind sources. There is no documentation for this statement. Even assuming its validity, it would not remove responsibility from the county for reducing GHG emissions from its primary sources generated within the county. The sentence listing stationary emission sources omits dairies, feedlots, and alfalfa fields sprayed repeatedly with manure. Dairies/feedlots are listed as the major source of GHG emissions in CAP Table 1 and RDEIR Table 3.4-2. This is inconsistent. Tulare County has deferred addressing dairies and feedlot emissions to a future General Plan Amendment to the Animal Confinement and Facilities Plan and Program EIR. Who knows how long this will take? Or how effective the mitigation measures will be.

In the 2010 RDEIR of the Tulare County General Plan in section 3.4 Energy and Global Climate Change under Greenhouse Gases on page 3.4-14, the RDEIR claims "methane primarily results from the anaerobic decomposition of organic matter associated with wetlands and swamps, agricultural practices and landfills." There is no mention of dairies, feedlots, manure sprayed fields or other CAFOS, contradicting the Climate Action Plan which lists dairies and feedlots as the major source (63%) of GHGs in unincorporated Tulare County. This is inconsistent. Also "agricultural practices" needs to be broken down into discrete categories.

The CAP proposes to reduce GHG emissions only from new development. The county's GHG emissions in 2007, 2020, and 2030 have and will emanate from many more sources than new development (greenwaste burning, hearths and woodstoves, wildfires, dairies, feedlots, manure sprayed fields, other CAFOs, wastewater treatment, landfills, recycling, fertilizer and pesticide application, and existing development).

According to the CAP Executive Summary on page 1, under 1.2 – Climate Action Plan Purpose, "The CAP builds on the General Plan's framework with more specific actions that will be applied to achieve emission reduction targets consistent with California legislation." This is not possible since the General Plan's aggressive growth goals will increase GHG emissions to a significant and unavoidable extent as the RDEIR acknowledges on page 3.4-26.

The purpose of a Climate Action Plan is to reduce GHG emissions. The 2030 Tulare County General Plan Update advocates aggressive growth in the form of newly permitted and facilitated New Towns, the newly created 10 Transit Corridors zoned for industry, commerce, and distribution centers and the Foothill Growth Management Plan. These corridors, which crisscross the valley floor and run along the foothill corridor, are guaranteed to increase vehicle miles traveled and GHGs. So, the county has a general plan at odds with the concept and purpose of a climate action plan. The county solved this conflict by commissioning a CAP with no teeth.

RESOURCE MANAGEMENT AGENCY

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Britt L. Fussel — Engineering
William Hayter — Comm & Dev. Services
Jean P. Brou — Transportation
George Finney — Planning
Hal Cypert — Support Services
Roger Hunt — Administrative Services

HENRY HASH, DIRECTOR

February 26, 2008

To Whom it May Concern:

Subject: County of Tulare General Plan 2030 Update Background Report Correctory Information #2.

The following pages C-25, C-26, and C-27 have been corrected, and Figures 4-1 through 4-8 were inadvertently omitted from Appendix C of the General Plan 2030 Update Background Report. Please insert the following pages into Appendix C of the Background Report; 1) insert Figures 4-1 through 4-8 into Appendix C at the end of the report and; 2) replace pages C-25, C-26, and C-27 with the attached corrected pages C-25, C-26, and C-27. The review period of the Draft EIR review period will be extended to April 15, 2008. We apologize for any inconvenience this may have.

If you should have any questions comments or concerns please contact me at 559-733-6291 or by email at dpbryant@co.tulare.ca.us.

Sincerely,

David P. Bryant

David P. Bryant,
Division Manager
Special Projects

Attachment 1

RESOURCE MANAGEMENT AGENCY

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Hal Cypert	Support Services
Roger Hunt	Administrative Services

HENRY HASH, DIRECTOR

January 25, 2008

To Whom it May Concern:

Subject: County of Tulare General Plan 2030 Update Goals and Policy Report and Background Report Correctory Information.

The following attachments were inadvertently omitted from the General Plan 2030 Update Goals and Policy Report and Background Report. Please insert the following pages into the Background Report; 1) revised Table of Contents Page iii to reflect the inclusion of Appendices A, B, and C, and 2) insert Appendices A, B and C into the end of the report. Please insert the following pages into the General Plan Update Goals and Policy Report; 1) Figure 8.2 Plan for Open Space Map after Figure 8.1 in Chapter 8, and 2) replace Page iii in the revised Table of Contents to reflect the inclusion of Figure 8.1. The comment period regarding the Draft Environmental Impact Report, will not change, and will close March 14, 2008. We apologize for any inconvenience this may have.

If you should have any questions comments or concerns please contact me at 559-733-6291 or by email at dpbryant@co.tulare.ca.us.

Sincerely,

David P. Bryant

David P. Bryant,
Division Manager
Special Projects

Attachment 2

Public Comments of J. Peter Clum
Board of Supervisors Meeting, May 18, 2010

Perhaps you are not aware that RMA denied our Request to correct the Executive Summary of the RDEI I'm here this morning to ask you to direct RMA to reverse that decision, make the corrected copy available to the public, and restart the public comment period.

I encourage you to ask questions at the end of my comments as I know you care about public disclosure and the public's right to comment. I have provided each of you with a 7 page packet.

The purpose of the Executive Summary is to

Attachment 3

provide decision makers and the public with an overview of the General Plan and RDEIR.

The California Environmental Quality Act Guidelines state the summary shall identify:

#1. Each significant effect with proposed mitigation measures and alternatives that would reduce or avoid that effect,

#2. Areas of controversy known to the lead agency including issues raised by agencies and the public and

#3. Issues to be resolved including the choice among alternatives and whether or how to mitigate the significant effects.

These are mandatory content requirements.

The summary leaves out 80% of the mandatory

content requirements.

Failure to correct the Executive Summary constitutes a clear cut violation of CEQA's public information and disclosure requirements.

IF RMA does not correct the Executive Summary, contain the mandatory content requirements, what will you as decision makers and the public rely on for the overview?

If not corrected and recirculated with a new comment period, the Executive Summary's fundamental defect will, in my opinion, upon judicial review, require RMA to start this whole process over.

Original hand delivered to Dave Bryant on March 26th, 2010 at the side Board of Supervisors Hearing Room

April 26, 2010

From: Carole A. Clum and J. Peter Clum, 45638 South Fork Drive, Three Rivers, CA 93271 (559) 561-4661

To: David Bryant, Project Planner, Tulare County Resource Management Agency, Government Plaza, 5961 South Mooney Boulevard, Visalia, California 93277

Subj: Request for Correction and Reissue of Table ES-4 Contained on Pages ES-12 through 26 of the RDEIR, Tulare County General Plan and for Restarting the Commencement Date of the 60 Day Public Review Period for the RDEIR

1. Page ES-8 RDEIR contains a paragraph which provides:

"Table ES-3 lists the revised or new policies and implementation measures that were identified through the CEQA process as additional mitigating policies or implementation measures for potential impacts analyzed in this RDEIR. Table ES-4 presents a summary of impacts and mitigation measures identified in this RDEIR including those proposed in this RDEIR. It is organized to correspond with the enviromental issues discussed throughout the RDEIR. The table is arranged in four columns: 1) environmental impacts; 2) mitigation measure; 3) significance before mitigation; and 4) significance after mitigation."

APR 2010 RECEIVED RESOURCE MANAGEMENT AGENCY

2. Contrary to express language above, Table ES-4 only contains a summary of the proposed required additional mitigation policies and implementation measures identified

in the RDEIR and listed in Table ES-3 beginning on page ES-8. It has no summary of the numerous other mitigation measures, i.e., Part I, Goals and Policies, Tulare County General Plan 2030 Update, discussed in the RDEIR. This omission defeats the informational requirements of CEQA by providing a confusing and substantially incomplete summary of mitigation measures, by interfering with the public's understanding, and by undermining informed decision making.

3. The confusion created by this apparent oversight is compounded by the misleading and erroneous language in the last paragraph on page 3-3 RDEIR:

> "Following each impact statement is a discussion of the potential impact and the General Plan Update policies and implementation measures that would help to mitigate this impact. Existing policies and implementation measures are included in a table similar to that provided below:" (Emphasis added.)

and further compounded by the unfortunate wording in the last ten lines on page 1-2, Part I, Goals and Policies Report.

4. Accordingly, we request that Table ES-4 be corrected using a format similar to that contained in Table ES-4 of the 2008 DEIR, that corrected copies be made

available to the public at no additional charge, and that the 60 day comment period for the RDEIR be restarted on the date the corrected table is available for public review and comment.

Respectfully,

Carole A. Clum

Copy to: Susan Fiering, Deputy Attorney General
Winter King, Shute, Mihaly, and Weinberger LLC
Matt Vespa, Center for Biological Diversity
Gordon Nipp, Kern-Kaweah Chapter, Sierra Club
Laurie Schwaller, Tulare County Citizens for Responsible Growth

Fax to David Bryant 05/05 12:12 730 2653

May 5, 2011

From: Carole A. Clum and J. Peter Clum

To: David Bryant, Project Planner, Tulare County Resource Management Agency

Subj: Our Request of April 26 to Correct the Executive Summary, RDEIR Tulare County General Plan and Restart the 60 Day Public Comment Period

1. In addition to the matters noted in our April 26 letter, we just discovered additional errors in the Executive Summary; (1) no discussion of the alternatives to the proposed project, (2) no identification of areas of controversy known to the lead agency including issues raised by agencies and the public, and (3) no indication of the issues to be resolved including the choice among alternatives and whether or how to mitigate significant effects.

2. The rationale and requests stated in our letter of April 26, Remain in effect.

Respectfully,

Carole A. Clum

J. Peter Clum

Recd 5/15/10

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Administration/Community Development

JAKE RAPER JR., AICP, DIRECTOR

May 14, 2010

J. Peter Clum
Carole Clum
45638 South Fork Drive
Three Rivers, CA 93271

Subject: General Plan 2030 Update Recirculated Draft Environmental Impact Report

Dear Mr. & Mrs. Clum:

The County of Tulare Resource Management Agency has received two letters sent by you dated April 26, 2010 and May 5, 2010 requesting an extension of the 60-day public review period beyond May 27, 2010 for the General Plan 2030 Update Recirculated Draft Environmental Impact Report.

The County will not extend the review period as per your request. The 60-day public review period will end on May 27, 2010. The County will respond to all comments received during the 60-day public review period in the General Plan 2030 Update Final Environmental Impact Report.

If you have any questions regarding this matter, please contact the undersigned at 624-7000.

Yours very truly,

Jake Raper, Jr, AICP
Agency Director

The RDEIR's Summary Fails to Comply with CEQA's Mandatory Content Requirements and Constitutes a Violation of CEQA's Informational Purposes

An environmental impact report is an informational document intended to inform public agency decision makers and the public generally of the significant environmental effect of a project (Tulare County General Plan Update 2030), identify possible ways to minimize the significant effects, and describe reasonable alternatives to the project. CEQA Guidelines § 15120(c) specifies: "Draft EIR's *shall contain* the information required by sections 15122 through 15131. CEQA Guidelines § 15123(6) states:

> The Summary *shall identify*:
>
> (1) Each significant effect with the proposed mitigation measures and alternatives that would reduce or avoid that effect;
>
> (2) Areas of controversy known to the Lead Agency including issues raised by agencies and the public;
>
> (3) Issues to be resolved including the choice among alternatives and whether or how to mitigate the significant effects.

CEQA Guidelines § 15123 clearly sets forth mandatory content requirements for an EIR's summary (referred to in the RDEIR as Executive Summary). A review of pages ES-1 through ES-26 indicates the RDEIR is in near total non-compliance with this section. The summary does list significant effects, Table ES-4, pages ES-12 to 26, but it fails to contain anything approaching an accurate listing of the mitigation measures discussed in the RDEIR that would reduce or avoid effects. It lists only those recommended additional mitigating policies and implementation measures proposed in the RDEIR. And this is despite the RDEIR's assertion to the contrary on page ES-8.

> Table ES-3 lists the revised or new policies and implementation measures that were identified through the CEQA process as additional mitigating policies or implementation measures for potential impacts analyzed in this RDEIR. Table ES-4 presents a summary of impacts and mitigation measures identified in this RDEIR including those proposed in this RDEIR.

The RDEIR's summary totally fails to identify alternatives that would reduce or avoid each significant effect, areas of controversy known to the Lead Agency including issues by agencies and the public (there is at least one: the on-going dispute over the General Plan between the County and Tulare County's eight incorporated cities), and the issues to be resolved including the choice among alternatives and whether or now to mitigate the significant effects.

The purpose of the summary is, of course, to inform the public and the decision makers about these matters. It is the very first item listed in the RDEIR's table of contents and the first part of the RDEIR after the table of contents. It is the reader's first introduction to the RDEIR, and they should be able to rely on it to provide an accurate overview of the RDEIR. But the RDEIR fails miserably in this regard. It is hard to imagine how the County got it so wrong.

By attachments 1 and 2, we brought the deficiencies of the summary to the County's attention. We requested the summary be corrected, that corrected copies be made available to the public at no additional expense, and that the public comment period be restarted on the date the corrected summary was available for public review and comment. We received the County's response on May 15, 2010. Attachment 3. It is worth noting the County mischaracterized our request as a request for an extension, elected not to address the substance of the request, and offered no rationale for the decision. Such a non-responsive approach is at the discretion of the County's representative. What is not at the discretion of the County is the inclusion of CEQA's mandatory content requirements for an EIR's summary. The County's failure to correct and recirculate the RDEIR's summary constitutes a contemptuous disregard for CEQA's informational purposes.

The RDEIR's summary must be corrected to comply with CEQA Guidelines § 15123(b) and the RDEIR recirculated.



Implementing California Flood Legislation into Local Land Use Planning:

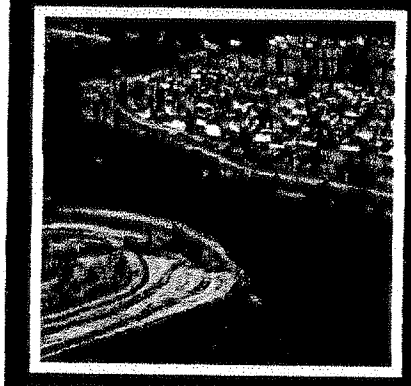
A Handbook for Local Communities

October 2010

California Department of Water Resources

Attachment 4


DEPARTMENT OF WATER RESOURCES
STATE OF CALIFORNIA
http://water.ca.gov/localfloodriskplanning/





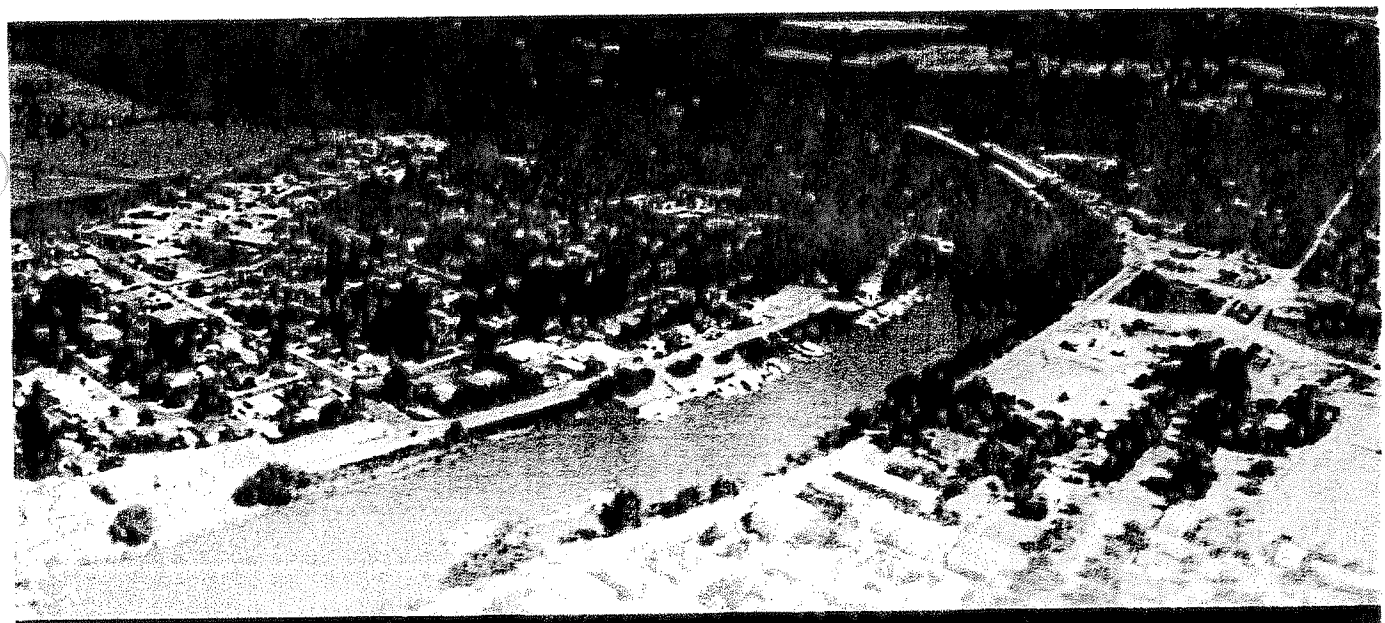


Implementing California Flood Legislation into Local Land Use Planning:

A Handbook for Local Communities

October 2010

California Department of Water Resources



Informational Resource Contacts

For further information and assistance regarding this Handbook and with implementing the California flood legislation, please contact:

California Department of Water Resources (DWR)
Division of Flood Management
http://www.water.ca.gov/floodmgmt/

FloodSAFE California
http://www.water.ca.gov/floodsafe/

In addition, the following agencies can be of assistance:

Federal Emergency Management Agency (FEMA)
http://www.fema.gov/

California Geological Survey (CGS) of the Department of Conservation
http://www.conservation.ca.gov/

California Emergency Management Agency (Cal EMA)
Hazard Mitigation Branch
http://www.hazardmitigation.calema.ca.gov/

Governor's Office of Planning and Research (OPR)
State Clearinghouse & Planning
http://www.opr.ca.gov/

California Department of Housing and Community Development (HCD)
Division of Housing Policy Development
http://www.hcd.ca.gov/hpd/

Central Valley Flood Protection Board (CVFPB)
Encroachment Control & Land Use Section
http://www.cvfpb.ca.gov/

Acknowledgements

STATE OF CALIFORNIA

Arnold Schwarzenegger, Governor

THE NATURAL RESOURCES AGENCY

Lester A. Snow, Secretary for Natural Resources

DEPARTMENT OF WATER RESOURCES

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Susan Sims
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Merritt Rice, Project Engineer, Central Valley Flood Protection Plan

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Ward Tabor, Assistant Chief Counsel

Robin Brewer, Senior Counsel

Central Valley Flood Protection Board

Curt Taras, Chief, Encroachment & Enforcement Branch

Lorraine Pendlebury, Staff Analyst
Joo Chai Wong, Engineer

Collaborative Agencies

Federal Emergency Management Agency (FEMA)

Governor's Office of Planning and Research (OPR), State Clearinghouse & Planning

California Geological Survey (CGS) of the Department of Conservation

California Emergency Management Agency (Cal EMA), Hazard Mitigation Branch

California Department of Housing and Community Development (HCD), Division of Housing Policy Development

Collaborative Jurisdictions and Districts

City of Sacramento, Community Development Department

Sutter County, Community Services Department

Colusa County, Department of Planning and Building

San Joaquin County, Flood Management Division

Ventura County, Watershed Protection District

Riverside County Flood Control & Water Conservation District, Regulatory Division

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Local Response for all Jurisdictions Located within the State of California

2.0

DEPARTMENT OF WATER RESOURCES
STATE OF CALIFORNIA

Local Response for All Jurisdictions Located within the State of California

All local governments located within the State of California (Figure 3) are required to comply with portions of the new flood risk management requirements included within the Government Code. Typical local **planning documents and tools** that are affected by these requirements are outlined in Figure 4, and listed below with a reference to the section of this Handbook where the information can be found:

- General Plan Land Use Element (Section 2.1.1)
- General Plan Conservation Element (Section 2.1.2)
- General Plan Safety Element (Section 2.1.3)
- General Plan Housing Element and Regional Housing Needs Assessment (Section 2.2.1)
- Local Hazard Mitigation Plan (Section 2.3.1)

An overview of the Government Code sections that affect jurisdictions within the State are summarized in Table 2.



FIGURE 3: STATE OF CALIFORNIA

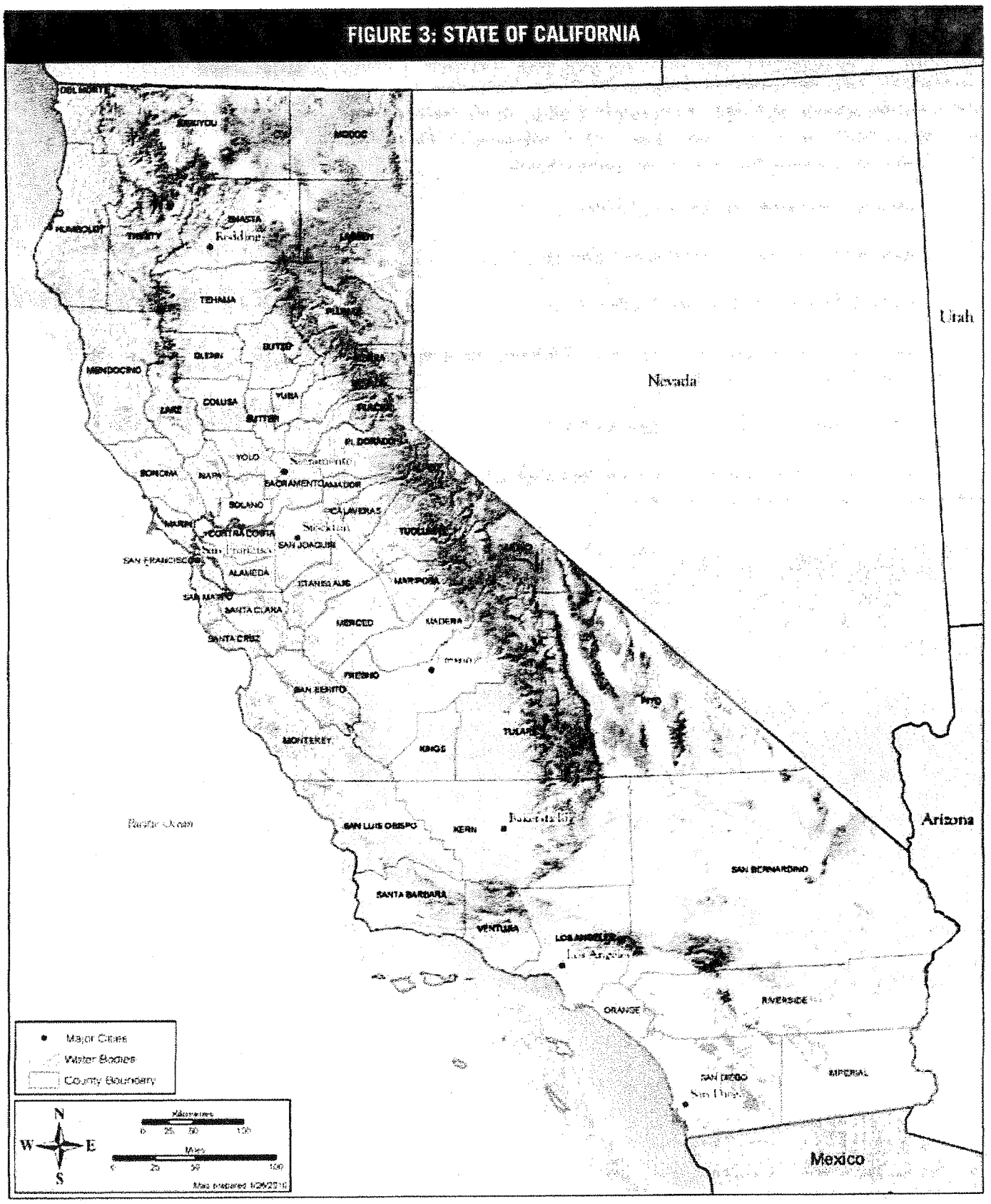


FIGURE 4: STATE OF CALIFORNIA AFFECTED PLANNING DOCUMENTS AND TOOLS

If your jurisdiction is located within ***California...***

...then the following Government Code sections affect your...

GENERAL PLAN LAND USE ELEMENT	See Section 2.1 Government Code Section 65302 (a)	■ Identify and annually review those areas that are subject to flooding ■ Consider the location of resources that are used for groundwater recharge and stormwater management
GENERAL PLAN CONSERVATION ELEMENT	See Section 2.1 Government Code Section 65302 (d)	■ Identify areas that may accommodate floodwater for purposes of groundwater recharge and stormwater management
GENERAL PLAN SAFETY ELEMENT	See Section 2.1 Government Code Section 65302 (g)	■ Identify flood hazard information ■ Establish goals, policies, objectives, and feasible implementation measures to protect communities from unreasonable risk of flooding ■ Allow information in floodplain management ordinances to be used
GENERAL PLAN HOUSING ELEMENT	See Section 2.2 Government Code Sections 65584.04 and 65584.06	■ Require that methodology for allocating regional housing needs to consider that available lands suitable for urban development may exclude lands where FEMA or DWR has determined that the flood management infrastructure designed to protect that land is not adequate to avoid the risk of flooding
OTHER PLANNING DOCUMENT	See Section 2.3 Government Code Sections 65302.6 and 8685.9	■ Allow the adoption of a **local hazard mitigation plan** in conjunction with the safety element



Table 2: Overview of Codes Applicable to Local Jurisdictions in the State of California[1]

Code/Section	Overview of Requirements	Affected Planning Documents and Tools	Schedule for Compliance	Section Reference	
				Discussion and Page Number(s)	Code Excerpt
Government Code 65302	Cities and counties are required to amend the land use, conservation, and safety elements of the general plan to consider and address flood risks.	General Plan		Section 2.1 Page 26	Appendix E
	■ Identify and annually review those areas subject to flooding. Consider the location of water and natural resources that are used for the purposes of groundwater recharge and stormwater management.	Land Use Element	Land Use Element – January 1, 2008		
	■ Identify areas that may accommodate floodwater for the purposes of groundwater recharge and stormwater management. Water resources section must be developed in coordination with applicable flood management, water conservation and groundwater agencies.	Conservation Element	Conservation Element – upon the next revision of the Housing Element on, or after, January 1, 2009[2]		
	■ Identify flood hazard information and establish goals, policies, objectives, and feasible mitigation measures to protect communities from unreasonable risk of flooding. Review, and if necessary, revise the safety element to identify new flood hazard information.	Safety Element	Safety Element (Section 65302(g) (2) and (3) – upon the next revision of the Housing Element on, or after, January 1, 2009[2]		
	■ Allow floodplain management ordinances that have been approved by FEMA to be used in the safety element to comply.		Safety Element (Section 65302(g)(4)) –January 1, 2008		

[1] *All cities and counties.*

[2] *It should be noted that the COGs (and associated cities and counties) with fourth housing element update revision cycle due dates before January 1, 2009 include the Council of Fresno County Governments, Kern Council of Governments, Sacramento Area Council of Governments, Southern California Association of Governments, and San Diego Association of Governments. All other COGs (and associated cities and counties) in the State have fourth revision due dates after January 1, 2009 (i.e., June 30, 2009 or August 31, 2009).*

Table 2: Overview of Codes Applicable to Local Jurisdictions in the State of California[1]

Code/Section	Overview of Requirements	Affected Planning Documents and Tools	Schedule for Compliance	Section Reference	
				Discussion and Page Number(s)	Code Excerpt
Government Codes 65584.04 and 65584.06	The Council of Governments or the Department of Housing and Community Development in non-Council of Governments areas, when developing the methodology for distributing the existing and projected regional housing need to cities and counties, are required to factor in that the available land suitable for urban development may exclude lands where FEMA or DWR has determined that the flood management infrastructure designed to protect that land is not adequate to avoid the risk of flooding.	General Plan Housing Element	January 1, 2008[3]	Section 2.2 Page 40	Appendix E
Government Code 65302.6	Authorizes, but does not require, cities and counties to adopt a local hazard mitigation plan specified in the Federal Disaster Mitigation Act of 2000 in conjunction with the safety element of the general plan.	General Plan Safety Element, Local Hazard Mitigation Plan	Upon revision, or adoption, of the Safety Element or Local Hazard Mitigation Plan after January 1, 2007[4]	Section 2.3 Page 43	Appendix E
Government Code 8685.9	Prohibits the State share for any eligible project under the California Disaster Assistance Act from exceeding 75% of total State eligible costs unless the local agency is located within a city, county, or city and county that has adopted a local hazard mitigation plan in accordance with the Federal Disaster Mitigation Act of 2000 as part of the safety element of its general plan. In other words, the Legislature may provide for a State share of local costs that exceeds 75% of total State eligible costs if the local agency has an adopted local hazard mitigation plan.	Local Hazard Mitigation Plan	After January 1, 2007[4]	Section 2.3 Page 43	Appendix E

[1] *All cities and counties.*

[3] *It should be noted that implementation for COGs, or HCD in non-COG areas, will become applicable after January 1, 2008. New RHNA methodology processes will not be initiated until the fifth revision housing element update cycle begins, which is anticipated in 2010 or 2011.*

[4] *The changes to Government Code Sections 65302.6 and 8685.9 chartered in 2006, and was effective on January 1, 2007.*



2.1 Government Code Section 65302

DWR consults with OPR on flood risk management in relation to the California General Plan Guidelines. DWR can provide assistance and act as a bridge between flood hazard management and local land use planning.

2007 State legislation has amended Government Code Section 65302 to now require cities and counties located within the State to review the land use, conservation, and safety elements of the general plan "for the consideration of flood hazards, flooding, and floodplains" to address flood risks.

It is important to note that any amendments to the land use, conservation, and safety elements, based on the requirements of Government Code Section 65302, will require a review of other general plan elements for internal consistency, including the housing element. Internal consistency is a fundamental requirement of the general plan under Government Code Section 65300.5, and guidance on how to meet this requirement is provided in the Governor's Office of Planning and Research (OPR) California General Plan Guidelines (http://www.opr.ca.gov/index.php?a=planning/gpg.html). If inconsistencies are identified, amendments to other general plan elements may be required. If an amendment to the housing element is made, cities and counties are to submit the amended housing element to the California Department of Housing and Community Development (HCD) for review, as required under Government Code Section 65585. If cities and counties are interested in coordination and technical assistance with their housing element updates, consultation with HCD is suggested (http://www.hcd.ca.gov/hpd/).

In addition, OPR has three references relating to planning and general plan preparation that may be helpful for cities and counties. First, the General Plan Guidelines contains a section with recommendations on how cities and counties can adopt optional elements within the general plan including a flood management element, which encompasses both floodwater management and floodplain management with discussions at the individual community level and the regional level. OPR's guidelines are equally useful in situations where a city or county has unilaterally included flood management in its general plan and where an individual jurisdiction's flood management element is a part of a larger regional strategy to be implemented by more than one agency. Second, OPR's Planner's Book of Lists contains listings of optional elements adopted by cities and counties, survey questions about various topics related to planning, and contact information for local planning departments and regional governments. For the most current version of OPR's General Plan Guidelines and Planner's Book of Lists, go to their publications and forms page at http://www.opr.ca.gov/index.php?a=planning/publications.html. And lastly, Senate Bill 18 (2004) requires cities and counties to contact and consult with California Native American tribes prior to amending or adopting a general plan or specific plan or when designating land as

open space. The intent of Senate Bill 18 is to provide California Native American tribes an opportunity to participate in local land use planning decisions at an early stage in the process for the purpose of protecting traditional tribal cultural places. OPR's supplement to the General Plan Guidelines entitled Tribal Consultation Guidelines (http://www.opr.ca.gov/index.php?a=programs/tribal.html) provides advisory guidance to cities and counties in accordance with the statutory consultation and noticing requirements of Senate Bill 18.

2.1.1 General Plan Land Use Element

The California General Plan Guidelines state "the land use element functions as a guide to planners, the general public, and decision makers as to the ultimate pattern of development for the city or county at build-out. The land use element has a pivotal role in zoning, subdivision, and public works decisions. The element's objectives and policies provide a long-range context for those short term actions."



Prior to the new flood risk management requirements outlined within Government Code Section 65302, existing State law required the land use element of a general plan to identify those areas subject to flooding.

Cities and Counties Are Now Required To...

Government Code Section 65302(a) now requires cities and counties in the State to **annually review** the land use element within "those areas covered by the plan that are subject to flooding identified by floodplain mapping prepared by the Federal Emergency Management Agency (FEMA) or the Department of Water Resources."

FEMA's floodplain mapping includes:

- Flood Insurance Rate Maps (FIRM)
- Digital Flood Insurance Rate Maps (DFIRM)



See Section 2.1.2 for further requirements associated with general plan conservation elements and the identification of areas that may accommodate floodwater for purposes of groundwater recharge and stormwater management.

DWR's floodplain mapping includes:

- Awareness Floodplain Maps
- Best Available Mapping (BAM)
- Levee Flood Protection Zones (LFPZ) Maps
- Central Valley Floodplain Evaluation and Delineation (CVFED) Maps
- Alluvial Fan Floodplain Evaluation and Delineation (AFFED) Maps

The review of the land use element entails a local jurisdiction assessing floodplain mapping, groundwater recharge, and/or stormwater management information and determining if any of the information is new and/or differs from what is included in the existing general plan land use element. If the new data is different, then the existing general plan's background information, maps, goals, policies, and implementation measures, as well as the land use diagram may need to be amended.

Additionally, it should be noted that the location and designation of land uses in a general plan conservation element now "need to consider the identification of land and natural resources" that are used "for purposes of groundwater recharge and stormwater management." See Section 2.1.2 of this Handbook for more information on general plan conservation element requirements.

Cities and Counties Should Consider...

- Areas within a mapped floodplain (utilizing the most applicable floodplain mapping information, depending on the geographic location) for lower intensity land uses. General plan land use element policies that require minimization or avoidance of flood risks to new development in flood prone areas should be included or, if necessary, strengthened. These policies should be closely coordinated with corresponding policies in the conservation and safety elements. If future development is considered for flood prone areas, appropriate flood risk management strategies should be implemented. Avoidance of flood hazards should be considered for floodplains with deep flooding (depths greater than three feet), urban and urbanizing areas that require 200-year level of protection in the SSJV, and floodplain maps prepared by FEMA.

- Using the existing general plan annual progress reporting mechanism to comply with Government Code Section 65302(a), which now requires annual review of the land use element for those areas that are subject to flooding as identified by FEMA or DWR floodplain mapping. Current Government Code Section 65400 requires cities and counties to provide an annual report to their legislative body (i.e., city council or board of supervisors), OPR, and HCD on the status of the general plan and progress on its implementation. Using this mechanism to meet the requirements of Government Code Section 65302(a) will provide some efficiency, as well as ensure that the new land use element review requirements are documented and provided to the local legislative bodies.

- Amending the land use element when new floodplain mapping, groundwater recharge, and/or stormwater management information is available that differs from what is included in the existing general plan land use element. This is particularly true when the new information is not consistent with, or is not contemplated by existing goals, policies, or land uses. New data could affect the background information, maps, goals, policies, and implementation measures of a land use element, as well as the proposed land uses on the land use diagram.

- Reviewing other general plan elements (including, but not limited to the conservation, safety, and housing elements) if amendments are made to the land use element to ensure general plan internal consistency with goals, policies, objectives, and implementation measures; text; and/or maps and diagrams.

- Coordinating internally among departments within local agencies as a method to ensure that the most recent information is reflected in the land use element.

Cities and Counties Must Comply By...

Effective January 1, 2008, all cities and counties are required to comply.

Obtain More Information Here...

The 2007 legislation that amended Government Code Section 65302(a) specifically identifies DWR and FEMA floodplain mapping as the data sources for those areas subject to flooding. The following provides a listing of some of the DWR and FEMA databases that are available, but is not an exhaustive list. Each database has been prepared for a specific purpose and jurisdictions must take into consideration the intent of the

databases and perform some analysis as to which database(s) is most relevant to the specific city or county. If a city or county has conflicting flood information than what is provided in one of following data sources the jurisdiction should contact DWR and/or FEMA, as applicable, to discuss the differences.

Cities and counties should contact DWR's Division of Flood Management for assistance in obtaining the most current floodplain map information and for consultation on which database would be most applicable, by jurisdiction, at http://www.water.ca.gov/floodmgmt/.

- **FEMA Flood Insurance Rate Maps (FIRM).** Represents flood hazard areas for floodplains of 1% (100-year) and 0.2% (500-year) chance of annual occurrence. Private citizens and insurance brokers use the FIRM to identify properties and buildings in flood insurance risk areas. Community officials use the FIRM to administer floodplain management regulations and to mitigate flood damage. Lending institutions and federal agencies use the FIRM to identify properties and buildings in relation to mapped flood hazards, and to determine whether flood insurance is required when making loans or providing grants following a disaster for the purchase or construction of a building. Available at http://msc.fema.gov.



For a definition of flood prone areas, see Section 5.0 of this Hanbook.

- **FEMA Digital Flood Insurance Rate Maps (DFIRM).** Represents GIS-based mapping products of FIRM and FEMA Digital Q3 Flood Data developed as part of the FEMA Flood Map Modernization (Map Mod) program, which is transitioning FEMA maps from paper to digital formats. Available at http://msc.fema.gov.

- **DWR Awareness Floodplain Maps.** Displays the 100-year flood hazard areas using approximate assessment procedures for areas subject to future development. These floodplains are shown simply as flood prone areas, without specific depths. The intent of the Awareness Floodplain Mapping is to identify all pertinent flood hazard areas that have the potential for development in areas that are not mapped under FEMA's National Flood Insurance Program (NFIP) and to provide the community and residents an additional tool in understanding potential flood hazards currently not mapped as a regulated floodplain. Available at http://www.water.ca.gov/floodmgmt/lrafmo/fmb/fes/awareness_floodplain_maps/.

- **DWR Best Available Maps (BAM).** Represents the 100- and 200-year composite floodplains located within the SSJV, and 100-year floodplains outside of the SSJV. These maps were developed based on the best available information (i.e., FEMA FIRM, DFIRM, and DWR Awareness Floodplain Maps). The intent of these maps is

to identify potential flood hazards that may warrant further study and consideration in land use decision making. Available at http://ww.water.ca.gov/floodmgmt/lrafmo/fmb/fes/best_available_maps/.

- **DWR Levee Flood Protection Zones (LFPZ) Maps.** Represents areas that are protected, as determined by the Central Valley Flood Protection Board or DWR, by levees that are part of the facilities of the State Plan of Flood Control. These maps were developed based on the best available information, as required by Water Code Section 9130. Available at http://www.water.ca.gov/floodmgmt/lrafmo/fmb/fes/levee_protection_zones/LFPZ_maps.cfm.

For a definition of project levee, see Section 5.0 of this Handbook.

- **DWR Central Valley Floodplain Evaluation and Delineation (CVFED) Maps.** Represents 100-year and 200-year floodplains for Central Valley State-Federal Project Levees within the SSJV watershed and will be developed based on more detailed hydrologic and hydraulic information, topographic data, levee evaluations, and depths, where appropriate. CVFED Maps will be developed by DWR and are anticipated to be available by 2012.

2.1.2 General Plan Conservation Element

The California General Plan Guidelines state "the conservation element provides direction regarding the conservation, development, and utilization of natural resources. Its requirements overlap those of the open-space, land use, safety, and circulation elements. The conservation element is distinguished by being primarily oriented toward natural resources. Population growth and development continually require the use of both renewable and nonrenewable resources. One role of the conservation element is to establish policies that reconcile conflicting demands on those resources."



The 2007 legislation amended Government Code Section 65302(d) to add two new requirements pertaining to the general plan conservation element.



Cities and Counties Are Now Required To...

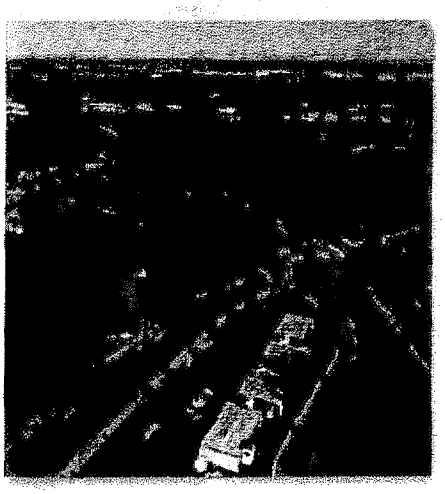
First, cities and counties in the State are now **required** to "identify rivers, creeks, streams, flood corridors, riparian habitat and land that may accommodate floodwater for purposes of groundwater recharge and stormwater management" in the conservation element. The intent is to conserve areas used for groundwater recharge and stormwater management and to minimize urban development in these areas.

Second, existing law currently requires that the portion of the conservation element that includes water resources must be developed in coordination with any countywide water agency and with all district and city agencies. New regulations now **specifically clarify these coordinating agencies to include** "flood management, water conservation, or groundwater agencies that have developed, served, controlled, managed, or conserved water of any type for any purpose in the county or city for which the plan is prepared." Government Code Section 65302(d) requires the coordination to "include the discussion and evaluation of any water supply and demand information that has been submitted by the water agency to the city or county," as described in Section 65352.5 (refer to Appendix E of this Handbook for the specific Government Code text).

Cities and Counties Should Consider...

- Referencing DWR Bulletin 118 (http://www.water.ca.gov/groundwater/bulletin118/update2003.cfm) to help identify areas that may be suitable in accommodating floodwater for purposes of groundwater recharge and/or stormwater management. Any area being considered to accommodate excess floodwaters for the purpose of groundwater recharge and/or stormwater management should be investigated to determine the areas recharge capability as well as potential impacts to existing groundwater uses. DWR Bulletin 118 also provides guidance and tools to assist local jurisdictions manage groundwater as a component of local land use planning.

- Clearly identifying all areas that may accommodate floodwater for purposes of groundwater recharge and stormwater management on maps or graphics within the conservation element. These identified areas should be considered for appropriate lower intensity, non-developed land uses such as open space, passive recreation, and agricultural uses. General plan conservation element policies that minimize impacts to these identified groundwater recharge and stormwater management areas should be included or, if necessary, strengthened. These policies should be closely coordinated with corresponding policies in the land use and safety elements.



- Using FEMA Flood Insurance Rate Maps and floodplain mapping available through DWR to identify rivers, creeks, streams, and flood corridors.

- Concurrently preparing the amendments to the conservation element required by Government Code 65302(d) while updating the housing element and amending the safety element to aid in achieving general plan consistency and avoid conflicting goals, policies, objectives, and implementation measures.

- Coordinating and collaborating with flood management, water conservation, or groundwater agencies at a minimum through documented written communications, phone calls, and/or electronic communications.

Cities and Counties Must Comply By...

Upon the next revision of the housing element, on or after January 1, 2009. Coordination with water agencies is required effective January 1, 2008.

Housing elements are to be updated as required by State statute (Government Code Sections 65880 through 65589).

It should be noted that the COGs (and associated cities and counties) with fourth housing element update revision cycle due dates before January 1, 2009 include the Council of Fresno County Governments, Kern Council of Governments, Sacramento Area Council of Governments, Southern California Association of Governments, and San Diego Association of Governments. Generally, these COG cities and counties have already adopted a fourth revision housing element update and will not update their housing element until the next, or fifth revision, which has due dates anticipated between 2013 and 2016.

All other COGs (and associated cities and counties) in the State have fourth revision housing element update due dates after January 1, 2009 (i.e., June 30, 2009 or August 31, 2009). Cities and counties with due dates after January 1, 2009 that met the June 30, 2009 or August 31, 2009 deadline and *have* an adopted housing element update must make the amendments to the conservation and safety elements as soon as possible, and should review the adopted housing element to ensure internal consistency among the elements. However, cities and counties associated with due dates after January 1, 2009 that *have not* adopted a fourth revision housing element update must update the housing as soon as possible and should make the amendments to the conservation and safety elements concurrently, ensuring internal consistency among the elements.



Obtain More Information Here...

DWR, as a referral source to other water agencies, can assist cities and counties with this effort by visiting http://www.water.ca.gov/floodmgmt/ to obtain contact information on water agencies, by jurisdiction.

Other sources of information include the Central Valley Flood Protection Plan (for flood facilities within the SSJV), scheduled to be adopted in 2012, and local agency planning documents.

2.1.3 General Plan Safety Element



The California General Plan Guidelines state "the safety element aims to reduce the potential risk of death, injuries, property damage, and economic and social dislocation resulting from fires, floods, earthquakes, landslides, and other hazards. The safety element overlaps topics also mandated in the land use, conservation, and open-space elements. The element should contain general hazard and risk reduction strategies and policies supporting hazard mitigation measures. Communities may use the safety element as a vehicle for defining "acceptable risk" and the basis for determining the level of necessary mitigation."

The 2007 legislation amended Government Code Section 65302(g) to review, and if necessary, revise the safety element to identify new information regarding flood hazards.

Cities and Counties Are Now Required To...

The 2007 legislative amendments to Government Code Section 65302(g)(2)(A) **require** the safety element to identify "information regarding flood hazards" including, but not limited to:

- flood hazard zones
- National Flood Insurance Program maps
- historical data
- existing and planned development in flood hazard zones
- databases maintained by agencies with responsibility for flood hazard information such as the U.S. Army Corps of Engineers, DWR, and Cal EMA

Based on the flood hazard information, the safety element **must establish** a set of comprehensive goals, policies, objectives, and feasible implementation measures to protect communities from the unreasonable risks of flooding, as required by Government Code Section 65302(g)(2)(B) and (C). The goals, policies, and objectives of the safety element **must include**, but are not limited to:

- "Avoiding or minimizing the risks of flooding to new development.
- Evaluating whether new development should be located in flood hazard zones, and identifying construction methods or other methods to minimize damage if new development is located in flood hazard zones.
- Maintaining the structural and operational integrity of essential public facilities during flooding.
- Locating, when feasible, new essential public facilities outside of flood hazard zones, including hospitals and health care facilities, emergency shelters, fire stations, emergency command centers, and emergency communications facilities or identifying construction methods or other methods to minimize damage if these facilities are located in flood hazard zones.
- Establishing cooperative working relationships among public agencies with responsibility for flood protection." (Government Code Section 65302(g)(2)(B))

Essential public facilities include, but are not limited to, hospitals and health care facilities, emergency shelters, fire stations, emergency command centers, and emergency communications facilities.

In addition, after the initial revision of the safety element per the requirements of Section 65302(g)(2), Section 65302(g)(3) requires that the safety element upon each revision of the housing element be **reviewed and revised**, if necessary, to "identify new information that was not available during the previous revision of the safety element."

Lastly, Section 65302(g)(4) **allows** "cities and counties that have floodplain management ordinances that have been approved by FEMA that substantially comply with this section, or have substantially equivalent provisions to this subdivision in their general plans" to use that information in the safety element to comply. The jurisdiction is then required to "summarize and incorporate by reference into the safety element the other general plan provisions or the floodplain ordinance, specifically showing how each requirement of this subdivision has been met."

Many of the new safety element requirements are also mandated or recommended to be included in other flood documents and plans, as shown in Appendix D.



Cities and Counties Should Consider...

- DWR's interpretation of "unreasonable risks" associated with flooding pertaining to Government Code Section 65302(g)(2)(B). Both FEMA's special flood hazard area (100-year floodplain) and a 200-year floodplain are considered to be areas of known potential flood risk. If development were allowed to occur within the special flood hazard area or a 200-year floodplain, there may be an "unreasonable risk" associated with potential flooding.

- Coordinating with DWR and OPR when preparing the safety element's comprehensive goals, policies, objectives, and implementation measures aimed at protecting communities from the unreasonable risks of flooding.

- Documents, technical bulletins, and informational flyers published by FEMA identifying flood protection methods, building construction techniques, and flood-damage resistant construction materials. For reference to these publications go to FEMA's online Library at http://www.fema.gov/library/index.jsp.

- Concurrently preparing the amendments to the safety element required by Government Code 65302(g) while updating the housing element and amending the conservation element to aid in achieving general plan consistency and avoid conflicting goals, policies, objectives, and implementation measures.

- Providing sufficient detail in the general plan safety element referencing the floodplain ordinance and any subsequent revisions such that a city or county could change its floodplain ordinance without having to amend the safety element.



- Updating the safety element in conjunction with the preparation of a local hazard mitigation plan (see Section 2.3.1 of this Handbook for more information). This coordinated approach, which is strongly supported by DWR and Cal EMA, should result in an integrated local hazard mitigation plan/safety element or by adopting the local hazard mitigation plan as an annex, by reference, to the safety plan. Either of these approaches allows cities and counties to take full advantage of the financial benefits associated with the new regulations under Government Code Section 8685.9. See Section 2.3.1 of this Handbook for information on the requirements under Government Code Section 8685.9.

- Updating the safety element to be consistent with mandatory and voluntary building codes as they relate to flood hazards.

Cities and Counties Must Comply By...

Government Code Sections 65302(g)(2)(A), (B), and (C) are effective **upon the next revision of the housing element** on, or after, January 1, 2009. After the initial revision of the safety element, Government Code Section 65302(g)(3) requires the safety element to be updated with each revision of the Housing Element thereafter. Government Code Section 65302(g)(4) is effective January 1, 2008.

Housing elements are updated as required by State statute. It should be noted that the COGs (and associated cities and counties) with fourth housing element update revision cycle due dates before January 1, 2009 include the Council of Fresno County Governments, Kern Council of Governments, Sacramento Area Council of Governments, Southern California Association of Governments, and San Diego Association of Governments. Generally, these COG cities and counties have already adopted a fourth revision housing element update and will not update their housing element until the next, or fifth revision, which has due dates anticipated between 2013 and 2016.

All other COGs (and associated cities and counties) in the State have fourth revision due dates after January 1, 2009 (i.e., June 30, 2009 or August 31, 2009). Cities and counties with due dates after January 1, 2009 that met the June 30, 2009 or August 31, 2009 deadline and have an adopted housing element update must make the amendments to the conservation and safety elements as soon as possible, and should review the adopted housing element to ensure internal consistency among the elements. However, cities and counties associated with due dates after January 1, 2009 that *have not* adopted a fourth revision housing element update must update the housing as soon as possible and should make the amendments to the conservation and safety elements concurrently, ensuring internal consistency among the elements.

A flood hazard zone is an area subject to flooding that is delineated as either a special flood hazard area (1% event) or an area of moderate (0.2% event) or minimal flood hazard on an official flood insurance rate map issued by FEMA. The identification of a flood hazard zone does not imply that areas outside the flood hazard zones or uses permitted within flood hazard zones will be free from flooding or flood damage.

Obtain More Information Here...

Government Code Section 65302(g) now specifically identifies DWR, FEMA, U.S. Army Corps of Engineers, the Central Valley Flood Protection Board, and Cal EMA as sources of flood hazard information, along with other local, State, and federal agencies with responsibility for flood risk management, including special districts and local emergency management agencies. Cities and Counties should contact DWR's Division of Flood Management at http://www.water.ca.gov/floodmgmt/ for consultation and assistance in obtaining the most current relevant flood hazard information, for discussion regarding any discrepancies in data, and, if needed, for assistance on how to contact the other agencies specifically identified.



Included here for reference, is the list of information and sources regarding flood hazards from Government Code Section 65302(g) that must be identified within the safety element which include but are not limited to:

- Flood hazard zones and National Flood Insurance maps, as identified by FEMA. This includes Flood Insurance Rate Maps (FIRM) and Digital FIRM (DFIRM) both of which are available at http://msc.fema.gov.
- Information about flood hazards, available from the U.S. Army Corps of Engineers, includes the Sacramento and San Joaquin River Basins Comprehensive Study available at http://www.compstudy.net/.
- Designated floodway maps, available from the Central Valley Flood Protection Board. These maps are available at http://cvfpb.ca.gov/maps/index.cfm.
- Dam failure inundation maps prepared pursuant to Section 8589.5, available from Cal EMA. Contact the Cal EMA Hazard Mitigation Branch at http://www.hazardmitigation.calema.ca.gov/.
- DWR's Awareness Floodplain Maps, identify the 100-year flood hazard areas using approximate assessment procedures. These *floodplains will be shown simply as flood prone areas without* specific depths and other flood hazard data. Awareness Floodplain Maps will be added as they become available. The Awareness Floodplain maps are available at http://www.water.ca.gov/floodmgmt/lrafmo/fmb/fes/awareness_floodplain_maps/.
- DWR's Best Available Maps (BAM), which show 100- or 200-year floodplains, accepted by DWR. The 200-year floodplain maps for the Sacramento-San Joaquin Valley and the 100-year floodplain maps for areas outside of the Valley are available at http://www.water.ca.gov/floodmgmt/lrafmo/fmb/fes/best_available_maps/.
- Maps of levee flood protection zones, available from DWR. These maps are available at http://www.water.ca.gov/floodmgmt/lrafmo/fmb/fes/levee_protection_zones/LFPZ_maps.cfm.

For a definition of LFPZ, see Section 5.0 of this Handbook

- Areas subject to inundation in the event of the failure of project or nonproject levees or floodwalls. For areas subject to inundation in the event of the failure of project levees as defined by the State Plan of Flood Control are available at DWR's Levee Flood Protection Zone (LFPZ) maps website at http://www.water.ca.gov/floodmgmt/lrafmo/fmb/fes/levee_protection_zones/LFPZ_maps.cfm. For areas inundated in the event of non-project levee failures contact the local jurisdiction for assistance.

- Historical data on flooding, including locally prepared maps of areas that are subject to flooding, areas that are vulnerable to flooding after wildfires, and sites that have been repeatedly damaged by flooding. Historic flow data is available at DWR's California Data Exchange Center (CDEC) website at http://cdec.water.ca.gov/lmo.html and United States Geological Survey (USGS) Surface-Water Data website at http://waterdata.usgs.gov/usa/nwis/sw. Also, DWR has prepared a series of reports entitled California High Water that provide detailed flood information for specific flood events. For these reports, contact DWR's Division of Flood Management.

- Existing and planned development in flood hazard zones, including structures, roads, utilities, and essential public facilities, varies by jurisdiction, contact DWR's Division of Flood Management at http://www.water.ca.gov/floodmgmt/or the local jurisdiction for assistance.

- Information from local, State, and federal agencies with responsibility for flood risk management, including special districts and local offices of emergency services.

- Alluvial Fan Floodplain Evaluation and Delineation maps, available from DWR at http://www.water.ca.gov/floodmgmt/lrafmo/fmb/fes/alluvial_fan_maps.cfm, when completed.

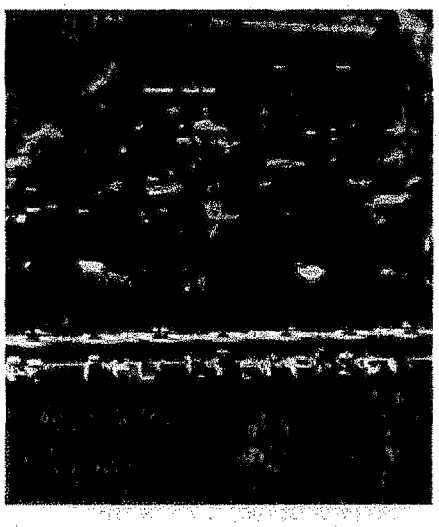
The various sources listed provide some of the relevant flood hazard information, but do not represent an exhaustive list of flood hazard information that is available. Each informational item has been prepared for a specific purpose. Local jurisdictions must take into consideration the intention of the information and analyze which pieces of information are most relevant and non-contradictory to the specific city or county.



2.2 Government Code Sections 65584.04 and 65584.06

In developing the methodology that allocates regional housing needs as part of general plan housing elements, the 2007 legislation amended Government Code Sections 65584.04 and 65584.06 to consider excluding lands not adequate to avoid the risk of flooding from the inventory of available land suitable for urban development.

2.2.1 General Plan Housing Elements – Regional Housing Needs Allocation



The California General Plan Guidelines state "unlike the other mandatory elements, the housing element is subject to detailed statutory requirements regarding its content," must be updated as required by State statute, and is subject to mandatory review by the California Department of Housing and Community Development (HCD). "Housing element law requires local governments to adequately plan to meet their existing and projected housing needs including their share of the regional housing need. The law recognizes the most critical decisions regarding housing development occur at the local level within the context of the general plan."

The Regional Housing Needs Allocation (RHNA) is based on State of California projections of population growth and housing unit demand and assigns a share of the region's future housing need to each jurisdiction within the council of governments' (COG) regions. State law (Government Code Section 65584) provides for the COGs, in consultation with HCD, to prepare regional housing allocation plans that assign a share of a region's housing construction need to each city and county.

Each COG's methodology is based on the regional numbers supplied by HCD. The methodology used to determine the future need considers the growth in number of households expected; the need to achieve ideal vacancy rates; the need for more housing opportunities; and compensation for anticipated demolition. The RHNA is a minimum needs number. Cities and counties are free to plan for, and accommodate, a larger number of dwelling units than the RHNA, but are not obligated to build or finance the construction of any of the units.

Regional COGs, or HCD in Non-COG areas, May...

When developing the methodology that allocates regional housing needs to cities and counties as part of housing elements, Government Code Section 65584.04 requires the COG, or HCD in non-COG areas, to factor in the determination of available land suitable for urban development, which under the 2007 legislative amendments now:

> "**may** exclude lands where FEMA or DWR has determined that the flood management infrastructure designed to protect that land is not adequate to avoid the risk of flooding."

It should be noted that this applies to areas subject to inundation in the event of the failure of both project and non-project levees.

The jurisdictional survey requirement under Government Code Section 65584.04 is required when a COG is responsible for the RHNA distribution of its member cities and counties. When HCD acts as a COG for non-COG areas, a survey is not required. Surveys must be solicited "no more than six months prior to the development of a proposed methodology" for allocating the housing needs (refer to Appendix E of this Handbook for the entire Government Code section text).

Government Code Section 65584.06 requires HCD be responsible for developing the methodology for allocating regional housing needs for cities and counties without a COG.

Cities and Counties Should Consider...

- Engaging in the RHNA process through the jurisdictional survey requirement.
- Consulting with the applicable regional COG, or HCD in non-COG areas, during the RHNA methodology public comment period. The active participation of cities and counties will better inform the RHNA methodology process to avoid including lands that are not suitable for urban development because it cannot meet the required level of flood protection.
- Concurrently preparing the required flood risk management amendments to the conservation element (Government Code 65302(d)) and safety element (Government Code 65302(g)) while updating the housing element to aid in achieving general plan consistency.



Regional COGs, or HCD in Non-COG areas, Should Consider...

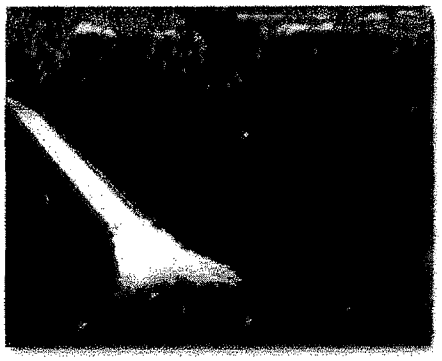
- When developing the RHNA methodology to determine the available land suitable for urban development, exclude only those areas for which it has been determined, based on applicable FEMA or DWR floodplain information, that the required flood protection cannot be met. Of particular concern are floodplains with deep flooding (depths greater than three feet), urban areas that do not have required 200-year protection in the SSJV, and levee flood protection zones (LFPZ).

Regional COGs, or HCD in Non-COG areas, Can Comply By...

See Section 2.1.1 of this Handbook for a listing of available DWR and FEMA floodplain databases.

Effective January 1, 2008, the regional COG, or HCD in non-COG areas, may exclude lands that are not adequate to avoid the risk of flooding when developing the methodology that allocates regional housing needs to cities or counties, which is associated with the requirements in State housing element law (Government Code Sections 65880 through 65589). It should be noted that even though implementation for COGs, or HCD in non-COG areas, became effective after January 1, 2008, the new RHNA methodology processes will not be initiated, or become applicable, until the fifth revision housing element update cycle begins, which is anticipated between 2010 and 2014.

Obtain More Information Here...

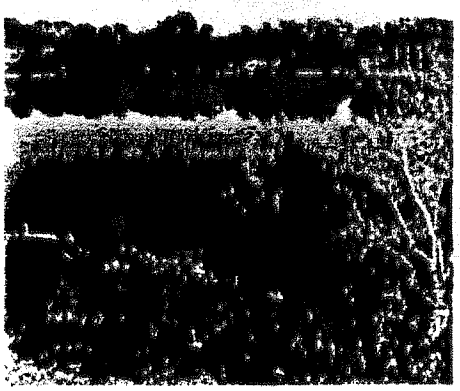


Cities, counties, and regional COGs, or HCD in non-COG areas, should contact DWR's Division of Flood Management for assistance in obtaining the most current floodplain mapping information, available at http://www.water.ca.gov/floodmgmt/. In addition, see Section 2.1.1 of this Handbook for a listing of FEMA and DWR floodplain mapping databases.

Cities and counties can also contact specific regional COGs at http://www.calcog.org/members/members.html or HCD's Division of Housing Policy Development at http://www.hcd.ca.gov/hpd/ for more information.

2.3 Government Code Sections 65302.6 and 8685.9

Local governments are required to have a FEMA-approved local hazard mitigation plan in order to apply for and/or receive project grants under the following hazard mitigation assistance programs (e.g., Hazard Mitigation Grant Program (HMGP), Pre-Disaster Mitigation (PDM), Flood Mitigation Assistance (FMA), or Severe Repetitive Loss (SRL)). FEMA may also require a local hazard mitigation plan under the Repetitive Flood Claims (RFC) program, at which time 44 CFR Section 201.6 would apply to receive grant assistance.



2.3.1 Local Hazard Mitigation Plan

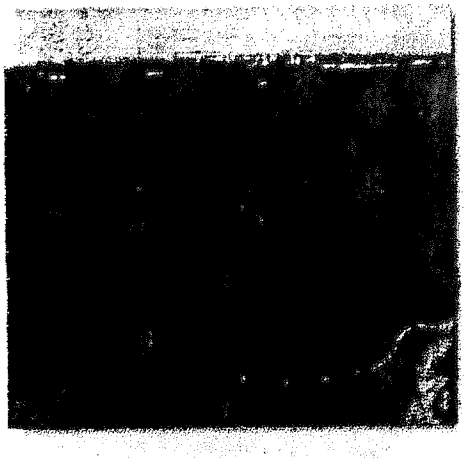
FEMA implements various hazard mitigation planning provisions and regulations governing the mitigation planning requirements for local hazard mitigation plans (LHMPs) under the Code of Federal Regulations CFR), Title 44, Part 201. Section 201.6 defines LHMPs as:

> "the local mitigation plan is the representation of the jurisdiction's commitment to reduce risks from natural hazards, serving as a guide for decision makers as they commit resources to reducing the effects of natural hazards. Local plans will also serve as the basis for the State to provide technical assistance and to prioritize project funding."

Part 201.3 lists the key responsibilities of local governments, as follows:

1. Prepare and adopt a jurisdiction-wide natural hazard mitigation plan as a condition of receiving project grant funds under the Hazard Mitigation Grant Program (HMGP), in accordance with Section 201.6.

2. At a minimum, review and update the local mitigation plan every 5 years from date of plan approval of the previous plan in order to continue program eligibility.



Cal EMA's Hazard Mitigation Planning Division administers the LHMP Program for the State of California. Cal EMA supports and assists local governments in the development of LHMPs and tracks their progress and effectiveness. Cal EMA provides local governments with information on integrating hazard identification, risk assessment, risk management, and loss prevention into a comprehensive approach to hazard mitigation and helps them identify cost-effective mitigation measures and projects.

Cities and Counties May...

Government Code Section 65302.6 allows cities and counties, if they choose, to "adopt with its safety element...a local hazard mitigation plan specified in the federal Disaster Mitigation Act (DMA) of 2000." Under new regulations Government Code Section 8685.9 now **prohibits** the State share for any eligible project under the California Disaster Assistance Act (CDAA) from:

> "exceeding 75% of total State eligible costs unless the local agency is located within a city, county, or city and county that has adopted a local hazard mitigation plan in accordance with the federal Disaster Mitigation Act of 2000 (P.L. 106-390) as part of the safety element of its general plan," in which case, "the Legislature may provide for a State share of local costs that exceeds 75% of total State eligible costs."

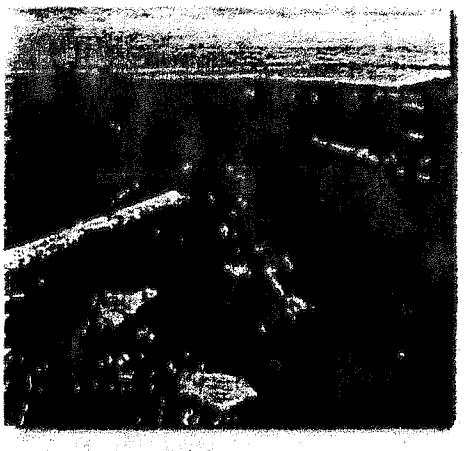
Government Code Section 8685.9 now provides a financial incentive for implementation of Government Code Section 65302.6, which allows local jurisdictions that adopt an LHMP as part of the safety element. The financial incentive is realized when local jurisdictions incur State-eligible, post-disaster costs under CDAA.

Specific flood information required or recommended to be included in local hazard mitigation plans are shown in Appendix D.

Cities and Counties Should Consider...

- Taking full advantage of the financial benefits associated with the new regulations under Government Code Section 8685.9 by adopting their LHMP as an annex, by reference, to their safety plan consistent with Government Code Section 65302.6. It is important to note that DWR and Cal EMA support updating the safety element, per Government Code Section 65302(g), at the time of LHMP preparation, as it maximizes efficiencies and consistency between the two. Information on the process may be obtained at http://www.hazardmitigation.calema.ca.gov/.

See Section 2.1.3 of this Handbook for information on the requirements under Government Code Section 65302(g) related to safety elements.



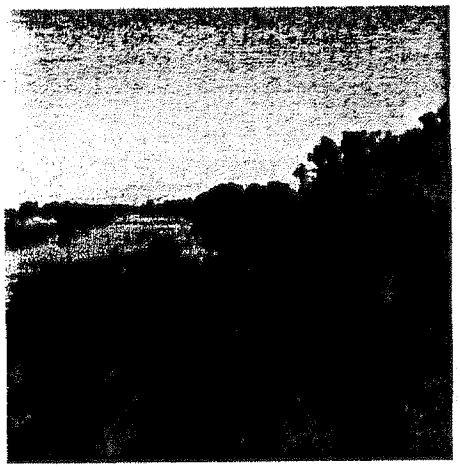
- Applying for Community Rating System (CRS) credit for their local multi-hazard mitigation plan. Implementation of Government Code Section 65302.6 may increase the rating of the local community for the CRS, which is a voluntary program for National Flood Insurance Program (NFIP) participating communities. The goals of the CRS are to reduce flood damages to insurable property, strengthen and support the insurance aspects of the NFIP and encourage a comprehensive approach to floodplain management. CRS is a point system program that reduces flood insurance premiums for the citizens of participating communities. There are 10 CRS classes and there are four main categories in which communities can earn points for doing more than the minimum NFIP floodplain management requirements: Public Information, Mapping and Regulation, Flood Damage Reduction, and Flood Preparedness. Flood insurance premium discounts can range from a 5% discount for a Class 9 community to as much as a 45% discount for a Class 1 community. One of the activities that communities can undertake to improve their CRS rating is the CRS plan. The CRS 10 step planning process is consistent with the multi-hazard planning regulations under 44 CFR Part 201. At a minimum, an approved multi-hazard mitigation plan under 44 CFR Part 201 that addresses floods could qualify for CRS credit. Although communities are not required to participate in CRS for approval of a local hazard mitigation plan, FEMA encourages jurisdictions to integrate the CRS planning steps into their local multi-hazard mitigation plan. DWR is the CRS State coordinator. More detailed information can be found under activity 510, Floodplain Management Planning, of the CRS Coordinator's Manual, and at http://training.fema.gov/emiweb/crs/.

Cities and Counties Can Comply By...

Effective January 1, 2007, Government Code Section 65302.6 allows a city, county, or a city and county to adopt a local hazard mitigation plan with its safety element. Government Code Section 8685.9 limits the State share for any eligible project under CDAA unless the local agency has adopted a LHMP as part of the safety element of its general plan also effective January 1, 2007.

Obtain More Information Here...

Cal EMA's Hazard Mitigation Branch, Hazard Mitigation Web Portal provides several links to LHMP-safety element preparation and guidance and other relevant flood hazard information at http://www.hazardmitigation.calema.ca.gov/.



Local jurisdictions that have not adopted a local hazard mitigation plan (LHMP) will be supported by CalEMA to receive federal funding to prepare and adopt LHMP's. Specifically, local jurisdictions can apply for the 2010 Flood Mitigation Assistance Grant Program.

FEMA has developed informational resources with specific "how to" guides that provide adaptable tools and methods on how to meet or exceed FEMA's requirements. These resource documents can be found at http://www.fema.gov/plan/mitplanning/resources.shtm and are useful in explaining subjects like mitigation planning and flood risk assessments in response to the preparation requirements of LHMPs. Specifically, the following "how to" guides are the most helpful for purposes of LHMP preparation and responding to flood risks:

- Understanding Your Risks: Identifying Hazards and Estimating Losses (FEMA 386-2)
- Developing The Mitigation Plan: Identifying Mitigation Actions and Implementing Strategies (FEMA 386-3)
- Bringing the Plan to Life: Implementing the Hazard Mitigation Plan (FEMA 386-4)

The FEMA-prepared guidance document called Local Multi-Hazard Mitigation Planning Guidance (July 1, 2008) is also a resource to better understand LHMP requirements (44 CFR Part 201), available at http://www.fema.gov/library/viewRecord.do?id=3336.

CHAPTER 27. FLOOD DAMAGE PREVENTION

ARTICLE 1. GENERAL PROVISIONS

7-27-1000 STATEMENT OF PURPOSE:

It is the purpose of this Chapter to promote the public health, safety, and general welfare, and to minimize public and private losses due to flood conditions in specific areas by provisions designed:

(a) To protect human life and health;

(b) To minimize the need for rescue and relief efforts associated with flooding;

(c) To minimize potential property losses in special flood hazard areas;

(d) To minimize damage to public facilities and utilities located in areas of special flood hazard;

(e) To insure that potential buyers are notified that property is in an area of special flood hazard; and

(f) To insure that those who occupy the areas of special flood hazard assume responsibility for their actions.

7-27-1001 STATUTORY AUTHORIZATIONS:

The Legislature of the State of California has in Government Code Sections 65302, 65560, and 65800 conferred upon local government units authority to adopt regulations designed to promote the public health, safety, and general welfare of its citizenry. Therefore, the Board of Supervisors of the County of Tulare does hereby adopt the floodplain management regulations set forth in this Chapter.

(Amended by Ord. No. 3212, effective 10-29-98)

7-27-1002 FINDINGS OF FACTS:

The flood hazard areas of the County of Tulare are subject to periodic inundation which results in loss of life and property, health and safety hazards, disruption of commerce and governmental services, extraordinary public expenditures for flood protection and relief, and impairment of the tax base, all of which adversely affect the pubic health, safety, and general welfare. These flood losses are caused by uses that are inadequately elevated, floodproofed, or protected from flood damage. The cumulative effect of obstructions in areas of special flood hazards which increase flood heights and velocities also contribute to the flood loss.

(Amended by Ord. No. 3212, effective 10-29-98)

7-27-1005 METHODS OF REDUCING FLOOD LOSSES:
In order to accomplish its purposes, this Chapter includes methods and provisions for:

(a) Restricting or prohibiting uses which are dangerous to health, safety, and property due to water or erosion hazards, or which result in damaging increases in erosion or in flood heights or velocities.

(b) Requiring that uses vulnerable to floods, including facilities which serve such uses, be protected against flood damage at the time of initial construction.

(c) Controlling the alteration of natural flood plains, stream channels, and natural protective barriers, which help accommodate or channel flood waters.

(d) Controlling, filling, grading, dredging, and other development which may increase flood damage.

(e) Preventing or regulating the construction of flood barriers which will unnaturally divert flood waters or which may increase flood hazards in other areas.

7-27-1010 DEFINITIONS:
Unless specifically defined below, words or phrases used in this Chapter shall be interpreted so as to give them the meaning they have in common usage and to give this Chapter its most reasonable application.

"ACCESSORY USE" means a use which is incidental and subordinate to the principal use of the parcel of land on which it is located.

"ALLUVIAL FAN" is an area subject to flooding when the flood plain is comprised of low flow channels where sediment accompanies the shallow flooding and the unstable soils scour and erode during a flooding event.

"APPEAL" means a request for a review of the Floodplain Administrator's interpretation of any provision of this Chapter.

"AREA OF SHALLOW FLOODING" is a designated AO or VO Zone on the Flood Insurance Rate Map. In these zones, the base flood depths range from one to three feet; a clearly defined channel does not exist; the noticeable path of flooding is unpredictable and indeterminate; and, noticeable velocity flow may be evident.

"AREA OF SPECIAL FLOOD HAZARD" has the same meaning as "SPECIAL FLOOD HAZARD AREA".

"BASE FLOOD" is the flood having a one percent chance of being equaled or exceeded any given year.

"BASEMENT" means any area of the building having its floor subgrade (below ground level on all sides).

"BREAKAWAY WALLS" are any type of walls, whether solid or lattice, and whether constructed of concrete, masonry, wood, metal, plastic or any other suitable building material which is not part of the structural support of the building and which is so designed as to breakaway under abnormal flood conditions without damage to the structural integrity of the building on which they are used or any buildings to which they might be carried by flood waters.

"BUILDING" has the same meaning as "Structure".

"BUILDING PERMIT" means a permit issued pursuant to Chapter 4 of Part VII of the Ordinance Code, including a mobilehome installation permit.

"DEVELOPMENT" is any man-made change to improved or unimproved real estate (including filling, grading, paving, excavation or drilling operations) located within the area of special flood hazard.

"ENCROACHMENT" means the advance or infringement of uses, plant growth, fill, excavation, buildings, permanent structures or development into a floodplain which may impede or alter the flow capacity of a floodplain.

"EXISTING MANUFACTURED HOME PARK OR SUBDIVISION" means a manufactured home park or subdivision for which the construction of facilities for servicing the lots on which the manufactured homes are to be affixed (including, at a minimum, the installation of utilities, the construction of streets, and either final site grading or the pouring of concrete pads) is completed before the effective date of the floodplain management regulations adopted by the County.

"EXPANSION TO AN EXISTING MANUFACTURED HOME PARK OR SUBDIVISION" means the preparation or additional sites by the construction of facilities for servicing the lots on which the manufactured homes are to be affixed (including the installation of utilities, the construction of streets, and either final site grading or the pouring of concrete pads).

"FLOOD" or "FLOODING" is a general and temporary condition of partial or complete inundation of normally dry land areas from:

(a) The overflow of inland waters and/or

(b) The unusual and rapid accumulation of runoff of surface waters from any source.

"FLOOD BOUNDARY FLOODWAY MAP" is the official map on which the Federal Emergency Management Agency has delineated both the areas of flood hazards and the floodways.

"FLOOD HAZARD BOUNDARY MAP" means the official map on which the Federal Emergency Management Agency or Federal Insurance Administration has delineated the areas of flood hazards.

"FLOOD INSURANCE RATE MAP" or "FIRM" is the official map on which the Federal Emergency Management Agency has delineated both the areas of special flood hazards and the risk premium zones applicable to the community.

"FLOOD INSURANCE STUDY" is the official report provided by the Federal Emergency Management Agency that includes flood profiles, the Flood Insurance Rate Map (FIRM), the Flood Boundary Floodway Map, and the water surface elevation of the base flood.

"FLOODPLAIN" or "FLOOD-PRONE AREA" means any land area susceptible to being inundated by water from any source. Also see "Flood" or "Flooding".

"FLOODPLAIN ADMINISTRATOR" is the individual or individuals appointed to administer and/or enforce the floodplain management regulations. See Section 7-27-1095.

"FLOODPLAIN MANAGEMENT" means the operation of an overall program of corrective and preventive measures for reducing flood damage and preserving and enhancing, where possible, natural resources in the floodplain, including but not limited to emergency preparedness plans, flood control works, floodplain management regulations, and open space plans.

"FLOODPLAIN MANAGEMENT REGULATIONS" means this Chapter and other zoning ordinances, subdivision regulations, building codes, health regulations, special purpose ordinances (such as grading and erosion control) and other application of police power which control development in flood-prone areas. This term describes federal, state or local regulations in any combination thereof which provide standards for preventing and reducing flood loss and damage.

"FLOODPROOFING" means any combination of structural and non-structural additions, changes or adjustments to non-residential structures which reduce or eliminate flood damage to real estate or improved real property, water and sanitary facilities, structures, and their contents (Refer to FEMA Technical Bulletins TB 1-93, TB 3-93, and TB 7-93 for guidelines on dry and wet flood proofing).

"FLOOD-RELATED EROSION" is a condition that exists in conjunction with a

flooding event that alters the composition of the bank of a watercourse and increases the possibility of loss due to the erosion of the land area adjacent to the watercourse.

"FLOODWAY" means the channel of a river or other watercourse and the adjacent land area that must be reserved in order to discharge the base flood without cumulatively increasing the water surface elevation more than one (1) foot. The floodway is delineated on the Flood Boundary Floodway Map, on maps adopted by the State Reclamation Board when acting within its jurisdiction, and/or on the County Zoning Map (signified by the F-1, Primary Flood Plain Zone).

"FLOODWAY FRINGE" is that area of the floodplain on either side of the "regulatory floodway" where encroachment may be permitted.

"FRAUD AND VICTIMIZATION", as related to Section 7-27-1265 of this Chapter pertaining to variances, means that the variance granted must not cause fraud on or victimization of the public. In examining this requirement, the Governing Body will consider the fact that every newly constructed building adds to government responsibilities and remains a part of the community for fifty to one hundred years; that buildings that are permitted to be constructed below the base flood elevation are subject during all those years to increased risk of damage from floods, while future owners of the property and the community as a whole are subject to all the costs, inconvenience, danger, and suffering that those increased flood damages bring; and that, in addition, future owners may purchase the property, unaware that it is subject to potential flood damage, and can be insured only at very high flood insurance rates.

"GOVERNING BODY" means the Board of Supervisors of the County of Tulare which is empowered to adopt and implement regulations to provide for the public health, safety and general welfare of its citizenry.

"HARDSHIP" as related to Section 7-27-1265 of this Chapter pertaining to variances means the exceptional hardship that would result from a failure to grant the requested variance. The hardship justifying a variance must be exceptional, unusual, and peculiar to the property involved. Mere economic or financial hardship alone is not exceptional. Inconvenience, aesthetic considerations, physical handicaps, personal preferences, or the disapproval of one's neighbors likewise cannot, as a rule, qualify as an exceptional hardship. All of these problems can be resolved through other means without granting a variance, even if the alternative is more expensive, or requires the property owner to build elsewhere or put the parcel to a different use than originally intended.

"HABITABLE FLOOR" means any floor usable for living purposes, which includes working, sleeping, eating or recreation, or a combination thereof. For flood insurance purposes, "Habitable floor" and "Lowest floor" will share the same definition.

"HIGHEST ADJACENT GRADE" means the highest natural elevation of the ground surface prior to construction next to the proposed walls of a structure.

"LEVEE" means a man-made structure, usually an earthen embankment, designed and constructed in accordance with sound engineering practices to contain, control, or divert the flow of water so as to provide protection from temporary flooding.

"LEVEE SYSTEM" means a flood protection system which consists of a levee, or levees, and associated structures, such as closure and drainage devices, which are constructed and operated in accordance with sound engineering practices.

"LOWEST FLOOR" means the lowest floor of the lowest enclosed area, including basement (see definition of "Basement"), as follows:

(a) An unfinished or flood resistant enclosure below the lowest floor that is useable for parking of vehicles, building access or storage in an area other than a basement area, is not considered a building's lowest floor provided it conforms to applicable non-elevation design requirements, including, but not limited to:

(1) the wet floodproofing standard in Section 7-27-1180,

(2) the anchoring standards in Section 7-27-1170,

(3) the construction materials and methods standards in Section 7-27-1175,

(4) the standards for utilities in Section 7-27-1200.

(b) For residential structures, all subgrade enclosed areas are prohibited as they are considered to be basements (see "Basement" definition). This prohibition includes below-grade garages and storage areas.

"MANUFACTURED HOME" means a structure, transportable in one or more sections, which is built on a permanent chassis and is designed for use with or without a permanent foundation when attached to the required utilities. The term "manufactured home" does not include a "recreational vehicle".

"MANUFACTURED HOME PARK OR SUBDIVISION" means a parcel (or contiguous parcels) of land divided into two or more manufactured home lots for

rent or sale.

"MARKET VALUE" shall be determined by estimating the cost to replace the structure in new condition and adjusting that cost figure by the amount of depreciation which has accrued since the structure was constructed. The cost of replacement of the structure shall be based on a square foot cost factor determined by reference to a building cost estimating guide recognized by the building construction industry. The amount of depreciation shall be determined by taking into account the age and physical deterioration of the structure and functional obsolescence as approved by the floodplain administrator, but shall not include economic or other forms of external obsolescence. Use of replacement costs or accrued depreciation factors different from those contained in recognized building cost estimating guides may be considered only if such factors are included in a report prepared by an independent professional appraiser and supported by a written explanation of the differences.

"MEAN SEA LEVEL" means, for purposes of the National Flood Insurance Program, the National Geodetic Vertical Datum (NGVD) of 1929 or other datum, to which base flood elevations shown on a community's Flood Insurance Rate Map are referenced.

"MOBILEHOME" is a structure, including a manufactured home certified under the National Mobilehome Construction and Safety Standards Act of 1974, that is transportable in one or more sections, built on a permanent chassis, and designed to be used with or without a permanent foundation when connected to the required utilities. It does not include recreational vehicles or travel trailers placed on a site for less than 180 consecutive days, or factory-built housing on permanent slab foundation.

"NEW CONSTRUCTION" means structures for which the "start of construction" commenced on or after the effective date of this Chapter.

"OBSTRUCTION" includes, but is not limited to, any dam, wall, wharf, embankment, levee, dike, pile, abutment, protection, excavation, channelization, bridge, conduit, culvert, building, wire, fence, rock, gravel, refuse, fill, structure, vegetation or other material in, along, across or projecting into any watercourse which may alter, impede, retard or change the direction and/or velocity of the flow of water, snare or collect debris carried by the flow of water, or is likely to be carried downstream.

"ONE-HUNDRED-YEAR FLOOD" or "100 YEAR FLOOD" has the same meaning as "Base flood".

"PUBLIC SAFETY AND NUISANCE" as related to Section 7-27-1265 of this Chapter pertaining to variances means that the granting of a variance must not

result in anything which is injurious to safety or health of an entire community, neighborhood, or any considerable number of persons, or unlawfully obstructs the free passage or use, in the customary manner, of any navigable lake, river, bay, stream, canal, or basin.

"RECREATIONAL VEHICLE" means a vehicle which is:

(a) Built on a single chassis,

(b) 2.400 square feet or less when measured at the largest horizontal projection,

(c) Designed to be self-propelled or permanently towable by a light-duty truck, and

(d) Designed primarily not for use as a permanent dwelling but as temporary living quarters for recreational, camping, travel, or seasonal use.

"REGULATORY FLOODWAY" means the channel of a river or other watercourse and the adjacent land areas that must be reserved in order to discharge the base flood without cumulatively increasing the water surface elevation more than one foot.

"REMEDY A VIOLATION" means to bring the structure or other development into compliance with State or local floodplain management regulations, or, if this is not possible, to reduce the impacts of its noncompliance. Ways that impacts may be reduced include protecting the structure or other affected development from flood damages, implementing the enforcement provisions of the Chapter or otherwise deterring future similar violations, or reducing State or Federal financial exposure with regard to the structure or other development.

"RIVERINE" means relating to, formed by, or resembling a river (including tributaries), stream, brook, creek, or other similar watercourses.

"SHEET FLOW AREA" has the same meaning as "Area of shallow flooding".

"SPECIAL FLOOD HAZARD AREA" is the land in the flood plain subject to a one percent or greater chance of flooding in any given year. The area is designated as Zones A, AO, AH, A1-99, VO, and V1-30 on the FIRM.

"START OF CONSTRUCTION" includes substantial improvement and other proposed new development and means the date the building permit was issued, provided the actual start of construction, repair, reconstruction, rehabilitation, addition, placement, or other improvement was within 180 days from the date of the permit. The actual start means either the first placement of permanent construction of a structure on a site, such as the pouring of slab or footings, the

installation of piles, the construction of columns, or any work beyond the stage of excavation; or the installation of a mobilehome to its permanent site. Permanent construction does not include land preparation, such as clearing, grading and filling; not does it include the installation of streets and/or walkways; nor does it include excavation for a basement, footings, piers, or foundations or the erection of temporary forms; nor does it include the installation on the property of accessory buildings, such as garages or sheds not occupied as dwelling units or not part of the main structure. For a substantial improvement, the actual start of construction means the first alteration of any wall, ceiling, floor, or other structural part of a building, whether or not that alteration affects the external dimensions of the building.

"STRUCTURE" is a walled and roofed building or mobilehome that is principally above ground.

"SUBSTANTIAL DAMAGE" means damage of any origin sustained by a structure whereby the cost of restoring the structure to its before-damaged condition would equal or exceed 50 percent of the market value of the structure before the damage occurred.

"SUBSTANTIAL IMPROVEMENT" means any reconstruction, rehabilitation, addition, or other proposed new development of a structure, the cost of which equals or exceeds 50 percent of the market value of the structure either:

(a) Before the improvement or repair is started, or

(b) If the structure has been damaged, substantial damage , and is being restored, before the damage occurred. For the purposes of this definition, "substantial improvement" is considered to occur when the first alteration of any wall, ceiling, floor, or other structural part of the building commences, whether or not that alteration affects the external dimensions of the structure.

This term does not, however, include either:

(a) Any project for improvement of a structure to comply with existing state or County health, sanitary, or safety code specifications which are solely necessary to assure safe living conditions, or

(b) Any alteration of a structure listed on the National Register of Historic Places or the State Inventory of Historic Places.

"VARIANCE" means a grant of relief from the requirements of this Chapter which permits construction in a manner that would otherwise be prohibited by this Chapter.

"VIOLATION" means the failure of a structure or other development to be fully compliant with this Chapter. A structure or other development without the elevation certificate, other certifications, or other evidence of compliance required in this Chapter is presumed to be in violation until such time as that documentation is provided.

"WATER SURFACE ELEVATION" means the height, in relation to the National Geodetic Vertical Datum (NGVD) of 1929 (or other datum where specified), of floods of various magnitudes and frequencies in the floodplains of coastal or riverine areas.

"WATERCOURSE" means a lake, river, creek, stream, wash, arroyo, channel or other topographic feature on or over which waters flow at least periodically. Watercourse includes specifically designated areas in which substantial flood damage may occur.

(Amended by Ord. No. 3212, effective 10-29-98)

7-27-1015 APPLICATION:
This Chapter shall apply to all areas of special flood hazards within the jurisdiction of the County of Tulare.

7-27-1020 BASIS FOR ESTABLISHING THE AREAS OF SPECIAL FLOOD HAZARD:
The areas of special flood hazard identified by the Federal Insurance Administration, through the Federal Emergency Management Agency in a scientific and engineering report entitled "The Flood Insurance Study for Tulare County, California," dated September 29, 1986, with an accompanying Flood Insurance Rate Maps and Flood Boundary and Floodway Maps, dated September 29, 1986, and all subsequent amendments and/or revisions, are hereby adopted by reference and declared to be a part of this Ordinance. The Flood Insurance Study is on file at the County Public Works Department.

(Amended by Ord. No. 3212, effective 10-29-98)

7-27-1025 COMPLIANCE:
No structure or land shall hereafter be constructed, located, extended, converted, or altered without full compliance with the terms of this Chapter and other applicable regulations.

7-27-1030 ABROGATION AND GREATER RESTRICTIONS:
This Chapter is not intended to repeal, abrogate, or impair any existing easements, covenants, or deed restrictions. However, where this Chapter and another chapter, ordinance, easement, covenant, or deed restriction, conflict or overlap, whichever imposes the more stringent restrictions shall prevail.

7-27-1035 INTERPRETATION:
In the interpretation and application of this Chapter, all provisions shall be:

(1) Considered as minimum requirements.

(2) Liberally construed in favor of the County of Tulare.

(3) Deemed neither to limit or repeal any other powers granted under state statutes.

7-27-1040 WARNING AND DISCLAIMER OF LIABILITY:
The degree of flood protection required by this Chapter is considered reasonable for regulatory purposes and is based on scientific and engineering considerations. Larger floods can and will occur on rare occasions. Flood heights may be increased by man made or natural causes. This Chapter does not imply that land outside the areas of special flood hazards or uses permitted within such areas will be free from flooding or flood damages. This Chapter shall not create liability on the part of the County of Tulare, any officer or employee thereof, or the Federal Emergency Management Agency, for any flood damages that result reliant on this Chapter or any administrative decision lawfully made thereunder.

7-27-1041 SEVERABILITY:
This Chapter and the various parts thereof are hereby declared to be severable. Should any section of this Chapter be declared by the courts to be unconstitutional or invalid, such decision shall not affect the validity of the Chapter as a whole or any portion thereof, other than the section so declared to be unconstitutional or invalid.

(Amended by Ord. No. 3212, effective 10-29-98)

ARTICLE 3. ADMINISTRATION

7-27-1090 ESTABLISHMENT OF BUILDING PERMIT:
A Building Permit shall be obtained in accordance with Chapter 15 of this Part before construction or development is commenced within any area of special flood hazard established in section 7-27-1020 of this Chapter. In addition to the requirements of Chapter 15, an application for a Building Permit shall be made on forms furnished by the Planning and Development Director and may include, but not be limited to: plans in duplicate scale showing the nature, location, dimensions, and elevation of the area in question; existing or proposed structures, fill, storage of materials, drainage facilities, and the location of the foregoing. Specifically, the following information is required:

(a) Site plan, including but not limited to:

(1) For all proposed structures, spot ground elevations at building corners and 20-foot or smaller intervals along the foundation footprint, or one foot contour elevations throughout the building site; and

(2) Proposed locations of water supply, sanitary sewer, and utilities; and

(3) If available, the base flood elevation from the Flood Insurance Study and/or Flood Insurance Rate Map: and

(4) If applicable, the location of the regulatory floodway; and

(b) Foundation design detail, including but not limited to:

(1) Proposed elevation in relation to mean sea level, of the lowest floor (including basement) of all structures; and

(2) For a crawl-space foundation, location and total net area of foundation openings as required in Section 7-27-1180 of this Chapter and FEMA Technical Bulletins TB1-93 and TB7-93; and

(3) For foundations placed on fill, the location and height of fill, and compaction requirements (compacted to 95 percent using the Standard Proctor Test method); and

(c) Proposed elevation in relation to mean sea level to which any nonresidential structure will be floodproofed, as required in Section 7-27-1180 of this Chapter and FEMA Technical Bulletin TB 3-93; and

(d) All appropriate certifications listed in Section 7-27-1180 of this Chapter; and

(e) Description of the extent to which any watercourse will be altered or relocated as a result of proposed development.

7-27-1095 DESIGNATION OF RESPONSIBILITY:
The Planning and Development Director and Public Works Director are hereby appointed as Floodplain Administrators to jointly administer and implement this Chapter by granting or denying building permit applications in accordance with its provisions.

(Amended by Ord. No. 3212, effective 10-29-98)

7-27-1100 JOINT DUTIES AND RESPONSIBILITIES:
The joint duties and responsibilities of the Planning and Development Director

and Public Works Director shall include, but not be limited to:

(a) Development Review:

(1) Review of all building permits to determine that the permit requirements of this Chapter have been satisfied.

(2) Review of all permits to determine that the site is reasonably safe from flooding.

(3) Review of all building permits to determine if the proposed development adversely affects the flood carrying capacity of the area of special flood hazard. For purposes of this Chapter, "adversely affected" means that the cumulative effect of the proposed development, when combined with all other existing and anticipated development, will not increase the water surface elevation of the base flood more than one (1) foot at any point.

(4) Review of all proposals for the development of five (5) or more lots or dwelling units to assure that the flood discharge exiting the development after construction is equal to or less than the flood discharge at the location prior to development.

(b) Review Use and Develop Other Base Flood Data:

(1) When the base flood elevation data has not been provided in accordance with section 7-27-1020 (special flood hazard areas designated as Zone A on the FIRM), the Planning and Development Director and Pubic Works Director shall obtain, review, and reasonably utilize the best base flood data available from any source (federal, state or other) such as: high water mark(s), floods of record, or private engineering reports, in order to administer Article 5 of this Chapter and provide the developer with an estimated base flood elevation.

(2) If no base flood elevation data is available from a federal or state agency or other source, then a base flood elevation shall be obtained using one of two methods from the FEMA publication "Managing Floodplain Development in Approximate Zone A Areas--A Guide for obtaining and developing Base (100-year) Flood Elevations" dated july 1995 in order to administer Article 5:

(A) Simplified method.

(i) 100 year or base flood discharge shall be obtained using the appropriate regression equation found in a U.S. Geological Survey

publication, or the discharge-drainage area method; and

(ii) Base flood elevation shall be obtained using the Quick-2 computer program developed by FEMA; or

(B) Detailed method. The 100 year or base flood discharge and the base flood elevation shall be obtained using detailed methods identified in FEMA Publication 265, published in July 1995 and titled: "Managing Floodplain Development in Approximate Zone A Areas-A Guide for Obtaining and Developing Base (100 year) Flood Elevation".

(C) Documentation of Floodplain Development. Obtain and maintain for public inspection and make available as needed the following:

(i) Certification required by Section 7-27-1180 and Section 7-27-1210 (lowest floor elevations).

(D) Map Determinations. Make interpretations where needed, as to the exact location of the boundaries of the areas of special flood hazard. Where there appears to be a conflict between a mapped boundary and actual field conditions, grade and base flood elevations shall be used to determine the boundaries of the special flood hazard area. The person contesting the location of the boundary shall be given a reasonable opportunity to appeal the interpretation as provided in Section 7-27-1315.

(E) Remedial Action. Take action to remedy violations of this Chapter as specified in Section 7-27-1025.

(Amended by Ord. No. 3212, effective 10-29-98)

7-27-1105 DUTIES AND RESPONSIBILITIES OF THE PLANNING AND DEVELOPMENT DIRECTOR:

The duties and responsibilities of the Planning and Development Director shall include, but not be limited to:

(a) Referral and inspection:

(1) Refer all building permits for property located within special flood hazard areas to the Public Works Director for review prior to approval.

(2) Inspect all construction, including installation of mobilehomes, to insure compliance with the requirements of this Chapter.

(b) Information to be Obtained and Maintained: Obtain and maintain for public inspection and make available as needed for flood insurance policies:

(1) The certified elevation required in section 7-27-1180(a); (residential)

(2) The certification required in section 7-27-1180(b); (shallow flooding)

(3) The certification required in section 7-27-1180(c); (Zone A)

(4) The floodproofing certification required in section 7-27-1180(d); (non residential)

(5) The certified elevation required in section 7-01-2035; (subdivision) and

(6) The anchoring and compliance certification required in section 7-27-1210(b) and (d) (mobile-home).

(c) FEMA Reports:

Upon request by the Federal Emergency Management Agency (FEMA), prepare and submit reports to FEMA concerning the County's participation in the National Flood Insurance Program.

7-27-1110 DUTIES AND RESPONSIBILITIES OF THE PUBLIC WORKS DIRECTOR:

The duties and responsibilities of the Public Works Director in his capacity as Engineer to the Tulare County Flood Control District, shall include, but not be limited to:

(a) Alteration of Watercourses:

Notify adjacent cities and counties and the State Reclamation Board prior to any alteration or relocation of a watercourse, and submit evidence of such notification to the Federal Emergency Management Agency (FEMA).

(b) Interpretation of Flood Insurance Rate Map (FIRM) Boundaries:

Provide interpretations, where needed, as to the exact location of the boundaries of the areas of special flood hazards. Where there appears to be a conflict between a mapped boundary and actual field conditions, the applicant may file for a "Letter of Map Amendment" (LOMA) in accordance with the National Flood Insurance Program. The LOMA may be filed with the Public Works Director for transmittal to FEMA in the manner provided by law.

7-27-1115 FLOOD CONTROL MASTER PLAN:

The Board of Supervisors, Planning Commission, Site Plan Review Committee and Zoning Administrator shall weigh all requests for future floodplain development against the Flood Control Master Plan of the Tulare County Control

District. Consideration of the following elements are required before approval:

(1) Determination of whether or not a proposed development is in or affects a known flood plain.

(2) Inform the public of the proposed activity.

(3) Determine if there is a practicable alternative or site for the proposed activity.

(4) Identify the impact of the activity on the flood plain.

(5) Provide a plan to mitigate the impact of the activity in accordance with the provisions in section 7-27-1100(a)(4).

ARTICLE 5. PROVISIONS FOR FLOOD HAZARD REDUCTION

7-27-1165 STANDARDS OF CONSTRUCTION:
In all areas of special flood hazard shown on the FIRM, the standards set forth in this Article shall be required.

7-27-1170 ANCHORING:
(a) All new construction and substantial improvements shall be anchored to prevent flotation, collapse or lateral movement of the structure.

(b) All mobilehomes shall meet the anchoring standards of section 7-27-1210 (a).

7-27-1175 CONSTRUCTION MATERIALS AND METHODS:
(a) All new construction and substantial improvements shall be constructed with flood resistant materials as specified in FEMA Technical Bulletin TB 2-93, and utility equipment resistant to flood damage.

(b) All new construction and substantial improvement shall use methods and practices that minimize flood damage.

(c) All elements that function as a part of the structure, such as furnace, hot water heater, air conditioner, etc., shall be elevated to or above the base flood elevation or depth number specified on the Flood Insurance Rate Map (FIRM).

(d) If within Zones AH or AO, so that there are adequate drainage paths around structures on slopes to guide floodwaters around and away from proposed structures.

(Amended by Ord. No. 3212, effective 10-29-98)

7-27-1180 ELEVATION AND FLOODPROOFING:

(a) New construction and substantial improvement of any structure shall have the bottom of the lowest floor, including basement, elevated to or above the base flood elevation. Nonresidential structures may meet the optional standards in paragraph (d) of this Section. Prior to issuance of the occupancy permit or certificate, the elevation of the lowest floor, including the basement, shall be certified by a registered civil engineer or land surveyor that the elevation requirements have been met and verified by the County Surveyor. Notification of compliance shall be recorded as set forth in Section 7-27-1105 (b).

(b) New construction and substantial improvement of any structure in Zone AO shall have the bottom of the lowest floor, including basement, elevated to or above the depth number specified on the Flood Insurance Rate Map (FIRM) as measured from the highest adjacent grade. Nonresidential structures may meet the optional standards in paragraph d of this Section. Prior to issuing the occupancy permit, compliance with the elevation requirement shall be certified by a registered civil engineer or land surveyor and verified by the County Surveyor. Notification of compliance shall be recorded as set forth in Section 7-27-1105 (b).

(c) If no base flood elevation or depth number is provided on the FIRM (Zone A), any new construction or substantial improvement of any structure shall have the bottom of the lowest floor, including basement, elevated to:

(1) a height of at least two (2) feet above the highest adjacent grade or,

(2) Eighteen (18) inches above the top of the curb across the front of the lot, or

(3) Said base flood elevation shall be determined by one of the methods in Section 7-27-1100 (b)

Nonresidential structures may meet the optional standards set forth in paragraph (d) of this section. Prior to issuing the occupancy permit, compliance with the elevation requirement shall be certified by a registered civil engineer or land surveyor, and verified by the County Surveyor. Notification of compliance shall be recorded as set forth in Section 7-27-1105 (b).

(d) Nonresidential construction shall either be elevated in conformance with paragraphs (a), (b) or (c) of this section or together with attendant utility and sanitary facilities, be floodproofed to the base flood elevation by one or more of the following:

(1) Installation of watertight doors, bulkheads, and shutters.

(2) Reinforcement of walls to resist water pressure.

(3) Use of paints, membranes, or mortars to reduce seepage through walls.

(4) Addition of mass or weight to structure to resist flotation.

(5) Armour protection of all fill materials from scour and/or erosion.

Certification by a registered civil engineer or architect that the standards of this paragraph are satisfied shall be provided to the Planning and Development Director as set forth in section 7-27-1105(b).

(e) All new construction and substantial improvement with fully enclosed areas below the lowest floor (excluding basements) that are usable solely for parking of vehicles, building access or storage, and which are subject to flooding, shall be designed to automatically equalize hydrostatic flood forces on exterior walls by allowing for the entry and exit of floodwater. Designs for meeting this requirement shall follow the guidelines in FEMA Technical Bulletins TB 1-93 and TB 7-93, and must exceed the following minimum criteria:

(1) Have a minimum of two openings having a total net area of not less than one square inch for every square foot of enclosed area subject to flooding. The bottom of all openings shall be no higher than one foot above grade. Openings may be equipped with screens, louvers, valves or other coverings or devices provided that they permit the automatic entry and exit of flood water; or

(2) Be certified by a registered professional engineer or architect.

(Amended by Ord. No. 3212, effective 10-29-98)

7-27-1185 STANDARDS FOR ELEVATION CERTIFICATES:

(a) Certification of the elevation of the lowest floor or floodproofed elevation is required at that point where the footings are set and slab poured. Failure to submit an elevation certification shall be cause to issue a stop-work order for the project. As built plans certifying the elevation of the lowest adjacent grades is also required.

(b) Except within zones A and AO, the benches that are shown on the FIRM shall be used in calculating the elevation of the lowest floor.

(c) If fill is used to elevate a structure above the base flood elevation, the permit holder may apply for a Letter of Map Amendment (LOMA), as set forth in section 7-27-1110(b).

(Amended by Ord. No. 3212, effective 10-29-98)

7-27-1190 STANDARDS FOR ALLUVIAL FANS:
Areas subject to alluvial fan flooding have irregular flow paths that result in erosion of existing channels and the undermining of fill material. Those areas are identified on the Flood Insurance Rate Map (FIRM) as AO Zones with velocities.

(a) All structures must be securely anchored to minimize the impact of the flood and sediment damage.

(b) All new construction and substantial improvements must be elevated on pilings, columns, or armoured fill so that the bottom lowest floor beam is elevated at or above the depth number.

(c) Use of all fill materials must be armoured to protect the material from the velocity of the flood flow.

(d) All proposals for subdivision development must provide a mitigation plan that identifies the engineering methods used to:

(1) Protect structures from erosion and scour caused by the velocity of the flood flow.

(2) Capture or transport flood and sediment flow through the subdivision to a safe point of disposition.

(e) All mobilehomes shall be prohibited within the identified hazard area except within existing mobilehome parks or subdivisions.

7-27-1195 STANDARDS FOR STORAGE OF MATERIALS AND EQUIPMENT:
(a) The storage or processing of materials that are, in time of flooding, buoyant, flammable, explosive, or could be injurious to human, animal, or plant life, is prohibited.

(b) Storage of other materials or equipment may be allowed if not subject to major damage by floods and firmly anchored to prevent flotation or if readily removable from the area within the time available after flood warning.

7-27-1200 STANDARDS FOR UTILITIES:
(a) All new and replacement water supply and sanitary sewage systems shall be designed to minimize or eliminate infiltration of flood waters into the system and discharge from systems into flood waters

(b) On site waste disposal systems shall be located to avoid impairment to them or contamination from them during flooding.

7-27-1205 STANDARDS FOR SUBDIVISIONS:
The design and improvement standards for subdivisions located within areas of special flood hazard are set forth in Chapter 1 of this Part.

7-27-1210 STANDARDS FOR MOBILEHOMES AND MOBILEHOME PARKS AND SUBDIVISIONS:
(a) All new mobilehomes and additions to mobilehomes shall be anchored to resist flotation, collapse, or lateral movement by at least one of the following methods:

(1) By providing an anchoring system designed to withstand horizontal forces of 15 pounds per square foot and uplift forces of 9 pounds per square foot; or

(2) By the anchoring of the unit's system, designed to be in compliance to the Department of Housing and Urban Development Mobilehome Construction and Safety Standards: or

(3) By bolting the frame or undercarriage to a reinforced, permanent foundation such as a retaining wall or storm wall used to set the unit.

As set forth in section 7-27-1105(b), certification meeting the standards above is required of the installer or state agency responsible for regulating the placement, installation, and anchoring of individual mobilehome units.

(b) The following standards shall be required for mobilehomes not placed in mobilehome parks or subdivisions, new mobilehome parks or subdivisions, expansions to existing mobilehome parks or subdivisions, and repair, reconstruction, or improvements to existing mobilehome parks or subdivisions that equals or exceeds 50 percent of the value of the streets, utilities, and pads before the repair, reconstruction or improvement commences:

(1) Adequate surface drainage and access for a hauler shall be provided.

(2) All mobilehomes shall be placed on pads or lots elevated on compacted fill or on pilings so that the lowest floor of the mobilehome is at or above the base flood level. If elevated on pilings:

(i) The lots shall be large enough to permit steps.

(ii) The pilings shall be placed in stable soil no more than ten (10) feet apart.

(iii) Reinforcement shall be provided for pilings more than six (6) feet above ground level.

(c) Certification of compliance is required of the developer responsible for the plan or state agency responsible for regulating mobilehome placement.

(d) Upon the completion of the structure, the elevation of the lowest floor including basement shall be certified by a registered professional engineer or surveyor, and verified by the community building inspector to be properly elevated. Such certification and verification shall be provided to the Floodplain Administrator.

7-27-1211 STANDARDS FOR RECREATIONAL VEHICLES:
All recreational vehicles placed on sites within Zones A1-30, AH, and AE on the community's Flood Insurance Rate Map will either:

(a) Be on the site for fewer than 180 consecutive days, and be fully licensed and ready for highway use a recreational vehicle is ready for highway use if it is on its wheels or jacking system, is attached to the sit only by quick disconnect type utilities and security devices, and has no permanently attached additions, or

(b) Meet the permit requirements of Article 3 of this Chapter and the elevation and anchoring requirements for manufactured homes in Section 7-27-1210.

(Added by Ord. No. 3212, effective 10-29-98)

7-27-1215 FLOODWAYS:
Areas designated as floodways are located within areas of special flood hazard established in section 7-27-1020. Since the floodway is an extremely hazardous area due to the velocity of floodwaters which carry debris, potential projectiles, and erosion potential, the following provisions apply:

(a) Prohibit encroachments, including fill, new construction, substantial improvements, and other development unless certification by a registered civil engineer is provided demonstrating that encroachments shall not result in any increase in flood levels during the occurrence of the base flood discharge.

(b) If no floodway is identified, the Public Works Director may require the permit holder to provide an engineering study for the project area that establishes a setback where no encroachment of any new development will be allowed that would increase the water surface elevation of the base flood plus one (1) foot; or establish a setback from the stream bank equal to five (5) times the width of the stream at the top of the bank or twenty (20) feet on each side from the top of the bank, whichever is greater.

(c) No mobilehome shall be placed in a floodway, except in an existing mobilehome park or existing mobilehome subdivision.

(d) The requirements of section 14.7 of the County Zoning Ordinance (Ordinance No. 352 as amended) shall also be applicable at such time that the County Zoning Map is amended to apply F I zoning within the floodway.

ARTICLE 7. VARIANCES

7-27-1265 VARIANCES: AUTHORITY TO ACT:

If practical difficulties, unnecessary hardships or results inconsistent with the general purpose of this Chapter result through the strict interpretation and enforcement of this Chapter, then the Zoning Administrator shall have the authority to grant a variance from the provisions of this Chapter such as may be in harmony with its general purpose and intent, so that the spirit of this Chapter shall be observed, public safety and welfare served and substantial justice done.

7-27-1270 APPLICATIONS FOR VARIANCES: FEES:

(a) The Zoning Administrator shall grant a variance under the provisions of this Article only upon the filing of a written application therefore by the owner of the real property affected or his or her authorized agent. The Resources Management Agency Director shall prescribe the form of application for such variances.

(b) Unless otherwise provided, the Board of Supervisors shall adopt, from time to time by resolution, a schedule of fees to be paid by applicants with each application for a variance to defray the expenses incidental to the proceedings. No part of said fee shall be returned to the applicant if he or she subsequently withdraws the application, except in accordance with Section 130 of this Ordinance Code.

(c) An additional fee in the amount of Ten Dollars ($10.00) shall be collected for each variance application to defray the expenses incidental to maintaining and enhancing the automated permit processing equipment and software utilized in the Planning and Development Department for processing of planning and building permits and certificates.

(d) Unless otherwise provided herein, whenever there is a joint filing of multiple applications and the applicant consents to the consolidated processing of those applications, the applicable filing fees shall be reduced by twenty-five percent (25%). As used here in, the term "multiple applications" shall consist of two (2) or more applications for changes of zone, special use permits (including amendments thereto), variances, planned unit developments and planned developments, tentative subdivision maps, tentative parcel maps (including vesting maps), building line setback variances, flood variances, and surface mining permits and reclamation plans (including amendments thereto) which pertain to the same project.

(Amended by Ord. No. 3184, effective 6-7-97.) (Amended by Ord. No. 3262, effective 10-2-01)

7-27-1275 PROCEDURE FOR PROCESSING VARIANCES:

(a) Before acting on a variance the Zoning Administrator shall hold at least one (1) public hearing. Notice of such public hearing shall be given by publishing a notice of such hearing setting forth the time and place of the hearing and the nature of the variance requested, in a newspaper of general circulation published in the County, once, not less than ten (10) days prior to the date of such public hearing, and by mailing a copy of the notice of said hearing, not less than ten (10) days prior to the date of such public hearing, to the following persons or agencies:

(1) The applicant.

(2) County Flood Control Engineer.

(3) County Public Works Director.

(4) Supervisor of the Supervisorial District in which the property is located.

(5) State Reclamation Board.

(6) All owners of real property as shown on the latest equalized assessment roll within 300 feet of the real property which is the subject of the variance.

(b) The decision of the Zoning Administrator shall be in writing and shall include findings of facts relied on in making the decision.

(c) A copy of the decision of the Zoning Administrator shall be publicly posted at or near the door of the Planning and Development Department for a period of one (1) week following the making thereof. Not more than two (2) days after making the decision on the application, the Zoning Administrator shall cause a copy of the decision to be mailed to the applicant, to the Board of Supervisors, and to any other person who has expressed an interest therein and has deposited with the Zoning Administrator a self addressed, stamped envelope for that purpose. Failure to mail or to receive such notice, as a result of mistake or inadvertence, shall not affect the validity of the decision.

7-27-1280 VARIANCES: FACTORS TO CONSIDER:

(a) In passing upon such applications, the Zoning Administrator shall consider all technical evaluations and all relevant factors and standards specified in this Chapter, and:

(1) The danger that materials may be swept onto other lands to the injury of others.

(2) The danger to life and property due to flooding or erosion damage.

(3) The susceptibility of the proposed facility and its contents to flood damage and the effect of such damage on the individual owner.

(4) The importance of the services provided by the proposed facility to the County.

(5) The necessity to the facility of a waterfront location, where applicable.

(6) The availability of alternative locations for the proposed uses that are not subject to flooding or erosion damage.

(7) The compatibility of the proposed use with existing and anticipated development.

(8) The relationship of the proposed use to the County General Plan and the floodplain management program for that area.

(9) The safety of access to the property in times of flood for ordinary and emergency vehicles.

(10) The expected heights, velocity, duration, rate of rise, and sediment transport of the flood waters expected at the site.

(11) The costs of providing governmental services during and after flood conditions, including maintenance and repair of public utilities and facilities such as sewer, gas, electrical, and water systems, and streets and bridges.

(b) Any applicant to whom a variance is granted shall be given written notice over the signature of the Zoning Administrator that:

(1) The issuance of a variance to construct a structure below the base flood level will result in increased premium rates for flood insurance up to amounts as high as $24 for $100 of insurance coverage; and

(2) Such construction below the base flood level increases risks to life and property.

(Amended by Ord. No. 3212, effective 10-29-98)

7-27-1285 VARIANCES: PRIOR CONSENT:

No variance which is subject to the provisions of section 8414.2 of the California

Water Code shall be approved without the prior written consent of the Department of Water Resources or State Reclamation Board and of the Engineer for the County Flood Control District.

7-27-1290 VARIANCES: LOT SIZE CONSIDERATIONS:
Generally, variances may be approved for new construction and substantial improvements to be erected on a lot of one half acre or less in size contiguous to and surrounded by lots with existing structures constructed below the base flood level, provided the factors set forth in section 7-27-1280 have been fully considered. As the lot size increases beyond one half acre, the technical justification required for issuing the variance increases.

7-27-1295 VARIANCES: AUTHORITY TO IMPOSE CONDITIONS:
Upon consideration of the factors set forth in section 7-27-1280 and the purposes of this Chapter, the Zoning Administrator may attach such conditions to the granting of variances as he or she deems necessary to further the purpose of this Chapter.

7-27-1300 VARIANCES: CONDITIONS:
(a) Variances may be granted for the reconstruction, rehabilitation or restoration of structures listed on the National Register of Historic Places or the State Inventory of Historic Places, without regard to the procedures set forth in the remainder of this section.

(b) Variances shall not be granted within any floodway if any increase in flood levels during the base flood discharge would result.

(c) Variances shall only be granted upon a determination that the variance is the minimum necessary, considering the flood hazard, to afford relief.

(d) Variances shall only be granted upon:

(1) A showing of good and sufficient cause such as renovation, rehabilitation, or reconstruction. Variances for reasons of economic considerations, aesthetics, or because variances have been used in past shall not be considered good and sufficient cause.

(2) A determination that failure to grant the variance would result in exceptional hardship to the applicant.

(3) A determination that the granting of a variance will not result in increased flood heights, additional threats to public safety, extraordinary public expense, create nuisances, cause fraud on or victimization to the public, or conflict with existing County ordinances.

(e) Any applicant to whom a variance is granted shall be given written notice that the structure will be permitted to be built with a lowest flood elevation below the base flood elevation and that the cost of flood insurance will be commensurate with the increased risk resulting from the reduced floor elevation.

7-27-1305 USE PERMIT:
Notwithstanding the provisions of section 7-27-1265, no variance shall be required under this Article if the proposed construction or substantial improvements have been approved in accordance with the use permit requirements set forth in section 14.7 of the County Zoning Ordinance (Ordinance No. 352, as amended).

7-27-1310 REVOCATIONS:
Any variance which is granted subject to conditions may be revoked by the Zoning Administrator if any of the conditions are violated. The same procedures shall be followed for revocation of a variance as are followed for granting a variance, including the appeal procedures, except that notice of the public hearing by the Zoning Administrator on revocation need not be published in a newspaper.

7-27-1315 APPEALS:
(a) Except as herein provided, all appeals regarding decisions on variances shall be subject to the provisions of section 165 of this Ordinance Code.

(b) Any person adversely affected by a decision of the Zoning Administrator on the variance may appeal the decision to the Board of Supervisors. An appeal to the Board of Supervisors shall be in writing and filed with the Clerk of the Board of Supervisors within ten (10) days after the date on which the decision of the Zoning Administrator was made. An appeal shall specifically set forth the grounds for the appeal. In addition to the notice requirement of section 165 of this Ordinance Code, the Board shall give notice of the appeal hearing to the persons and agencies named in section 7-27-1275 of this Article for giving notice by the Zoning Administrator.

(c) At the time of filing the appeal, the appellant shall pay a fee of One Hundred and Fifty Dollars ($150) to the Planning and Development Director to defray the expenses incidental to the proceedings.

7-27-1320 RECORDS:
The Planning and Development Director as Floodplain Administrator shall maintain a record of all variance actions, including justification for their issuance and any appeal actions, and report any variances issued in its biennial report submitted to the Federal Insurance Administration of the Federal Emergency Management Agency.

(Amended by Ord. No. 3212, effective 10-29-98)

ARTICLE 9. NUISANCE, VIOLATIONS

7-27-1370 NUISANCE:

Any building, structure, substantial improvement, or other installation which is subject to this Chapter and which is not in full compliance with the requirements of this Chapter shall constitute a public nuisance.

7-27-1375 VIOLATIONS:

Any person violating any of the provisions of this Chapter which are declared to be unlawful shall be guilty of an infraction and shall be punishable as provided in section 125 of this Ordinance Code. Each such person shall be deemed guilty of a separate offense for each and every day, or portion thereof, during which any violation of any such provision of this Chapter is committed, permitted or continued by such person, and shall be punishable therefore as provided hereinabove.

This page of the Tulare County Code is current through Ordinance 3402, passed March 2, 2010.
Disclaimer: The Clerk of the Board's Office has the official version of the Tulare County Code. Users should contact the Clerk of the Board's Office for ordinances passed subsequent to the ordinance cited above.

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BEFORE THE BOARD OF SUPERVISORS
COUNTY OF TULARE, STATE OF CALIFORNIA

IN THE MATTER OF ORDINANCE AMENDING CERTAIN SECTIONS OF THE TULARE COUNTY ORDINANCE CODE PERTAINING TO FLOOD DAMAGE PREVENTION	))))	RESOLUTION NO. 2011-0303 ORDINANCE NO. 3425

UPON MOTION OF SUPERVISOR WORTHLEY, SECONDED BY SUPERVISOR COX, THE FOLLOWING WAS ADOPTED BY THE BOARD OF SUPERVISORS, AT AN OFFICIAL MEETING HELD MAY 10, 2011, BY THE FOLLOWING VOTE:

AYES: SUPERVISORS ISHIDA, VANDER POEL, COX, WORTHLEY AND ENNIS
NOES: NONE
ABSTAIN: NONE
ABSENT: NONE

BOARD OF SUPERVISORS * TULARE COUNTY, CA *

ATTEST: JEAN M. ROUSSEAU
COUNTY ADMINISTRATIVE OFFICER/
CLERK, BOARD OF SUPERVISORS

BY: Denise A. Ybarra
Deputy Clerk

1. On May 10, 2011, waived the second reading and adopted the Ordinance amending Sections 7-27-1010, 7-27-1100, 7-27-1110, 7-27-1180, 7-27-1205, and 7-27-1215 of Chapter 27 of Part VII of the Tulare County Ordinance Code pertaining to flood damage prevention.

2. Directed the Clerk to the Board to publish a summary and post a certified copy of the ordinance within fifteen (15) days after adoption in accordance with Government Code Section 25124(b)(1).

RMA
Co. Counsel
Library

DAY
05/10/11

Attachment 5b

ORDINANCE NO. 3425

Pursuant to Government Code Section 25124(b)(1), the following is a summary of an ordinance that amends Sections 7-27-1010, 7-27-1100, 7-27-1110, 7-27-1180, 7-27-1205, and 7-27-1215, to Articles 1, 3, and 5, Chapter 27 of Part VII of the Tulare Ordinance Code, pertaining to flood damage prevention.

Summary of the Proposed Ordinance

The proposed ordinance includes additional definitions to Section 7-27-1010 Definitions of Article 1 GENERAL PROVISIONS.

The proposed ordinance will add new responsibility for local implementation and notifications to other agencies to Section 7-27-1100 Joint Duties and Responsibilities, and 7-27-1110 Duties and Responsibilities of the Public Works Director, of Article 3 ADMINISTRATION.

The proposed ordinance will add new flood proofing requirement to Section 7-27-1180, add clarifications for subdivisions of Special Flood Hazard Areas to Section 7-27-1205, define limitations on development to "no net rise" in Section 7-27-1215, of Article 5 PROVISIONS FOR FLOOD HAZARD REDUCTION.

The effective date of these changes shall be 30 days after adoption by the Board of Supervisors.

COUNTY OF TULARE

By: Mike Ennis
Chairman, Board of Supervisors

ATTEST: Jean M. Rousseau
County Administrative Officer/
Clerk to the Board of Supervisors

By: Denise A. YBarra
Deputy

ORDINANCE NO.

AN ORDINANCE AMENDING SECTIONS 7-27-1010, 7-27-1100, 7-27-1110, 7-27-1180, 7-27-1205, AND 7-27-1215, OF CHAPTER 27 OF PART VII OF THE ORDINANCE CODE OF TULARE COUNTY PERTAINING TO FLOOD DAMAGE PREVENTION

THE BOARD OF SUPERVISORS OF THE COUNTY OF TULARE ORDAINS AS FOLLOWS:

Section 1. Section 7-27-1010 is hereby amended to be read as follows:

7-27-1010 DEFINITIONS:

Unless specifically defined below, words or phrases used in this Chapter shall be interpreted so as to give them the meaning they have in common usage and to give this Chapter its most reasonable application.

"ACCESSORY USE" means a use which is incidental and subordinate to the principal use of the parcel of land on which it is located.

"ALLUVIAL FAN" is an area subject to flooding when the flood plain is comprised of low flow channels where sediment accompanies the shallow flooding and the unstable soils scour and erode during a flooding event.

"APPEAL" means a request for a review of the Floodplain Administrator's interpretation of any provision of this Chapter.

"AREA OF SHALLOW FLOODING" is a designated AO or VO Zone on the Flood Insurance Rate Map. In these zones, the base flood depths range from one to three feet; a clearly defined channels dose not exist; the noticeable path of flooding is unpredictable and indeterminate; and, noticeable velocity flow may be evident.

"AREA OF SPECIAL FLOOD HAZARD" has the same meaning as "SPECIAL FLOOD HAZARD AREA"

"BASE FLOOD" is the flood having a one percent chance of being equaled or exceeded any given year.

"BASEMENT" means any area of the building having its floor sub grade (below ground level on all sides).

"BREAKAWAY WALLS" are any types of walls, whether solid or lattice, and whether constructed of concrete, masonry, wood, metal, plastic or any other suitable building material which is not part of the structural support of the building and which is so designed as to breakaway under abnormal flood conditions without damage to the structural integrity of the building on which they are used or any building to which they might be carried by flood waters.

"BUILDING" has the same meaning as "Structure".

Attachment

BUILDING PERMIT" means a permit issued pursuant to Chapter 4 of Part VII of the Ordinance Code, including a mobile home installation permit.

"DEVELOPMENT" is any man-made change to improved or unimproved real estate (including filling, grading, paving, excavation, mining, dredging, storage of equipment or materials, or drilling operations) located within the area of special flood hazard.

"ENCROACHMENT" means the advance of infringement of uses, plant growth, fill, excavation, building, permanent structures or development into a floodplain which may impede or alter the flow capacity of a floodplain.

"EXISTING MANUFACTURED HOME PARK OR SUBDIVISION" *means a manufactured* home park or subdivision for which the construction of facilities for servicing the lots on which the manufactured homes are to be affixed (including, at a minimum, the installation of utilities, the construction of streets, and either final site grading or the pouring of concrete pads) is completed before the effective date of the floodplain management regulations adopted by the County.

"EXPANSION TO AN EXISTING MANUFACTURED HOME PARK OR SUBDIVISION" means the preparation or additional sites by the construction of facilities for servicing the lots on which the manufactured homes are to be affixed (including the installation of utilities, the construction of streets, and either final site grading or the pouring of concrete pads).

"FLOOD" OR "FLOODING" is a general and temporary condition of a partial or complete inundation of normally dry land areas from:

(a) The overflow of inland waters and/or

(b) The unusual and rapid accumulation of runoff of surface waters forms any source.

"FLOOD BOUNDARY FLOODWAY MAP" is the official map on which the Federal Emergency Management Agency had delineated both the areas of flood hazards and the floodways.

"FLOOD HAZARD BOUNDARY MAP" means the official map on which the Federal Emergency Management Agency or Federal Insurance Administration has delineated the areas of flood hazards.

"FLOOD INSURANCE RATE MAP" or "FIRM" is the official map on which the Federal Emergency Management Agency has delineated both the areas of special flood hazards and the risk premium zones applicable to the community.

"FLOOD INSURANCE STUDY" is the official report provided by the Federal Emergency Management Agency that includes flood profiles, the Flood Insurance Rate Map (FIRM), the Flood Boundary Floodway Map, and the water surface elevation of the base flood.

"FLOODPLAIN OR "FLOOD-PRONE AREA" means any land area susceptible to being inundated by water from any source. Also see "Flood" or "Flooding"

"FLOODPLAIN ADMINISTRATOR" is the individual or individuals appointed to administer and/or enforce the floodplain management regulations. See Section 7-27-1095

"FLOODPLAIN MANAGEMENT" means the operation of an overall program of the corrective and preventive measures for reducing flood damage and preserving and enhancing, where possible, natural resources in the floodplain, including but not limited to emergency preparedness plans, flood control works, floodplain management regulations, and open space plans.

"FLOODPLAIN MANAGEMENT REGULATIONS" means this chapter and other zoning ordinances, subdivision regulations, building codes, health regulations, special purpose ordinances (such as grading and erosion control) and other application of police power which control development in flood-prone areas. This term describes federal, state or local regulations in any combination thereof which provide standards for preventing and reducing flood loss and damage.

"FLOODPROOFING" means any combination of structural and non-structural additions, changes or adjustments to non-residential structures which reduce or eliminate flood damage to real estate or improved real property, water and sanitary facilities, structures, and their contents (Refer to FEMA Technical Bulletins TB 1-93, TB 3-93 and TB 7-93 for guidelines on dry and wet flood proofing).

"FLOOD-RELATED EROSION" is a condition that exists in conjunction with a flooding event that alters the composition of the bank of a watercourse and increases the possibility of loss due to the erosion of the land area adjacent to the watercourse.

"FLOODWAY" means the channel of a river or other watercourse and the adjacent land area that must be reserved in order to discharge the base flood without cumulatively increasing the water surface elevation more than one (1) foot. The floodway is delineated on the Flood Boundary Floodway Map, on maps adopted by the State Reclamation Board when acting within its jurisdiction, and/or on the County Zoning Map (signified by the F-1, Primary Flood Plain Zone).

"FLOODWAY FRINGE" is that area of the floodplain on either side of the "regulatory floodway" where encroachment may be permitted.

FRAUD AND VICTIMIZATION", as related to Section 7-27-1265 of this Chapter pertaining to variances, means that the variance grated must not cause fraud on or victimization of the public In examining this requirements, the Governing Body will consider the fact that every newly constructed building adds to government responsibilities and remains a part of the community for fifty to one hundred years; that building that are permitted to be constructed below the base flood elevation are subject during all those years to increased risk of damage from floods, while future owners of the property and the community as a whole are subject to all the costs, inconvenience, damage and suffering that those increase flood damages bring; and that, in addition, future owners may purchase the property, unaware that it is subject to potential flood damage, and can be insured only at a very high flood insurance rates.

"GOVERNING BODY" means the Board of Supervisors of the County of Tulare which is empowered to adopt and implement regulations to provide for the public health, safety and general welfare of its citizenry.

"HARDSHIP" as related to Section 7-27-1265 of this Chapter pertaining to variances means the exceptional hardship that would result from a failure to grant the requested variance. The hardship justifying a variance must be exceptional, unusual, and peculiar to the property involved. Mere economic or financial hardship alone is not exceptional. Inconvenience, aesthetic considerations, physical handicaps, personal preferences, or the disapproval of one's neighbors likewise cannot as a rule qualify as an exceptional hardship. All of these problems can be resolved through other means without granting a variance, even if the alternative is more expensive, or requires the property owner to build elsewhere or put the parcel to a different use than originally intended.

"HABITABLE FLOOR" means any floor usable for living purposes, which includes working, sleeping, eating or recreation, or a combination thereof. For flood insurance purposes, "Habitable floor" and "Lowest floor" will share the same definition.

"HIGHEST ADJACENT GRADE" means the highest natural elevation of the ground surface prior to construction next to the proposed walls of a structure

"HISTORIC STRUCTURE" means any structure that is:

1. Listed individually in the National Register of Historic Places (a listing maintained by the Department of Interior) or preliminarily determined by the Secretary of the Interior as meeting the requirements for individual listing on the National Register;

2. Certified or preliminarily determined by the Secretary of the Interior as contributing to the historical significance of a registered historic district or a district preliminarily determined by the Secretary to qualify as a registered historic district;

3. Individually listed on a state inventory of historic places in states with historic preservation programs which have been approved by the Secretary of Interior; or

4. Individually listed on a local inventory of historic places in communities with historic preservation programs that have been certified either by an approved state program as determined by the Secretary of the Interior or directly by the Secretary of the Interior in states without approved programs

"LEVEE" means a man-made structure, usually an earthen embankment, designed and constructed in accordance with sound engineering practices to contain, control, or divert the flow of water so as to provide protection from temporary flooding.

"LEVEE SYSTEM" means a flood protection system which consists of a levee, or levees, and associated structures, such as closure and drainage devices, which are constructed and operated in accordance with sound engineering practices.

"LOWEST FLOOR" means the lowest floor of the lowest enclosed area, including basement (see definition of "Basement"), as follows:

(a) An unfinished or flood resistant enclosure below the lowest floor this is useable for parking of vehicles, building access or storage in an area other than a basement area, is not considered a buildings lowest floor provided it conforms to applicable non-elevation design requirements including but not limited to :

(1) the wet floodproofing standard in Section 7-27-1180,

(2) the anchoring standards in Section 7-27-1170,

(3) the construction materials and methods standards in Section 7-27-1175,

(4) The standards for utilities in Section 7-27-1200.

(b) For residential structured, all the subgrade enclosed areas are prohibited as they are considered to be basements (see "Basement" definition). This prohibition includes below-grade garages and storage areas.

"MANUFACTURED HOME" means a structure, transportable in one or more sections, which is built on a permanent chassis and is designed for the use with or without a permanent foundation when attached to the required utilities, The term "manufactured home" dose not include a "recreational vehicle".

"MANUFACTURED HOME PARK OR SUBDIVISION" means a parcel (or contiguous parcels) of land divided into two or more manufactured home lots for rent or sale.

"MARKET VALUE" shall be determined by estimating the cost to replace the structure in new condition and adjusting that cost figure by the amount of depreciation which has accrued since the structure was constructed. The cost of replacement of the structure shall be based on a square foot cost factor determined by reference to a building cost estimating guide

recognized by the building construction industry. The amount of depreciation shall be determined by taking into account the age and physical deterioration of the structure and functional obsolescence as approved by the floodplain administrator, but shall not include economic or other forms of eternal obsolescence, Use of replacement costs or accrued depreciation factors different from those contained in recognized building cost estimating guides may be considered only if such factors are included in a report prepared by an independent prolessional appraiser and supported by a written explanation of the differences

"MEAN SEA LEVEL" means, for purposes of the National Flood Insurance Program, the National Geodetic Vertical Datum (NGVD) of 1929 of other datum, to which base flood elevations show on a community's Flood Insurance Rate Map are referenced.

"MOBILE HOME" is a structure, including a manufactured home certified under the National Mobile home Construction and Safety Standards Act of 1974, that is transportable in one or more sections, built on a permanent chassis, and designed to be used with or without a permanent foundation when connected to the requited utilities. It dose not include recreational vehicles or travel trailers placed on a site for less than 180 consecutive days, or factory–built housing on permanent slab foundation.

"NEW CONSTRUCTION" means structures for which the "start of construction" commenced on or after the effective date of this Chapter, and includes any subsequent improvements to such structures.

"NEW MANUFACTURED HOME PARK OR SUBDIVISION" means a manufactured home park or subdivision for which the construction of facilities for servicing the lots on which the manufactured homes are to be affixed (including at a minimum, the installation of utilities, the construction of streets, and either final site grading or the pouring of concrete pads) is completed on or after the effective date of this Chapter.

"OBSTRUCTION" includes, but not limited to, any dam, wall, wharf, embankment, levee, dike, pile, abutment, protection, excavation, channelization, bridge, conduit, building, wire, fence, rock, gravel, refuse, fill, structure, vegetation or other material in, along, across or projecting into any watercourse which may alter, impede, retard or change the direction and/or velocity of the flow of water, snare or collect debris carried by the flow of water, or is likely to be carried downstream.

"ONE-HUNDRED-YEAR FLOOD" or "100 YEAR FLOOD' has the same meaning as "BASE FLOOD".

"PUBLIC SAFETY AND NUISANCE" as related to Section 7-27-1265 of this Chapter pertaining to variances means that the granting of a variance must not result in anything which is injurious to safety or health of an entire community, neighborhood, or any considerable number of persons, or unlawfully obstructs the free passage or use, in the customary manner, of any navigable lake, river, bay, stream, canal, or basin.

"RECREATIONAL VEHICLE" means a vehicle which is:

(a) Built on a single chassis,

(b) Four hundred (400) square feet or less when measured at the largest horizontal projection,

(c) Designed to be self-propelled or permanently towable by a light-duty truck, and

(d) Designed primarily not for use as a permanent dwelling but as temporary living quarters for recreational, camping, travel, or seasonal use.

"REGULATORY FLOODWAY" means the channel of a river or other watercourse and the adjacent land areas that must be reserved in order to discharge the base flood without cumulatively increasing the water surface elevation more that one foot.

"REMEDY A VIOLATION" means to bring the structure or other development into compliance with State or local floodplain management regulations, or, if this is not possible, to reduce the impacts of its noncompliance,, Ways that impacts may be reduced include protecting the structure or other affected development from flood damages, implementing the enforcement provisions of the Chapter or otherwise deterring future similar violations, ore reducing State or Federal financial exposure with regard to the structure or other development.

"RIVERINE" means relating to, formed by, ore resembling a river (including tributaries), stream, brook, creek, or other similar watercourses.

"SHEET FLOW AREA" has the same meaning as "Area of shallow flooding".

"SPECIAL FLOOD HAZARD AREA" is the land in the flood plain subject to a one percent or greater chance of flooding in any given year. The area is designated as Zones A, AO, A1-A30 , AE, A99, or AH on the FIRM.

"START OF CONSTRUCTION" included substantial improvement and other proposed new development and means the date the building permit was issued, provided the actual start of construction, repair, reconstruction, rehabilitation, addition, placement, or other improvement was within 180 days from the date of the permit. The actual start means either the first placement of permanent construction of a structure on a site such as the pouring of slab or footings, the installation of piles, the construction of columns, or any work beyond the stage of excavation; or the installation of a mobile home to its permanent site. Permanent construction dose not include land preparation, such as clearing, grading and filling; not does it include the installation of streets and/or walkways; nor dose it include excavation for a basement, footings. piers, or foundations or the erection of temporary forms; nor does it include the installation on the property of accessory building, such as garages or sheds not occupied as dwelling units or not part of the main structure. Far a substantial improvement, the actual start of construction means the first alteration of any wall, ceiling, floor, or other structural part of a building, whether or not that alteration affects the external dimensions of the building.

STRUCTURE" is a walled and roofed building or mobilehome that is principally above ground.; this includes a gas or liquid storage tank or a manufactured home.

"SUBSTANTIAL DAMAGE" means damage of any origin sustained by a structure whereby the cost of restoring the structure to its before-damaged condition would equal or exceed 50 percent of the market value of the structure before the damage occurred.

"SUBSTANTIAL IMPROVEMENT" means any reconstruction, rehabilitation, addition, or other proposed new development of a structure, the cost of which equals or exceeds 50 percent of the market value of the structure either:

(a) Before the improvement or repair is started, or

(b) If the structure has been damaged, substantial damage, and is being restored, before the damage occurred. For the purpose of this definition, "substantial improvement" is considered to occur when the first alteration of any wall, ceiling, floor, or other structural part of the building commenced, whether or not that alteration affects the external dimensions of the structure.

This item dose not, however, include either:

(a) Any project for improvements of a structure to comply with existing state or County health, sanitary , or safety code specifications which are solely necessarily to assure safe living conditions, or

(b) Any alteration of a structure listed on the National Register of Historic Places or the State Inventory of Historic Places.

"VARIANCE" means a grant of relief from the requirements of this Chapter which permits construction in a manner that would otherwise be prohibited by this Chapter.

"VIOLATION" means the failure of a structure or other development to be fully compliant with this Chapter. A structure or other development without the elevation certificate, other certifications, or other evidence of compliance required in this Chapter is presumed to be in violation until such time as the documentation is provided.

"WATER SURFACE ELEVATION" means the height, in relation to the National Geodetic Vertical Datum (NGVD) of 1929 (or other datum where specified), of floods of various magnitudes and frequencies in the floodplains of the coastal or riverine areas.

"WATERCOURSE" means a lake, river, creek, stream, wash, arroyo, channel or other topographic feature on or over which waters flow at least periodically. Watercourse included specifically designated areas in which substantial flood damage may occur.

Section 2. Section 7-27-1100 is hereby amended to be read as follows:

7-27-1100 JOINT DUTIES AND RESPONSIBILITES:

The joint duties and responsibilities of the Planning and Development Director and Public Works Director shall include, but not be limited to:

(a) Development Review:

(1) Review of all building permits to determine that the permit requirements of this Chapter have been satisfied.

(2) Review of all other required state and federal permits have been obtained.

(3) Review of all permits to determine that the site is reasonably safe from flooding.

(4) Review of all building permits to determine if the proposed development adversely affects the flood carrying capacity of the area of special flood hazard. For purposes of this Chapter, "adversely affected" means that the cumulative effect of the proposed development, when combined with all other existing and anticipated development, will not increase the water surface elevation of the base flood more than one (1) foot at any point.

(5) Review of all proposals for the development of five (5) or more lots or dwelling units to assure that the flood discharge exiting the development after construction is equal to or less than the flood discharge at the location prior to development.

(b) Review Use and Develop Other Base Flood Data:

(1) When the base flood elevation data has not been provided in accordance with section 7-27-1020 (special flood hazard areas designated as Zone A on the FIRM), the Planning and Development Director and Public Works Director shall obtain, review, and reasonably utilize the best base flood data available from any source (federal, state, or other) such as: high water mark(s), floods of record, or private engineering reports, in order to administer Article 5 of this Chapter and provide the developer with an estimated base flood elevation.

(2) If no base flood elevation data is available from a federal or state or other source, then a base flood elevation shall be obtained using one of two methods from the FEMA publication "Managing Floodplain Development in Approximate Zone A Areas—A Guide for obtaining and developing Base (100 year) Flood Elevations" dated July 1995 in order to administer Article 5:

(A) Simplified method.

(i) 100 year or base flood discharge shall be obtained using the appropriate regression equation

found in a U.S. Geological Survey publication, or the discharge-drainage area method; and

(ii) Base flood elevation shall be obtained using the Quick-2 computer program developed by FEMA; or

(B) Detailed method. The 100 year or base flood discharge and the base flood elevation shall be obtained using detailed methods identified in FEMA Publication 265, published in July 1995 and titled: "Managing Floodplain Development in Approximate Zone A Areas—A Guide for obtaining and developing Base (100 year) Flood Elevation".

(C) Documentation of Floodplain Development. Obtain and maintain for public inspection and make available as needed the following:

(i) Certification required by Section 7-27-1180 and Section 7-27-1210 (lowest floor elevations).

(D) Map Determinations. Make interpretations where needed, as to the exact location of the boundaries of the special flood hazard. Where there appears to be a conflict between a mapped boundary and actual field conditions, grade and base flood elevations shall be used to determine the boundaries of the special flood hazard area. The person contesting the location of the boundary shall be given a reasonable opportunity to appeal the interpretation as provided in Section 7-27-1315.

(E) Remedial Action. Take action to remedy violation of this Chapter as specified in Section 7-27-1025

(c) Notification of other agencies:

(1) Base Flood Elevation changes due to physical alterations:

(A) Within 6 months of information becoming available or project completion, whichever comes first, the floodplain administrator shall submit or assure that the permit applicant submits technical or scientific data to FEMA for a Letter of Map Revision (LOMR).

(B) All LOMR's for flood control projects are approved prior to the issuance of building permits. Building Permits must not be issued based on Conditional Letters of Map Revision (CLOMR's). Approved CLOMR's allow construction of the proposed flood control project and land preparation as specified in the "start of construction" definition.

Such submissions are necessary so that upon confirmation of those physical changes affecting flooding conditions, risk premium rates and floodplain management requirements are based on current data.

(2) Changes in corporate boundaries:

Notify FEMA in writing whenever the corporate boundaries have been modified by annexation or other means and include a copy of a map of the community clearly delineating the new corporate limits.

Section 3. Section 7-27-1100 is hereby amended to be read as follows:

7-27-1110 DUTIES AND RESPONSIBILITIES OF THE PUBLIC WORKS DIRECTOR:

The duties and responsibilities of the Public Works Director in his capacity as Engineer to the Tulare County Flood Control District, shall include, but not be limited to:

(a) Alteration of Watercourses:

Notify adjacent cities and counties and the California Department of Water Resources prior to any alteration or relocation of a watercourse, submit evidence of such notification to the Federal Emergency Management Agency (FEMA), and assure that the flood carrying capacity within the altered or relocated portion of said watercourse is maintained.

(b) Interpretation of Flood Insurance Rate Map (FIRM) Boundaries:

Provide interpretations, where needed, as to the exact location of the boundaries of the areas of special flood hazards. Where there appears to be a conflict between a mapped boundary and actual field conditions, the applicant may file for a "Letter of Map Amendment" (LOMA) in accordance with the National Flood Insurance Program. The LOMA may be filed with the Public Works Director for transmittal to FEMA in the manner provided by law.

Section 4. Section 7-27-1180 is hereby changed to be read as follows:

7-27-1180 ELEVATION AND FLOODPROOFING:

(a) New construction and substantial improvement of any structure shall have the bottom of the lowest floor, including basement, elevated to or above the base flood elevation. Nonresidential structures may meet the optional standards in paragraph (d) of this Section. Prior to issuance of the occupancy permit or certificate, the elevation of the lowest floor, including the basement, shall be certified by a registered civil engineer or land surveyor that the elevation requirements have been met and verified by the County Surveyor. Notification of compliance shall be recorded as set forth in Section 7-27-1105 (b).

(b) New construction and substantial improvement of any structure in Zone AO shall have the bottom of the lowest floor, including basement, elevated to or above the depth number specified on the Flood Insurance Rate Map (FIRM) as measured from the highest adjacent grade. Nonresidential structures may meet the optional standards in paragraph (d) of this Section. Prior to issuing the occupancy permit, compliance with the elevation requirement shall be certified by a

registered civil engineer or land surveyor and verified by the County Surveyor. Notification of compliance shall be recorded as set forth in Section 7-27-1105 (b).

(c) If no base flood elevation or depth number is provided on the FIRM (Zone A), any new construction or substantial improvement of any structure shall have the bottom of the lowest floor, including basement, elevated to:

(1) a height of at least two feet above the highest adjacent grade, or

(2) Eighteen (18) inches above the top of the curb across the front of the lot, or

(3) Said base flood elevation shall be determined by one of the methods in Section 7-27-1100 (b)

Nonresidential structures may meet the optional standards set forth in paragraph (d) of the this section. Prior to issuing the occupancy permit, compliance with the elevation requirement shall be certified by a registered civil engineer or land surveyor, and verified by the County Surveyor. Notification of compliance shall be recorded as set forth in Section 7-27-1105 (b).

(d) Nonresidential construction shall either be elevated in conformance with paragraphs (a), (b) or (c) of this section or together with attendant utility and sanitary facilities, be floodproofed to the base flood elevation by one or more of the following:

(1) Installation of watertight doors, bulkheads, and shutters.

(2) Reinforcement of walls to resist water pressure.

(3) Use of paints, membrane, or mortars to reduce seepage through walls.

(4) Addition of mass or weight to structure to resist flotation.

(5) Armour protection of all fill materials from scour and/or erosion

Certification by a registered civil engineer or architect that the standards of this paragraph are satisfied shall be provided to the Planning and Development Director as set forth in section 7-27-1105 (b).

(e) All new construction and substantial improvement with fully enclosed areas below the lowest floor (excluding basements) that are usable solely for parking of vehicles, building access or storage, and which are subject to flooding shall be designed to automatically equalize hydrostatic forces on exterior walls by allowing for the entry and exit of floodwater. Designs for meeting this requirement shall follow the guidelines in FEMA Technical Bulletins TB 1-93 and TB 7-93, and must exceed the following minimum criteria:

(1) Have a minimum of two openings having a total net area of not less than one square inch for every square foot of enclosed area subject to flooding. The bottom of all openings shall be no higher than one foot above grade.

Openings may be equipped with screens, louvers, valves or other coverings or devices provided that they permit the automatic entry and exit of flood water; or

(2) Be certified by a registered professional engineer or architect.

(f) Flood openings

All new construction and substantial improvements of structures with fully enclosed areas below the lowest floor (excluding basements) that are usable solely for parking of vehicles, building access or storage, and which are subject to flooding, shall be designed to automatically equalize hydrostatic flood forces on exterior walls by allowing for the entry and exit of floodwater. Designs for meeting this requirement must meet the following minimum criteria:

(1) For non-engineered openings:

(A) Have a minimum of two openings on different sides having a total net area of not less than one square inch for every square foot of enclosed area subject to flooding;

(B) The bottom of all openings shall be no higher than one foot above grade;

(C) Openings may be equipped with screens, louvers, valves or other coverings or devices provided that they permit the automatic entry and exit of floodwater; and

(D) Buildings with more than one enclosed area must have openings on exterior walls for each area to allow flood water to directly enter; or

(2) Be certified by a registered civil engineer or architect.

Section 5. Section 7-27-1205 is hereby amended to be read as follows:

7-27-1205 STANDARDS FOR SUBDIVISIONS:

(a) All new subdivisions proposals and other proposed development, including proposals for manufactured home parks and subdivisions, greater than 50 lots or 5 acres, whichever is the lesser, shall:

(1) Identify the Special Flood Hazard Areas (SFHA) and Base Flood Elevations (BFE).

(2) Identify the elevations of lowest floors of all proposed structures and pads on the final plans.

(3) If the site is filled above the base flood elevation, the following as-built information for each structure shall be certified by a registered civil engineer or licensed land surveyor and provided as part of an application for a Letter of Map Revision based on Fill (LOMR-F) to the Floodplain Administrator:

(A) Lowest floor elevation.

(B) Pad elevation.

(C) Lowest adjacent grade.

(b) All subdivision proposals and other proposed development shall be consistent with the need to minimize flood damage

(c) All subdivision proposals and other proposed development shall have public utilities and facilities such as sewer, gas, electrical and water systems located and constructed to minimize flood damage.

(d) All subdivisions and other proposed development shall provide adequate drainage to reduce exposure to flood hazards

Section 6. Section 7-27-1215 is hereby amended to be read as follows:

7-27-1215 FLOODWAYS:

Areas designated as floodways are located within areas of special flood hazard established in section 7-27-1020. Since the floodway is an extremely hazardous area due to the flood velocity of floodwaters which carry debris, potential projectiles, and erosion potential, the following provisions apply:

(a) Prohibit encroachments, including fill, new construction, substantial improvements, and other development unless certification by a registered civil engineer is provided demonstrating that encroachments shall not result in any increase in flood levels during the occurrence of the base flood discharge.

(b) Until a regulatory floodway is adopted, no new construction, substantial development, or other development (including fill) shall be permitted within Zones A1-30 and AE, unless it is demonstrated that the cumulative effect of the proposed development, when combined with all other development, will not increase the water surface elevation of the base flood more than 1 foot at any point.

(c) No mobilehome shall be placed in a floodway, except in an existing mobilehome park or existing mobilehome subdivision.

(d) The requirements of section 14.7 of the County Zoning Ordinance (Ordinance No. 352 as amended) shall also be applicable at such time that the County Zoning Map is amended to apply F I zoning within the floodway.

Section 7. The foregoing ordinance shall take effect thirty (30) days from the date of the passage hereof, and prior to the

expiration of fifteen (15) days from the passage hereof a summary shall be published once in the *Visalia Times-Delta*, a newspaper printed and published in the County of Tulare, State of California, together with the names of the Board of Supervisors voting for and against the same.

AYES:

Supervisor Allen Ishida, District One

Supervisor Pete Vander Poel, District Two

Supervisor Philip A. Cox, District Three

Supervisor J. Steven Worthley, District Four

Supervisor Mike Ennis, District Five

NOES: None

ABSENT: None

Chairman of the Board of Supervisors

ATTEST: JEAN M. ROUSSEAU
County Administrative Officer/
Clerk of the Board of Supervisors

By:
Deputy Clerk

>>> Jake Raper Jr 10/18/2011 11:26 AM >>>
Jim - do you have this scheduled? Need to advise. Jake

>>> "Hopkins, Jane" < Jane.Hopkins@dhs.gov > 10/18/2011 11:20 AM >>>
Dear Mr. Raper:
I am writing to ask when can FEMA expect to have a signed and certified copy of the Tulare County Floodplain Management Ordinance. As a reminder, this was due to this office on April 1, 2011. James May requested an extension for a few months, which was granted. Now I would like to know when the updated/revised ordinance will go before the Board. I have enclosed the report submitted to your office last December. There is a section entitled "Community Action Needed", that has list of requested actions. Note that earlier in the report the regulations were rated as the most seriously deficient aspect of the County program. Regarding the other items, I mentioned to James May that I would be satisfied with a description or list of how community would like to address remaining violations, since it is community-administered program. For those already dealt with, a spreadsheet or description for each property and associated action would be fine. Finally, the requested procedures will be due to this office before the CAV report can be closed. I appreciate your efforts with assisting with closure, as I would prefer not to have to initiate compliance actions. Thank you.

Attachment 5c

Mail From: James May
Recipients: BFussel@co.tulare.ca.us, CAnderso@co.tulare.ca.us, DLehman@co.tulare.ca.us, JRaper@co.tulare.ca.us, KMuthusamy@co.tulare.ca.us, jane.Hopkins@dhs.gov
Date: 10/19/2011 12:38:07 PM
Subject: Re: Fwd: Floodplain Ordinance Update & Adoption

Jane,
The eight Community Action Needed items in the CAV were acted upon as requested in the CAV. I did not transmit the information to you, our response follows:
1. -The Building Permit Division is now under the direction of Dennis Lehman. He is FEMA trained to address and support the necessities of FHA permitting.

2. -The nursery that was located on Ave 272 has been removed. Plant material as well as the mobile home are cleared from the site.

3. -Craig prepared a flow chart for development processing to coordinate all Divisions actions dealing with FHAs.

4. -The Ordinance modifications were made and adopted on June 9, 2011. I inadvertently did not send this on to you.

5. -Permit issues that you raised
on 12558 First Drive in Cutler, correct address should have been 12562 First Drive for the non-permitted second story addition significant improvement to the structure has had an ownership change and reissue of the permit violation notice to the new owner, has not and will not be finaled and a lock has been enforced on the property. The County will be investigating a 1316 remedy if no other approach is determined.

on 29752 Avenue 304, the address was incorrect, It should be 27932 Road 182 Elevation Certificates for this property have shown it to be in compliance. See attached

6. -The Flood Study and new FIRMs required by the Lake Kaweah Enlargement project were completed September 2, 2011 by AECom. The agency/public coordination meeting is set for Oct 25 here at RMA.

7. -The violations noted in the CAV subject to jurisdictional changes were: Photo No.
2 This commercial structure was built in the City of Visalia. The city FIRM panel shows this property as Zone B (Panel 5)
4 Residential structure on Linwood JNO Mineral King. House built in 1992. FIRM panel shows Zone B (465). So, pre-DFIRM. Now in city limits.
7 2539 College This is Tract 113. Homes built in late 40s to early 50s. Pre-FIRM. Original panel (470) shows Zone C. Now in Zone AE, so, pre-DFIRM. Now in city limits.
8 2415 College Also in Tract 113 same as No. 7 above.
10 Address should be 18655 Lort Drive. Building permits for structures in 2003 and 2005. Final elev certs on file. Effective FIRM is Zone AO, depth = 2 ft. Now in Zone

Attachment 5d

AE.
14 First Ave in Cutler. 2nd story addition. No final inspection given. No final elev cert received-- only a preliminary cert. Owner probably found out that entire structure needed to be elevated??

8. -We re presently exploring procedures to assure that information on FHA structures or properties in annexations are transmitted to the receiving jurisdiction.

If I can be of any additional assistance, please call me at 559 624-7150.

Thank you,
Jim

ATTACHMENTS:

Name	Size	Date
Elev Cert 1 27932 Rd 182.pdf	118490	10/19/2011 12:38:07 PM
Elev Cert 2 27932 Rd 182.pdf	111558	10/19/2011 12:38:07 PM
Ordinance 3425.pdf	1030131	10/19/2011 12:38:07 PM
SFHA Flowchart.pdf	29994	10/19/2011 12:38:07 PM

MINUTES OF THE
TULARE COUNTY FLOOD CONTROL COMMISSIONERS MEETING
March 23, 2011

Commissioners present:
Dale Brogan, Bruce George, Steve Martin, Dan Vink, Dale West

Commissioners Absent:
Walter Bricker

County Representation:
Alan Ishida-Supervisor District #1, Denise Akins-County Administrative Office, Arlene Silva-County Counsel, James May –Flood Control District Engineer

Meeting called to order at 10:10AM

Introductions of Supervisor Alan Ishida and new CAO Water Representative-Denise Akins.

There were no public comments.

Nomination of Bruce George for Chairman was moved by Dale West and second by Dan Vink, unanimous vote to continue his Chairmanship as long as he can serve. Vice-Chair nomination of Dale West by Dan Vink with second by Bruce George, unanimous vote.

Discussion of Commission Member residency qualifications to fill the #3 seat vacated by the retirement of George Serpa. Suprvs Ishida noted the general advertising requirement of the open seat, Dan Vink added the need for knowledge of the flood field and issues in the County.

The Flood Control District is still monitoring the Deer Creek/White River/Frazier Creek Army Corps projects. The flood prone nature in Strathmore community from the Friant-Kern Canal requires a more immediate response than can be expected from Army Corps. Some alternatives were described along with the existing area system. Need to provide MOUs with Irrigation Districts for wet weather use of irrigation districts ditches to clean out and carry flood flows.
It was presented that the County in the past has cut Road 88 when flood flows. Increased participation in IRWMPs for flood issues expected in the future.

This discussion flowed into the following Agenda Item on specific flood control projects that could be recommended to the Board of Supervisors. Preliminary vision and reconnaissance level is needed to identify the projects. Discussion centered on development of detention ponds for recharge and to reduce peak flood flows in conjunction with Irrigation Districts. A request for development of flow rates throughout the County, and an update on the current revenue stream for flood control

Attachment 6

was made by the Chair. The Army Corps Dam and Storm Flow projects were discussed and the delays presented by Congress/Corps blame strategies. The Chairman suggested that to function the Commission needs to have staff to focus research and time to support all issues in the County in order to develop projects and procedures to properly manage.

Next meeting date will be the 29th of April, at 10:00 AM.

Meeting adjourned at 11:50 AM

MINUTES OF THE
TULARE COUNTY FLOOD CONTROL COMMISSIONERS MEETING
April 29, 2011

Commissioners present: Bruce George, Steve Martin, Walter Bricker, Dale West

Commissioners Absent: Dale Brogan, Dan Vink

County Representation:
Arlene Silva-County Counsel, James May –Flood Control District Engineer

Visitors: Mark Larsen - KDWCD

Meeting called to order at 10:02 AM

Approval of March 23, 2011 Minutes moved by Steve Martin, second by Dale West. Unanimous vote.

There were no public comments.

Discussion of removing Commission Member residency qualifications. Alene noted the general advertising requirement to recruit for the open seat, she will bring the necessary language back to the Commission to propose to the Board of Supervisors a general alteration of the qualifications.

The Army Corps Success Dam Remediation project has suffered prioritization funding delays that would postpone the project beyond reasonable funding expectations. A proposed temporary incremental pool elevation raise to 640 was also placed on hold due to risk. This could result in diversion of the local dam project co-sponsorship funds to develop more immediate and feasibly constructed projects.

Repair of County wide flood damages from the Winter 2010 storms, is now being hampered by environmental agency restrictions. It was suggested that these restrictions be agendized to the Commission for discussion for the foreseeable future.

We have not begun the development of MOUs with most if not all of the Tulare County Irrigation Districts to allow wet weather maintenance of irrigation district's facilities by County forces to pass flood flows.

Chairman George requested sufficient staff with RMA to meet the needs of an active Flood Control District. He asked that reports continue on the status of this position.

A request was also made for mapping of frequently occurring or potential flood prone areas that might offer viable projects so that the Commission could ascertain and support projects to the Board of Supervisors. The identification of problem areas should not be limited to road impacted areas.

Attachment 7

Commissioner West identified an area near the Cottonwood Creek / Stone Corral Canyon area on Paramount Orchards property that could be a location for flood controls.

Chairman George recommended development of a project list of areas that are impacted. This list could be extended and refined resulting in stand alone projects as well as potential participation in IRWMPs for flood components. We could start the list with this Stone Corral Canyon area, the Sand Creek watershed (including confluence with Cottonwood Creek and the Dam outlet structure), Cottonwood Creek, Dry Creek, Mehrten Creek, Yokohl Creek, Frazier Creek, Deer Creek, White River, and Poso Creek.

Commissioners Bricker and Martin provided some insight to the Poso Creek issues. They noted that the Wildlife Refuge dammed Poso Creek, thus created flooding issues for properties nearby the canal that drains to the Homeland Canal. Jack Mitchells concern over pipes that are placed on the canal, one was placed to feed the canal from Homeland Canal.

There was no "other business".

The Fourth Friday of the month is recommended for consideration by the Commissioners for the regular meeting date.
The next meeting date will be the 23rd of May, at 10:00 AM. Same location.

Meeting adjourned at 11:32 AM

MINUTES OF THE
TULARE COUNTY FLOOD CONTROL COMMISSIONERS MEETING
July 19, 2011

Commissioners present: Dale Brogan, Bruce George, Steve Martin, Dale West, Dan Vink.

Commissioners Absent: Walter Bricker

County Representation: Arlene Silva-County Counsel, James May –Flood Control District Engineer

Visitors: Mark Larsen – KDWCD, Shane Smith - KDWCD

Meeting called to order at 3:02 PM

Change in the 6/24/11 Minutes requested by Arlene Silva, on the first page, fourth paragraph from the bottom, following the word "provided", add "consistent of Section 111-7 of the Water Code". Approval of April 29, 2011 Minutes moved by Commissioner Vink, second by Commissioner West. Unanimous approval of the action.

There were no public comments.

Continuing discussion on Commissioners residency requirements, Arlene noted the prior waivers of incorporated Cities, recommendation to revert to State Law requirements and state that the TCAG submittal of candidates be removed. Allow the removal of other restrictions but continue with Maddy Act.
Commissioner Brogan brought up Commissioners compensation Commissioner Vink agreed that requiring compensation should be removed from the new Resolution or made voluntary upon request. Commissioner George thought mileage should be included. Commissioner Brogan thought discretionary should be the language. County is to supply forms for mileage reimbursement if discretionary. Approval of the altered Resolution was moved by Commissioner Vink, Commissioner George's recollection was that a new member estimated miles from home, and that Mike Whitlock would provide a form to each for signature accepting reimbursement for mileage and perhaps meeting attendance also. Request must be submitted for reimbursements. Mileage reimbursement is optional also meeting if permissible by statute. Commissioner West seconded on Commissioner Vink's motion. In discussion -Deletion of TCAG provision of candidates and deletion of each Supervisor submittal of two candidates. Unanimous approval of the action.

Regarding the Flood Control District staffing changes, it was noted the potential hire of the Engineer III position to work 50% on Flood Control project development.

Attachment 8

For District funding, the Commission requested cash flow summary and stream for the last two years, to provide an indication of funding for potential projects, where the funds have been programmed in the past and present, by Agency or Department. It should also note how the prior reserves for Success Dam project may be utilized for other works.

The need for a Flood Control Master Plan was discussed and its connection for development of future projects concern for update similar to Spinks Corp Study in 2001 to identify Hot Spots and what we could do, without spending the major portion of project dollars on a study. Provide a broader look at the County as a whole. The new Engineer should review the Murray, Burns Plan to determine what is feasible within 20 years. Commissioner West noted that the area identified in the Study was constructed and is functioning. Chairman George requested an evaluation of an overlay of the past winter flood areas on the existing Master Planning.
A projects list will be sent to all of the Commissioners for consideration.

There was no other business.

The regular meeting was confirmed for August 26, 2011 at 8:00 AM, with the exception that if there is no meaningful progress on project development by the new Engineer or staff that the meeting be postponed until the fourth Friday of September at 8:00 AM.

Meeting was adjourned by Chairman George at 4:06 PM.

James May - [illegible]

TULARE COUNTY WATER COMMISSION
MEETING MINUTES
March 28, 2011

Members Present:

Dale Brogan, District 2 Appointee
Paul Boyer, District 1 Appointee
Laurel Firestone, At-Large Appointee
Bruce George, District 3 Appointee
Allen Ishida, Board Representative and Chairman
Keith Watkins, At-Large Appointee

Members Absent:

Chris Kapheim, District 4 Appointee
Dennis Keller, At-Large Appointee
Richard L. Schafer, District 5 Appointee
Mike Ennis, Board Alternate Representative
Rudy Mendoza, TCAG Representative

Staff Present:

Denise Akins, Tulare County Board of Supervisors Office
Jim May, Tulare County Resource Management Agency
Mike Bairstow, Tulare County Environmental Health
Arlene Silva, Tulare County Counsel

Members of the Public who voluntarily provided their names on the attendance sheet:

Carole Clum
Richard Garcia
Matt Hurley
Shane Smith
Mark Larson
Michael Tharp

1. CALL TO ORDER

2. PUBLIC COMMENT PERIOD

Carole Clum of Three Rivers stated that the heavy rains in December 2010 and March 2011 caused damage to roads, shoulders, and slopes in the foothill area. Ms. Clum indicated that Tulare County's Foothill Growth Management Plan does not require Low Impact Development as recommended by the Regional Water Quality Control Board. Ms. Clum believes that this omission will result in costly road damage, water quality degradation and increase flood risk in the foothills and valley.

Ms. Clum distributed a handout that reported the warming effect of melting ice fields.

Attachment 9

3. APPROVAL OF MINUTES FROM MARCH 7, 2011 MEETING

A quorum was not present; therefore this item is continued to the May 9, 2011 meeting.

4. ADOPT AMENDED BY-LAWS TO REFLECT NEW MEETING TIME.

A quorum was not present; therefore this item is continued to the May 9, 2011 meeting.

5. PRESENTATION FROM TULARE COUNTY FLOOD CONTROL COMMISSION

Jim May of Tulare County Resource Management Agency gave a presentation on the recently re-convened Tulare County Flood Control Commission. Mr. May reported the Flood Control Commission met on March 23, 2011. He stated that Bruce George is Chair of the Commission and Dale West is Vice Chair. Mark Larson has been nominated to fill the seat that was previously occupied by George Serpa.

Mr. May reported that Flood Control projects are under the management of the US Army Corps of Engineers on Deer Creek, White River, and Frazier Creek as well as the Success Dam. The Flood Control Commission discussed possible future projects at their meeting. That discussion centered around development of detention basins throughout the County. Additionally the Commission determined there was a need for a database that recorded flow volumes throughout the County so that they could more accurately address problems and assign areas for detention ponds.

Mr. May stated that the next Flood Control Commission meeting will be April 29, 2011 at 10:00 am.

Chairman Ishida added that there are numerous Flood Control projects that need to move forward but lack funding. He indicated that there is significant money in reserve for the Success Dam remediation project. However, the Success Dam project has been delayed several times and there is no start date set for that project and may not start for twenty years or more. Chairman Ishida requested those reserves be put to better use by funding other projects and attaining other flood control objectives.

Commissioner Boyer asked about the basin near Seville in the Stone Coral Irrigation District. He questioned whether or not water had been diverted to that basin during the recent flood events. Mr. May responded that the basin was not specifically addressed during the Flood Control Commission meeting, but when he last traveled to the basin there was no water in it. The Commission did discuss maintaining conveyances during flood events.

Chairman Ishida requested the Flood Control Commission consider ways to remove silt from the storm runoff before depositing the water in irrigation district basins. The silt prevents the basins from percolating correctly and costly work has to be done to rehabilitate the basins.

Commissioner Firestone asked if the Flood Control objectives were part of the Master Plan. Mr. May indicated that the Flood Control Commission had a Master Flood Control Plan for Tulare County that dated back to 1971. Mr. May reported that there had been plans to update the Flood Control Master Plan, but the update has not occurred. He indicated a priority is to get the Flood Control Master Plan updated and the topic will be discussed at the next Flood Control Commission

meeting.

6. SUBCOMMITTEE REPORT

Commissioner Firestone reported that the State is finalizing the Disadvantaged Community Study Agreement with the DWR.

Commissioner Boyer reported that the Upper Kings Basin Integrated Water Management Authority is performing a Disadvantaged Community Study as well. Their study is more focused and detailed than the Tulare Lake Basin Study. They are still in the planning stages for that study.

Chairman Ishida commented that Tulare County will work with other counties to share information to make sure stakeholders are reached. He stated that there is a Pacific Institute Study that has been done and some of the work detailed in the Tulare Lake Basin Disadvantaged Community Study could be gleaned from the Pacific Institute data.

Commissioner Firestone reported that the Interagency Task Force will hold a meeting May 3, 2011 at UC Davis from 10:00 am- 3:00 pm that will include preliminary results from the Nitrate Study. Commissioner Firestone will be attending the meeting and will provide a brief report back to the Tulare County Water Commission.

Mike Bairstow, Tulare County Environmental Health, provided a handout on the upcoming EPA Nitrate and groundwater webcast scheduled for March 29, 2011.

7. COMMISSIONERS COMMENTS

Commissioner Firestone commented that package of bills, six different bills, has been introduced in the state legislature on the Human Right to Water. There are six different bills in the Assembly and Senate. One of the bills restates that everyone is entitled to a basic amount of affordable and safe drinking water. The other five bills are focused on implementing that concept at a practical level.

Chairman Ishida commented that the grant application process is too expensive and the state must be made aware of the problem.

Commissioner Boyer commented that the State Regional Water Quality Control Board is reviewing their final use plan for Waste Water Treatment funding. The deadline for comments will be in April.

8. NEXT MEETING – MONDAY, MAY 9, 2011 3:00 P.M. – BOARD OF SUPERVISORS CHAMBERS

9. ADJOURN

Respectfully submitted,

Richard L. Schafer, Secretary
Tulare County Water Commission

domestic wells tested in Eastern San Joaquin Valley during 1993-95 had nitrate concentrations above the legal limit of 10 mg/L nitrate-nitrogen (nitrate-N) (Dubrovsky et al. 1998). In 2006, the State Water Resources Control Board sampled 181 domestic wells in Tulare County and found that 40% of those tested had nitrate levels above the legal limit (State Water Resources Control Board 2010).

The legal limit or Maximum Contaminant Level (MCL) for nitrate-nitrogen in drinking water, 10 milligrams per liter (equivalent to 45 mg/L, nitrate as NO3 ion), is based on protection of infants from methemoglobinemia, or "blue baby syndrome."[4] Studies have also found that exposure to high concentrations of nitrates can result in serious illness and death for infants and pregnant women, including significant increased risk of neural tube defects, premature birth, intrauterine growth restriction, and anencephaly; and increased methemoglobin levels causing pregnancy complications, central nervous system birth defects, and congenital malformations (Manassaram et al. 2006). Additional known or suspected health effects to children and adults include respiratory tract infections in children, thyroid disruption, pancreatitis, sudden infant death syndrome (SIDS), and cancers of the digestive system, bladder, and thyroid (Gupta et al. 2000; Weyer et al. 2001; Ward et al. 2005; Manassaram et al. 2006; Ward 2010).

No systematic epidemiological study of the health effects of nitrate contamination in the San Joaquin Valley has been conducted. However, a recent compilation of the rates of health conditions potentially caused by nitrate exposure in Tulare County reveals various recent years when these rates were above the rates for California as a whole (CWC 2011). Rates of Sudden Infant Death Syndrome have been high in the region, with seven-out-of-eight San Joaquin Valley counties reporting SIDS death rates above the state average for at least one three-year period during 1999-2008 (CDPH 2010). These seven counties comprise only 12% of the counties in the state, but they are 50% of the counties with above-average SIDS death rates. Understanding any connection between the region's health problems and nitrate contamination merits further research.

[4]Reviews of the nitrate MCL have concluded that the standard is appropriate for the protection of infants (U.S. EPA 1990; NRC 1995; California EPA 1997).

TULARE COUNTY WATER COMMISSION

MEETING MINUTES

March 22, 2010

Members Present:

Paul Boyer, District 1 Appointee
Dale Brogan, District 2 Appointee
Laurel Firestone, At-Large Appointee
Bruce George, District 3 Appointee
Chris Kapheim, District 4 Appointee
Dennis Keller, At-Large Appointee
Rudy Mendoza, TCAG Representative
Richard L. Schafer, District 5 Appointee
Keith Watkins, At-Large Appointee
Mike Ennis, Board Alternate Representative

Members Absent:

Allen Ishida, Board Representative and Chairman

Staff Present:

Arlene Silva, Tulare County Counsel
Jeff Forbes, Tulare County Board of Supervisors staff
Jim May, Tulare County Resource Management Agency
Mark Bairstow, Tulare County Environmental Health
Mike Hickey, Tulare County Resource Management Agency
Larry Dwoskin, Tulare County Environmental Health

Members of the Public Present:

Carole Clum
Pat Pinkham
Kim Loeb
Richard Garcia
Andrew Benelli
Mark Larsen
Michael Tharp
Greg Young
Robert Mijares

1. CALL TO ORDER

2. PUBLIC COMMENT PERIOD

Carole Clum of Three Rivers stated while at the annual Planning and Conservation League conference in January, she attended the Water Justice workshop. Ten policy recommendations were created for a resilient water system in California. By the end of January there were 120 signatories, including the Community Water Center. Some of the ten principles from the water

Attachment 11

summit are that every Californian has a right to safe, affordable, and accessible drinking water, California must maximize environmentally sustainable local water self sufficiency, groundwater and surface water management must be integrated and water health and protection must be addressed on a watershed basis.

She also stated the Obama administration has created a new agency under the Department of Agriculture called the Office of Ecosystems and Markets. The idea is to charge urban and industrial emitters of carbon dioxide a fee for the emissions. New plants and forests would be planted to soak up the carbon dioxide.

Commissioner Schafer asked Ms. Clum if the Association of California Water Agencies was a sponsor of the California Water Summit. Commissioner Firestone responded ACWA was not a sponsor. Commissioner Schafer felt the real representatives of California water were not a party to the summit.

3. APPROVAL OF MINUTES FROM JANUARY 25, 2010 MEETING

Commissioner Watkins motioned to accept the minutes as submitted and Commissioner Firestone seconded. The minutes as submitted were approved unanimously.

4. CREATE SUBCOMMITTEE ON A TULARE COUNTY GROUNDWATER ORDINANCE AND APPOINT COMMISSIONERS

Commissioner George stated the ad-hoc subcommittee could consist of four or fewer Commissioners. He suggested that Commissioners Watkins, Brogan, Schafer and Keller be the members of the ad-hoc subcommittee. Commissioner Schafer asked if it is the expectation of the ad-hoc subcommittee to come up with an ordinance, or if the recommendation could be that an ordinance is unnecessary. Commissioner Watkins responded that the first task is to discuss if there is a need for an ordinance, and if there is a need the second task would be to develop an ordinance. Commissioner Brogan motioned to appoint Commissioners Watkins, Brogan, Schafer and Keller to the ad-hoc subcommittee and Commissioner Mendoza seconded. The motioned was approved unanimously.

5. PRESENTATION FROM TULARE COUNTY RESOURCE MANAGEMENT AGENCY ON THE WATER ELEMENT OF THE TULARE COUNTY GENERAL PLAN

Dave Bryant, Special Projects Division Manager for Tulare County Resource Management Agency stated the last version out for public review was in January 2008. Staff is now in the final stages of production and the updated General Plan and Recirculated Environmental Impact Report should be released within the week. Mr. Bryant said the purpose of the presentation is to highlight the updated water related policies in the General Plan and to provide an overview of potential water supply demands.

The General Plan document has many updated sections, and the corresponding implementation and work programs. Availability and sufficiency of long term water supplies, consideration of appropriate geographical areas to assess availability of long term water supplies, and encouraged

water conservation measures have all been updated. The water element also encourages using multipurpose design of storm water retention facilities to aid groundwater recharge.

Greg Young, the engineer who prepared the water supply evaluation, stated the purpose of the water supply assessment was to get a sense of the supply and demand picture of water today and evaluate how that affects possible land use changes. Most of the information is from California Department of Water Resources. The year 2003 provided the most "normal" data, which is dominantly agriculture at 2.5 million acre feet, urban demands at 150,000 acre feet and wetland demands at 3,000 acre feet. The General Plan assumed approximately 60,000 acres that would change from agricultural to urban uses.

Mr. Young stated agricultural uses about 3.3 acre feet per acre, and the replacement urban dwellings use about 3.1 acre feet per acre. This results in a reduction of about 13,000 acre feet of water use. With the projected changes in land use in the General Plan, total demand of water is within average use. Some factors that will affect water use are groundwater overdraft, San Joaquin River Settlement, population growth, joint management of shared aquifers, and water transfers and exchanges.

Commissioner Kapheim stated with the change, urban water doesn't have surface water available and there is additional strain on ground water, which will have an impact. It is not total amount of water used, but how it is used. Senate Bill x7, which demands 20% reduction by 2020, will reduce urban water use. The model landscape ordinance, climate change variability, and what is actually built will affect the total water demand. He stated groundwater made up over 50% of the local demand in 2003 and surface water is under 50%.

Some of the conclusions in the water element are that groundwater extraction will continue to exacerbate overdraft. Conservation and recharge are important factors to helping mitigate overdraft in the future. Urban uses predominantly served by groundwater will likely lead to an increase in overall groundwater extraction. Using groundwater to meet future demands will expand the water supply entitlements for urban purveyors.

Commissioner Kapheim stated in Northern Tulare County there are heavy clays, which make recharge difficult. The rapid growth rate has made this problem worse. Commissioner George stated that because urban uses less surface water and more pumping, a cone of depression develops and someone else within the boundary gets the benefit of additional water.

Commissioner Schafer asked Mr. Young where he obtained the figure of 3.3 acre feet per acre for agricultural use. He believes the average in Tulare County today is less than 3 acre feet per acre. Mr. Young responded that they used 2003 data that had total number of acres across five field crop categories. They also calculated evapotransporation and irrigation efficiency. Recent evidence has shown using more efficient irrigation systems use more applied water than flood irrigation. Mr. Young indicated the projection of water use is assuming 60,000 acres change from agricultural to urban use in the next 20 years.

Commissioner Schafer asked how climate change was identified as an issue in the water use projections. Mr. Young responded that more days of higher temperatures could result in more

evapotransporation. This would require additional water on the same piece of land. There are no conclusions about climate change, just that it is an issue.

Commissioner Boyer asked if there is anything in the General Plan that identifies land that is best suited for recharge. Commissioner Kapheim responded there is a bill in the State legislature that would mandate land for recharge be identified.

Commissioner Firestone asked if the overdraft problem will continue to be a problem, or if it simply won't get much worse. Mr. Young responded the problem should not get much worse, and under the general plan policies could get better. Commissioner Kapheim stated the capacity to pump allows water to be pumped at greater levels, in a wet or dry year. Commissioner George stated that while a wet year may lessen the overdraft problem in the short term, over the last 40-50 years there is a continuous downward progression in groundwater levels.

Commissioner Kapheim stated the land use agencies need to use information available through the IRWMP process. The IRWMP groups have developed large amounts of data that could be utilized by land use agencies. Commissioner Firestone asked if there are any policies in the General Plan that would require conservation in urban areas. Mr. Young responded there have been many plumbing code changes that result in greater efficiency in plumbing and landscape ordinances that outline water use requirements that results in lower use.

Commissioner Schafer stated that in March 2008 Water Commissioners submitted comments about the water element and asked what was done with the comments. Dave Bryant responded that RMA evaluated each response. One of the significant responses was the request for an evaluation of future water supply, which was prepared for the updated General Plan. He also stated he can come back to the Commission and answer any questions after the Commission has reviewed the documents. After the public comment period is closed, RMA will prepare a response to comments and will have a joint meeting with the Planning Commission and the Board of Supervisors.

Commissioner Keller stated he would like to discuss the defendability of the environmental documents. He felt that could be the most useful purpose of the Water Commission in evaluating the EIR.

6. SUBCOMMITTEE REPORT

Commissioner Firestone stated the Nitrate Subcommittee is in the process of reviewing a study that looks at salts and a study the state board contracted with UC Davis to look at sources of nitrates in the Tulare Lake Basin and the Salinas Valley. The nitrate subcommittee is looking at how they can coordinate with those other efforts.

7. COMMISSIONERS COMMENTS

Commissioner Kapheim mentioned an issue that the County has been dealing with is diverting storm water away from county roads and into the canals of irrigation districts. His district is looking at tighter standards on this and the practice won't be tolerated in the future. The County

needs to work with irrigation districts to address storm water diversion.

8. NEXT MEETING – MONDAY, APRIL 26, 2010, 4:00 P.M. – BOARD OF SUPERVISORS CHAMBERS

9. ADJOURN

Respectfully submitted,

Richard L. Schafer, Secretary
Tulare County Water Commission

People at Risk In 25 U.S. Cities Most Polluted by Short-term Particle Pollution (24-hour $PM_{2.5}$)

2011 Rank[1]	Metropolitan Statistical Areas	Total Population[2]	Under 18[3]	65 and Over[3]	Pediatric Asthma[4,8]	Adult Asthma[5,8]	Chronic Bronchitis[6,8]	Emphysema[7,8]	CV Disease[9]	Diabetes[10]	Poverty[11]
1	Bakersfield-Delano, CA	807,407	250,561	72,666	16,621	43,747	23,012	10,309	184,959	48,102	170,614
2	Fresno-Madera, CA	1,063,899	319,551	104,947	21,198	58,379	30,977	14,213	251,405	65,433	221,348
3	Pittsburgh-New Castle, PA	2,445,117	495,068	422,943	51,002	174,497	89,288	48,733	783,055	183,922	290,876
4	Los Angeles-Long Beach-Riverside, CA	17,820,893	4,682,410	1,902,902	310,610	1,030,481	552,457	257,170	4,512,759	1,179,719	2,579,016
5	Salt Lake City-Ogden-Clearfield, UT	1,743,364	528,004	154,359	38,413	96,430	49,678	21,913	396,577	75,234	172,338
6	Provo-Orem, UT	555,551	193,164	36,244	14,053	28,686	13,744	5,338	104,030	18,731	77,177
7	Visalia-Porterville, CA	429,668	141,279	40,393	9,372	22,622	11,998	5,494	97,299	25,326	97,542
8	Birmingham-Hoover-Cullman, AL	1,212,848	291,846	160,168	25,030	70,273	40,311	20,201	340,136	107,132	177,638
9	Hanford-Corcoran, CA	148,764	41,081	11,466	2,725	8,468	4,221	1,721	32,615	8,286	24,546
9	Logan, UT-ID	127,945	39,861	10,455	2,783	7,009	3,438	1,431	26,746	5,015	20,081
9	Sacramento--Arden-Arcade--Yuba City, CA-NV	2,436,109	607,251	300,098	40,307	143,692	79,445	39,034	664,653	175,011	320,925
12	Modesto, CA	510,385	149,225	53,538	9,899	28,322	15,287	7,192	125,454	32,878	85,583
13	Merced, CA	245,321	78,461	24,167	5,205	13,076	6,948	3,210	56,540	14,704	59,349
14	Eugene-Springfield, OR	351,109	70,025	50,780	3,931	31,083	12,379	6,290	105,086	23,292	58,935
15	San Diego-Carlsbad-San Marcos, CA	3,053,793	739,625	347,859	49,063	181,385	97,908	46,204	804,440	210,648	372,782
16	Stockton, CA	674,860	202,135	68,180	13,409	37,098	19,982	9,330	163,489	42,864	103,777
17	Chicago-Naperville-Michigan City, IL-IN-WI	9,804,845	2,491,070	1,104,442	231,348	660,705	312,722	148,887	2,580,626	586,411	1,231,739
18	Seattle-Tacoma-Olympia, WA	4,158,293	944,478	468,853	64,582	281,862	137,891	65,277	1,135,710	241,202	421,614
19	Fairbanks, AK	98,660	25,640	6,170	1,775	6,482	2,900	1,146	22,185	3,823	7,420
20	Philadelphia-Camden-Vineland, PA-NJ-DE-MD	6,533,122	1,535,672	869,965	158,452	438,946	219,155	109,986	1,850,540	428,512	760,156
21	Macon-Warner Robins-Fort Valley, GA	394,538	102,473	47,839	10,108	20,164	12,685	6,229	106,099	29,946	67,875
22	Louisville-Jefferson County-Elizabethtown-Scottsburg, KY-IN	1,395,634	335,150	177,354	31,918	105,477	46,544	23,133	391,515	118,443	193,601
23	Green Bay, WI	304,783	72,441	37,275	5,016	22,809	10,116	4,951	84,521	18,546	31,142
24	Davenport-Moline-Rock Island, IA-IL	379,066	89,246	55,929	6,420	23,219	12,981	6,779	111,579	23,842	42,634
24	Madison-Baraboo, WI	628,947	134,274	68,877	9,298	49,319	20,807	9,598	169,365	36,341	74,105
24	Phoenix-Mesa-Glendale, AZ	4,364,094	1,187,246	496,355	96,895	347,250	133,817	63,556	1,101,803	255,571	643,772
24	Portland-Vancouver-Hillsboro, OR-WA	2,241,841	533,526	244,548	31,367	183,150	72,947	34,260	598,721	132,377	265,996
24	San Jose-San Francisco-Oakland, CA	7,427,757	1,679,302	898,351	111,397	450,647	247,427	119,351	2,053,445	541,562	721,023
24	Wheeling, WV-OH	144,637	28,817	25,881	2,564	10,687	5,359	2,965	47,308	13,923	22,162

Notes:

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2. **Total Population** represents the at-risk populations for all counties within the respective Combined or Metropolitan Statistical Area.
3. Those **18 and under** and **65 and over** are vulnerable to $PM_{2.5}$ and are, therefore, included. They should not be used as population denominators for disease estimates.
4. **Pediatric asthma** estimates are for those under 18 years of age and represent the estimated number of people who had asthma in 2009 based on state rates (BRFSS) applied to population estimates (U.S. Census).
5. **Adult asthma** estimates are for those 18 years and older and represent the **estimated** number of people who had asthma during 2009 based on state rates (BRFSS) applied to population estimates (U.S. Census).
6. **Chronic bronchitis** estimates are for adults 18 and over who have been diagnosed within their lifetime, based on national rates (NHIS) applied to population estimates (U.S. Census).
7. **Emphysema** estimates are for adults 18 and over who have been diagnosed within their lifetime, based on national rates (NHIS) applied to population estimates (U.S. Census).
8. Adding across rows does not produce valid estimates, e.g., summing pediatric and adult asthma and/or emphysema and chronic bronchitis.
9. **CV disease** estimates are based on National Heart Lung and Blood Institute (NHLBI) estimates of cardiovascular disease applied to population estimates (U.S. Census).
10. **Diabetes** estimates are for adults 18 and over who have been diagnosed within their lifetime, based on state rates (BRFSS) applied to population estimates (U.S. Census).
11. **Poverty** estimates come from the U.S. Census Bureau and are for all ages.

Attachment 12

People at Risk In 25 U.S. Cities Most Polluted by Year-Round Particle Pollution (Annual $PM_{2.5}$)

2011 Rank[1]	Metropolitan Statistical Areas	Total Population[2]	Under 18[3]	65 and Over[3]	Pediatric Asthma[4,8]	Adult Asthma[5,8]	Chronic Bronchitis[6,8]	Emphysema[7,8]	CV Disease[9]	Diabetes[10]	Poverty[11]
1	Bakersfield-Delano, CA	807,407	250,561	72,666	16,621	43,747	23,012	10,309	184,959	48,102	170,614
2	Los Angeles-Long Beach-Riverside, CA	17,820,893	4,682,410	1,902,902	310,610	1,030,481	552,457	257,170	4,512,759	1,179,719	2,579,016
2	Phoenix-Mesa-Glendale, AZ	4,364,094	1,187,246	496,355	96,895	347,250	133,817	63,556	1,101,803	255,571	643,772
2	Visalia-Porterville, CA	429,668	141,279	40,393	9,372	22,622	11,998	5,494	97,299	25,326	97,542
5	Hanford-Corcoran, CA	148,764	41,081	11,466	2,725	8,468	4,221	1,721	32,615	8,286	24,546
6	Fresno-Madera, CA	1,063,899	319,551	104,947	21,198	58,379	30,977	14,213	251,405	65,433	221,348
7	Pittsburgh-New Castle, PA	2,445,117	495,068	422,943	51,002	174,497	89,288	48,733	783,055	183,922	290,876
8	Birmingham-Hoover-Cullman, AL	1,212,848	291,846	160,168	25,030	70,273	40,311	20,201	340,136	107,132	177,638
9	Cincinnati-Middletown-Wilmington, OH-KY-IN	2,214,954	543,893	270,380	51,168	166,495	72,691	35,624	607,603	168,199	272,692
10	Louisville-Jefferson County-Elizabethtown-Scottsburg, KY-IN	1,395,634	335,150	177,354	31,918	105,477	46,544	23,133	391,515	118,443	193,601
10	Modesto, CA	510,385	149,225	53,538	9,899	28,322	15,287	7,192	125,454	32,878	85,583
12	Charleston, WV	304,214	66,646	47,487	5,652	20,945	10,797	5,739	93,597	29,594	46,041
12	Cleveland-Akron-Elyria, OH	2,891,988	667,656	424,508	62,599	218,655	100,087	52,255	860,578	231,353	433,633
12	Steubenville-Weirton, OH-WV	120,929	24,249	22,891	2,179	8,953	4,536	2,568	40,483	11,745	18,861
15	Huntington-Ashland, WV-KY-OH	285,624	60,932	46,146	5,479	21,189	10,055	5,339	87,025	26,468	55,531
15	Indianapolis-Anderson-Columbus, IN	2,064,870	529,363	238,784	51,705	139,825	66,093	31,843	548,249	139,402	276,696
17	Detroit-Warren-Flint, MI	5,327,764	1,280,345	673,872	104,036	404,526	178,165	88,632	1,499,596	378,182	851,246
17	Houston-Baytown-Huntsville, TX	5,968,586	1,693,708	507,966	138,409	275,407	177,262	78,010	1,415,731	385,690	897,732
17	St. Louis-St. Charles-Farmington, MO-IL	2,916,789	696,764	383,974	69,317	208,250	97,816	49,155	826,708	178,048	360,713
20	Hagerstown-Martinsburg, MD-WV	266,149	62,604	35,621	6,461	18,296	8,917	4,479	75,308	21,340	30,121
21	New York-Newark-Bridgeport, NY-NJ-CT-PA	22,232,494	5,171,357	2,905,795	513,309	1,559,643	744,517	370,377	6,262,030	1,456,452	2,721,910
22	Dayton-Springfield-Greenville, OH	1,066,261	244,969	160,192	22,968	80,775	36,765	19,252	316,371	85,080	150,147
22	Lancaster, PA	507,766	125,939	75,950	12,974	34,593	17,080	8,988	147,264	34,405	46,401
24	Knoxville-Sevierville-La Follette, TN	1,053,627	231,414	158,809	19,847	66,813	36,686	19,121	315,000	87,170	162,410
24	Parkersburg-Marietta, WV-OH	160,905	34,240	27,442	3,018	11,589	5,818	3,179	51,054	15,220	24,379
24	Philadelphia-Camden-Vineland, PA-NJ-DE-MD	6,533,122	1,535,672	869,965	158,452	438,946	219,155	109,986	1,850,540	428,512	760,156
24	York-Hanover-Gettysburg, PA	531,260	122,145	75,887	12,583	37,060	18,316	9,464	156,758	36,557	44,431

Notes:

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5. **Adult asthma** estimates are for those 18 years and older and represent the estimated number of people who had asthma during 2009 based on state rates (BRFSS) applied to population estimates (U.S. Census).
6. **Chronic bronchitis** estimates are for adults 18 and over who have been diagnosed with their lifetime, based on national rates (NHIS) applied to population estimates (U.S. Census).
7. **Emphysema** estimates are for adults 18 and over who have been diagnosed with their lifetime, based on national rates (NHIS) applied to population estimates (U.S. Census).
8. Adding across rows does not produce valid estimates, e.g., summing pediatric and adult asthma and/or emphysema and chronic bronchitis.
9. **CV disease** estimates are based on National Heart, Lung and Blood Institute (NHLBI) estimates of cardiovascular disease applied to population estimates (U.S. Census).
10. **Diabetes** estimates are for adults 18 and over who have been diagnosed within their lifetime, based on state rates (BRFSS) applied to population estimates (U.S. Census).
11. **Poverty** estimates come from the U.S. Census Bureau and are for all ages.

People at Risk In 25 Most Ozone-Polluted Cities

2011 Rank[1]	Metropolitan Statistical Areas	Total Population[2]	Under 18[3]	65 and Over[3]	Pediatric Asthma[4,9]	Adult Asthma[5,9]	Chronic Bronchitis[6,9]	Emphysema[7,9]	Poverty[9]
1	Los Angeles-Long Beach-Riverside, CA	17,820,893	4,682,410	1,902,902	310,610	1,030,481	552,457	257,170	2,579,016
2	Bakersfield-Delano, CA	807,407	250,561	72,666	16,621	43,747	23,012	10,309	170,614
3	Visalia-Porterville, CA	429,668	141,279	40,393	9,372	22,622	11,998	5,494	97,542
4	Fresno-Madera, CA	1,063,899	319,551	104,947	21,198	58,379	30,977	14,213	221,348
5	Sacramento—Arden-Arcade—Yuba City, CA-NV	2,436,109	607,251	300,098	40,307	143,692	79,445	39,034	320,925
6	Hanford-Corcoran, CA	148,764	41,081	11,466	2,725	8,468	4,221	1,721	24,546
7	San Diego-Carlsbad-San Marcos, CA	3,053,793	739,625	347,859	49,063	181,385	97,908	46,204	372,782
8	Houston-Baytown-Huntsville, TX	5,968,586	1,693,708	507,966	138,409	275,407	177,262	78,010	897,732
9	Merced, CA	245,321	78,461	24,167	5,205	13,076	6,948	3,210	59,349
10	Charlotte-Gastonia-Salisbury, NC-SC	2,389,763	615,854	263,236	52,818	139,028	75,668	35,810	332,654
11	San Luis Obispo-Paso Robles, CA	266,971	49,825	39,636	3,305	16,962	9,572	4,880	33,198
12	Dallas-Fort Worth, TX	6,772,276	1,884,196	607,900	153,975	314,809	202,280	89,746	950,677
13	El Centro, CA	166,874	51,337	17,578	3,405	9,042	4,822	2,259	35,368
14	Modesto, CA	510,385	149,225	53,538	9,899	28,322	15,287	7,192	85,583
14	Washington-Baltimore-Northern Virginia, DC-MD-VA-WV	8,394,115	2,017,092	913,919	217,649	558,279	272,776	128,313	700,129
16	Cincinnati-Middletown-Wilmington, OH-KY-IN	2,214,954	543,893	270,380	51,168	166,495	72,691	35,624	272,692
17	New York-Newark-Bridgeport, NY-NJ-CT-PA	22,232,494	5,171,357	2,905,795	513,309	1,559,643	744,517	370,377	2,721,910
18	Knoxville-Sevierville-La Follette, TN	1,053,627	231,414	158,809	19,847	66,813	36,686	19,121	162,410
19	Phoenix-Mesa-Glendale, AZ	4,364,094	1,187,246	496,355	96,895	347,250	133,817	63,556	643,772
20	Philadelphia-Camden-Vineland, PA-NJ-DE-MD	6,533,122	1,535,672	869,965	158,452	438,946	219,155	109,986	760,156
21	Birmingham-Hoover-Cullman, AL	1,212,848	291,846	160,168	25,030	70,273	40,311	20,201	177,638
22	Chico, CA	220,577	46,201	33,001	3,065	13,594	7,643	3,920	39,717
23	Atlanta-Sandy Springs-Gainesville, GA-AL	5,831,778	1,573,677	513,199	155,122	296,754	177,090	78,367	802,336
24	Pittsburgh-New Castle, PA	2,445,117	495,068	422,943	51,002	174,497	89,288	48,733	290,876
25	Las Vegas-Paradise-Pahrump, NV	1,947,068	510,425	214,427	35,278	127,748	60,786	28,636	240,066

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7. **Emphysema** estimates are for adults 18 and over who have been diagnosed within their lifetime, based on national rates (NHIS) applied to population estimates (U.S. Census).
8. Adding across rows does not produce valid estimates, e.g., summing pediatric and adult asthma and/or emphysema and chronic bronchitis.
9. **Poverty** estimates come from the U.S. Census Bureau and are for all ages.

People at Risk in 25 Counties Most Polluted by Short-term Particle Pollution (24-hour $PM_{2.5}$)

2011 Rank[1]	County	ST	Total Population[2]	At-Risk Groups									High $PM_{2.5}$ Days in Unhealthy Ranges, 2007–2009	
				Under 18[3]	65 and Over[3]	Pediatric Asthma[4,5]	Adult Asthma[5,6]	Chronic Bronchitis[6,7]	Emphysema[7,8]	CV Disease[9]	Diabetes[10]	Poverty[11]	Weighted Avg.[12]	Grade[13]
1	Kern	CA	807,407	250,561	72,666	16,621	43,747	23,012	10,309	184,959	48,102	170,614	60.5	F
2	Fresno	CA	915,267	275,906	89,528	18,302	50,145	26,546	12,137	215,107	55,930	192,638	53.7	F
3	Allegheny	PA	1,218,494	242,202	204,401	24,952	88,010	44,083	23,650	383,427	89,816	153,937	32.5	F
4	Riverside	CA	2,125,440	615,621	245,456	40,837	118,086	64,267	31,066	533,297	139,608	290,003	24.5	F
5	Salt Lake	UT	1,034,989	301,147	89,962	21,909	58,207	29,771	12,941	236,201	44,562	108,994	22.5	F
6	Los Angeles	CA	9,848,011	2,500,804	1,042,989	165,892	576,310	306,992	141,524	2,496,934	651,091	1,552,196	20.0	F
7	San Bernardino	CA	2,017,673	601,101	172,905	39,874	111,493	58,546	25,840	467,948	122,008	335,321	17.7	F
8	Utah	UT	545,307	189,454	35,179	13,783	28,166	13,467	5,204	101,731	18,281	75,993	14.8	F
9	Tulare	CA	429,668	141,279	40,393	9,372	22,622	11,998	5,494	97,299	25,326	97,542	14.7	F
10	Jefferson	AL	665,027	158,005	90,242	13,551	38,702	22,191	11,187	187,691	59,012	107,081	14.0	F
11	Sacramento	CA	1,400,949	361,552	157,628	23,984	81,493	44,281	21,049	365,071	95,904	210,786	13.2	F
11	Kings	CA	148,764	41,081	11,466	2,725	8,468	4,221	1,721	32,615	8,286	24,546	13.2	F
11	Cache	UT	115,269	35,491	8,905	2,582	6,320	3,075	1,246	23,661	4,328	18,744	13.2	F
14	Stanislaus	CA	510,385	149,225	53,538	9,899	28,322	15,287	7,192	125,454	32,878	85,583	12.8	F
15	Merced	CA	245,321	78,461	24,167	5,205	13,076	6,948	3,210	56,540	14,704	59,349	11.5	F
16	Orange	CA	3,026,786	755,550	346,897	50,120	178,032	96,766	46,079	798,336	209,664	318,173	11.0	F
16	Lane	OR	351,109	70,025	50,780	3,931	31,083	12,379	6,290	105,086	23,292	58,935	11.0	F
18	San Diego	CA	3,053,793	739,625	347,859	49,063	181,385	97,908	46,204	804,440	210,648	372,782	9.2	F
19	San Joaquin	CA	674,860	202,135	68,180	13,409	37,098	19,982	9,330	163,489	42,864	103,777	8.8	F
19	Plumas	CA	20,122	3,615	4,290	240	1,281	814	483	7,441	2,032	2,453	8.8	F
21	Cook	IL	5,287,037	1,283,145	621,214	119,167	360,936	169,759	80,867	1,400,158	314,356	828,626	8.7	F
22	Snohomish	WA	694,571	171,462	68,364	11,724	45,931	22,398	10,328	182,585	38,690	66,458	8.5	F
23	Fairbanks North Star Borough	AK	98,660	25,640	6,170	1,775	6,482	2,900	1,146	22,185	3,823	7,420	8.3	F
24	Muscatine	IA	42,934	11,301	5,457	538	2,133	1,406	710	11,916	2,352	5,074	7.2	F
25	Philadelphia	PA	1,547,297	362,879	192,683	37,384	110,439	50,004	24,037	413,743	95,348	366,125	7.0	F
25	Sutter	CA	92,614	25,610	11,969	1,699	5,231	2,910	1,462	24,562	6,468	13,511	7.0	F

Notes:

1. Counties are ranked by weighted average. See note 12 below.
2. **Total Population** represents the at-risk populations in counties with $PM_{2.5}$ monitors.
3. Those **18 and under** and **65 and over** are vulnerable to $PM_{2.5}$ and are, therefore, included. They should not be used as population denominators for disease estimates.
4. **Pediatric asthma** estimates are for those under 18 years of age and represent the estimated number of people who had asthma in 2009 based on state rates (BRFSS) applied to population estimates (U.S. Census).
5. **Adult asthma** estimates are for those 18 years and older and represent the estimated number of people who had asthma during 2009 based on state rates (BRFSS) applied to population estimates (U.S. Census).
6. **Chronic bronchitis** estimates are for adults 18 and over who had been diagnosed in 2009, based on national rates (NHIS) applied to population estimates (U.S. Census).
7. **Emphysema** estimates are for adults 18 and over who have been diagnosed within their lifetime, based on national rates (NHIS) applied to population estimates (U.S. Census).
8. Adding across rows does not produce valid estimates, e.g., summing pediatric and adult asthma and/or emphysema and chronic bronchitis.
9. **CV disease** estimates are based on National Heart Lung and Blood Institute (NHLBI) estimates of cardiovascular disease applied to population estimates (U.S. Census).
10. **Diabetes** estimates are for adults 18 and over who have been diagnosed within their lifetime, based on state rates (BRFSS) applied to population estimates (U.S. Census).
11. **Poverty** estimates come from the U.S. Census Bureau and are for all ages.
12. The **Weighted Average** was derived by counting the number of days in each unhealthful range (orange, red, purple, maroon) in each year (2007-2009), multiplying the total in each range by the assigned standard weights (i.e., 1 for orange, 1.5 for red, 2.0 for purple, 2.5 for maroon), and calculating the average.
13. **Grade** is assigned by weighted average as follows: A=0.0, B=0.3-0.9, C=1.0-2.0, D=2.1-3.2, F=3.3+.

People at Risk in 25 Counties Most Polluted by Year-round Particle Pollution (Annual $PM_{2.5}$)

2011 Rank[1]	County	ST	Total Population[2]	At-Risk Groups									$PM_{2.5}$ Annual, 2007–2009	
				Under 18[3]	65 and Over[3]	Pediatric Asthma[4,5]	Adult Asthma[5,6]	Chronic Bronchitis[6,8]	Emphysema[7,8]	CV Disease[9]	Diabetes[10]	Poverty[11]	Design Value[12]	Grade[13]
1	Kern	CA	807,407	250,561	72,666	16,621	43,747	23,012	10,309	184,959	48,102	170,614	22.6	FAIL
2	Pinal	AZ	340,962	90,261	47,067	7,366	27,072	10,833	5,497	91,770	21,269	44,379	18.8	FAIL
2	Riverside	CA	2,125,440	615,621	245,456	40,837	118,086	64,267	31,066	533,297	139,608	290,003	18.8	FAIL
2	Tulare	CA	429,668	141,279	40,393	9,372	22,622	11,998	5,494	97,299	25,326	97,542	18.8	FAIL
5	Kings	CA	148,764	41,081	11,466	2,725	8,468	4,221	1,721	32,615	8,286	24,546	17.3	FAIL
6	Fresno	CA	915,267	275,906	89,528	18,302	50,145	26,546	12,137	215,107	55,930	192,638	17.1	FAIL
7	Allegheny	PA	1,218,494	242,202	204,401	24,952	88,010	44,083	23,650	383,427	89,816	153,937	17.0	FAIL
8	San Bernardino	CA	2,017,673	601,101	172,905	39,874	111,493	58,546	25,840	467,948	122,008	335,321	16.2	FAIL
9	Los Angeles	CA	9,848,011	2,500,804	1,042,989	165,892	576,310	306,992	141,524	2,496,934	651,091	1,552,196	15.8	FAIL
10	Jefferson	AL	665,027	158,005	90,242	13,551	38,702	22,191	11,187	187,691	59,012	107,081	15.1	FAIL
11	Hamilton	OH	855,062	200,406	115,705	18,790	64,933	28,687	14,447	242,554	65,213	126,872	15.0	PASS
12	Stanislaus	CA	510,385	149,225	53,538	9,899	28,322	15,287	7,192	125,454	32,878	85,583	14.7	PASS
12	Clark	IN	108,634	25,544	14,060	2,495	7,544	3,636	1,809	30,586	7,852	12,743	14.7	PASS
14	Cuyahoga	OH	1,275,709	292,883	194,879	27,461	96,471	44,247	23,347	382,121	102,760	235,014	14.4	PASS
14	Brooke	WV	23,509	4,577	4,557	388	1,659	885	503	7,912	2,504	3,075	14.4	PASS
14	Kanawha	WV	191,663	40,727	31,882	3,454	13,286	6,903	3,738	60,336	19,080	27,060	14.4	PASS
17	Marion	IN	890,879	227,659	96,665	22,236	60,465	27,928	13,035	228,393	57,284	171,860	14.3	PASS
17	Cabell	WV	95,214	19,062	15,496	1,617	6,717	3,341	1,750	28,712	9,053	19,182	14.3	PASS
19	Jefferson	OH	67,691	13,678	12,743	1,282	5,213	2,530	1,430	22,561	6,070	11,524	14.2	PASS
19	Beaver	PA	171,673	34,909	31,392	3,596	12,106	6,388	3,578	56,723	13,375	19,285	14.2	PASS
21	Madison	IL	268,457	61,590	38,074	5,720	18,600	9,147	4,681	77,902	17,531	34,532	14.1	PASS
21	Wayne	MI	1,925,848	487,257	234,767	39,593	143,904	62,834	30,943	526,404	132,430	458,811	14.1	PASS
21	Harris	TX	4,070,989	1,174,860	328,354	96,009	186,211	118,470	51,005	937,343	254,761	686,928	14.1	PASS
24	Butler	OH	363,184	89,746	41,603	8,415	27,375	11,732	5,610	97,011	26,067	46,350	14.0	PASS
24	Berkeley	WV	103,854	25,871	11,828	2,194	6,925	3,363	1,613	27,848	8,781	10,866	14.0	PASS

Notes:

1. Counties are ranked by Design Value. See note 12 below.
2. **Total Population** represents the official populations of counties with PM$_{2.5}$ monitors.
3. Those **18 and under** and **65 and over** are vulnerable to PM$_{2.5}$ and are, therefore, included. They should not be used as population denominators for disease estimates.
4. **Pediatric asthma** estimates are for those under 18 years of age and represent the estimated number of people who had asthma in 2009 based on state rates (BRFSS) applied to population estimates (U.S. Census).
5. **Adult asthma** estimates are for those 18 years and older and represent the estimated number of people who had asthma during 2009 based on state rates (BRFSS) applied to population estimates (U.S. Census).
6. **Chronic bronchitis** estimates are for adults 18 and over who have been diagnosed in 2009, based on state rates (NHIS) applied to population estimates (U.S. Census).
7. **Emphysema** estimates are for adults 18 and over who have been diagnosed within their lifetime, based on state rates (NHIS) applied to population estimates (U.S. Census).
8. Adding across rows does not produce valid estimates, e.g., summing pediatric and adult asthma and/or emphysema and chronic bronchitis.
9. **CV disease** estimates are based on National mean total annual incidence (New and recurrent) adult rates of cardiovascular disease applied to population estimates (U.S. Census).
10. **Diabetes** estimates are for adults 18 and over who have been diagnosed within their lifetime, based on state rates (BRFSS) applied to population estimates (U.S. Census).
11. **Poverty** estimates come from the U.S. Census Bureau and are for all ages.
12. The **Design Value** is the calculated concentration of a pollutant based on one form of the National Ambient Air Quality Standard, and is used by EPA to determine whether the air quality meets the standard. The source for the Design Values is EPA, communication from the Office of Air Quality Planning & Standards, Mark Schmidt, February 25, 2011.
13. **Grades** are based on EPA's determination of monitors that meet the NAAQS for annual PM$_{2.5}$ levels during 2007-2009. Counties meeting the NAAQS received grades of Pass; counties not meeting the NAAQS received grades of Fail.

People at Risk in 25 Most Ozone-Polluted Counties

2011 Rank[1]	County	ST	Total Population[2]	At-Risk Groups							High Ozone Days in Unhealthy Ranges, 2007–2009	
				Under 18[3]	65 and Over[3]	Pediatric Asthma[4,8]	Adult Asthma[5,8]	Chronic Bronchitis[6,8]	Emphysema[7,8]	Poverty[9]	Weighted Avg.[10]	Grade[11]
1	San Bernardino	CA	2,017,673	601,101	172,905	39,874	111,493	58,546	25,840	335,321	136.8	F
2	Riverside	CA	2,125,440	615,621	245,456	40,837	118,086	64,267	31,066	290,003	126.2	F
3	Kern	CA	807,407	250,561	72,666	16,621	43,747	23,012	10,309	170,614	102.8	F
4	Tulare	CA	429,668	141,279	40,393	9,372	22,622	11,998	5,494	97,542	101.3	F
5	Los Angeles	CA	9,848,011	2,500,804	1,042,989	165,892	576,310	306,992	141,524	1,552,196	91.5	F
6	Fresno	CA	915,267	275,906	89,528	18,302	50,145	26,546	12,137	192,638	58.8	F
7	Sacramento	CA	1,400,949	361,552	157,628	23,984	81,493	44,281	21,049	210,786	42.3	F
8	Kings	CA	148,764	41,081	11,466	2,725	8,468	4,221	1,721	24,546	36.8	F
9	El Dorado	CA	178,447	41,818	21,717	2,774	10,768	6,281	3,177	13,492	35.0	F
10	Nevada	CA	97,751	18,601	18,170	1,234	6,170	3,810	2,163	9,819	30.5	F
11	San Diego	CA	3,053,793	739,625	347,859	49,063	181,385	97,908	46,204	372,782	29.5	F
12	Harris	TX	4,070,989	1,174,860	328,354	96,009	186,211	118,470	51,005	686,928	27.0	F
13	Ventura	CA	802,983	209,334	94,655	13,886	46,559	25,886	12,661	83,323	26.0	F
14	Mariposa	CA	17,792	3,187	3,496	211	1,135	700	401	2,364	24.7	F
15	Placer	CA	348,552	83,608	54,762	5,546	20,640	12,020	6,442	25,053	24.2	F
16	Merced	CA	245,321	78,461	24,167	5,205	13,076	6,948	3,210	59,349	23.8	F
17	Rowan	NC	140,798	33,135	20,938	2,842	8,364	4,817	2,519	22,778	23.7	F
18	San Luis Obispo	CA	266,971	49,825	39,636	3,305	16,962	9,572	4,880	33,198	23.3	F
19	Tarrant	TX	1,789,900	507,390	155,996	41,464	82,590	53,033	23,400	254,582	22.3	F
20	Imperial	CA	166,874	51,337	17,578	3,405	9,042	4,822	2,259	35,368	19.8	F
21	Stanislaus	CA	510,385	149,225	53,538	9,899	28,322	15,287	7,192	85,583	19.3	F
21	Harford	MD	242,514	59,776	29,902	7,135	16,488	8,095	4,027	14,948	19.3	F
21	Mecklenburg	NC	913,639	237,842	78,551	20,398	53,271	27,572	11,905	126,807	19.3	F
24	Hamilton	OH	855,062	200,406	115,705	18,790	64,933	28,687	14,447	126,872	18.7	F
25	Fairfield	CT	901,208	223,771	119,291	26,823	63,497	30,094	15,271	72,291	17.8	F

Notes:

1. Counties are ranked by weighted average.
2. **Total Population** represents the at-risk populations in counties with ozone monitors.
3. Those **18 and under** and **65 and over** are vulnerable to $PM_{2.5}$ and are, therefore, included. They should not be used as population denominators for disease estimates.
4. **Pediatric asthma** estimates are for those under 18 years of age and represent the estimated number of people who had asthma in 2009 based on state rates (BRFSS) applied to population estimates (U.S. Census).
5. **Adult asthma** estimates are for those 18 years and older and represent the estimated number of people who had asthma during 2009 based on state rates (BRFSS) applied to population estimates (U.S. Census).
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7. **Emphysema** estimates are for adults 18 and over who have been diagnosed within their lifetime, based on national rates (NHIS) applied to population estimates (U.S. Census).
8. Adding across rows does not produce valid estimates; e.g., summing pediatric and adult asthma and/or emphysema and chronic bronchitis.
9. **Poverty** estimates come from the U.S. Census Bureau and are for all ages.
10. The **Weighted Average** was derived by counting the number of days in each unhealthful range (orange, red, purple) in each year (2007-2009), multiplying the total in each range by the assigned standard weights (i.e., 1 for orange, 1.5 for red, 2 for purple), and calculating the average.
11. **Grade** is assigned by weighted average as follows: A=0.0, B=0.3-0.9, C=1.0-2.0, D=2.1-3.2, F=3.3+.

Fresno Bee
7/15/10

Toxic shower threatens Valley air

Microscopic chemicals could corrode lungs.

By Mark Grossi
The Fresno Bee

A mysterious shower of microscopic chemicals near a Fresno shopping center could be the first evidence of a broad, undetected assault on the lungs of San Joaquin Valley residents.

If confirmed in other Valley cities, it means many thousands of people are daily breathing these cocktails of chemicals — known as ultra-fine particles — that corrode and damage lungs.

The plume in Fresno probably spreads over many square miles, not just the Fashion Fair area where they were discovered, said UC Davis atmospheric scientist Anthony Wexler, who detected the pollution.

Sensitive, expensive equipment is needed to detect and study ultrafine pollution. Science is only now defining the possible problem.

Wexler revealed Fresno's midday rise in microscopic pollution last month at an air-quality conference, saying he and others will continue studying them to determine the source and extent of the plume.

Researchers also must figure out what's in the particles and more clearly define the possible health threat. It may be years before local, state and federal officials can develop a cleanup strategy.

The particles are so small that 1,000 of them would fit across the width of a human hair. For years, science has known that such particles exist, but they are thousands of times smaller than previously studied particles in dust, soot and diesel smoke.

Health problems from such pollution were detailed last month in a study on allergic asthmatics, whose lungs are inflamed to the point that only a small amount of pollen, animal hair or other allergens can trigger a crippling attack.

The findings from Dr. Andre Nel, a UCLA medical researcher, were published by the American Journal of Physiology-Lung Cellular and Molecular Physiology.

"If there is a surge in ultrafine pollution particles, it makes twitchy airways even more twitchy," he said. "It results in a much lower threshold

AIR

Continued from A1

of allergens to create an asthmatic response or an attack."

These specks can come from volcanoes or ocean spray, but they also come from printer toner, vehicle exhaust and chemical reactions in the air. Fresno's particles may come from traffic and other pollution vapors.

The site near Fashion Fair is not far from Highway 41, Shaw Avenue and many businesses and restaurants, so there could be many different contributors to the pollution.

Wexler said he suspects the particles form after pollution gases accumulate in the air each day, though there could be a particular source spewing the particles.

But he said it's a good bet that the problem is not just isolated in the Fashion Fair area. Thousands of Fresno residents may be exposed to the particles.

Is this midday rise in pollution occurring in other Valley cities? It's possible, said Wexler. This kind of pollution also has been detected in other places, such as Pittsburgh, which has problems with particle pollution.

The Valley is known nationally for particle pollution. In the American Lung Association's latest rankings, Bakersfield and Fresno-Madera were the country's two worst places for short-term bouts of particle pollution.

The ranking applied to fine-particle pollution, which includes the smallest specks that Wexler discovered near Fashion Fair.

Researchers in Southern California say the tiny particles contain 1,000 or more different substances. The particles tend to grow larger, accumulating many toxic chemicals from the air.

In the UCLA study, Nel showed the chemical debris corrodes and injures the lungs, and the body responds with inflammation. He said it could possibly cause problems for even those with healthy lungs, but he has only studied asthmatics.

For asthmatics, Nel said conventional treatment does not address the problems created by pollution. He said science would have to alter medications, using the kind of antioxidant chemicals found in broccoli and other natural sources to combat the lung injuries.

Nel said such a treatment needs to be developed soon because there is evidence that ultra-fine pollution is becoming a problem in many places, and asthma is on the rise worldwide.

"The particles are increasing in the industrialized Northern Hemisphere," he said. "They are being spread on the wind from city to city, country to country and even continent to continent."

▶ The reporter can be reached at mgrossi@fresnobee.com or (559) 441-6316.

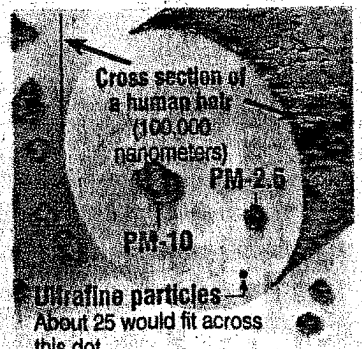
Sizing up particulate matter

Pollution particles of soot and other specks called PM-10 and PM-2.5 are microscopic, yet they are thousands of times larger than ultrafine particles. Ultrafines are measured in nanometers. Ultrafine particles can be 100 nanometers and smaller. A typical germ measures about 1,000 nanometers.

PM-10
■ About six would fit across the width of a human hair

PM-2.5
■ About 30 would fit across the width of a human hair

Ultrafine particles
■ About 1,000 would fit across the width of a human hair



Source: Wikipedia and PhysOrg.com

THE FRESNO BEE

Attachment 13

SB X2-1
Nitrate in Groundwater
Report to the Legislature

OVERVIEW AND KEY OUTCOMES

Thomas Harter
University of California Davis - SBX2-1 Team
June 9, 2011



Department of Land, Air, and Water Resources
University of California, Davis
Contact: ThHarter@ucdavis.edu

Attachment 14

UCD Project Team Leaders

- Thomas Harter (PI), Subsurface Hydrology
- Jeannie Darby, Water Treatment
- Graham Fogg, Subsurface Hydrology
- Richard Howitt, Agricultural Economics
- Katrina Jessoe, Water Quality Economics
- Jay Lund, Water Resources Management
- Jim Quinn, Spatial Data Mgmt. in Environmental Policy
- Stu Pettygrove, Soils and Nutrient Management
- Tom Tomich, Agricultural Sustainability Institute
- Joshua Viers, Spatial Data Management in Environmental Sciences

FUNDING PROVIDED BY:

- **Proposition 84 / SB X 2-1 => CDPH => SWRCB**

UCD Project Team

- Aaron King
- Allan Hollander
- Alison McNally
- Anna Fryjoff-Hung
- Cathryn Lawrence
- Daniel Liptzin
- Dylan Boyle
- Elena Lopez
- Giorgos Kourakos
- Holly Canada
- Josue Medellin-Azuara
- Kristin Dzurella
- Kristin Honeycutt
- Mimi Jenkins
- Nate Roth
- Todd Rosenstock
- Vivian Jensen

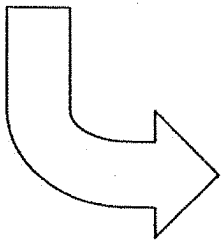
- ...many undergraduate students....

Timeline

- Data collection and analysis – 2nd Quarter 2011
- Economic and policy analysis – 3rd Quarter 2011
  - **2nd ITF Meeting – May 3, 2011**
- Draft report – September 2011
  - **3rd ITF Meeting – October 2011**
- Final report – December 2011
- SWRCB Report to Legislature – April 2012
- Directed follow-up studies – April 2013

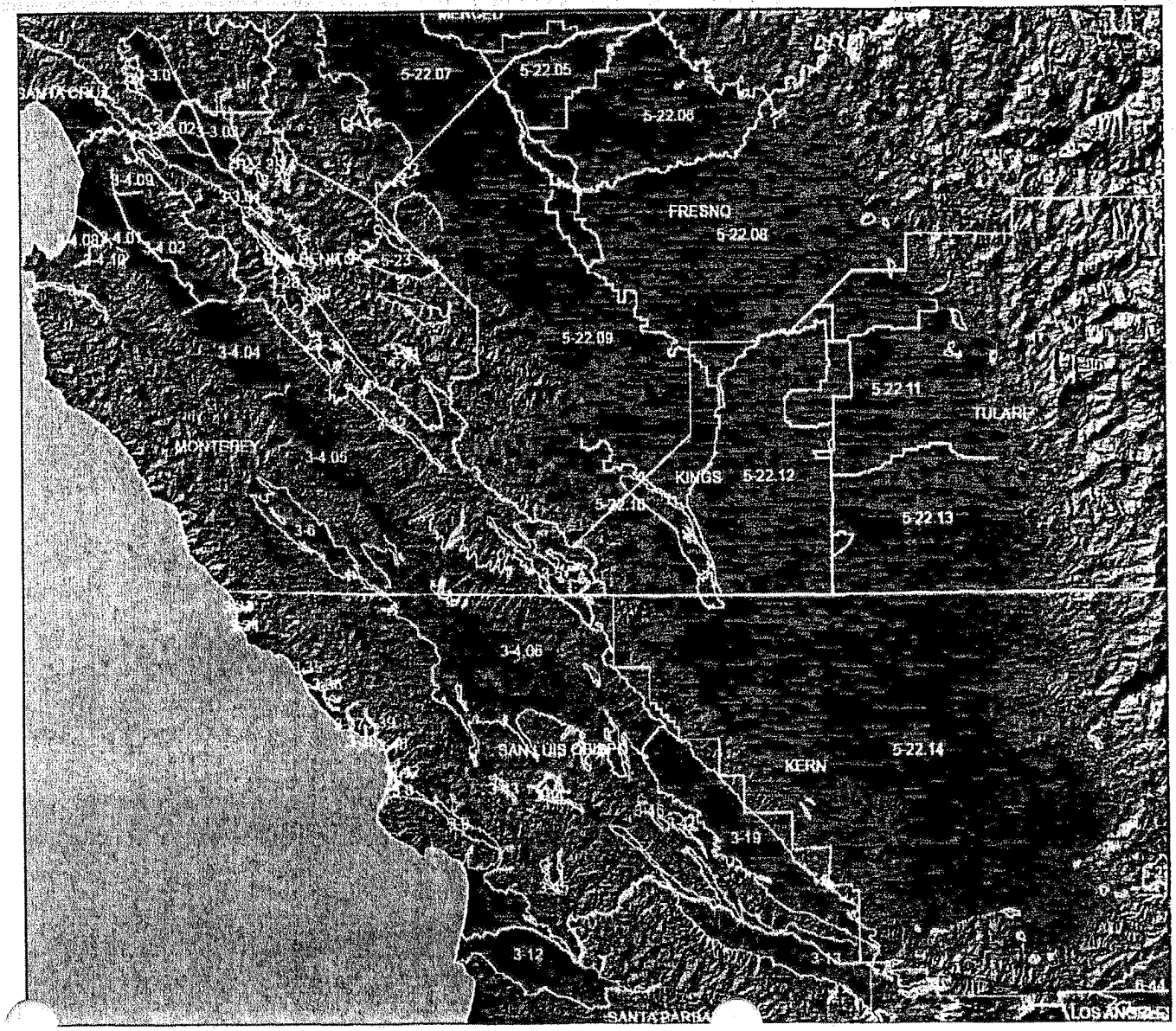
Motivation

- Nitrate most common groundwater pollutant
- Tulare Lake Basin and Salinas Valley among most affected groundwater basins in CA
- Domestic well water typically untreated / unknown quality
- High nitrate costly to treat for small / disadvantaged communities

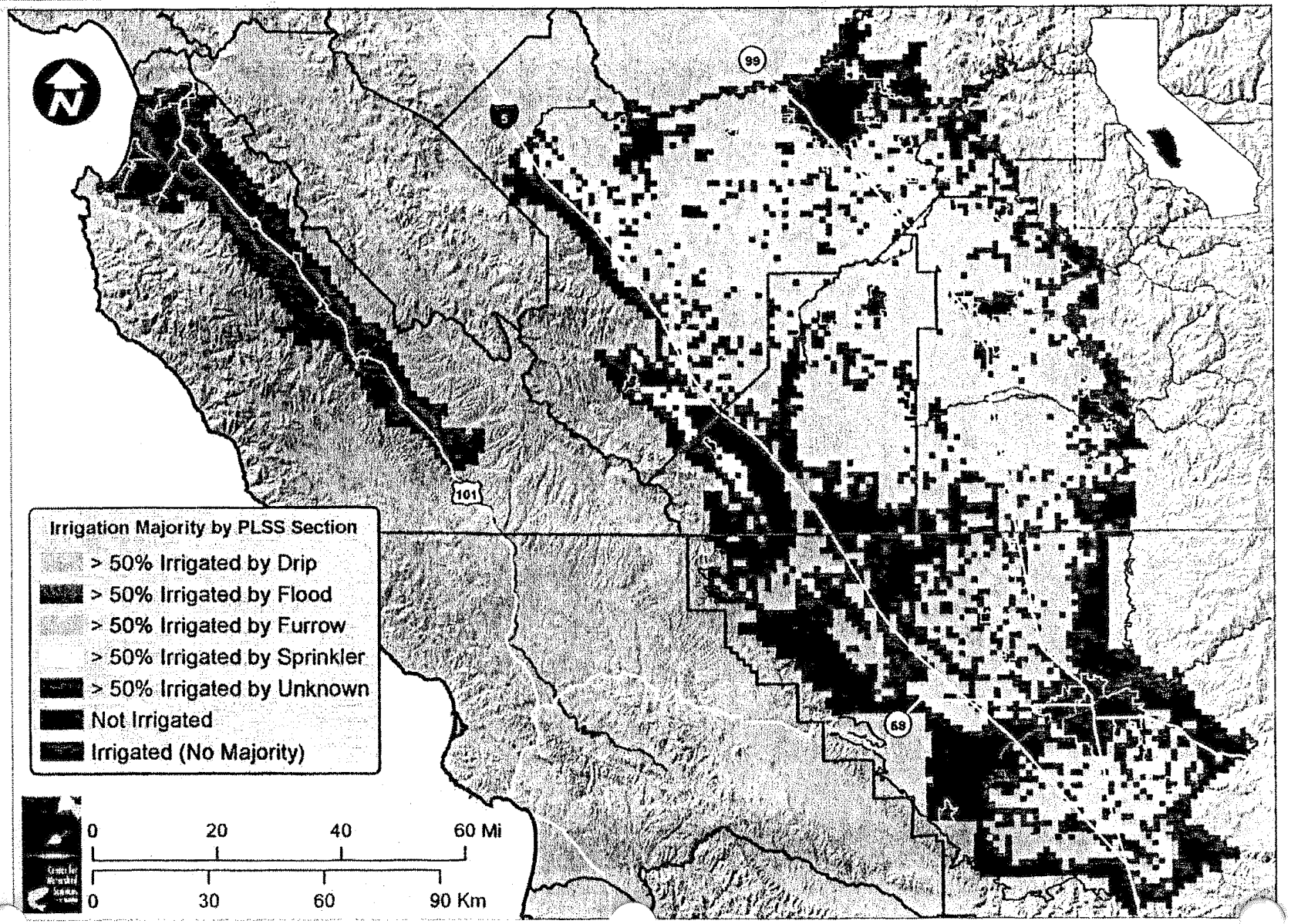


How can this be best fixed?

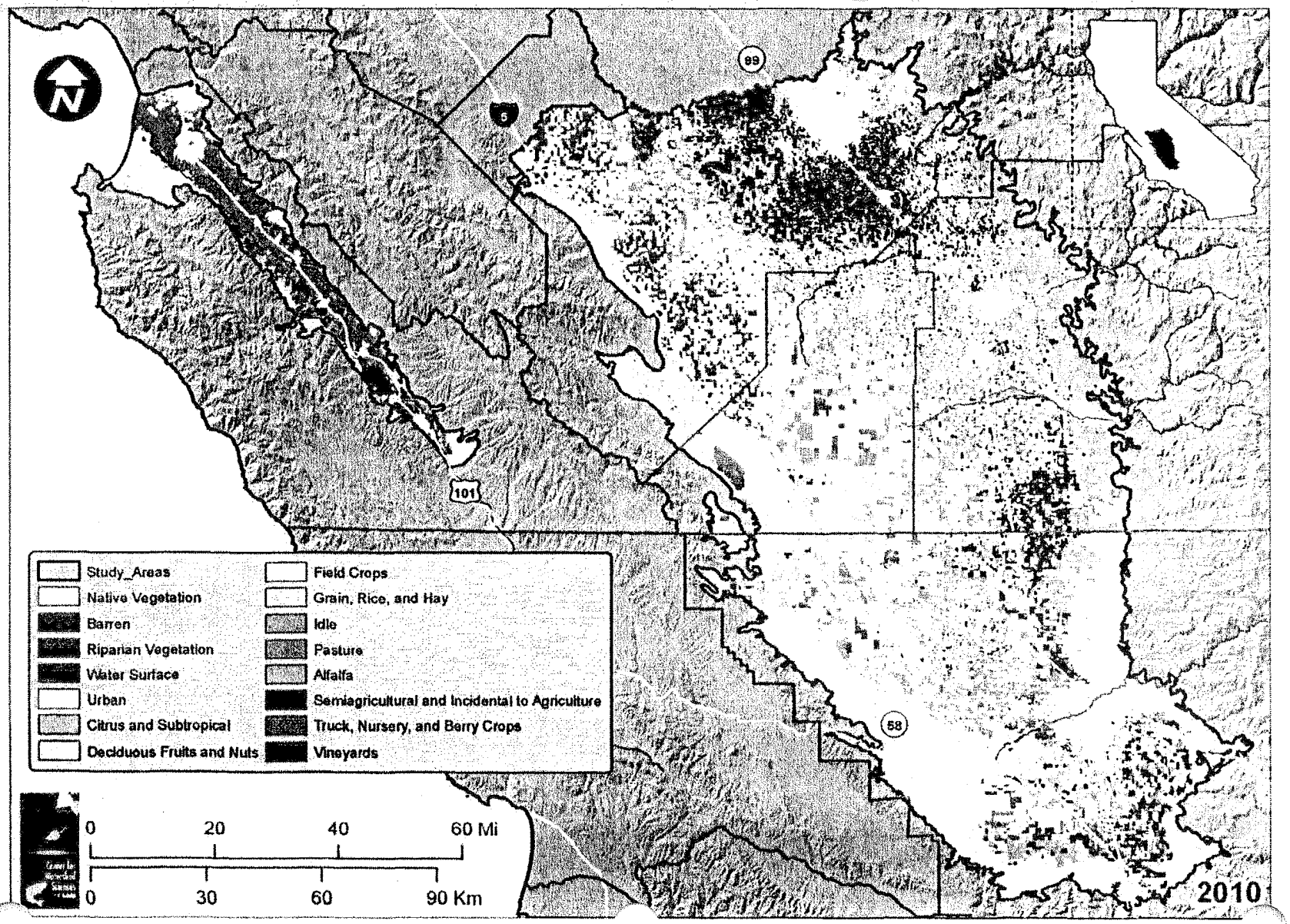
Project Area



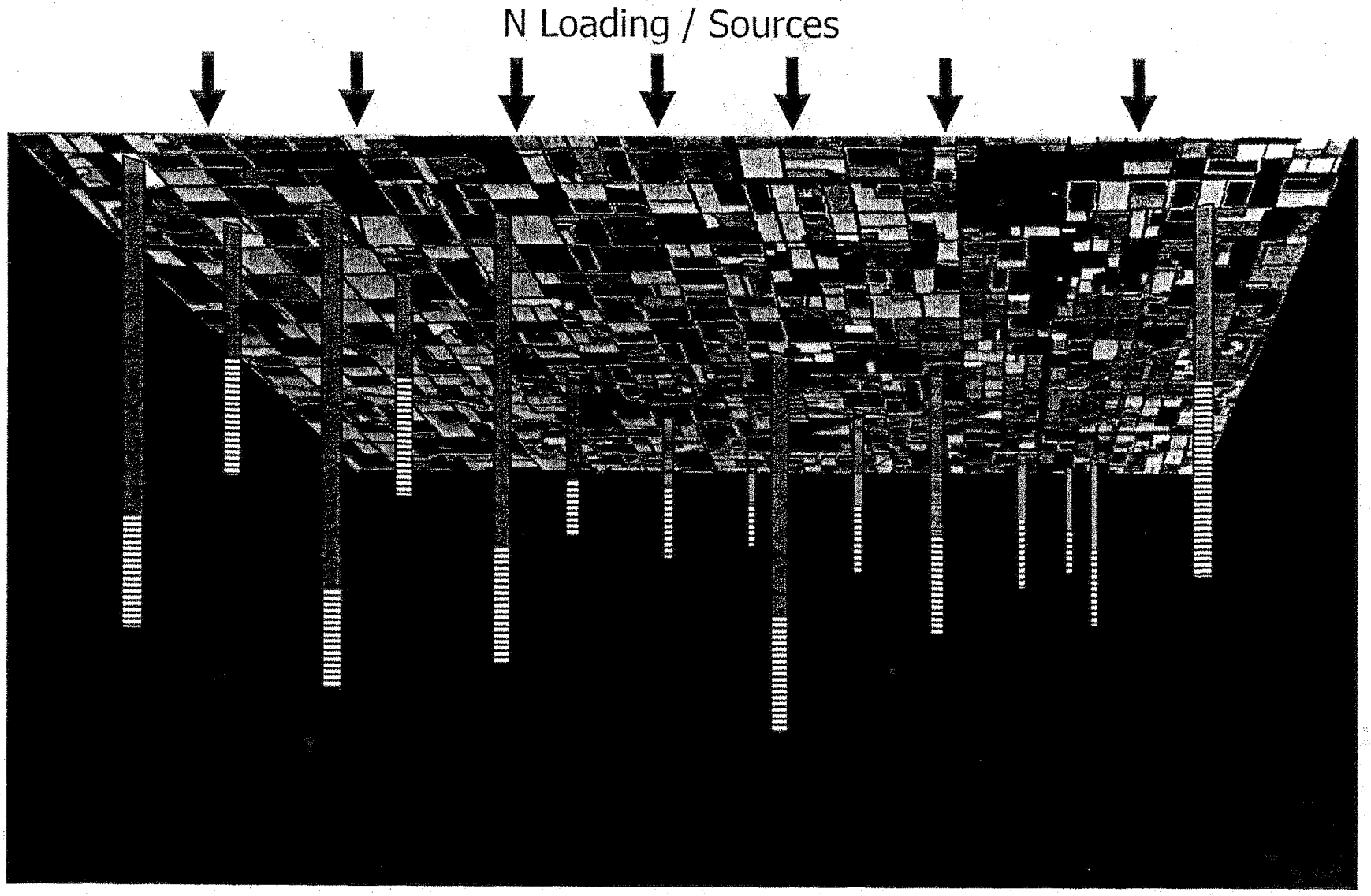
Irrigated Areas



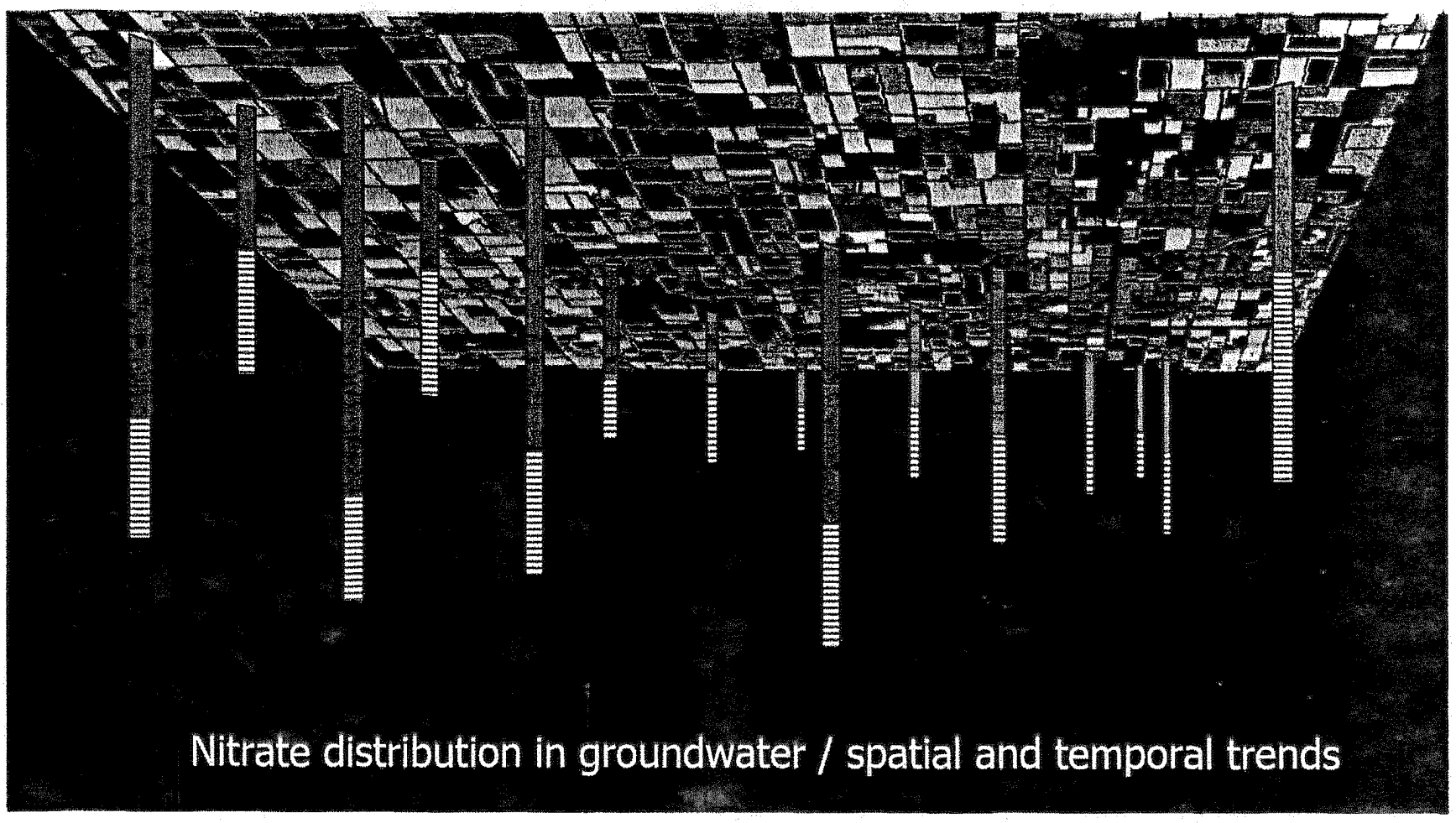
Landuse


N
99
5
101
58
Study_Areas
Native Vegetation
Barren
Riparian Vegetation
Water Surface
Urban
Citrus and Subtropical
Deciduous Fruits and Nuts
Field Crops
Grain, Rice, and Hay
Idle
Pasture
Alfalfa
Semiagricultural and Incidental to Agriculture
Truck, Nursery, and Berry Crops
Vineyards
0 20 40 60 Mi
0 30 60 90 Km
2010

Key Study Outcomes: Assessment

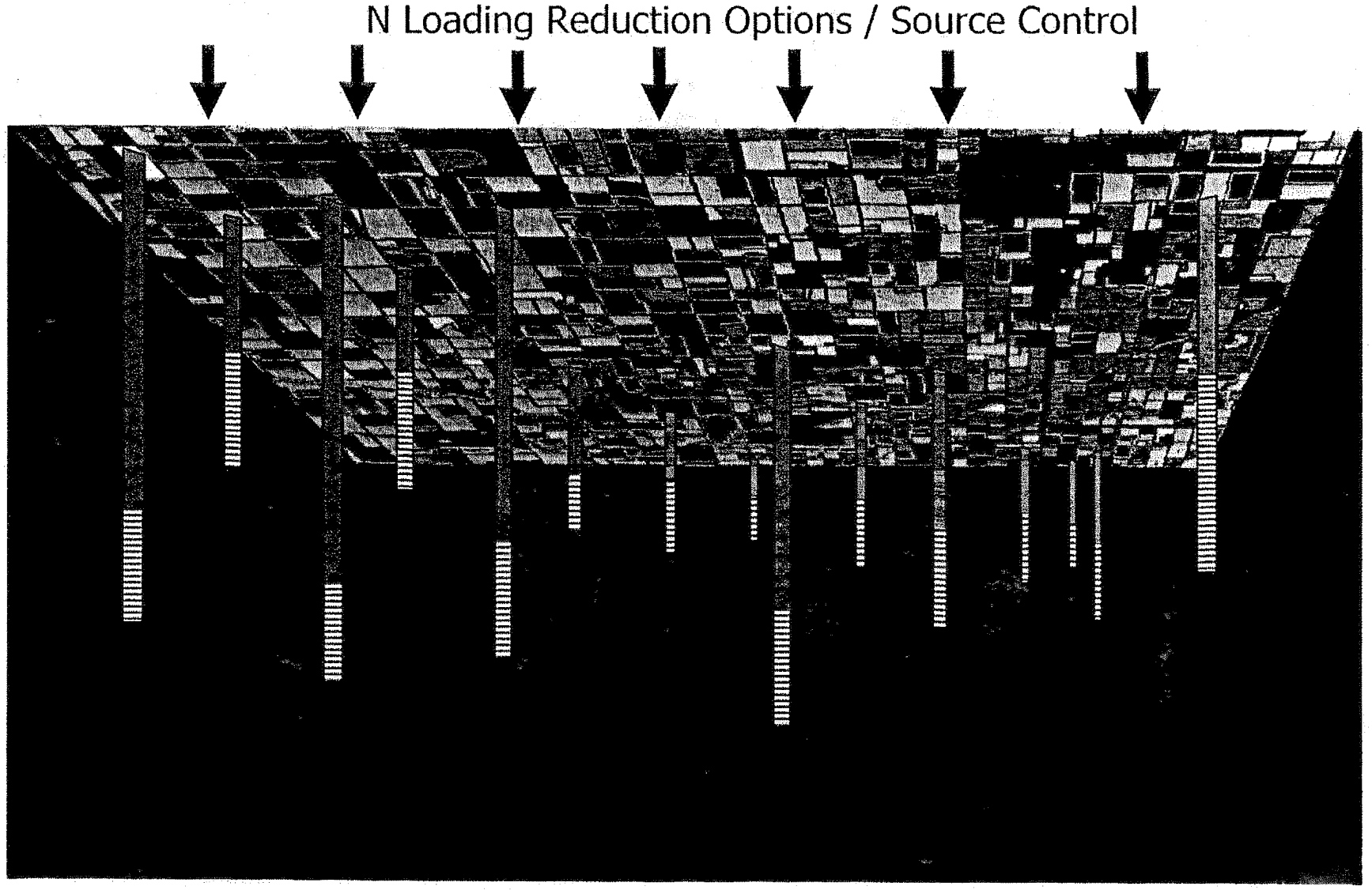


Key Study Outcomes: Assessment

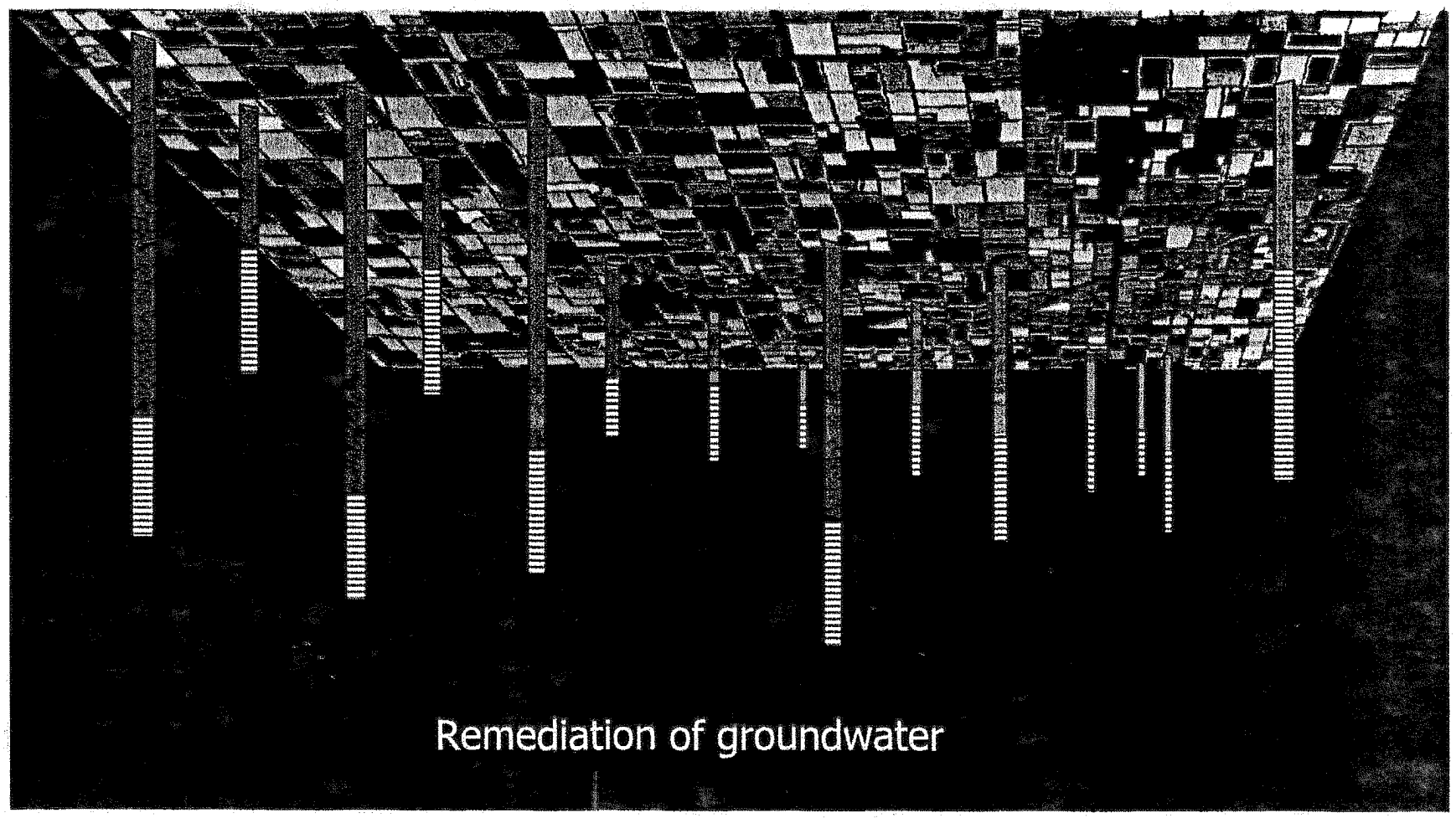


Nitrate distribution in groundwater / spatial and temporal trends

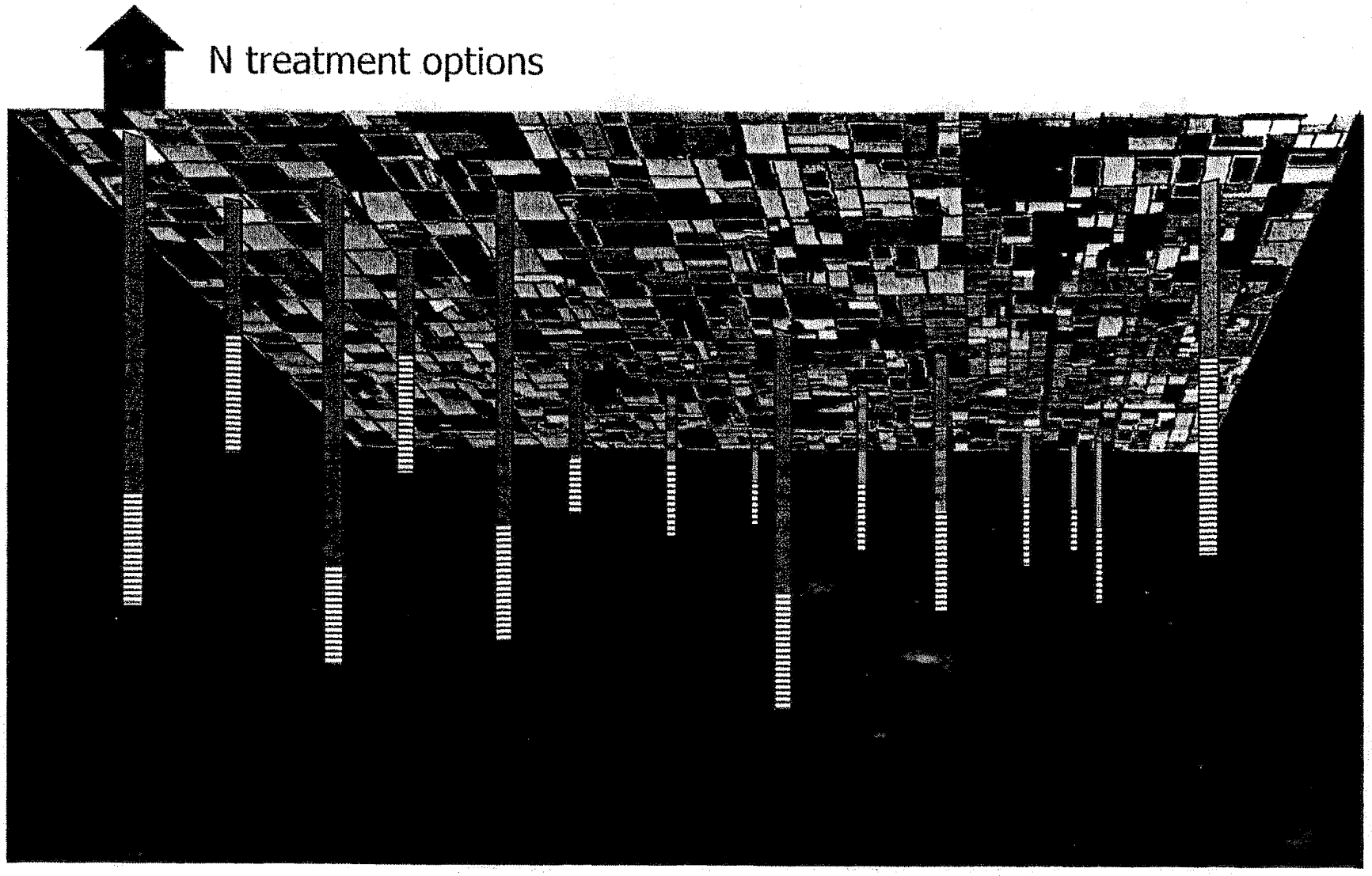
Key Study Outcomes: Actions



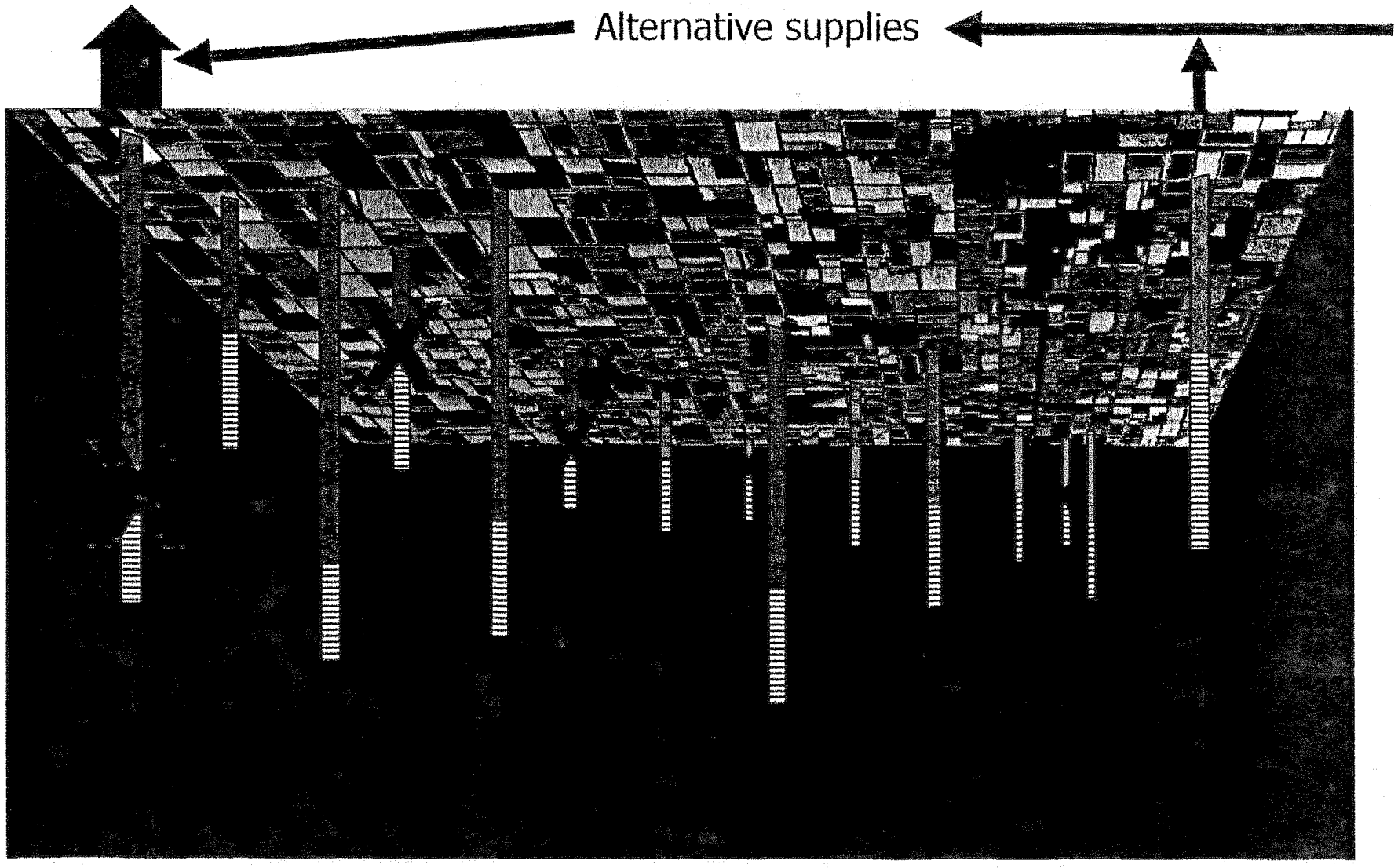
Key Study Outcomes: Actions



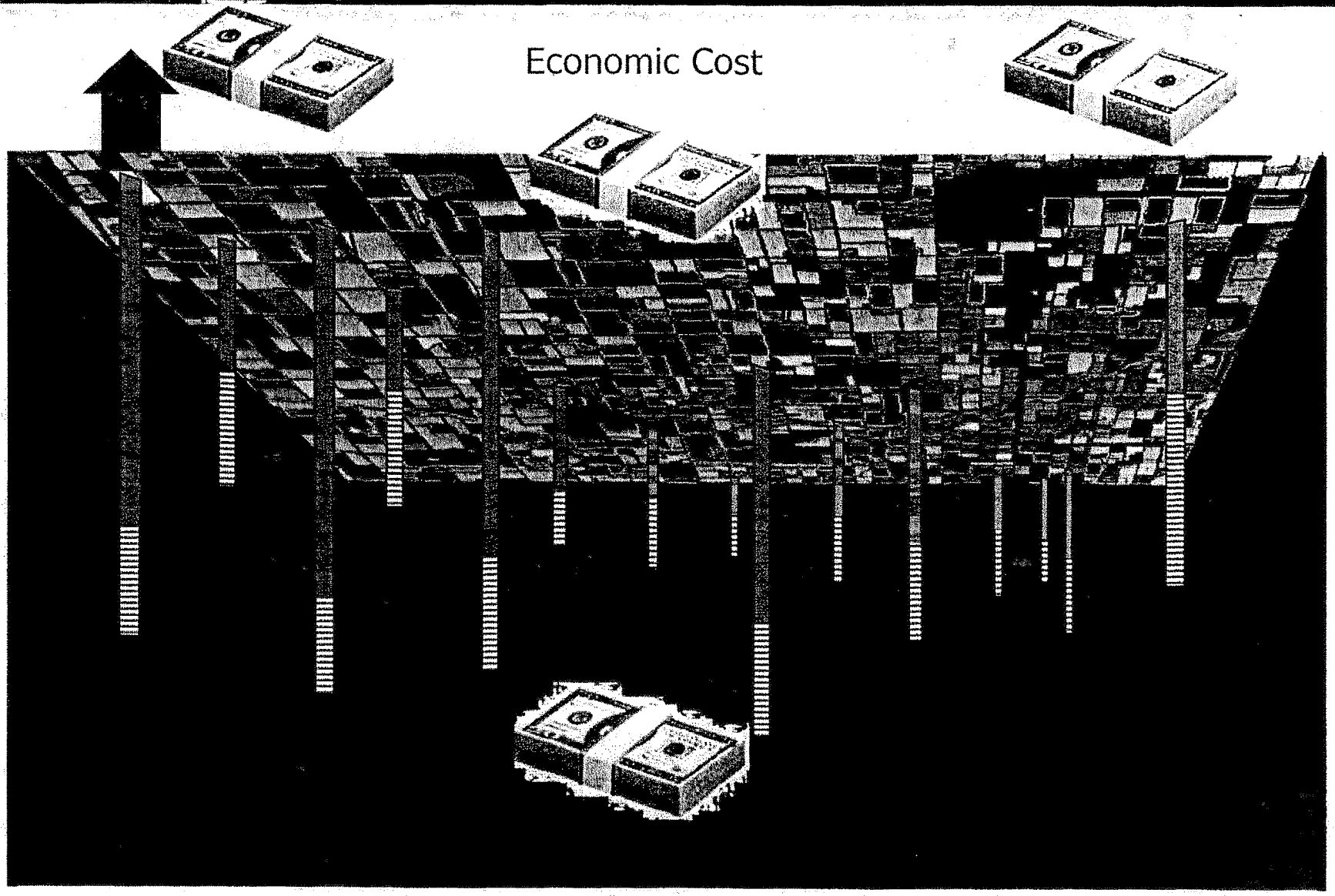
Key Study Outcomes: Actions



Key Study Outcomes: Actions

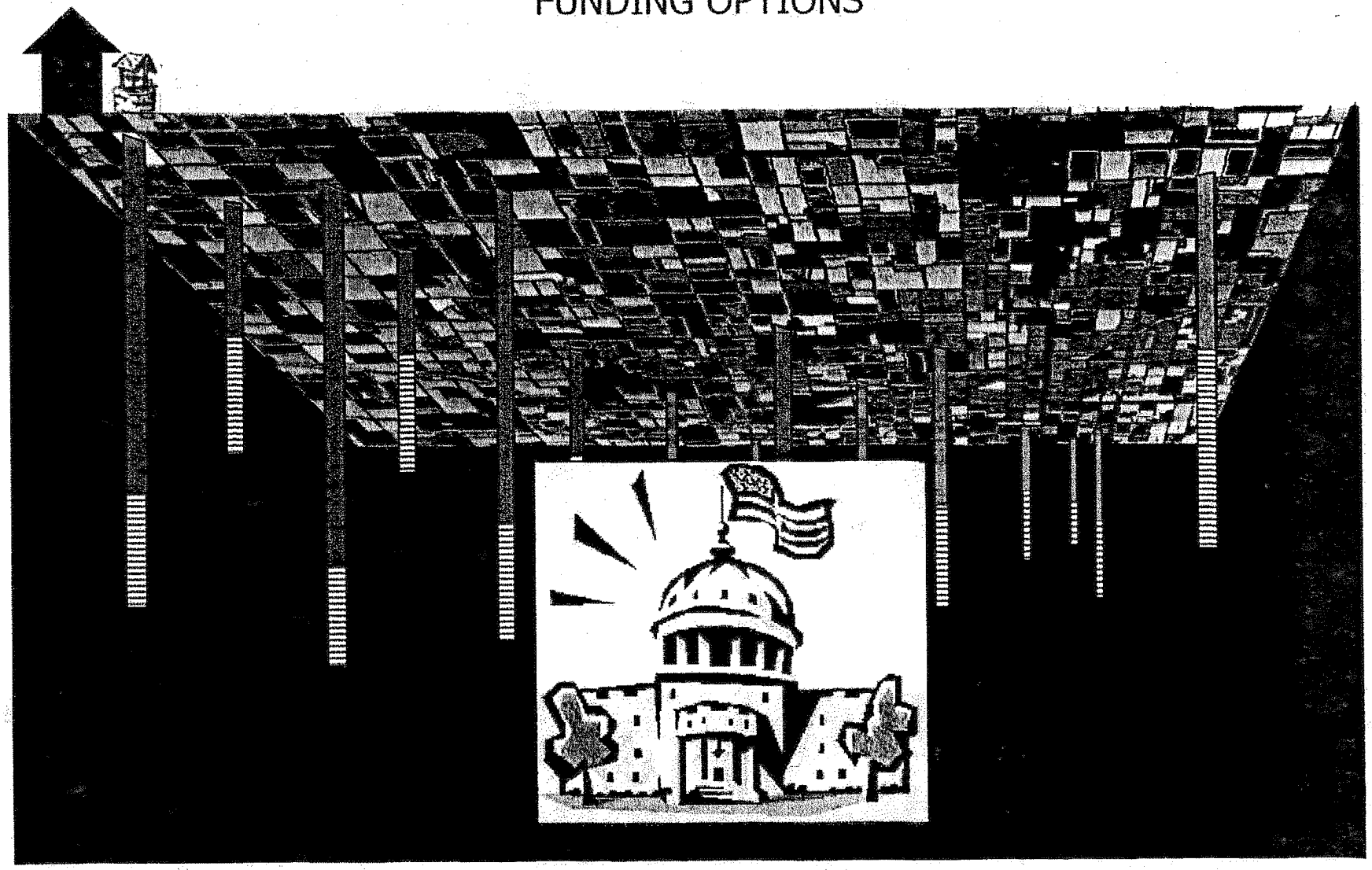


Key Study Outcomes: Costs



Key Study Outcomes: Funding

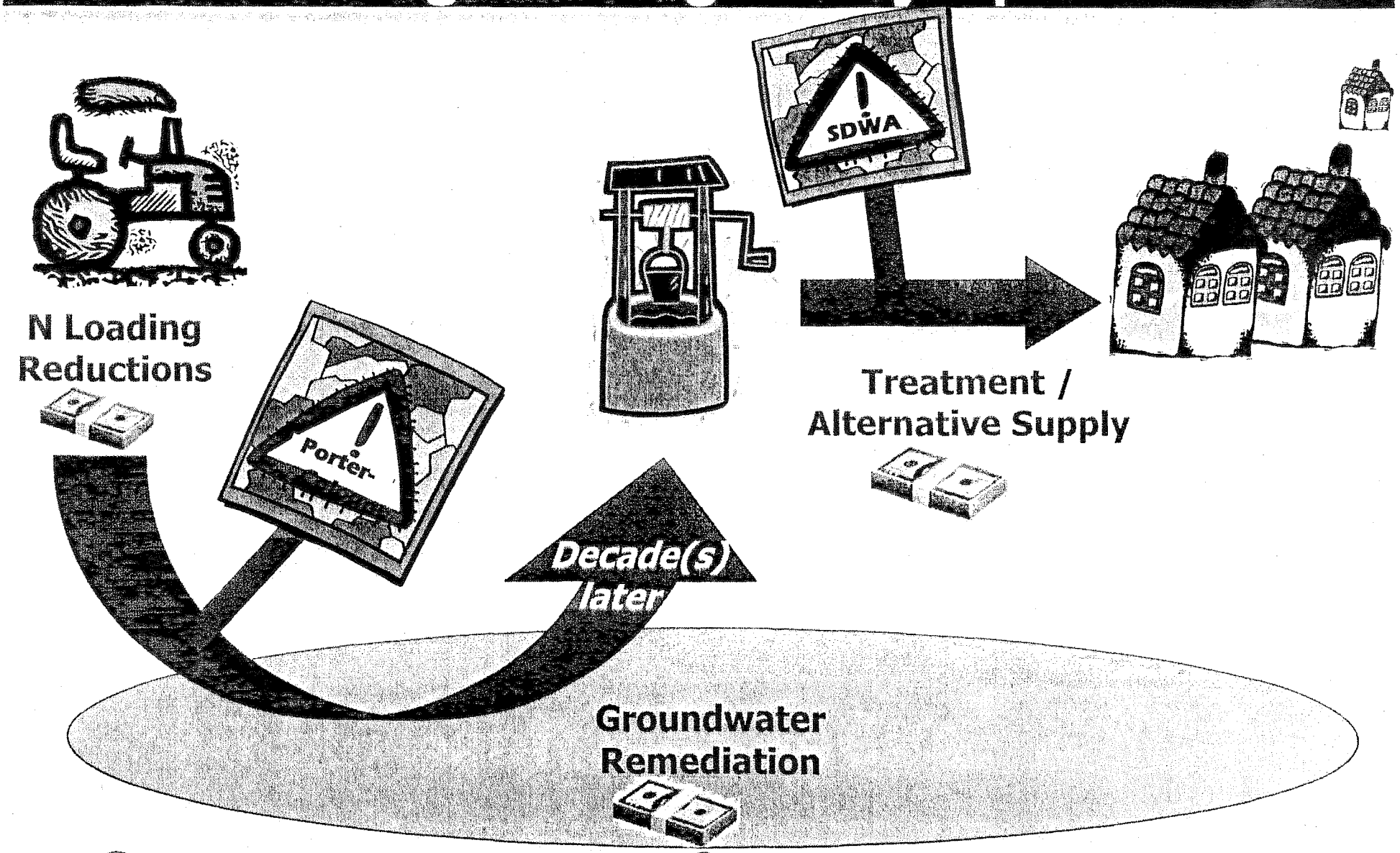
FUNDING OPTIONS



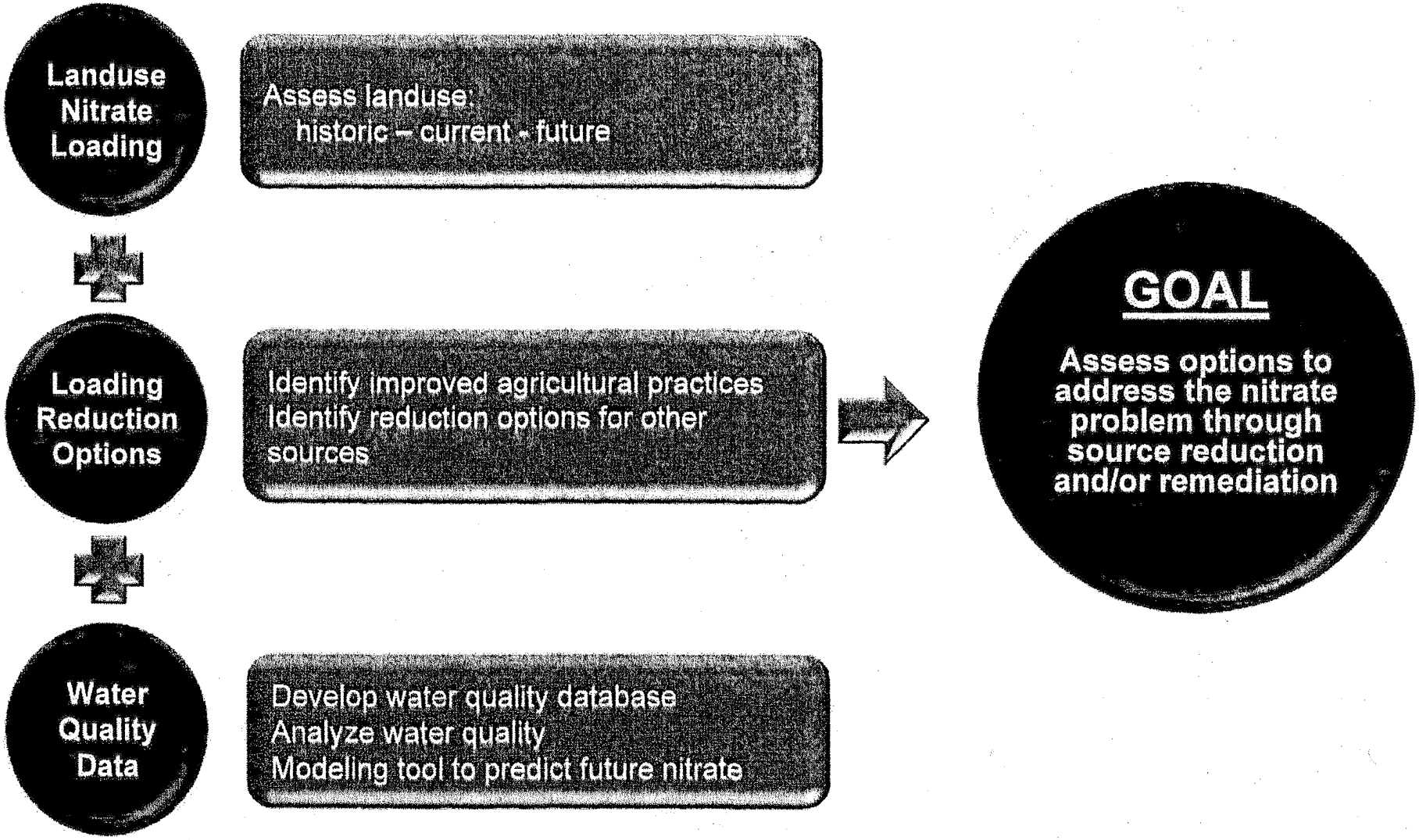
Key Messages

- Nitrate problem will likely worsen and not improve for several decades
- Largest regional sources are agricultural fertilizers and animal wastes; other sources are locally relevant
- Nitrogen loading reductions possible, but will take decades to benefit drinking water sources
- Short-term solutions are blending, treatment, and alternative water supplies
- Treatment is unaffordable for most small communities
- Promising funding options, incentives, and regulatory tools are identified
- Incoherence and inaccessibility of data prohibit better and continuous assessment

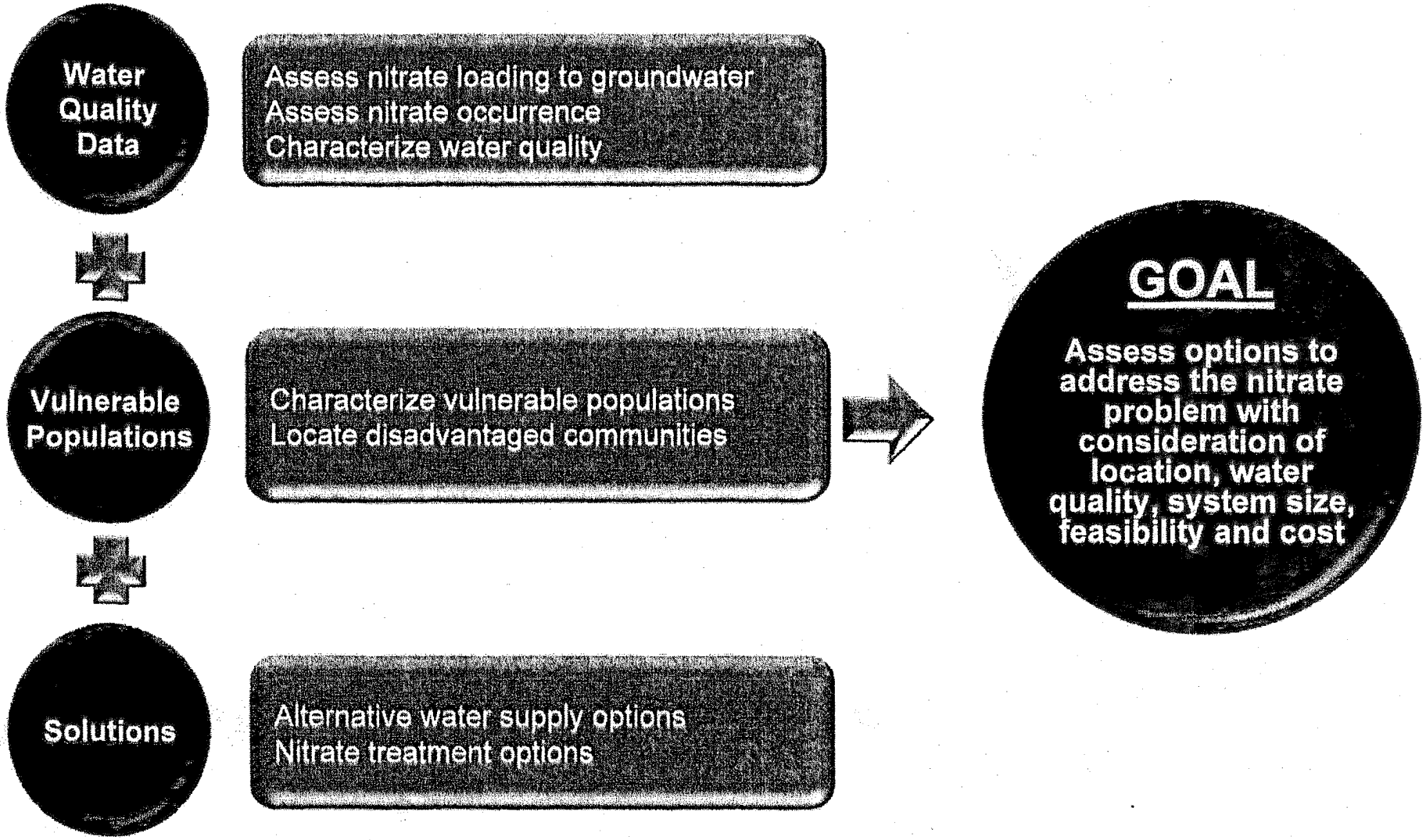
Framework for Funding and Regulatory Options



Overview: Contamination Mgmt.



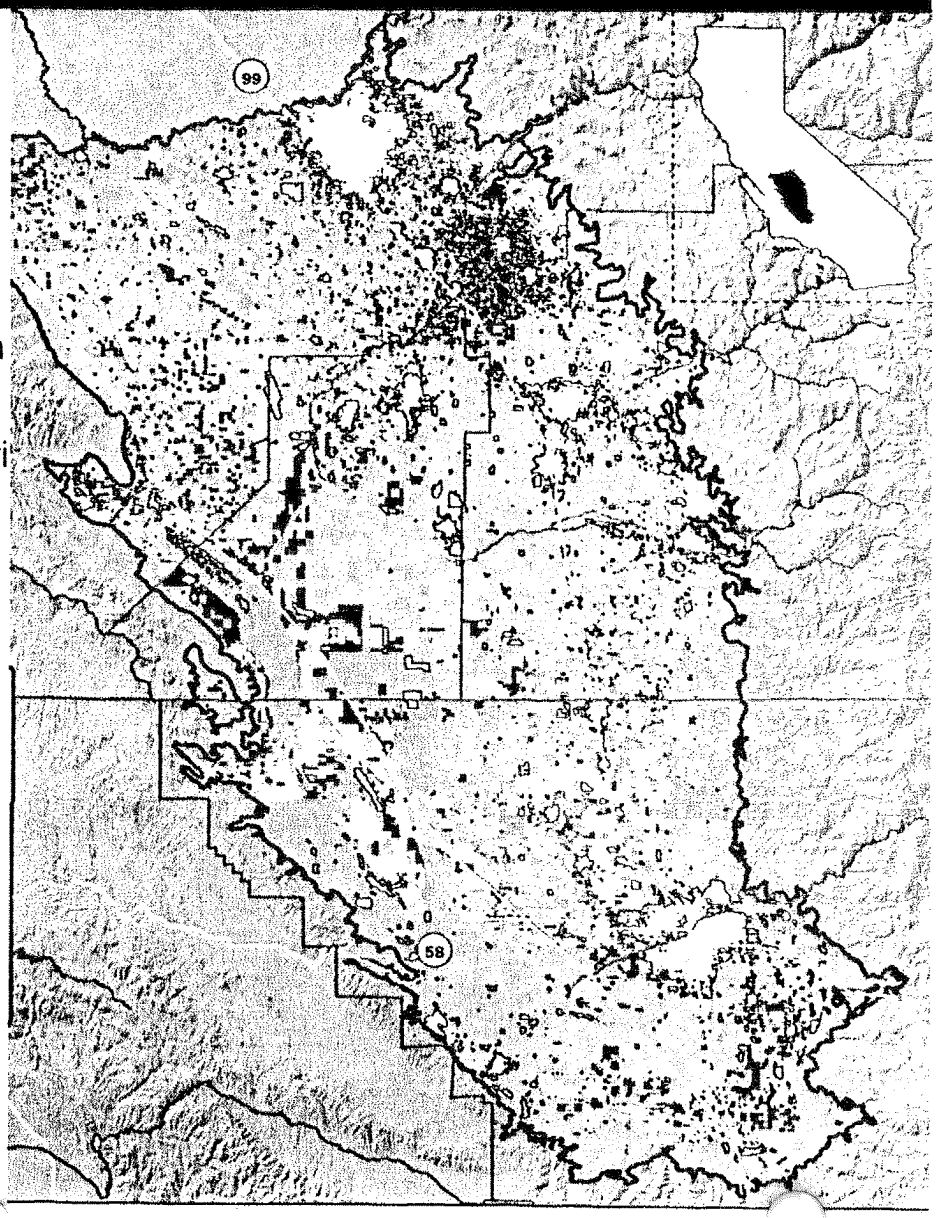
Overview: Drinking Water Mgmt.



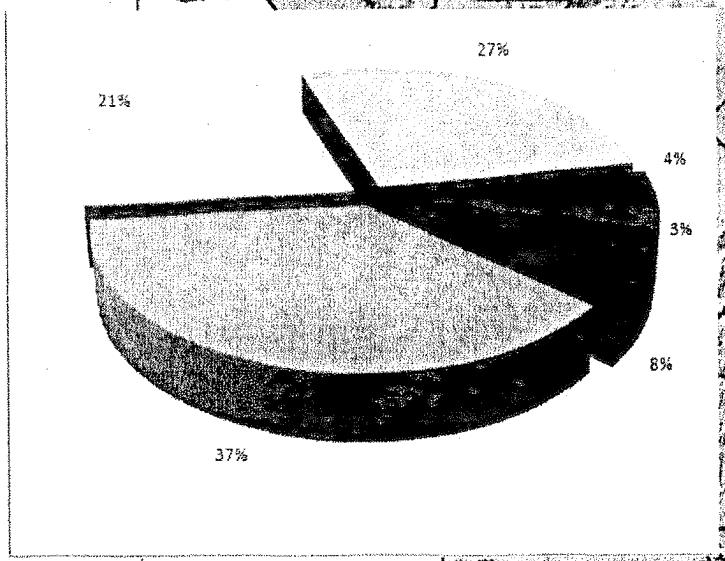
N Loading, Fertilizer

- Time Frame(s):
  - 2000-2010
- Methods:
  - Land Use Estimates (CAML 2.0)
    - Farmland Mapping Monitoring Program
    - DWR by county (date varies)
    - Cropland Data Layer from National Agri
    - CDF Multisource Land Cover (2002)
- Results:

Study Basin	Potential N Load Leached (Mg/yr)
Salinas Valley	9,688
Tulare Lake Basin	84,775



Fertilizer Loading Reduction Necessary to ~ Meet MCL



Major Roads
Study Areas
Urban
35 Kg NO_3^--N/ha/yr with a 0-10% reduction in applied fertilizer
35 Kg NO_3^--N/ha/yr with a 10-20% reduction in applied fertilizer
35 Kg NO_3^--N/ha/yr with a 20-30% reduction in applied fertilizer
35 Kg NO_3^--N/ha/yr with a 30-40% reduction in applied fertilizer
35 Kg NO_3^--N/ha/yr with a 40-50% reduction in applied fertilizer
35 Kg NO_3^--N/ha/yr with a 50%+ reduction in applied fertilizer

0 20 40 60 Mi
0 30 60 90 Km

Surface Discharges

Metric Tons (Mg) of N Applied Annually in facility discharge

	WWTP (90%)	WWTP (est. 100%)	FP (reported)	FP (est. max)
By County				
Fresno	2,344	2,604	303	674
Kern	913	1,014	455	1,010
Kings	121	134	167	372
Tulare	1,583	1,759	91	203
Monterey	313	348	15	33
Basin				
TLB	4,961	5,511	1,016	2,259
SVB	313	348	15	33
Total	5,274	5,859	1,031	2,292

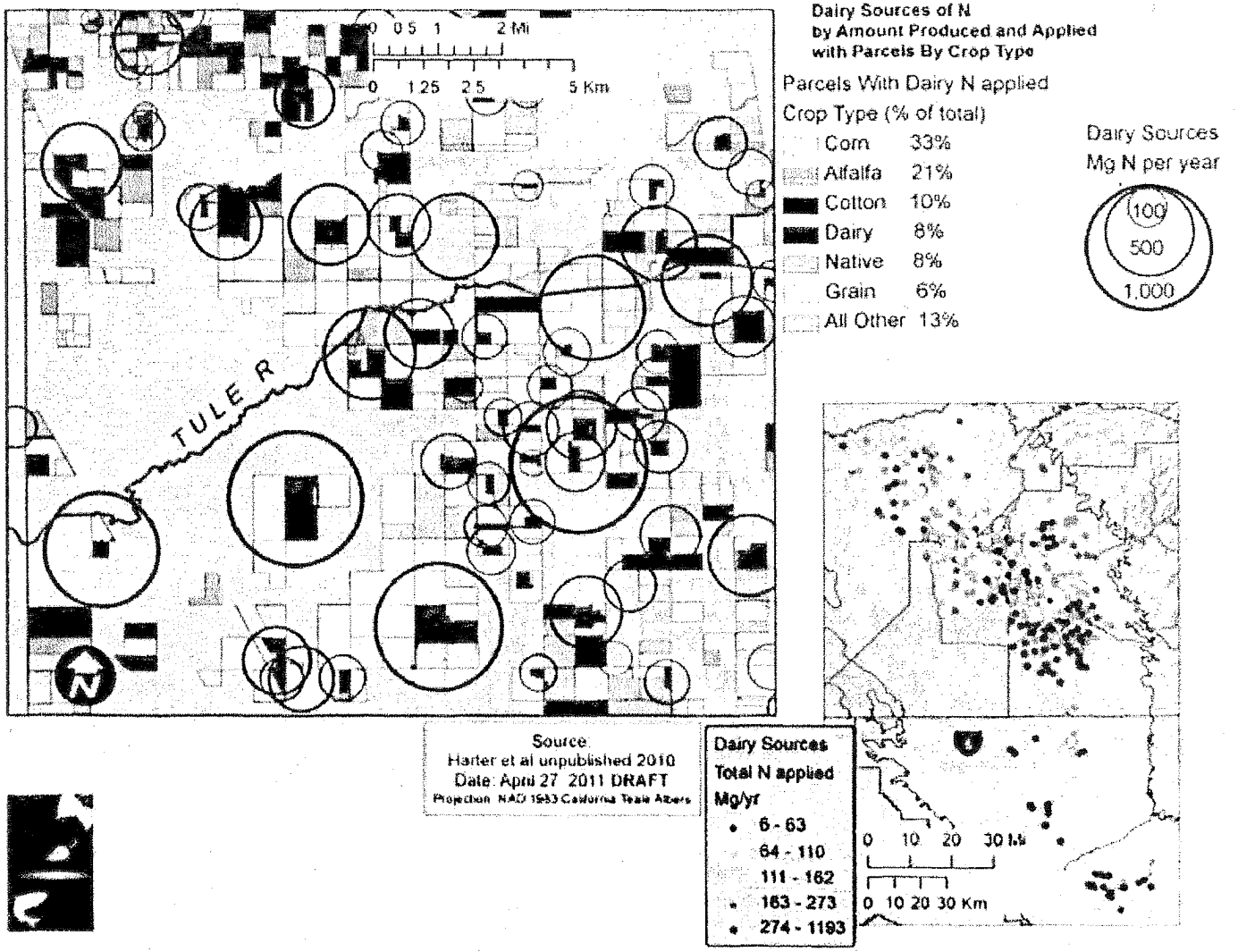
These are preliminary estimates and do NOT include applied solids.

Animal Sources

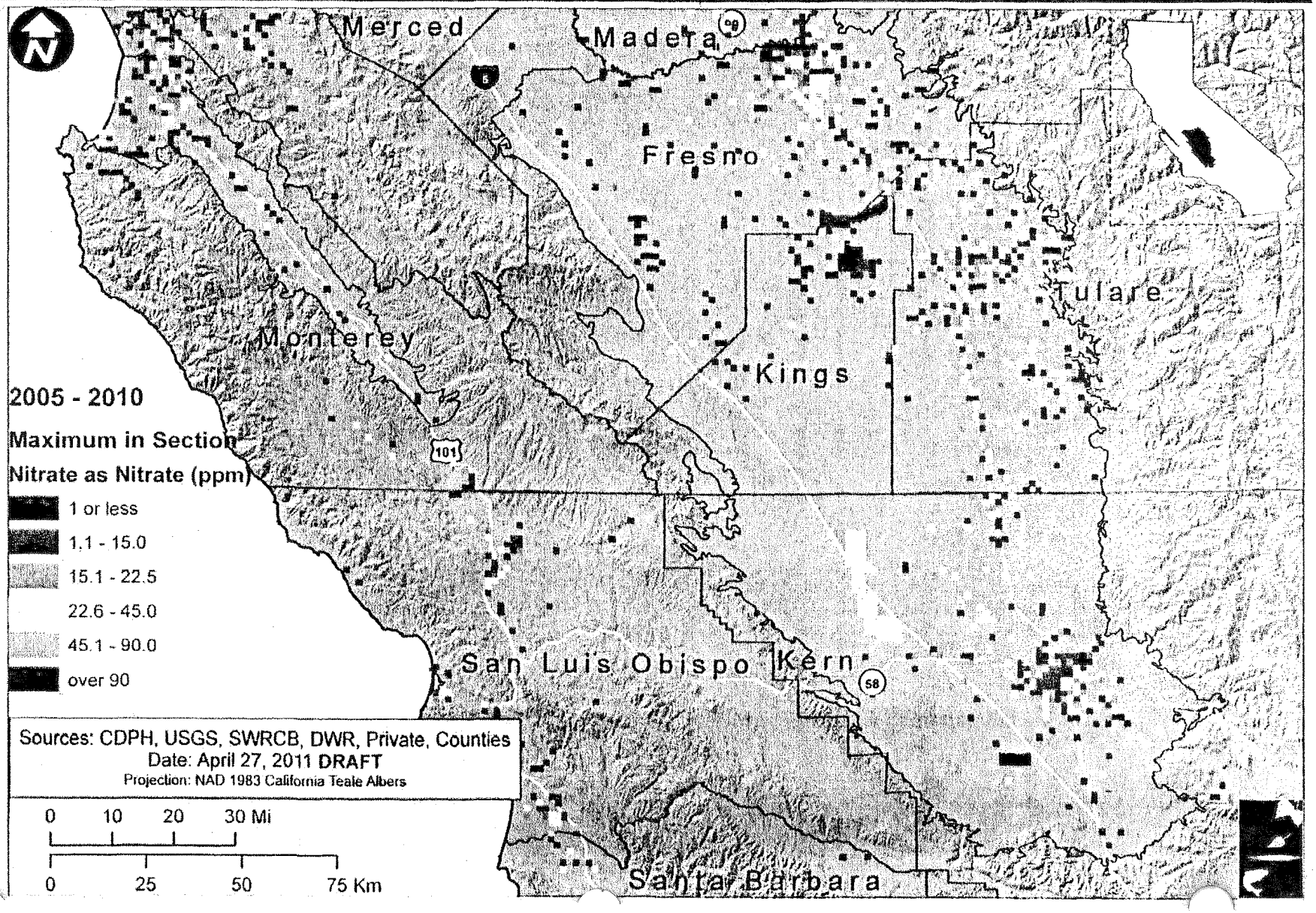
Preliminary

dairy N loading to land application: 114,000 Mg/yr

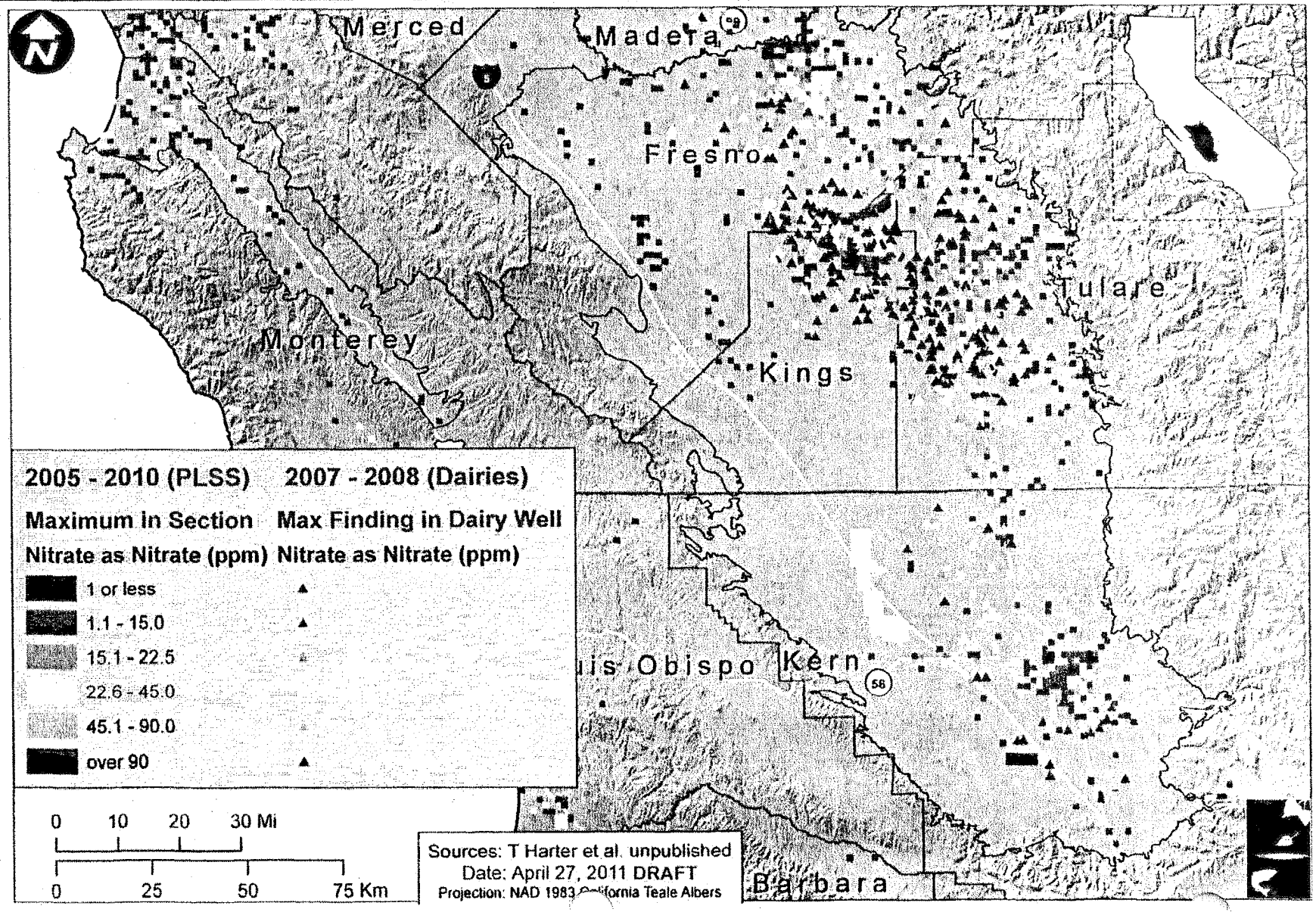
dairy N loading directly via corrals and lagoons: 1,000 Mg/yr



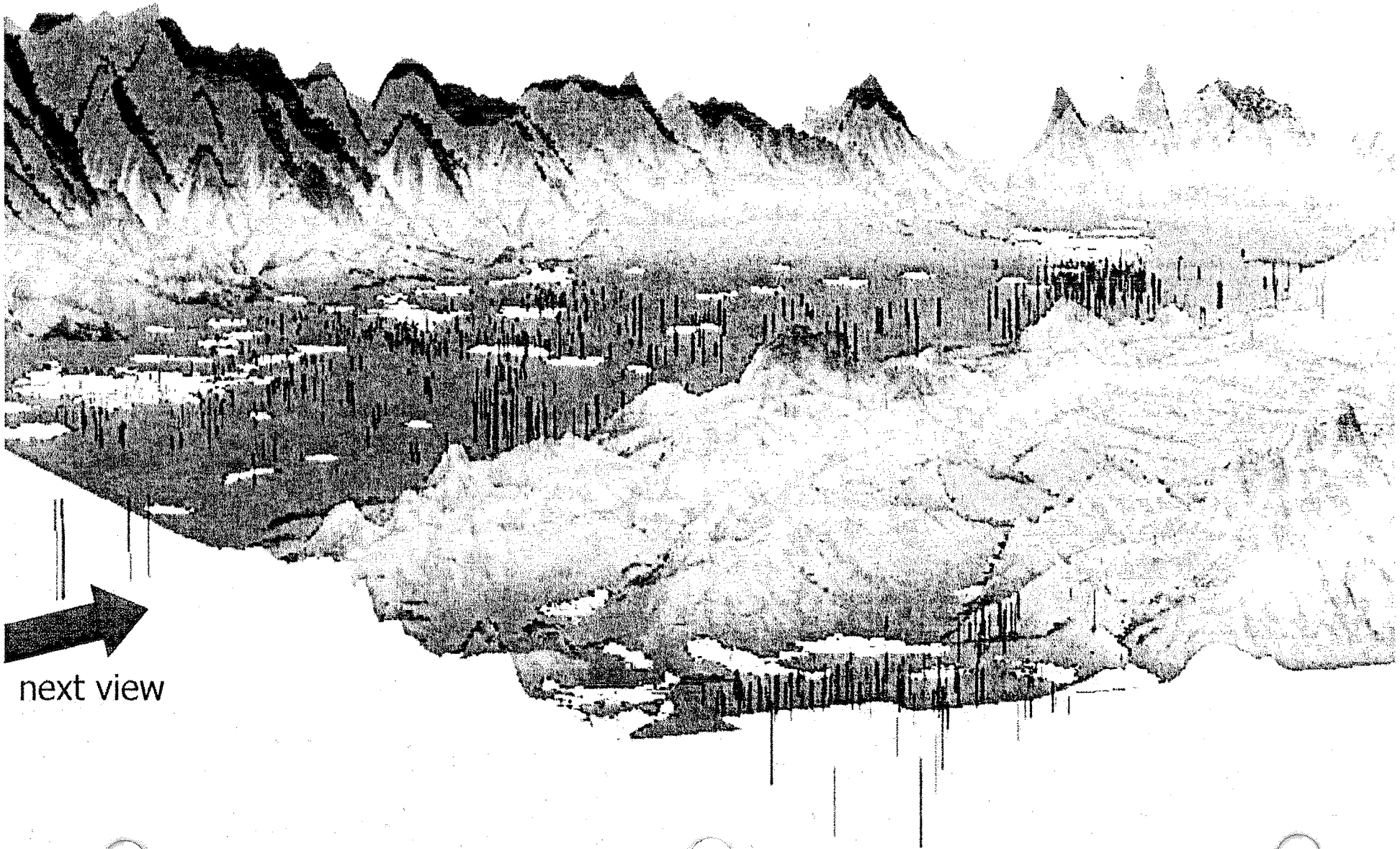
Maximum: Non-Dairy



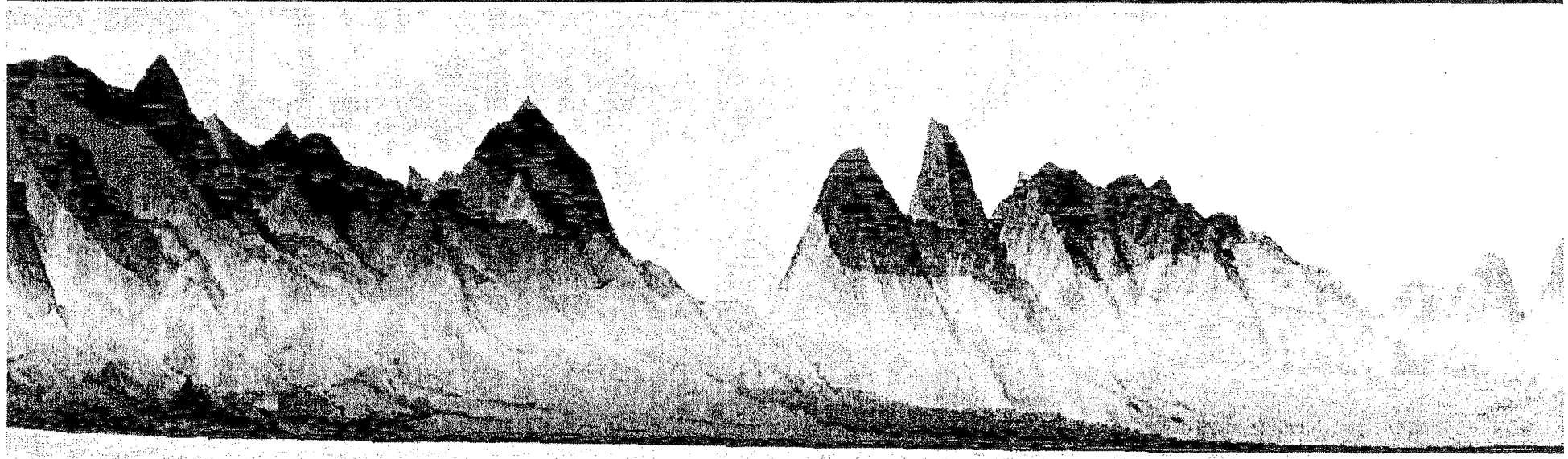
Maximum: Non-Dairy, Dairy



TLB Nitrate View to SE



TLB Nitrate View to SSE

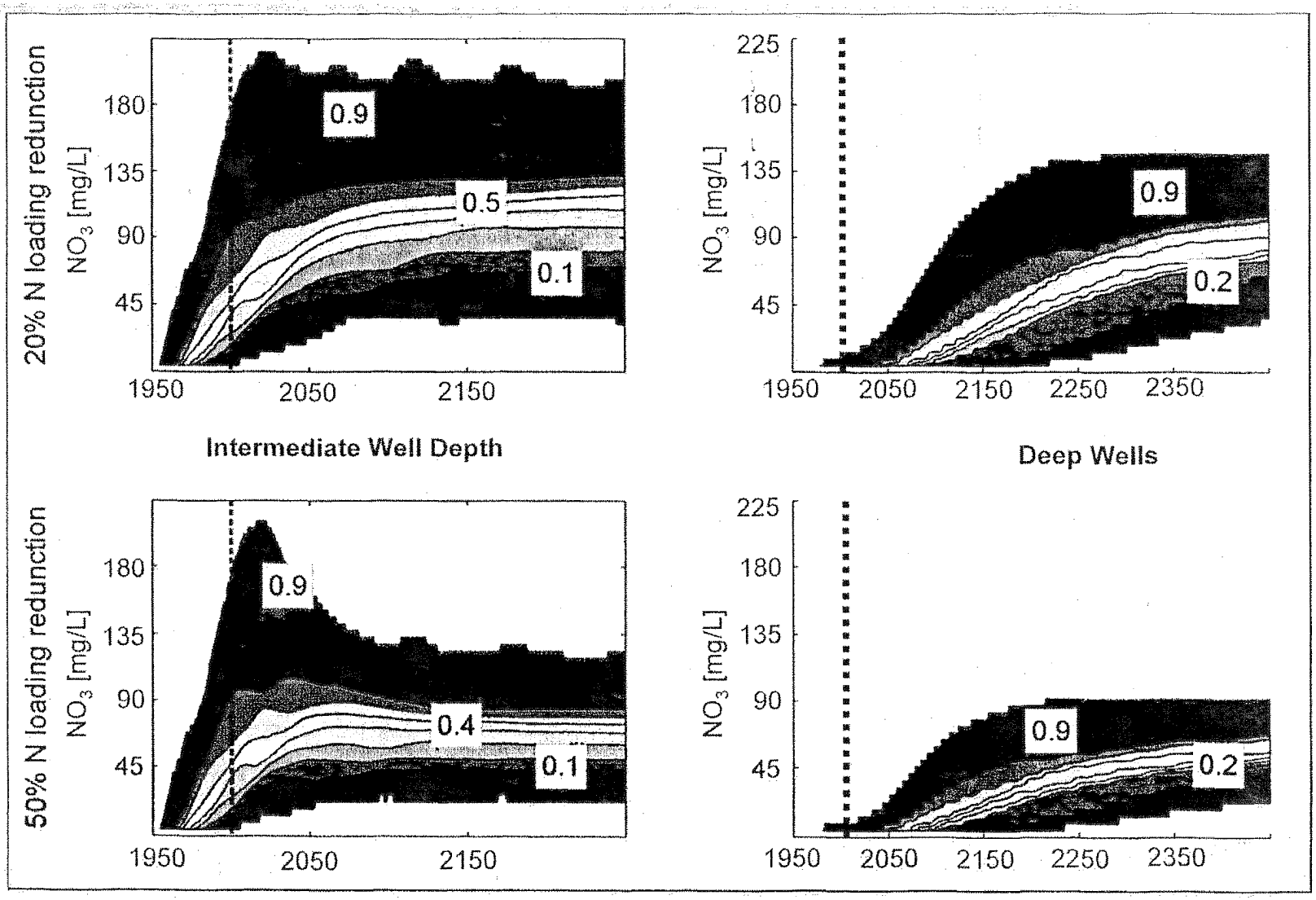


Nitrate in Wells: Long-Term Trends

	Mean Change [mg/L/yr]	Conf. Interval -95%	Conf. interval +95%
Tulare Lake Basin (Tulare County) Public Supply Wells, 1970s-current[1]	0.27 (0.41)	0.17 (0.22)	0.36 (0.59)
Salinas Valley Public Supply Wells, 1970s-current[1]	0.53	0.31	0.77
Salinas Valley Dedicated Monitoring Wells, 1990-current	2.04	1.25	2.82

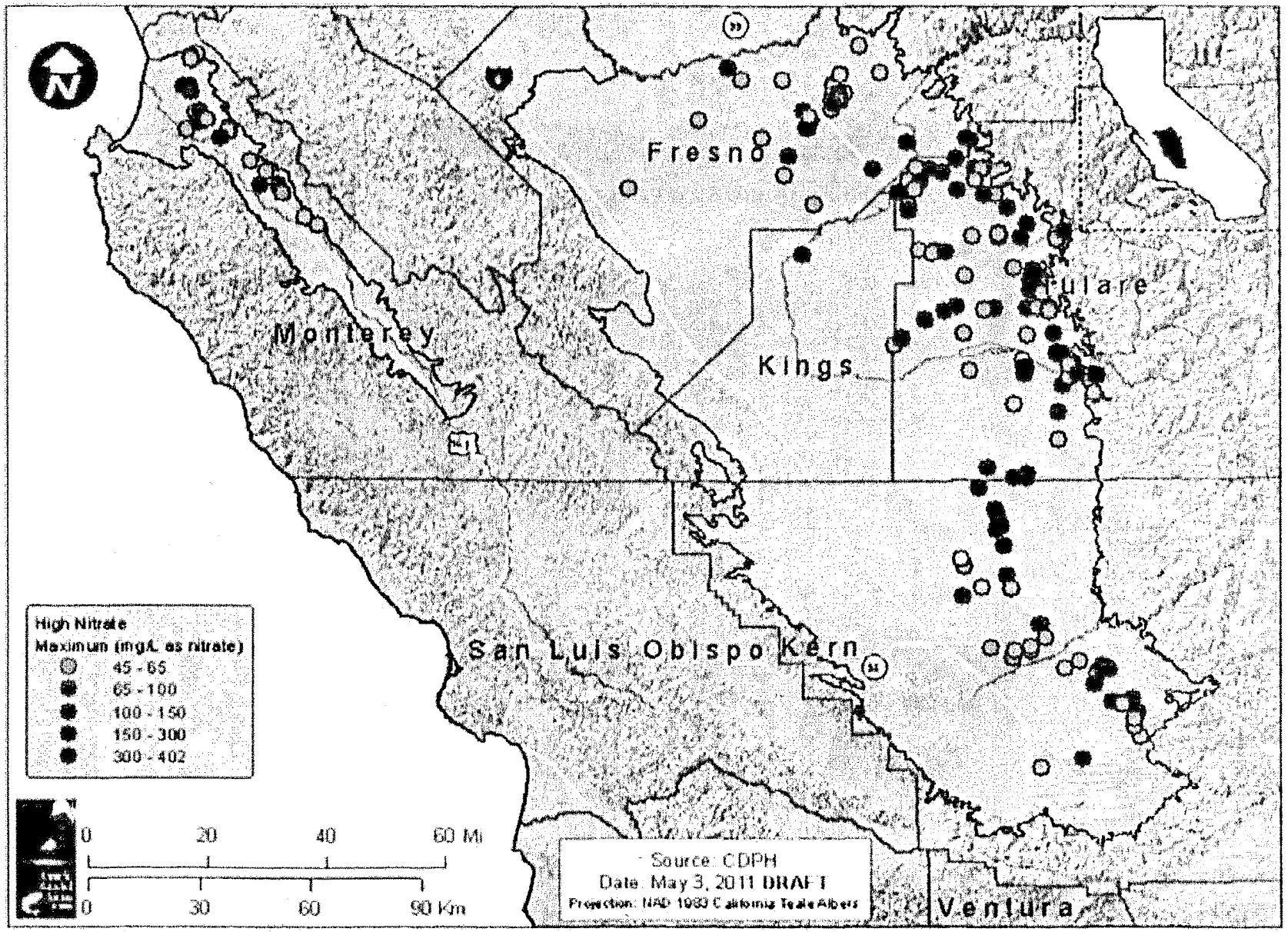
[1]underlying data: all public water supply well data

Future model predictions

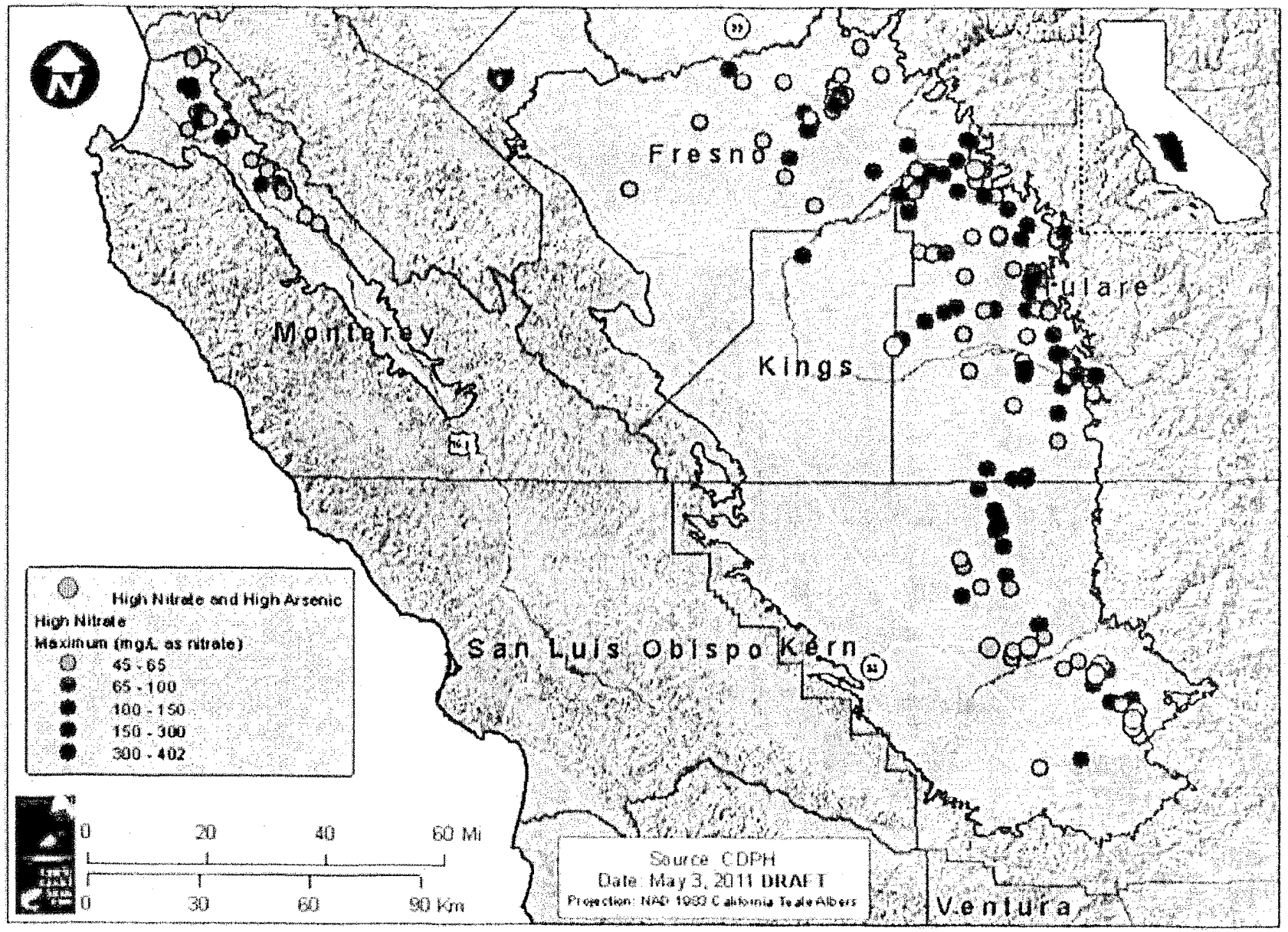


Preliminary modeling results for conceptual illustration only,
subject to further model adjustment and calibration

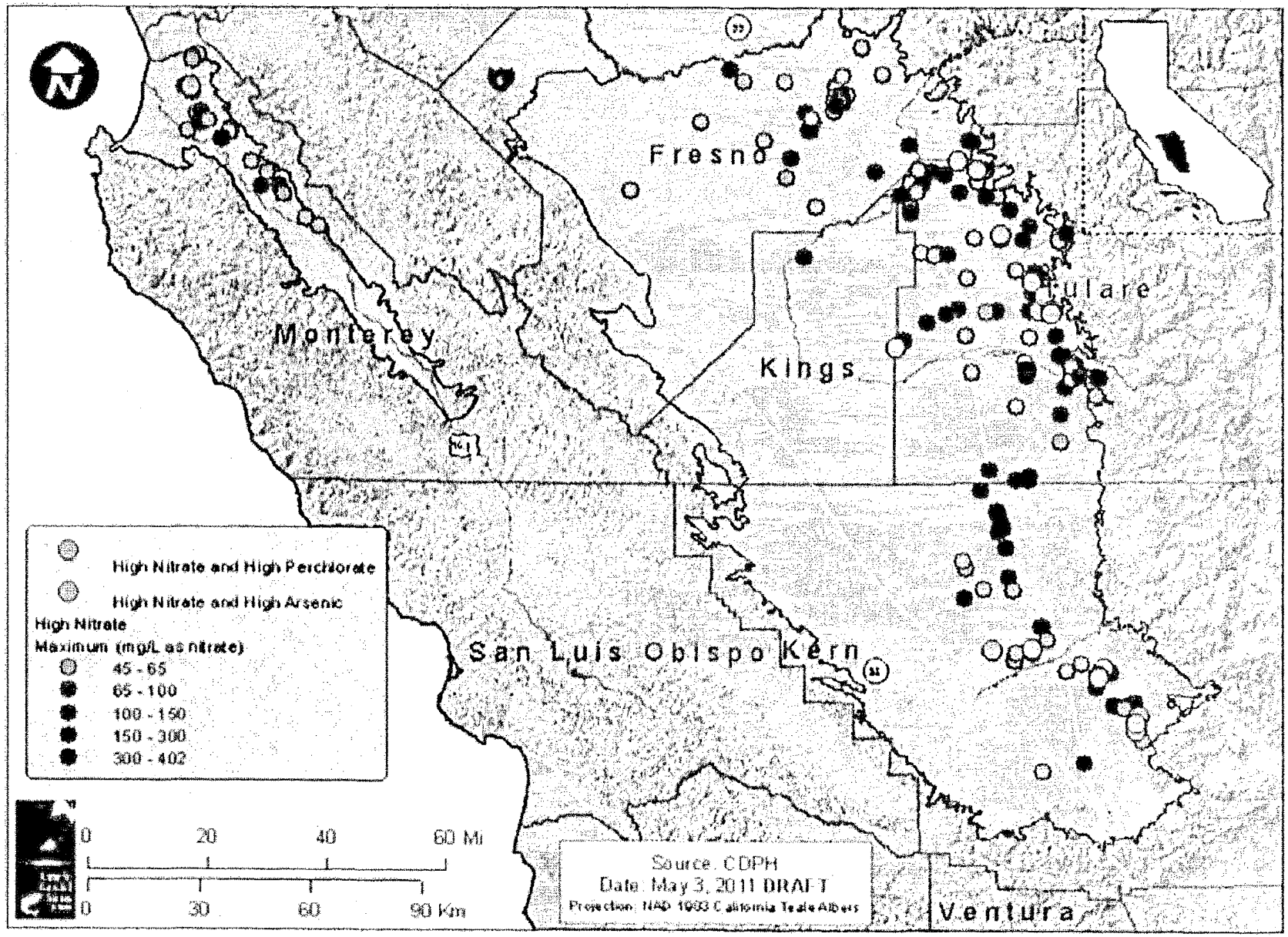
Raw Water Nitrate Levels Exceeding the MCL (45 mg/L as nitrate)
and Consideration of Co-contaminants



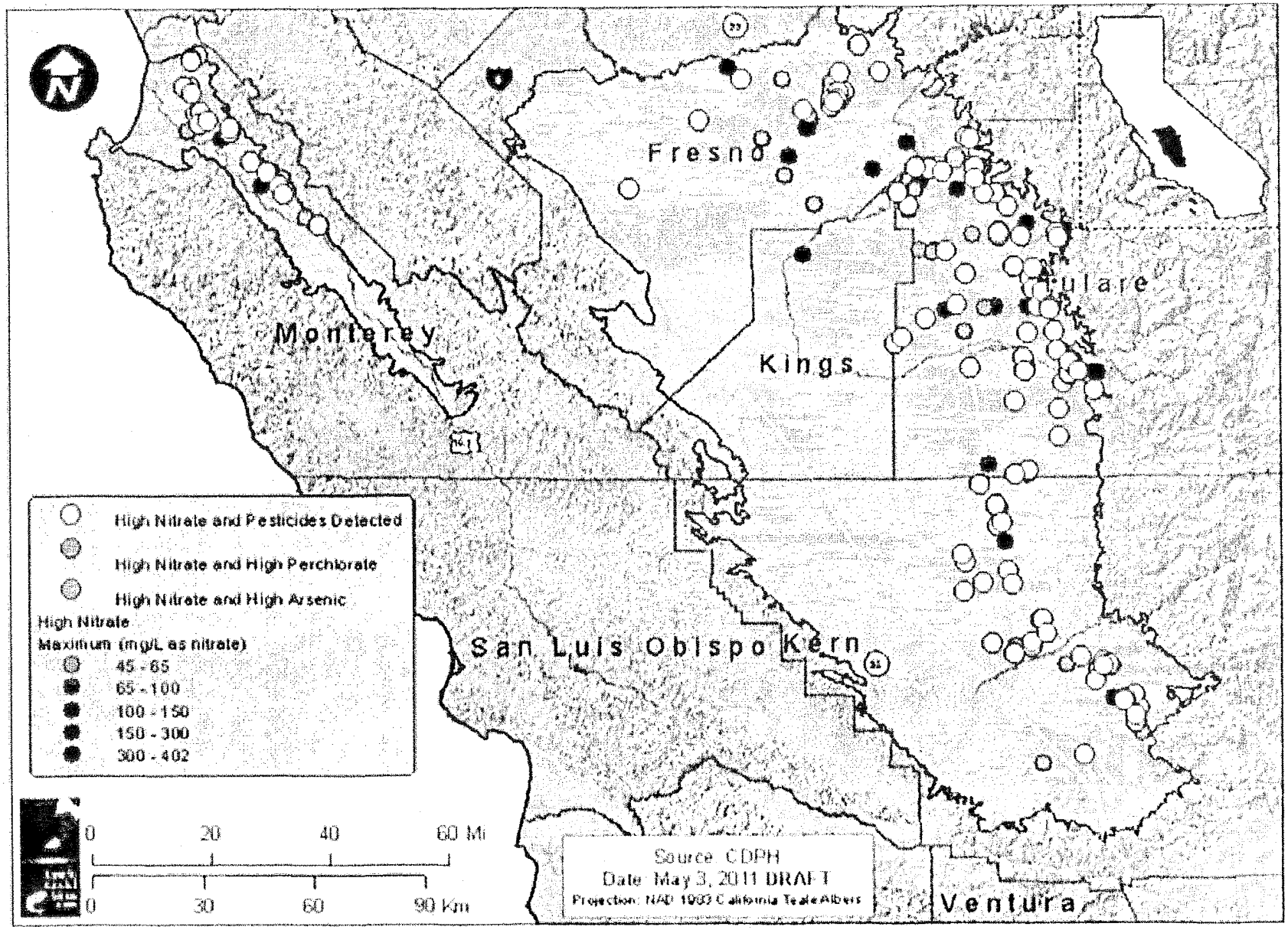
Raw Water Nitrate Levels Exceeding the MCL (45 mg/L as nitrate) and Consideration of Co-contaminants



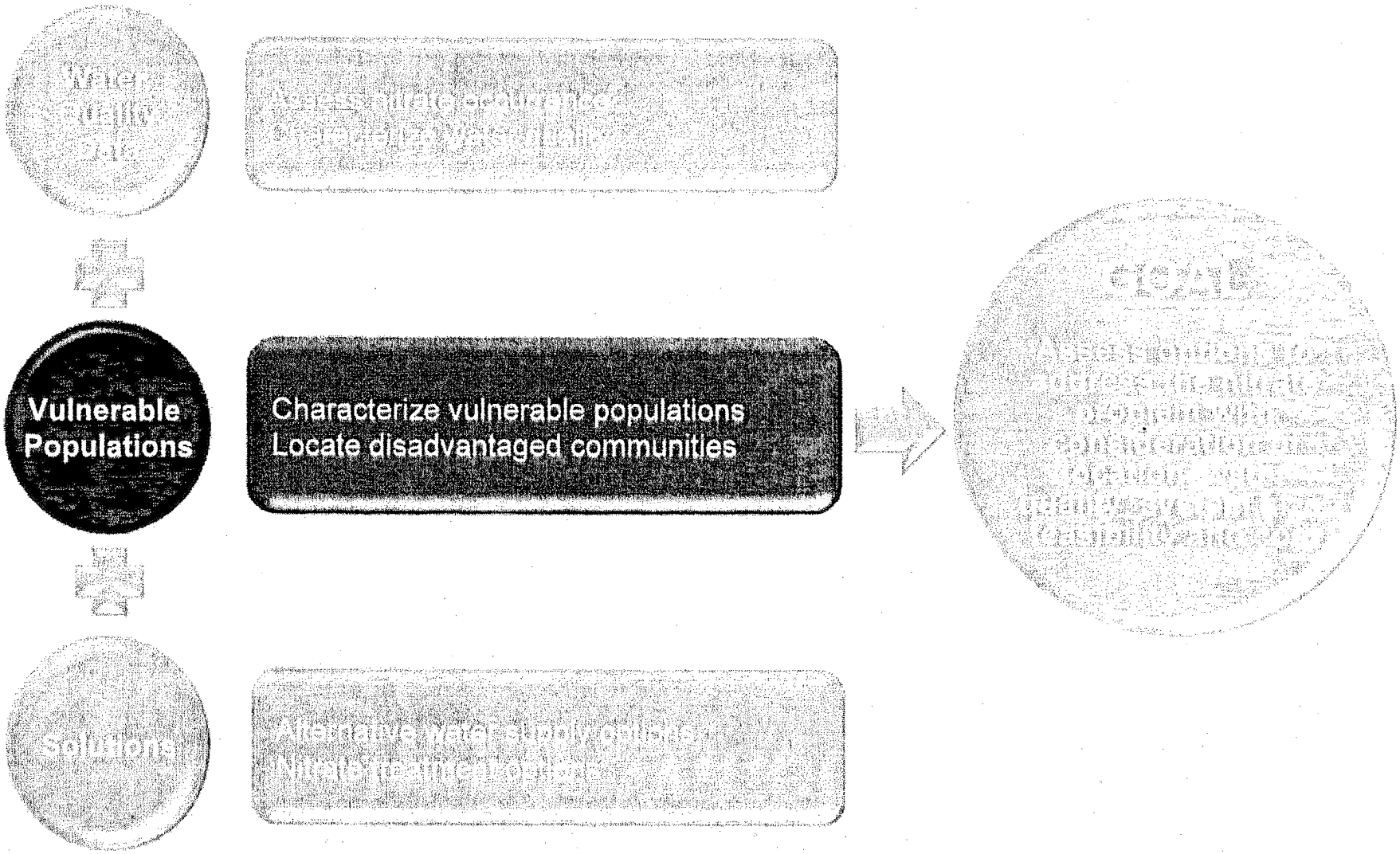
Raw Water Nitrate Levels Exceeding the MCL (45 mg/L as nitrate) and Consideration of Co-contaminants



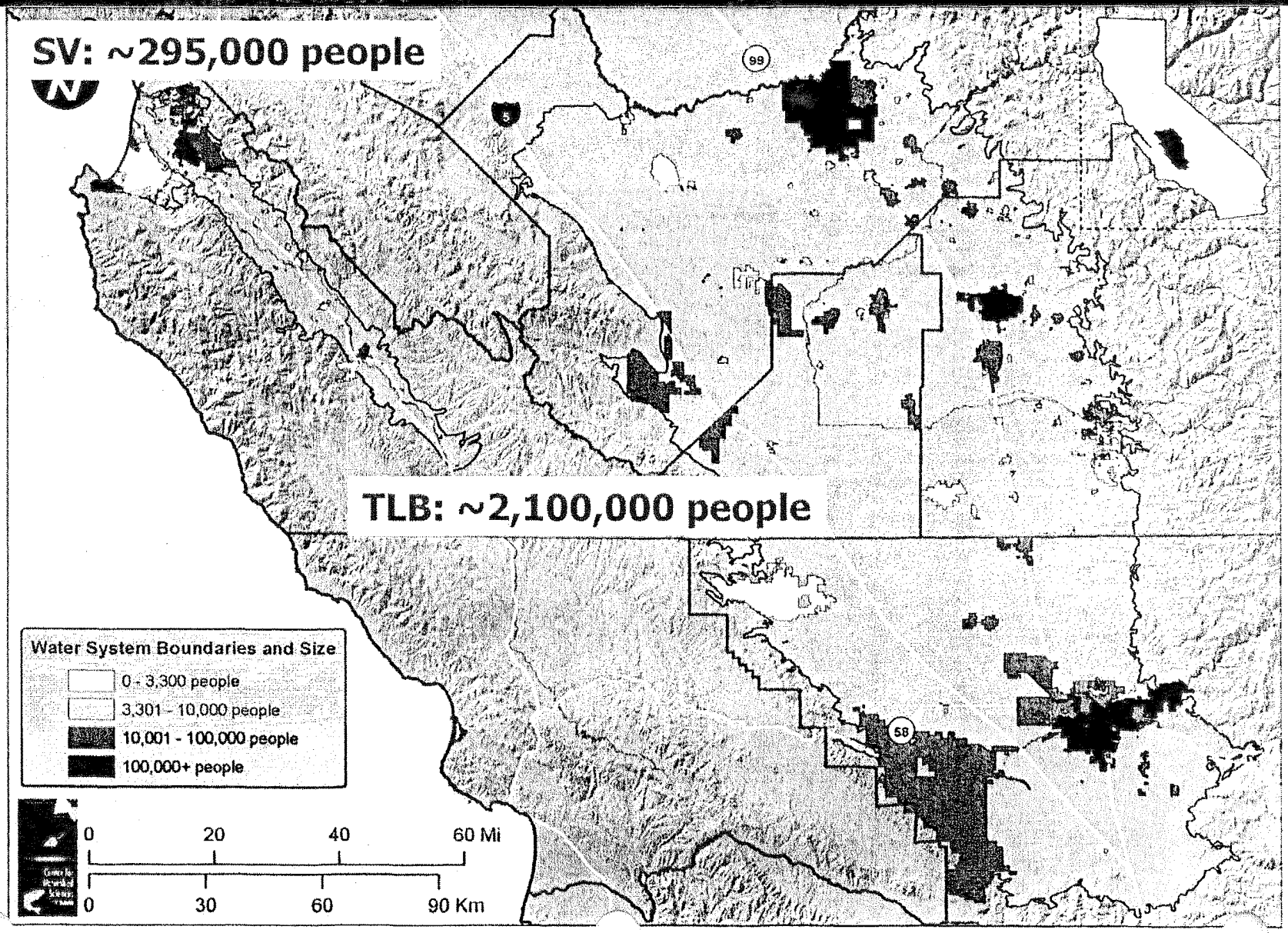
Raw Water Nitrate Levels Exceeding the MCL (45 mg/L as nitrate) and Consideration of Co-contaminants



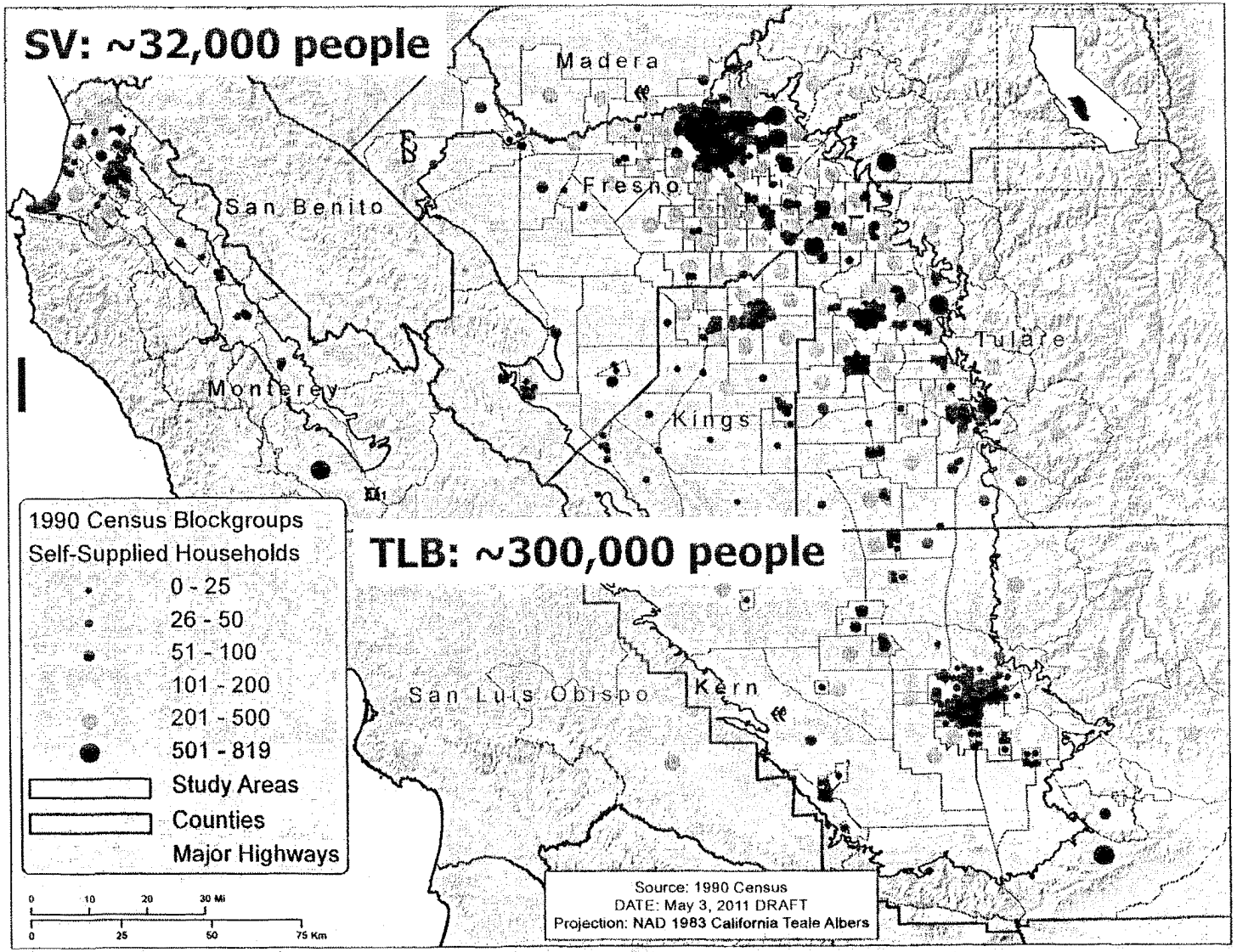
Overview

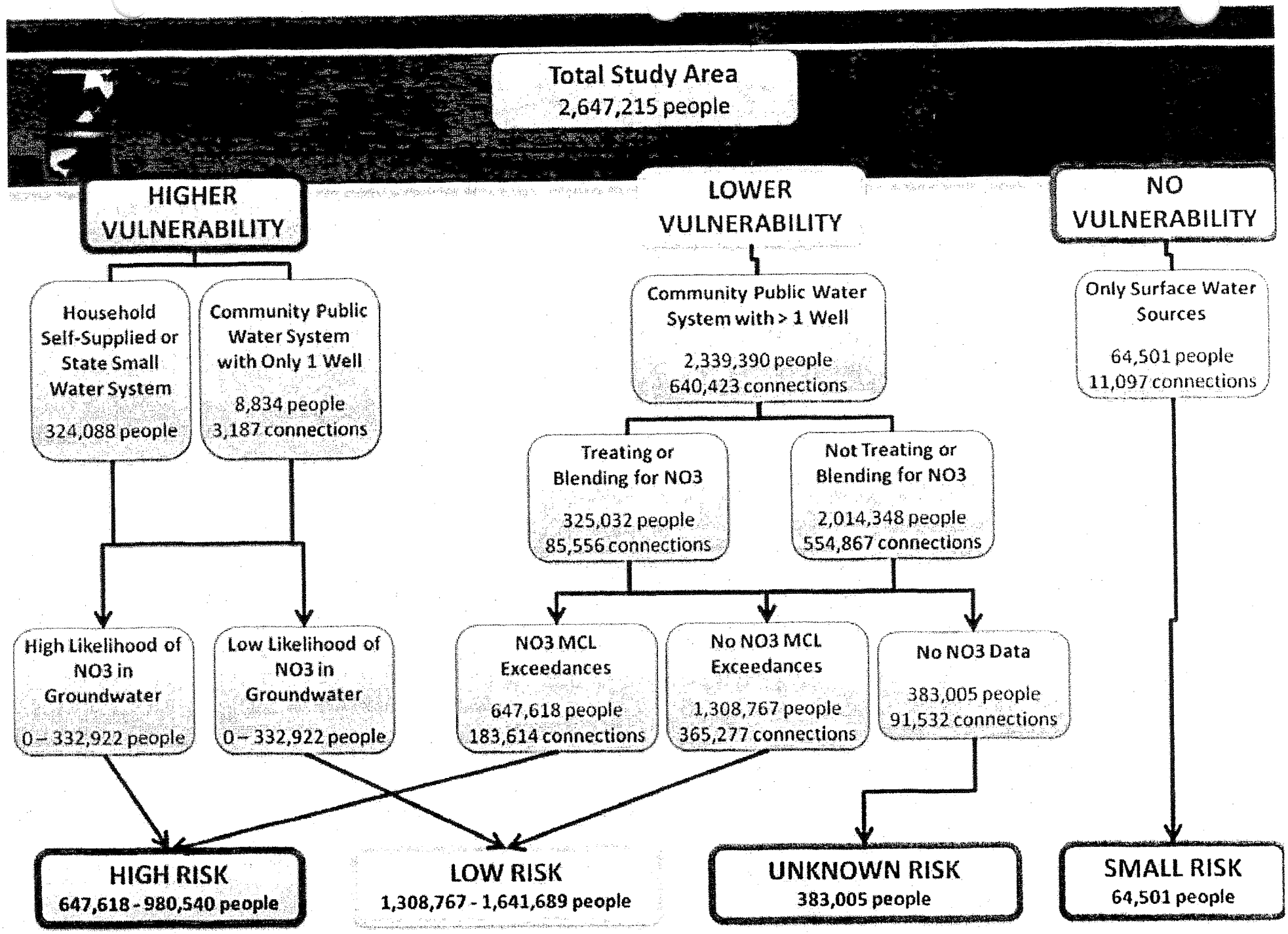

Vulnerable Populations
Characterize vulnerable populations
Locate disadvantaged communities

Community Water Systems

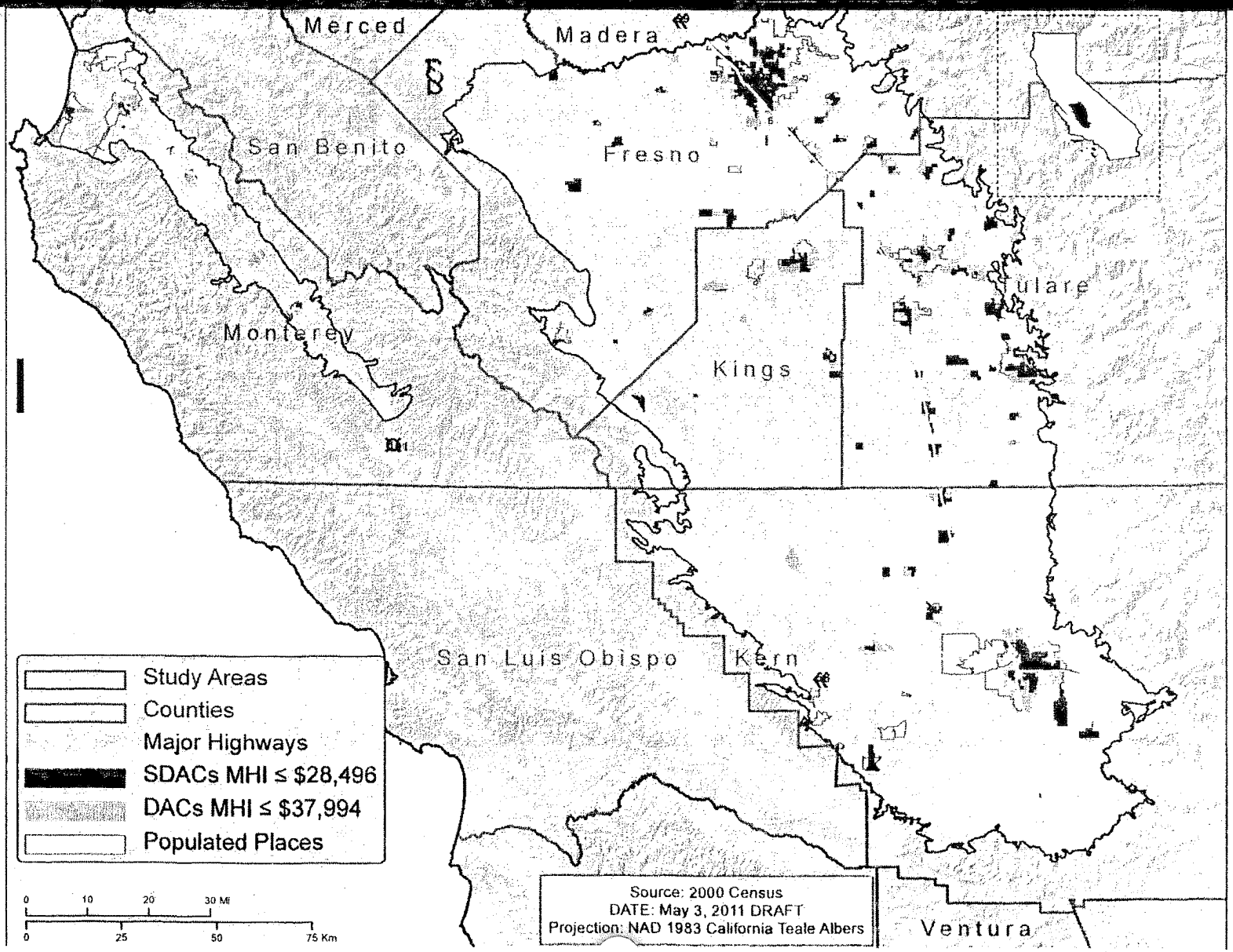


Household Self-Supplied Systems



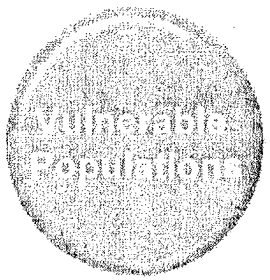

Total Study Area
2,647,215 people
HIGHER VULNERABILITY
LOWER VULNERABILITY
NO VULNERABILITY
Household Self-Supplied or State Small Water System
324,088 people
Community Public Water System with Only 1 Well
8,834 people
3,187 connections
Community Public Water System with > 1 Well
2,339,390 people
640,423 connections
Only Surface Water Sources
64,501 people
11,097 connections
Treating or Blending for NO3
325,032 people
85,556 connections
Not Treating or Blending for NO3
2,014,348 people
554,867 connections
High Likelihood of NO3 in Groundwater
0 – 332,922 people
Low Likelihood of NO3 in Groundwater
0 – 332,922 people
NO3 MCL Exceedances
647,618 people
183,614 connections
No NO3 MCL Exceedances
1,308,767 people
365,277 connections
No NO3 Data
383,005 people
91,532 connections
HIGH RISK
647,618 - 980,540 people
LOW RISK
1,308,767 - 1,641,689 people
UNKNOWN RISK
383,005 people
SMALL RISK
64,501 people

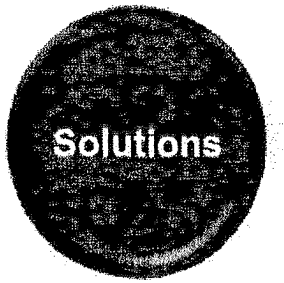
Disadvantaged Communities



Overview







Alternative water supply options
Nitrate treatment options

Alternative Water Supply Options

- **Improve Existing Source**
  - Blending+
  - Drill Deeper or New Well+
  - Community Treatment
  - Household Treatment*
  - Centralized Management of POU/POE
- **Create Alternative Supplies**
  - Switch to Treated Surface Water
  - Consolidation
  - Trucked Water*
  - Bottled Water
- **Relocate Households**

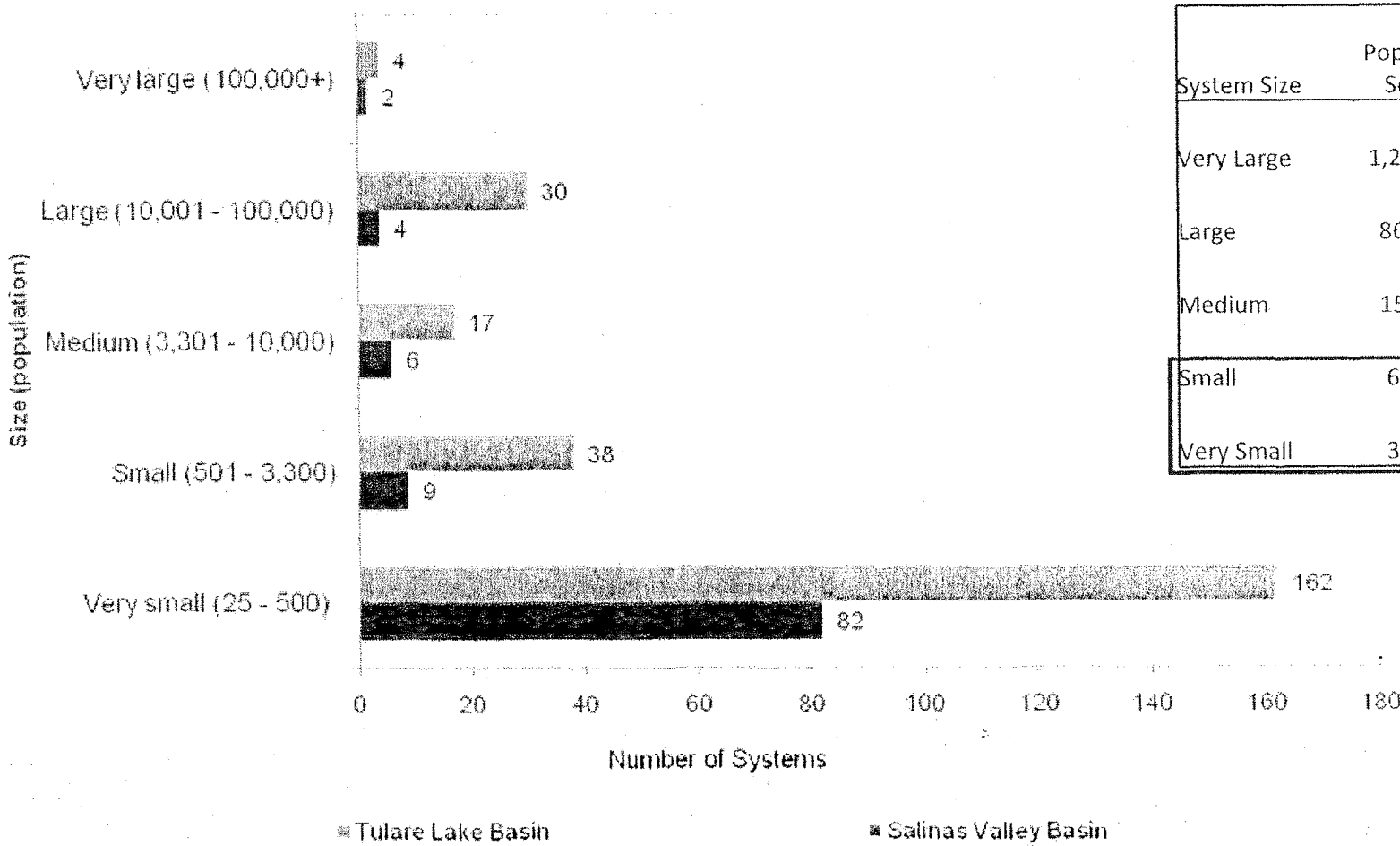
Ancillary Activities:

+Well Water Quality Testing

*Dual System

Regionalization/Consolidation

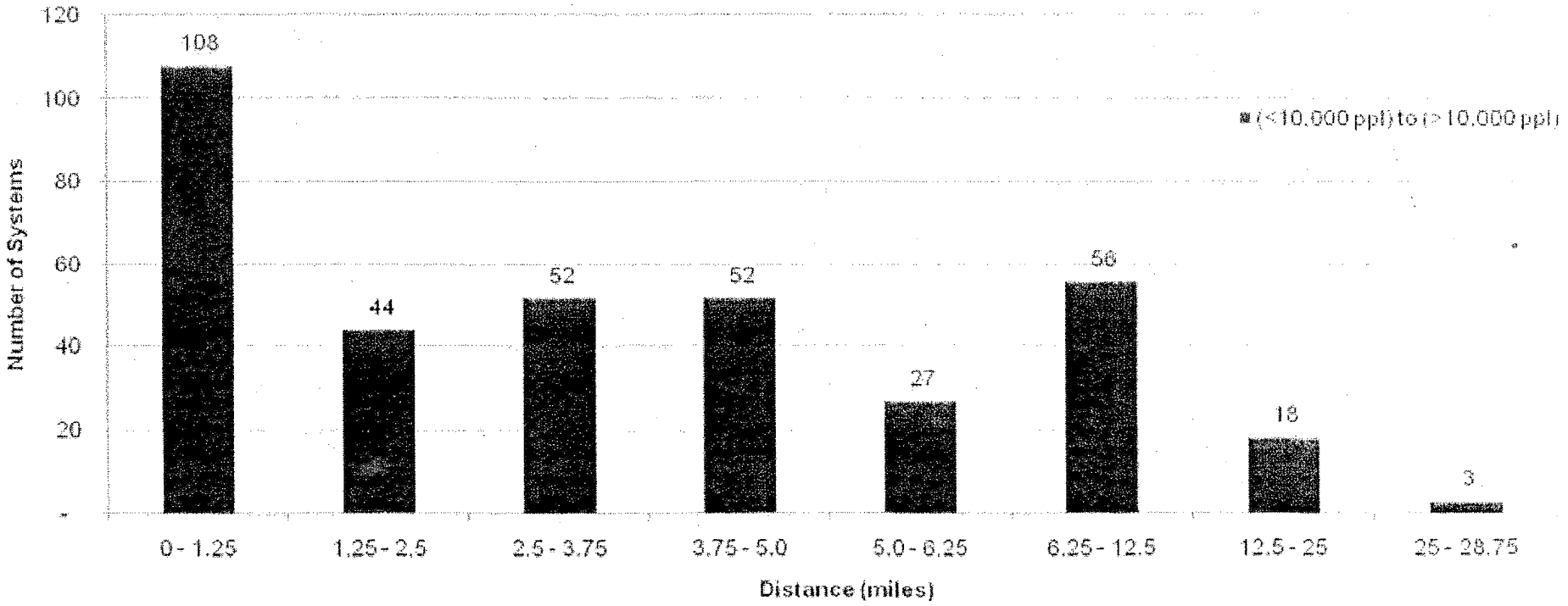
System Distribution by Population Served



System Size	Population Served	% of Total Population on CWS
Very Large	1,230,047	52%
Large	860,892	37%
Medium	155,497	7%
Small	68,246	3%
Very Small	32,852	1%

Piped Connection to an Existing System

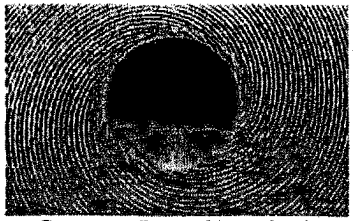
The Minimum Distance from a Small System to a Larger System [Source: PICME 2010]



Removal Technologies


Source: Siemens

- Ion Exchange
  - Nitrate displaces chloride on anion exchange resin
  - Resin recharge with brine solution
  - Limitations: sulfate, resin fouling, disposal


Source: Dow Chemical

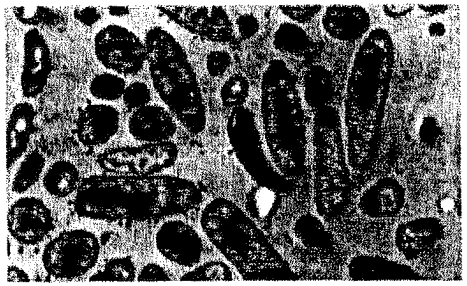
- Reverse Osmosis
  - Water molecules pushed through membrane
  - Contaminants left behind
  - Limitations: membrane fouling, pretreatment, disposal


Source: PC Cell

- Electrodialysis
  - Electric current governs ion movement
  - Anion and cation exchange membranes
  - Limitations: operationally complex, disposal

Reduction Technologies

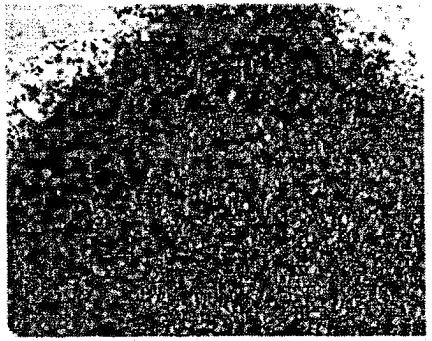
- Biological Denitrification



Source: AnoxKaldnes

  - Bacteria transform nitrate to nitrogen gas
  - Anoxic conditions
  - Requires electron donor (substrate)
  - Limitations: lack of U.S. full scale systems, substrate requirement, post-treatment (filtration, disinfection)

- Chemical Denitrification



Source: Hepure Technologies

  - Metals reduce nitrate to ammonia (typically)
  - Zero-valent iron (ZVI)
  - Catalytic denitrification
  - Limitations: pilot studies only, reduction to ammonia, dependence on temperature and pH

Treatment Options

Table i Comparison of Major Treatment Types[1]

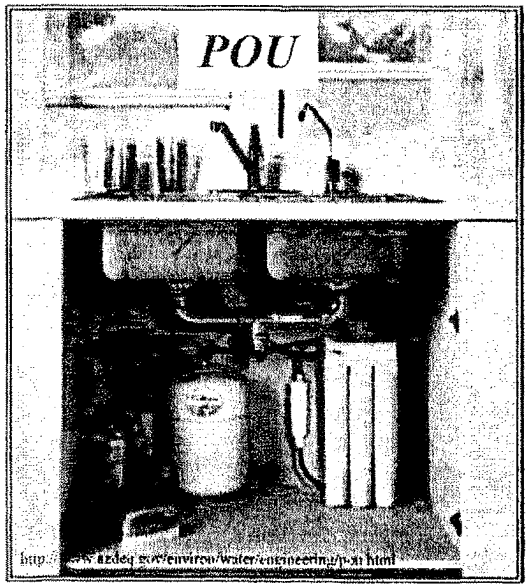
Concerns	IX	RO	EDR	BD	CD
High Nitrate Removal					
High TDS Removal					
Arsenic Removal					
Radium and Uranium Removal					
Chromium Removal					
Perchlorate Removal					

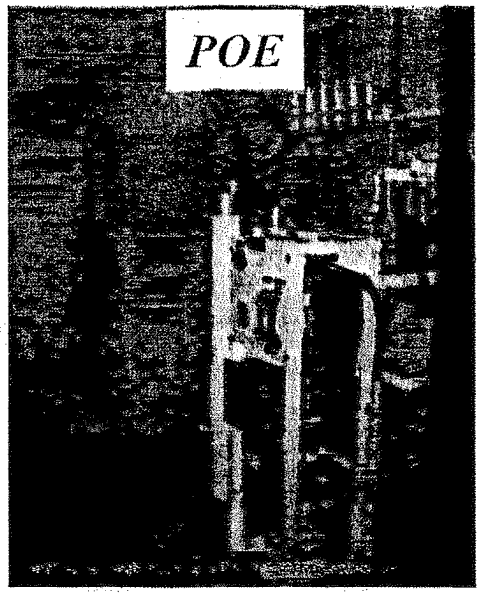
Priorities	IX	RO	EDR	BD	CD
High Hardness Not a Major Concern					
Reliability					
Training/ Ease of operation					
Minimize Capital Cost					
Minimize Ongoing O&M Cost					
Minimize Footprint					
Industry Experience					
Ease of Waste Management					

Good	→	Poor	Unknown (blank)

1 Ion Exchange (IX), Reverse Osmosis (RO), Electrodialysis Reversal (EDR), Biological Denitrification (BD), Chemical Denitrification (CD). This table offers a generalized comparison and is not intended to be definitive; there are notable exceptions to the above classifications.

POU/POE





From CDPH Emergency Regulations, as of December 21, 2010,

"...a public water system may be permitted to use point-of-use treatment devices (POUs) in lieu of centralized treatment for compliance with one or more maximum contaminant levels... if;

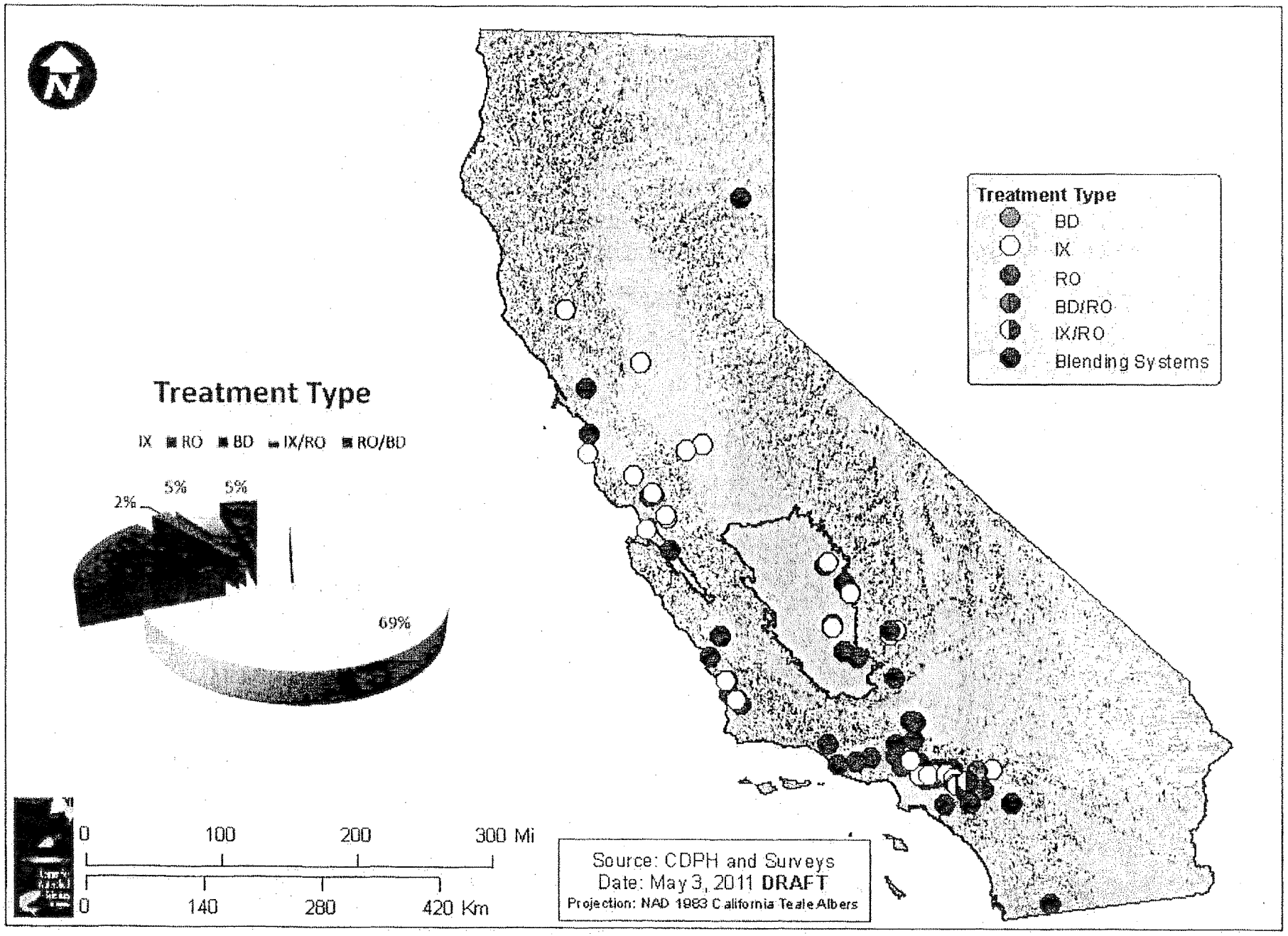
(1) the water system serves fewer than 200 service connections,

(2) the water system meets the requirements of this Article,

(3) the water system has demonstrated to the Department that centralized treatment, for the contaminants of concern, is not economically feasible within three years of the water system's submittal of its application for a permit amendment to use POUs,

... no longer than three years or until funding for the total cost of constructing a project for centralized treatment or access to an alternative source of water is available, whichever occurs first..."

Systems Treating or Blending to Address High Nitrate Levels



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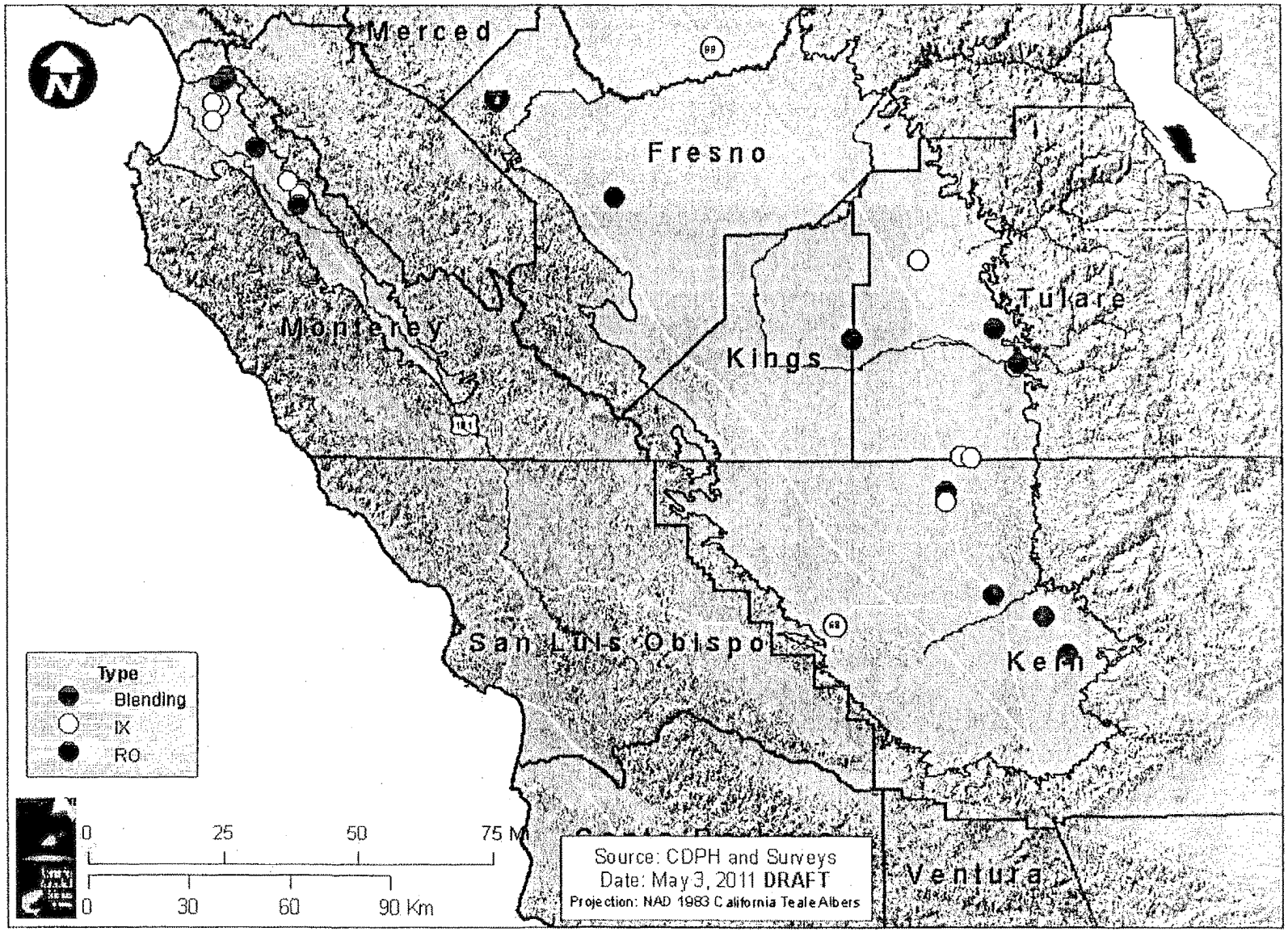

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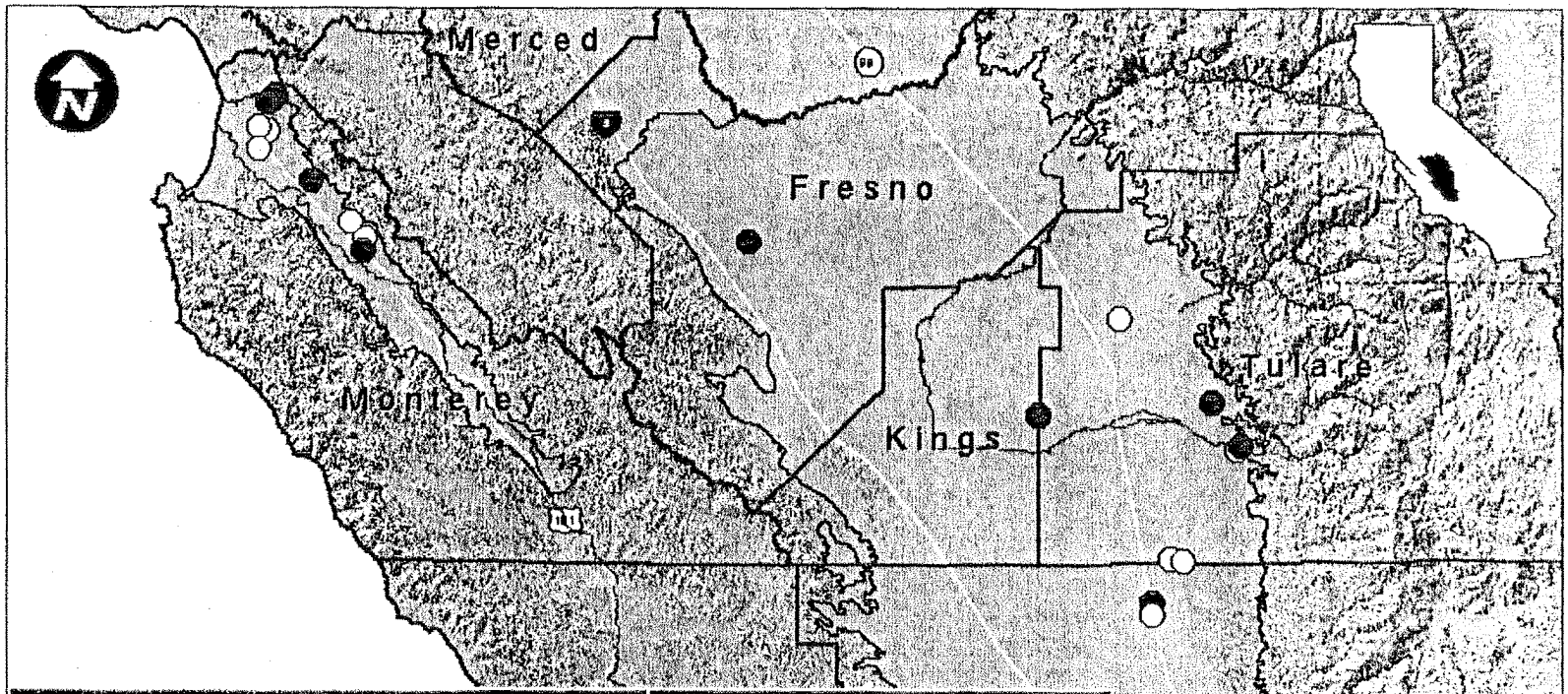
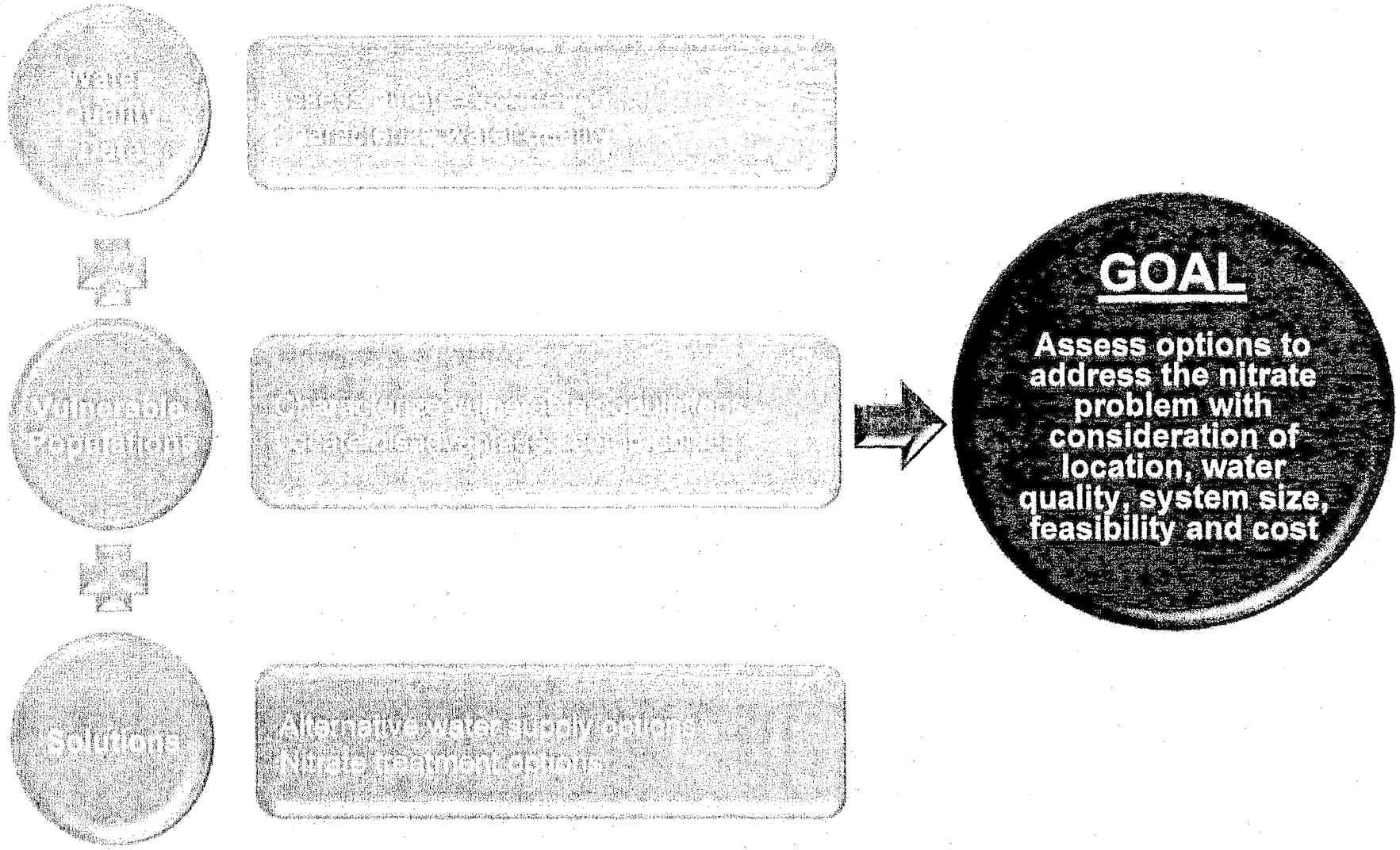


		Average Raw Nitrate (mg/L as nitrate)		
Type	Population Range (Total)	Max	Min	Avg
Ion Exchange	25 – 133,750 (261,200)	71	15	40
Reverse Osmosis	45 – 6,585 (6,760)	75	24	41
Blending	45 – 25,500 (83,475)	64	3	32

Overview


GOAL
Assess options to address the nitrate problem with consideration of location, water quality, system size, feasibility and cost

Example Costs for Alternative Supply Options

Option	Example	Est. Cost
Providing POU systems with Maintenance for **Three Years** for Potable Uses Only	A 1,000 person community	$ 200,000
Providing Bottled Water for **One Year** for Potable Uses Only	A 1,000 person community	$ 400,000
New 1,400 ft Well	Ducor Community Services District	$ 700,000
New 700 ft Well + Pump + Tank + Distribution System	Plainview Mutual Water Company	$ 2,500,000
Consolidation	Several Small Communities North of Lamont to the East Niles Community Service District	$ 6,500,000

Costs by Technology

Ion Exchange (IX)

Pro: Generally the least expensive

Con: Brine disposal

Reverse Osmosis (RO)

Pro: Wide treatment capabilities

Con: More expensive

Biological Denitrification (BD)

Pro: Long term sustainability

Con: Limited application

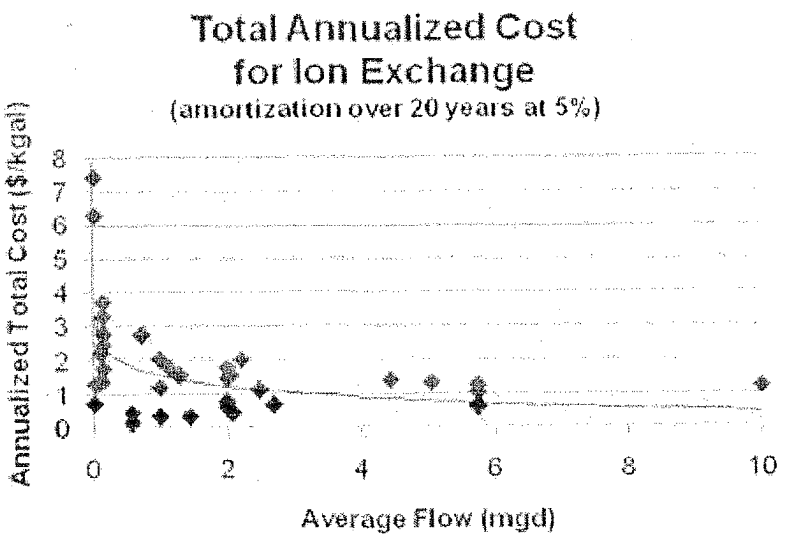
Type	Annualized Capital Cost ($/kgal)	Annual O & M Cost ($/kgal)	Total Annualized Cost ($/kgal)
IX – Literature	0.08 – 0.80	0.15 – 1.25	0.34 – 2.04
IX – Survey	0.06 – 0.94	0.12 – 2.63	0.41 – 2.73
RO – Literature	0.81 – 4.40	1.22 – 2.00	2.32 – 5.86
RO – Survey	0.19 – 3.16	1.15 – 16.16	1.35 – 19.16
BD	0.47 – 0.83	0.30 – 0.94	0.92 – 1.56

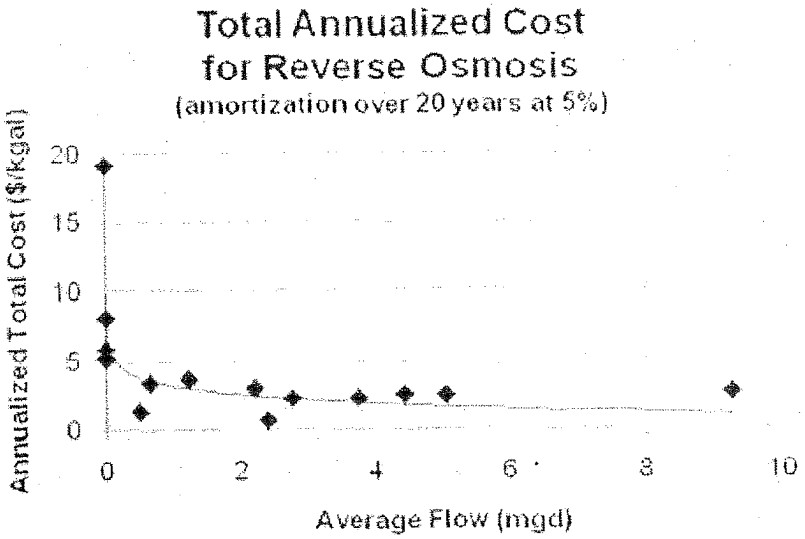
Treatment costs are unique to individual systems based on:

*system size
*co-contaminants
*location
*treatment type
*blending options
*disposal options
*nitrate level
*seasonal variation
*others…

Costs by System Size

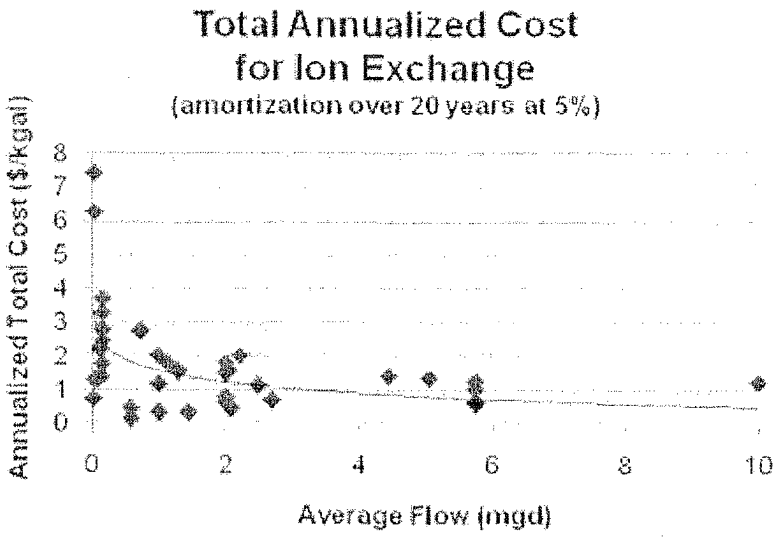
Centralized Treatment

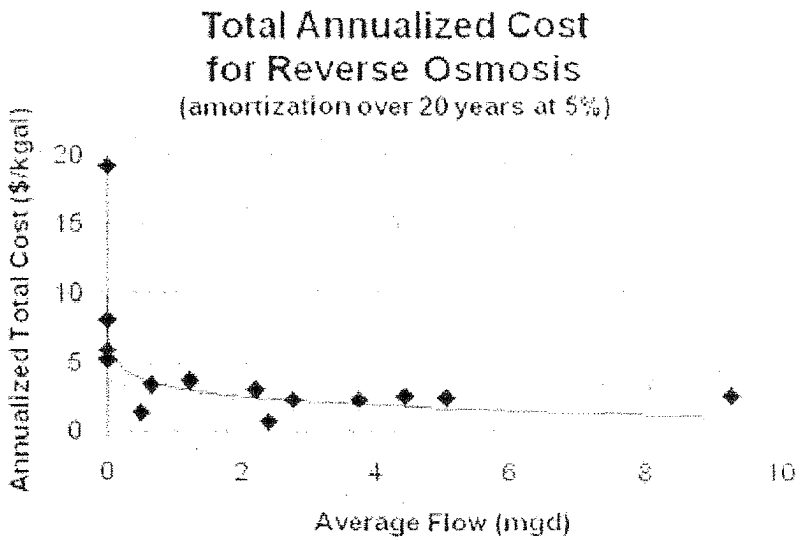




Costs by System Size

Centralized Treatment





Point-of-Use

	Upfront Investment	Annual Costs	Comments
Ion Exchange	$660-$2425	Salt costs ($3.30-$4.40/bag)	Requires disposal of brine waste, high sodium levels
Reverse Osmosis	$330-$1430	$110-$330/yr + electricity	Requires filter replacement, high maintenance, lower water recovery

From (Mahler et al., 2007)

Observations on Current Funding Sources

- Sustainability and sufficiency of main sources unclear
- No funds for Ag investment in nutrient mgt/NO_3 reduction
- Ag water use efficiency funds to fund NO_3 loading reduction?
- Many small pots of $ for drinking/wastewater for small communities and DACs, scattered, difficult to access
- Nitrate drinking water contamination investment needed statewide, based only on 2010-11 fundable list > $4/person for capital costs only
- No funds for community water supply regionalization feasibility studies and planning

Regulatory Instruments (RI): Assumptions and Limitations

- Focus on regulatory instruments to manage nitrate emissions from non-point sources, especially agriculture
  - Instruments could address emissions from both point and non-point sources
- Qualitative analysis
  - Ranking of regulatory instruments along criteria
  - Analysis rooted in previous case studies
  - Future work could quantitatively compare these instruments
- Analytical dimensions
  - Cost-effectiveness, administrative feasibility, information requirement revenue raising
  - Many potential criteria

RI: Analytical Criteria

- Cost-effectiveness
  - Abatement (nitrate reduction) costs to meet a nitrate standard
  - How can a standard be achieved at the least cost?

- Administrative costs
  - Bulk of these costs are monitoring and enforcement
  - Costs vary depending on the unit of regulation – few industries or many individuals
  - Future work could quantitatively compare these instruments

- Information Requirements
  - What information is needed to implement these regulatory tools?

- Revenue Raising
  - Regulatory instruments and funding options overlap
  - Is a regulatory instrument also a source a funding?

Instruments evaluated

- Technology mandate (non-market instrument)
  - Example: Management practices for pesticides
- Performance standard (non-market instrument)
  - Example: The dairy regulatory program nutrient management plan, which requires the ratio of N applied to N harvested to be less than 1.65
- Cap and trade (market-based instrument)
  - Example: Sulfur dioxide markets in the U.S. to address acid rain; AB 32
  - Overall, a 10% reduction in fertilizer use (5% reduction ha A and 15% ha B)
- Fee (market-based instrument)
  - Example: Mill tax; tax on fertilizer that induces a 10% reduction in fertilizer use
  - With C&T choose a quantity (market determines price) and with a fee choose a price (market determines quantity)

Instruments evaluated

- Information disclosure
  - Example: Consumer confidence reports on drinking water quality (SDWA)
- Liability rules
  - Example: Superfund
- Payment for water quality
  - Analogous to payment for ecosystem services
  - Public pays farmers to not release nitrates or farmer pays gov't to release nitrate
  - Example: Drinking water in NYC; Perrier and Evian; REDD
- Redesignation of beneficial use
  - Example: Change beneficial use from drinking to another standard

What can be regulated?

- Fertilizer use
  - Regulation on input
  - Advantages: Low administrative costs; low information requirements
  - Disadvantages: Regulating input rather than "pollutant" (i.e. gasoline tax rather than a tax on emissions)

- Nitrate leachate concentration within recharge area of drinking water source
  - Regulation on actual pollutant flux into groundwater recharge area
  - Advantages: Regulate the pollutant of interest; achieve policy objective
  - Disadvantages: High administrative costs (non-uniform mixing); high information requirements; uncertainty in assessing recharge area for specific source

- Other ideas?
  - Nitrate emissions concentration – concentration of nitrate emissions released into source (not account for non-uniform mixing)
  - Nitrate emissions volume – volume of nitrate emissions released into source

Funding Source: Assumptions and Limitations

- Focus on sources of funding
  - UCD team does not address how the money should be allocated
  - Treatment, remediation, alternative water supplies
- Provide a list (with explanation) of potential options
  - No analytical criteria – any comments?
  - Create different incentives
- Qualitative exercise
  - Provide examples of funding options
- Comments

Funding Options: Water Fees

- Fixed monthly fee on drinking water for CA residents
- Volumetric fee on drinking water for CA residents
  - Option: Fee for "high quantity" consumers
- Tax on irrigated water
- Fixed fee on agricultural water
- Fertilizer or nitrate tax
- Groundwater pumping fee
- Fee on bottled water (similar to recycling fee)

Funding Options: Other Fees

- Fertilizer tax
- Nitrate emissions tax
- N leachate tax
- Food tax
- Agricultural property tax
- Auctioned fertilizer or nitrate permits (cap and trade)
- Septic tank discharge
- Waste water discharge
- State water bonds

Moving forward

- Final comments on regulatory instruments
  - Analytical criteria
  - Instruments evaluated
- Suggestions on funding sources
  - Analytical criteria
  - Other funding sources
  - Alternative approaches
- Contact: kkjessoe@ucdavis.edu

Key Messages

- Nitrate problem will likely worsen and not improve for several decades
- Largest regional sources are agricultural fertilizers and animal wastes; other sources are locally relevant
- Nitrogen loading reductions possible, but will take decades to benefit drinking water sources
- Short-term solutions are blending, treatment, and alternative water supplies
- Treatment is unaffordable for most small communities
- Promising funding options, incentives, and regulatory tools are identified
- Incoherence and inaccessibility of data prohibit better and continuous assessment

Tulare County - Disadvantaged Community Water and Sewer Issues
November 2010

a Result of collaboration of
Self Help Enterprises
Community Water Center
Tulare County Environmental Health
Keller and Wegley Engineering

Disadvantaged Communities / Schools	IRWMP	Type of Project	MHI	Entity	Issues	On-going MCL Violation	Solutions Id'd	Estimated Cost	Potential Funding Sources	App / Pre-App Submitted	Date Constructon App Submtd	Feasibility Study Needed	App Amnt Submitted	Date Planning App Submtd	Prelim. Engin. / CEQA Needed
Allensworth	Tule*	Water	$23,750	Allensworth CSD	Arsenic levels in both wells have now exceeded MCL, prblems with control system, inadequate storage	Yes	Sealing off bottom of west well, refinement of power at motor control panels, additional storage		CDPH-DWSRF Prop 84	Yes	Jan-08	Yes			Yes
Alpaugh	Tule*	Water	$23,688	Alpaugh Joint Powers Authority	Water from both new wells exceeds arsenic MCL (16 to 25 ppb)	Yes	Arsenic Treatment Plant	$1,368,000	CDPH- Prop 84	Yes			$389,200		No
Beverly-Grand	Tule	Water	$29,000	Beverly Grand Mutual Water Company	Nitrates exceed MCL	Yes	Consolidate with City of Porterville	$801,000	CDPH-Prop 84	Yes	Feb-09	Yes	$142,600	Feb-10	Yes
Cutler	Upper Kings	Water	$24,330	Cutler PUD	Need to complete metering of customers										
Ducor	Tule	Water	$23,000	Ducor Community Services District	Well collapse, lack of adequate supply of water, H2S		New water supply (well &/or consolidation)	$700,000	USDA DWSRF	Yes					
East Orosi	Upper Kings	Water	$26,071	East Orosi CSD	Both wells at times exceed nitrate MCL		Short Term: Rehabilitate both wells	$137,000	IRWMP CDPH-DWSRF Prop 84	Yes	Yes	Yes	IRWMP $102,600 DWSRF $137,000		Yes
East Orosi	Upper Kings	Sewer	$26,071	East Orosi CSD	Both wells at times exceed nitrate MCL		Long Term: Drill new well/ Investigate connection to Orosi		IRWMP CDPH-DWSRF Prop 84	Yes			IRWMP $152,788		
Fairways Tract	Tule	Water		Fairways Tract MWC	Water from only well exceeds NO3 MCL by almost 3 times	Yes	Consolidate with City of Porterville	$892,886	DPH-DWSRF	Yes		No	$892,886		No
Lemon Cove and Sequoia Union School	Kaweah	Water	$28,333	Lemon Cove Sanitary District/Sequoia Union School District	Nitrates exceed MCL	Yes	Feasibility Study Drill test well(s), new well(s), storage and transmission		CDPH-DWSRF Prop 84	Yes	N/A	Yes	$315,070	Oct-08	Yes
Lemon Cove	Kaweah	Sewer	$28,333	Lemon Cove Sanitary District	Regional Board has requested treatment plant modifications		upgrade treatment plant								
London	Upper Kings	Water	$21,678	London CSD	Inadequate supply, storage, distribution		New well, storage, replace and loop undersized pipelines	$2,800,000	USDA DWSRF IRWMP	Yes	under contract	No	USDA app submited ->	Jul-10	No
Matheny Tract	Kaweah	Water	$27,467	Pratt MWC	1 well shut down due to high NO3, the other 2 wells wells excxeed arsenic MCL. Distribution system needs replacement	Yes	Consolidate with City of Tulare and replace water distribution system.	$6,000,000	CDPH-DWSRF Prop 84	Yes	Dec-05	No	SRF$389,200 P84 $97,300 $486,500	Feb-10	Yes
Matheny Tract	Kaweah	Sewer	$27,468	County-City of Tulare ??	Unsewered community on septic systems		Negotiate, secure funding and connect with City of Tulare system								
Monson	Upper Kings	Water		Sultana CSD ?	Private wells with nitrate levels over MCL		Determine community and County support and that of neighboring Sultana for potential consolidation with Sultana system.		CDPH-DWSRF Prop 84	Yes		Yes	$495,000	Feb-10	Yes
Pixley	Tule	Water	$23,304	Pixley Public Utility District	3 of 4 wells at times exceed arsenic MCL	Yes	Drill new wells and provide storage	$3,000,000	CDPH- Prop 84	Yes	Jan-08	No	$500,000	Feb-10	No
Plainview	Tule	Sewer		Plainview MWC	Unsewered community with septic system problems		Initiate preliminary engineering and build community sewer system, investigate connection with Strathmore or Lindsay		USDA SWRCB-SCWGP						

CDPH – California Dept of Public Health
DWSRF – Drinking Water State Revolving Fund

Attachment

Tulare County - Disadvantaged Community Water and Sewer Issues November 2010

Disadvantaged Communities / Schools	IRWMP	Type of Project	MHI	Entity	Issues	On-going MCL Violation	Solutions Id'd	Estimated Cost	Potential Funding Sources	App / Pre-App Submitted	Date Constructon App Submtd	Feasibility Study Needed	App Amnt Submitted	Date Planning App Submtd	Prelim. Engin. / CEQA Needed
Richgrove	Poso	Water	$22,885	Richgrove Community Services District	1 well has arsenic/DBCP MCL issues;Other well close to nitrate MCL		Drill new well and/or blend	$1,698,000	CDPH- Prop 84	Yes	Jan-08	No	$393,100	Feb-10	Yes
Richgrove	Poso	Sewer	$22,886	Richgrove Community Services District	Treatment plant inflow is in excess of rated capacity		Modify RWQCB Discharge permit and upgrade and expand treatment and disposal facilities		USDA SWRCB-SCWG/ CWSRF						
Rodriguez Labor Camp	Poso	Water	$18,144	Richgrove Community Services District	Nitrate 130 ppm	Yes	Consolidate with Richgrove CSD	included w/ Richgrove	CDPH- Prop 84	Yes	included w/ Richgrove	included w/ Richgrove	included w/ Richgrove	included w/ Richgrove	Yes
Seville	Upper Kings	Water	$14,000	Tulare County as Receiver	Old leaky pipelines, lack of storage		Replace water distribution system and install storage tank	$3,200,000	DPH-SRF & Prop 84 USDA	Yes	Jan-08	Yes	$120,000	Feb-10	Yes
Seville	Upper Kings	Water	$14,000	Tulare County as Receiver	Shallow well (125'), nitrate fluctates above and below MCL		Drill new well and connect with Yettem's water system								
Seville	Upper Kings	Sewer	$14,000	TCCSAZOB	Sewer system at capacity, lines too shallow to allow extensions										
Soults Mutual Water Company	Kaweah	Water	$41,000	Soults Mutual Water Company	Nitrates exceed MCL	Yes	Consolidate with City of Tulare	$982,500	CDPH- Prop 84	Yes	Jan-08	No			No
Sultana	Upper Kings	Water	$12,000	Sultana CSD	1 active well, DBCP over MCL for backup well		Need Feasibility Study to determine best options		IRWMP CDPH-DWSRF Prop 84	Yes		Yes	IRWMP $123,750 DWSRF $396,000	Feb-10	
Teviston	Tule	Water		Teviston CSD	Bottom of one of system's 2 wells has collapsed		Rehabilitate well or drill new well								
Tipton	Tule														
Tipton CSD-Burnett Road	Tule	Water	$19,500	Tipton Community Services District	Temporary connection for water outage has been in place for 10 years		Consolidate with Tipton CSD	$249,283	Prop 84 DWSRF	Yes	Jan-08	No	$55,000	Feb-10	No
Tonyville	Kaweah	Water		City of Lindsay ?	Disinfection byproducts with surface water - nitrate when groundwater temporarily used		Consolidate with City of Lindsay		CDPH-DWSRF Prop 84			Yes	$262,500	Feb-10	
Tooleville	Kaweah	Water	$15,500	Tooleville NMWA	Bolth wells exceed Nitrate MCL, Water capacity		Drill new well west of Exeter and wheel water thru Exeter to replacement distribution system	$3,100,000	USDA DPH-DWSRF Prop 84 CDBG	Yes		No	$408,000	Feb-10	No
Tract 92	Kaweah	Water		Tract 92 CSD	39 abandoned wells need proper destruction										

*TCCSAZOB - Tulare County County Service Area #1 Zone of Benefit
CDBG
DPH Prop 84
DWSRF
USDA
SWRCB
SCWG

Attachment 15

California Regional Water Quality Control Board
Central Valley Region

Water Quality Control Plan for the Tulare Lake Basin Second Edition

Revised January 2004 (with Approved Amendments)

Board Members
Robert Schneider, Chair
Karl Longley, Vice Chair
Alson Brizard, Member
Christopher Cabaldon, Member
Cher Kablanow, Member
Robert Fong, Member
Lucille Palmer-Byrd, Member

Thomas R. Pinkos, Executive Officer

Attachment 16

Water Quality Control Plan for the Tulare Lake Basin

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Attractive, convenient, and adequate toilet facilities, fish cleaning sinks, and disposal containers should be provided to prevent disposal in or near surface waters. Measures should be implemented to reduce lake bank erosion, such as reducing boat speeds near banks. Programs and procedures, developed from studies where necessary, must be adopted for processing and disposal of solid wastes and vault toilet pumpings from recreational areas. Educational programs on proper handling and disposal of wastes must be made available to classes and groups who would apply the techniques.

Well Standards

Improper well construction, maintenance, abandonment, or destruction can lead to contamination of ground water. California Water Code, Section 13801, requires all counties to adopt water well standards in accordance with Department of Water Resources Bulletin No. 74-81: "Water Well Standards: State of California," and Bulletin No. 74-90: "California Well Standards". Counties in the Tulare Lake Basin have established well standards equal to or more stringent than those in the bulletin.

Controlled Burning

Controlled burning is a method to regulate growth of some chaparral species and encourage the growth of preferable trees and grasses. Controlled burning helps prevent wildfire and uncontrolled burns. Burning changes the character of eroded matter from organic to mineral and may increase the contribution of material to streams. Burned areas, whether from controlled or uncontrolled burns, should be managed to minimize erosion of materials into streams.

Municipal and Domestic Wastewater

Increasing population and a higher standard of living require continuing expansion of wastewater treatment facilities. Advances in technology, normal equipment deterioration, and higher performance expectations require continuing replacement of these facilities. Expansion and replacement of municipal wastewater treatment facilities are integral components of the wastewater management program. Wastewater facilities should be evaluated periodically to determine if they adequately meet long-term needs, i.e., 20 years in the future. Financial programs must include a capital replacement fund to provide for these future needs. New land developments should include collection and treatment facilities as part of the initial plans.

The Regional Water Board regulates all municipal wastewater discharges to protect the quality and beneficial uses of ground water and surface water resources, to maximize reclamation and reuse, and to eliminate waste associated health hazards.

Municipal and industrial point source discharges to surface waters are generally controlled through National Pollutant Discharge Elimination System (NPDES) permits. Although the NPDES program is established by the federal Clean Water Act, the permits are prepared and enforced by the regional water boards through program delegation to California and implementing authority in the California Water Code.

The Regional Water Board will issue NPDES permits and waste discharge requirements for municipal waste discharges to protect water quality. Dischargers will be required to reclaim and reuse wastewater whenever reclamation is feasible.

To prevent nuisance, dischargers are required to manage vegetation on their respective facilities. However, birds may utilize this same vegetation during nesting season, creating a potential conflict between the Health and Water Codes and the Fish and Game Code. In accordance with a Memorandum of Understanding between the Department of Fish and Game and Mosquito Abatement Districts in the Tulare Lake Basin (copy is Appendix 25), vegetation management operations should be conducted so that weed removal operations are not necessary when nesting takes place, which is between April 1 and June 30.

Individual Waste Systems

Control of individual waste treatment and disposal systems can best be accomplished by local county environmental health departments if these departments are strictly enforcing an ordinance that is designed to provide complete protection to ground and surface waters as well as public health. The Regional Water Board's policies and guidelines for waste disposal from land developments is in Appendix 32, which is included by reference into this plan.

The Regional Water Board will consider adoption of a ban on new septic tank systems and elimination of existing systems in areas where the systems contaminate underlying ground water or where a substantial percentage of existing systems fail annually. In making this determination, the Regional Water Board must consider the factors listed in Section 13281 of the

California Water Code. (See the "Prohibitions" section of this chapter for a listing of communities with septic tank system moratoria.) The Regional Water Board will also review alternatives to protect water quality standards and beneficial uses; and prevent nuisance, pollution and contamination. Alternatives may include any combination of individual disposal systems, community collection and disposal systems with subsurface disposal, and conventional treatment systems.

A problem may develop in some agricultural areas of the Basin owing to saturation of the soil when irrigation water along the valley trough is restricted from percolating through the soil profile. As the areal extent of this condition expands, individual waste disposal systems in areas where community sewers are not an option may create surfacing waste and a public health problem.

Septage

Every three years, septage should be pumped from the average septic tank. Commercial liquid waste haulers provide this service. Small sewage treatment plants that may be in a rural area of septic tank users are reluctant to accept pumpings from individual waste disposal systems and vault toilets because of the extremely variable nature of the waste and its potential adverse affect on the plant's operation. Where regional wastewater plants have been funded with federal or state grants, one condition of the award typically requires provision for septage. Where this variability can be accommodated, haulers may find the hauling distance too great and fees too large. As a result, illegal dumps of this waste sometimes occur and cause aesthetic and public health problems.

County authorities presently license septic tank pumpers through their environmental health departments. Thus, county and municipal agencies provide effective control, treatment, and disposal of septic tank pumpings. Upon approval of the County Health Officer, septic tank pumpings may be disposed to qualified waste disposal sites, as defined in Chapter 15, or to disposal facilities specifically approved to receive these wastes.

The Regional Water Board recommends construction of facilities for septic tank pumpings at municipal sewage treatment plants where the waste will not interfere with treatment or cause nuisances.

Effluent Limits

Discharges must meet effluent and receiving water limits set forth in adopted waste discharge requirements. Point source discharges to navigable waters must comply with Section 301 of the Clean Water Act. Point source discharges to land must comply with waste discharge requirements developed according to California Water Code Section 13377 and Section 13263, respectively. NPDES permits must be renewed every 5 years. Other waste discharge requirements must be reviewed every 5, 10, or 15 years depending upon the threat to water quality of the discharge.

The effluent limits presented in the following sections of this chapter are the minimum treatment level which must be provided.

Discharges to Navigable Waters

40 CFR 125 requires publicly owned treatment works to provide secondary treatment and best practicable waste treatment technology, or provide adequate treatment to meet the water quality standards, whichever is more stringent. (40 CFR 133 defines secondary treatment as removal of 85 percent or reduction to 30 mg/l, whichever is more stringent, of both 5-day BOD and suspended solids.) Effluent limitations for other point sources are also described in 40 CFR 125. Special limitations for certain types of industrial discharges are defined in the 40 CFR 400 series. These sources must provide best practicable control technology currently available.

The following policy shall govern waste discharges to navigable waters in the Tulare Lake Basin:

- Discharges to surface waters will not be considered a permanent solution when the potential exists for wastewater reclamation.

- Discharge to ephemeral streams or to streams that have limited dilution capacity will not be considered a permanent solution unless it is accomplished in such a manner as to safeguard the public health and prevent nuisances, and the wastewater is of such a quality that it benefits streamflow augmentation.

- Dischargers in mountain areas must evaluate land disposal as an alternative. Where studies show that year-round land disposal is not practicable, dischargers must evaluate dry season land disposal as an alternative.

As a minimum, dischargers to surface waters, including stream channels, shall comply with the following effluent limits:

- All domestic discharges shall be adequately treated and disinfected to reliably meet wastewater reclamation criteria (Title 22, California Code of Regulations, Division 4, Section 60301, et. seq.).

- The maximum electrical conductivity (EC) of a discharge shall not exceed the quality of the source water plus 500 micromhos per centimeter or 1,000 micromhos per centimeter, whichever is more stringent. When the water is from more than one source, the EC shall be a weighted average of all sources.

- Discharges shall not exceed an EC of 1,000 micromhos per centimeter, a chloride content of 175 mg/l, or a boron content of 1.0 mg/l.

In addition to the above, discharges to waters having an EC or water quality objective of less than 150 micromhos shall comply with the following:

- Complete removal of settleable and floatable solids

- Nutrient removal as necessary to control biostimulation

- Removal of dissolved solids to levels consistent with those of the receiving waters

- Ammonia removed as necessary to protect aquatic life.

- Substantially complete removal of any substance known to be toxic to plant and/or animal life.

Discharges to Land

Wastewater treatment facilities that discharge to land in a manner that waste may infiltrate below the ground surface and degrade ground water must also comply with effluent limits. The excellent quality of ground waters along the easterly edge of the Basin should be protected by encouraging the application or disposal of consolidated treated effluents to the west, toward the drainage trough of the valley.

The levels of treatment required of all domestic wastewater facilities with land disposal are as follows:

1. Primary: Primary treatment is acceptable only under exceptional circumstances, typically a relatively minor discharge in an isolated location where there is little risk of nuisance or water quality degradation. Treatment and disposal in some instances could be provided by septic tanks and a leach field. Increased amounts of wastewater or nuisance conditions would require an upgrade in level of treatment.

2. Advanced Primary: This treatment may be satisfactory for smaller facilities in outlying or remote areas where the potential for odors and other nuisances is low. Advanced primary shall provide removal of 60 to 70 percent or reduction to 70 mg/l, whichever is more restrictive, of both 5-day BOD and suspended solids.

3. Secondary Treatment: Secondary treatment should remove 85 percent or reduce to 30 mg/l, whichever is more restrictive, of both 5-day BOD and suspended solids. Secondary treatment may be required where public access to wastewater is not precluded.

   Most wastewater discharges will be adequately precluded from public access and secondary treatment will not be necessary. Facilities which discharge or are designed to discharge in excess of 1 million gallons per day must provide removal of 80 percent or reduction to 40 mg/l, whichever is more restrictive, of both 5-day BOD and suspended solids. Smaller facilities (less than 1 million gallons per day) in close proximity to an urbanized area or using particular methods of effluent disposal (e.g., irrigation of certain types of crops) will also be required to provide 80 percent removal or reduction to 40 mg/l, whichever is more restrictive, of both 5 day BOD and suspended solids.

4. Advanced Wastewater Treatment: Reclaimed water used for the spray irrigation of food crops must also be coagulated and filtered. Coagulated wastewater means oxidized wastewater in which colloidal and finely divided suspended matter have been destabilized and agglomerated by the addition of suitable floc-forming chemicals or by an equally effective method. Filtered wastewater means an oxidized, coagulated, clarified wastewater which has been passed through natural undisturbed soils or filter media, such as sand or diatomaceous earth, so that the turbidity does not exceed an average operating turbidity of 2 NTUs and does not exceed 5 NTUs more than 5 percent of the time during any 24-hour period {Title 22, California Code of Regulations, Section 60301, et seq.}.

Additional effluent limits follow:

- The incremental increase in salts from use and treatment must be controlled to the extent possible. The maximum EC shall not exceed the EC of the source water plus 500 micromhos/cm. When the source water is from more than one source, the EC shall be a weighted average of all sources.

- Concentration of total coliform organisms in reclaimed wastewater must be in accordance with limits established in the following provisions of Title 22, California Code of Regulations: Sections 60303 (Spray Irrigation of Food Crops), 60305 (Surface Irrigation of Food Crops), 60311 (Pasture for Milking Animals), 60313 (Landscape Irrigation), 60315 (Nonrestricted Recreational Impoundment), 60317 (Restricted Recreational Impoundment), and 60319 (Landscape Impoundment).

- In the Poso Creek Subarea, discharges shall not exceed 1,000 micromhos/cm EC, 200 mg/l chlorides, and 1.0 mg/l boron. The Poso Creek subarea consists of about 35,000 acres of land between State Highways 99 and 65 about six miles north of Bakersfield, and is defined more specifically in Regional Water Board Resolution No. 71-122, which is incorporated by reference into this plan.

- In the White Wolf Subarea, for areas overlying Class I irrigation water, discharges shall not exceed 1,000 µmhos/cm EC, 175 mg/l chlorides; 60 percent sodium, and 1.0 mg/l boron. For areas overlying Class II or poorer irrigation water, discharges shall not exceed 2,000 µmhos/cm EC, 350 mg/l chlorides, 75 percent sodium, and 2 mg/l boron. In areas where ground water would be Class I except for the concentration of a specific constituent, only that constituent will be allowed to exceed the specified limits for Class I water. In no case shall any constituent be greater than those limits specified for areas overlying Class II irrigation water. The White Wolf subarea consists of 64,000 acres within the valley floor, at the southern tip of the Tulare Lake Basin, about 20 miles south of Bakersfield. The subarea is bounded on the west by the San Emigdio Mountains, on the south and east by the Tehachapi Mountains, and on the north by the White Wolf Fault.

  Criteria for mineral quality of irrigation water is described below:

Constituent	Class I	Class II	Class III
TDS (mg/l)	<700	700 - 2,000	>2,000
EC (µmhos/cm)	<1,000	1,000 - 3,000	>3,000
Chlorides (mg/l)	<175	175 - 350	>350
Sodium (percent base constituents)	<60	60 - 75	>75
Boron (mg/l)	<0.5	0.5 - 2	>2

- Discharges to areas that may recharge to good quality ground waters shall not exceed an EC of 1,000 micromhos per centimeter, a chloride content of 175 mg/l, or a boron content of 1.0 mg/l.

Wastewater Reclamation

Reclaimed water provides a substitute source of water and provides nutrients that nourish crops. When properly managed, reclamation consumes nitrates and effluent that would normally percolate to local ground waters underlying a community and can free up potable water for growth or other uses. Extensive reclamation is a practical necessity simply to maintain present levels of development and activity in the Basin.

Wastewater reclamation shall be maximized by controlling or limiting salt pickup and evaporation during use, treatment, or disposal. Integration of final disposal into existing surface distribution systems appears to be advantageous. Wherever feasible, eventual wastewater reclamation will be requested.

Title 22, California Code of Regulations, establishes reclamation criteria for direct use of reclaimed water but has no criteria for wastewater distributed with irrigation supplies. Therefore, municipal treatment facilities producing effluent for introduction to irrigation canals for unrestricted irrigation will be required, as a minimum, to disinfect to 23 MPN coliform per 100 ml. The Department of Health Services will be consulted for all cases.

To facilitate the use of treated wastewater with short notice, wastewater reclamation requirements may be waived for up to one year provided that the following conditions are met:

1. The reclaimed water will comply with any applicable criteria provided by Title 22, Division 4, California Code of Regulations;

2. The proposed uses receive prior approval from the state and local health departments and the Executive Officer; and

3. The reclamation project is consistent with the "Guidelines for Use of Reclaimed Water" developed by the Department of Health Services. The "Guidelines for Use of Reclaimed Water" is incorporated by reference into this plan. (See Appendix 34.)

Reclamation projects more than one year in duration may be allowed to proceed prior to final approval of reclamation requirements provided that the use complies with reclamation criteria.

Waste discharge requirements will be revised and wastewater reclamation requirements adopted as soon as possible to allow reuse. No enforcement actions will be taken against a community allowing wastewater reuse prior to revision of waste discharge requirements provided that the use complies with reclamation criteria.

Reclamation policies are as follows:

- Discharges to surface water and evaporation of reclaimable wastewater will not be acceptable permanent disposal methods where opportunity exists to replace an existing use or proposed use of fresh water with reclaimed water; a timetable for reclamation or reuse may be set by the Regional Water Board.

- The quality of waste discharges shall be regulated to promote reclamation and reuse wherever feasible.

- Rates of wastewater application that exceed reasonable agronomic rates will not be considered as reclamation or reuse.

- Project reports for new or expanded wastewater facilities shall include plans for wastewater reclamation or the reasons why this is not possible.

- Where studies show that year-round or continuous reuse of all of the wastewater is not practicable, consideration shall be given to partial reuse of the flow and seasonal reuse.

The irrigation season in the Tulare Lake Basin area typically extends 9 to 10 months, but monthly water usage varies widely. To maximize reuse, users should provide water storage and regulating reservoirs, or percolation ponds that could be used for ground water recharge of surplus waters when there is no irrigation demand.

State Water Board policy, described in Resolution No. 77-1, Appendix 4, encourages and provides funds for reclamation projects that protect beneficial uses of existing water supplies, encourage water conservation, and encourage other agencies to assist in implementation.

Consolidations

Proliferation of small treatment plants in developed areas is undesirable. Most small communities do not have adequate resources to properly manage, treat and dispose of wastewater in an urban environment. Typical problems involve nuisance and ground water pollution. Small communities and development close to other small communities may be able to construct and operate a joint wastewater treatment facility with greater treatment ability, opportunity for reclamation, and for lower cost. Policies on consolidation are as follows:

- Adjoining small communities should combine resources to construct and operate a joint or regional wastewater treatment plant.

- Consolidation, whether one or more regional facilities operated by a single sewering authority, should be cost-effective, and consider benefits to the ecology, treatment efficiencies, and effective reuse of the waters.

- Unsewered areas and new developments adjacent to or within existing wastewater collection system service areas should be connected to the system. Developments not within a service area but within the projected sphere of influence of a regional system should be developed in a manner that provides for future connection to the system when the regional sewer system becomes available. One condition of approval of individual sewage disposal systems in certain areas and of certain densities may be that developments be dry sewered in a manner that provides cost-effective sewerage infrastructure to be placed during initial construction.

- Each municipal facility should act as a regional facility and provide sewerage services within its sphere of influence. The municipality must be equitably compensated for these services.

- Areas recommended for consolidation of wastewater systems are the Parlier area, the Bakersfield area, and the City of Delano. The Selma-Kingsburg-Fowler (Tri-Cities) and Fresno-Clovis regions have been consolidated. Consolidations of other wastewater treatment plants may be justified at some future time.

The intent of this policy is to make consolidation the rule rather than the exception. Consolidation should be compared to other approaches. If such a comparison yields clear technical, environmental, or economic advantages for consolidating, then consolidation should be implemented.

Pretreatment

Many municipal facilities in the Basin treat significant volumes of industrial wastewater. Most of this wastewater is from agriculture-related industries that fluctuate seasonally. Requirements for industrial users that discharge directly to surface water or to land are in the "Industrial Wastewater" Section of this chapter. Indirect industrial users discharge to a municipal wastewater treatment system and are regulated by the municipal discharger. Policies on pretreatment are as follows:

- All publicly owned treatment works (POTWs) with a design flow greater than 5.0 million gallons per day must comply with 40 CFR 403, the federal pretreatment program requirements.

- Smaller POTWs with industrial flows which may cause pass-through or interference may also be required to develop pretreatment programs.

- All industrial users that discharge to POTWs must comply with the National Pretreatment Standards regardless of whether the POTW has an approved pretreatment program.

Industrial Wastewater

The number of known cases of ground water pollution or public nuisance attributable to industrial sources has increased steadily over the last decade. Much of the increase is due to sources such as underground tanks that were never intended to discharge but which leaked undetected for years. The Region's inventory of underground storage tanks indicates a high number of leaking tanks. Ground water contamination from other industrial sources generally occurs from the illegal discharge of fluids or other materials used in production processes. Waste compounds have been discharged directly to unlined sumps, pits, or depressions and spread on soils. In some cases, these disposal practices went on for many years before they were discovered or discontinued.

There are two types of industrial dischargers: direct and indirect. Indirect dischargers are those who discharge into community wastewater systems. The federal regulations require that all indirect users abide by general National Pretreatment Standards and that certain categories of indirect users comply with specific discharge standards. (See Pretreatment Section, above.)

Direct dischargers discharge to either surface water or land. Surface water dischargers are subject to federal and state regulations. Federal regulations require dischargers to comply with best conventional pollutant control technology (BCT), best practicable control technology currently available (BPT), or best available technology economically achievable (BAT). Effluent limitations for specific industrial waste discharges to surface waters, together with standards of performance and pretreatment standards for new sources, are found in 40 CFR 400. Waste source categories of particular interest in the Tulare Lake Basin include dairy product processing, meat product and rendering processing, canned and preserved fruit and vegetable processing, beet sugar processing, and petroleum production and refining. When treatment technology is not defined, regulations specify use of best practicable judgement (BPJ).

Generally, the effluent limits established for municipal waste discharges will apply to industrial wastes. Industrial dischargers shall be required to:

1. Comply with water quality objectives established in Chapter III.

2. Comply with Chapter 15 for discharges of designated or hazardous waste unless the discharger demonstrates that site conditions and/or treatment and disposal methods enable the discharge to comply with this Basin Plan and otherwise qualify for exemption from Chapter 15.

3. Comply with effluent limitations set forth in 40 CFR 400 when discharge is to surface water.

4. Comply with, or justify a departure from, effluent limitations set forth in 40 CFR 400 if discharge is to land.

5. Limit the increase in EC of a point source discharge to surface water or land to to a maximum of 500 μmhos/cm. A lower limit may be required to assure compliance with water quality objectives.

   An exception to this EC limit may be permitted for industrial sources when the discharger technically demonstrates that allowing a greater net incre-

mental increase in EC will result in lower mass emissions of salt and in conservation of water, provided that beneficial uses are protected.

An exception may also be permitted for food processing industries that discharge to land and exhibit a disproportionate increase in EC of the discharge over the EC of the source water due to unavoidable concentrations of organic dissolved solids from the raw food product, provided that beneficial uses are protected. Exceptions shall be based on demonstration of best available technology and best management practices that control inorganic dissolved solids to the maximum extent feasible.

Cull fruits and wastes from food processing generally are voluminous and may have a high water content like winery wastes. Provision should be made for thin spreading of such materials on the fields, followed promptly by disking into the soil.

6. The Regional Water Board encourages the reclamation and reuse of wastewater, including treated ground water resulting from a cleanup action, where practicable and requires as part of a Report of Waste Discharge an evaluation of reuse and land disposal options as alternative disposal methods. Reuse options should include consideration of the following, where appropriate, based on the quality of the wastewater and the required quality for the specific reuses: industrial and municipal supply, crop irrigation, landscape irrigation, ground water recharge, and wetland restoration. Where studies show that year-round or continuous reuse of land disposal of all the wastewater is not practicable, the Regional Water Board will require dischargers to evaluate how reuse or land disposal can be optimized, such as consideration of reuse/disposal for part of the flow and seasonal reuse/disposal options (e. g., dry season land disposal).

7. Unless an exception is technically justified, segregate domestic waste from industrial waste, and treat and dispose of domestic waste according to the policy for municipal and domestic wastewater.

Additional specific requirements have been adopted for wastewater from oil fields and wineries.

Oil Field Wastewater

Hydrocarbon production in the San Joaquin Valley's 74 oil fields generates significant volumes of wastewater. Oil field producers continue to use hundreds of sumps as oil/wastewater separators and as wastewater disposal sumps. Some oil field wastewaters contain salts, oil and grease, metals, and organics which can present a threat to the beneficial uses of underlying good quality ground water. However, in some areas, wastewater may be of a quality which allows its reuse for reclamation or discharge to surface waters. In these instances, waste discharge requirements or NPDES permits, as appropriate, are issued. In addition, some ground water in the Basin is naturally of such poor quality that oil field wastewater will not impact its beneficial uses. Due to historical practices, degradation of ground water from oil field wastewater disposal occurred in some areas. The petroleum industry has been eliminating oilfield wastewater disposal sumps.

With the gradual elimination of the use of sumps for disposal, increased amounts of produced wastewater are being discharged to Class II injection wells. Title 14, California Code of Regulations, Section 1724.6, et seq., defines environmental protection regulations relating to oil and gas operations administered by the California Department of Conservation, Division of Oil, Gas & Geothermal Resources in cooperation with other state regulatory agencies. The Department of Conservation administers the federal underground well injection program for Class II injection wells within the state. The Regional Water Board reviews and may comment on the permit application regarding water quality concerns. The review process is in accordance with a Memorandum of Agreement between the State Water Board and the Department of Conservation. The purpose of the agreement is to ensure that the construction or operation of Class II injection disposal wells and the land disposal of wastewaters from oil, gas, and geothermal production facilities does not cause degradation of waters of the state. The Memorandum of Agreement provides a coordinated approach that results in a single permit satisfying the statutory obligations of both agencies.

The Memorandum of Agreement also requires the Department of Conservation to notify the Board of all pollution problems, including spills associated with operators and/or new proposed oil field discharges. The agencies must work together, within certain timelines, to review and prepare permits and coordinate enforcement actions.

Policies regarding the disposal of oil field wastewater are:

- Maximum salinity limits for wastewaters in unlined sumps overlying ground water with existing and future probable beneficial uses are 1,000 μmhos/cm EC, 200 mg/l chlorides, and 1 mg/l boron, except in the White Wolf subarea where more or less restrictive limits apply. The limits for the White Wolf subarea are discussed in the "Discharges to Land" subsection of the "Municipal and Domestic Wastewater" section.

- Discharges of oil field wastewater that exceed the above maximum salinity limits may be permitted to unlined sumps, stream channels, or surface waters if the discharger successfully demonstrates to the Regional Water Board in a public hearing that the proposed discharge will not substantially affect water quality nor cause a violation of water quality objectives.

- Disposal sumps shall either be free of oil or effectively covered or screened to preclude entry of birds or animals. Compliance monitoring for wildlife problems shall continue to be deferred to the Department of Conservation and the Department of Fish and Game. The Regional Water Board will respond to complaints, spot check for compliance, and enforce conditions as necessary.

- Sumps adjacent to natural drainage courses shall be protected from inundation or washout, or properly closed.

- Regulation of oil field dischargers shall be coordinated with all other state and federal agencies having jurisdiction and interest in the oil field.

- The discharge of produced wastewater to land, where the concentration of constituents may cause ground water to exceed water quality objectives, shall be subject to the requirements contained in the California Code of Regulations, Title 23, Section 2510, et seq. (Chapter 15).

Wineries

A substantial number of wineries operate throughout the Central Valley. Many of these wineries produce substantial quantities of stillage waste which is high in concentrations of BOD, EC, TDS, and nitrogen. As stillage is normally discharged directly to land without any prior treatment, there is significant potential for the waste to affect water quality and to create nuisance conditions if not managed properly.

A study conducted in 1980 developed recommendations for minimizing water quality effects and nuisance conditions resulting from land application of stillage waste {Metcalf and Eddy, "Land Application of Stillage Waste: Odor Control and Environmental Effects"}. Based on the study, the Regional Water Board adopted guidelines for the land disposal of stillage waste from wineries. These guidelines may not be sufficient where local soil, ground water, weather, or other conditions are not compatible with the stillage to be disposed. These guidelines prescribe the minimum requirements for disposal of stillage waste from wineries and do not preclude the establishment of more stringent requirements as necessary to comply with water quality objectives. The policy for land disposal of stillage waste is presented below.

Storm Water

Runoff from residential and industrial areas can contribute to water quality degradation. Urban storm water runoff contains organics, pesticides, oil, grease, and heavy metals. Because these pollutants accumulate during the dry summer months, the first major storm after summer can flush a highly concentrated load to receiving waters and catch basins. Combined storm and sanitary systems may result in some runoff to wastewater treatment plants. In other cases, storm water collection wells can produce direct discharges to ground water. Impacts of storm water contaminants on surface and ground waters are an important concern.

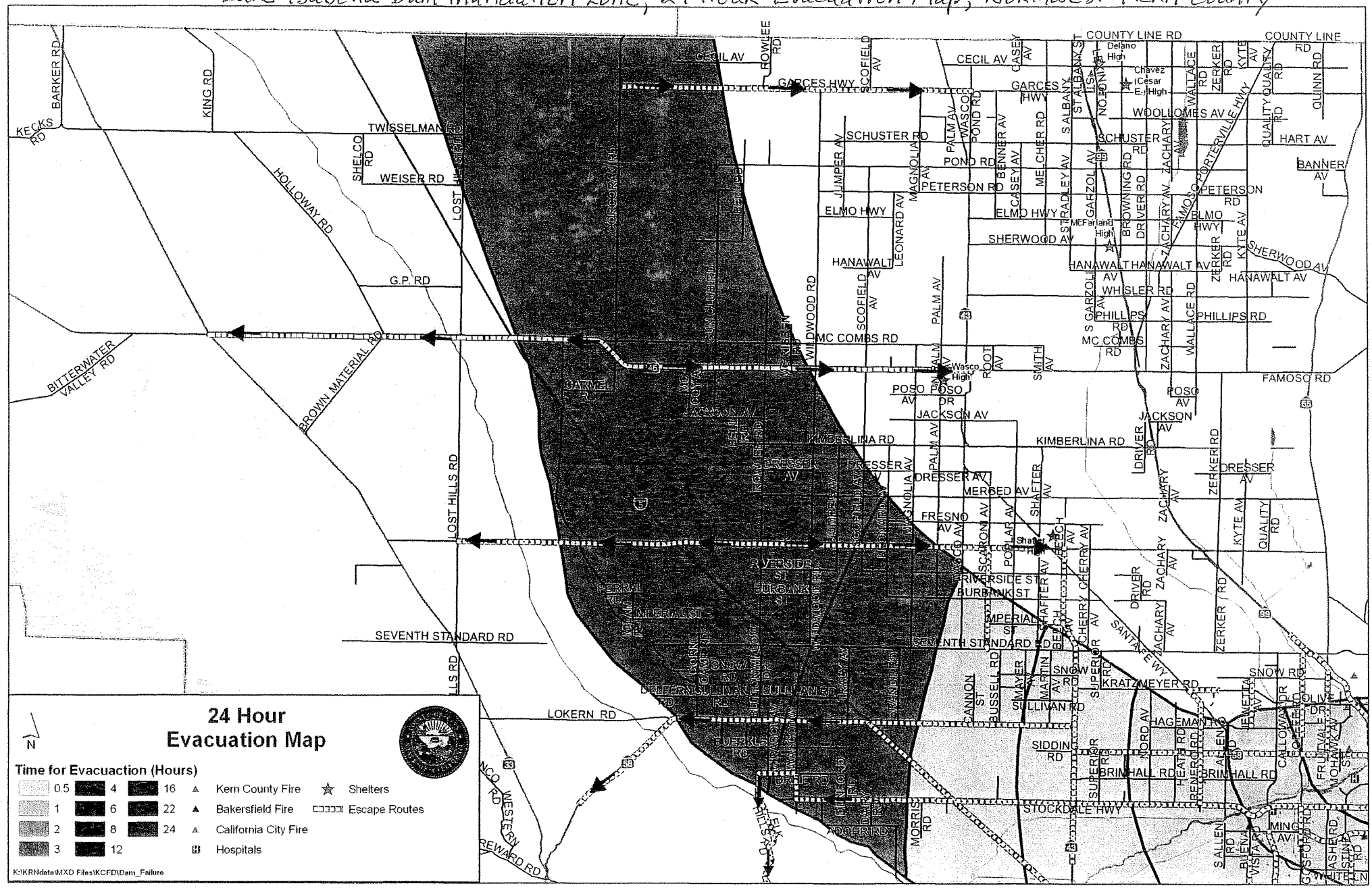
EPA has promulgated regulations for municipal and industrial stormwater permits in 40 CFR 122. The State Water Board implemented these regulations by adopting a General Industrial Activities Storm Water Permit (excluding construction activity) and a General Construction Activity Storm Water Permit. Storm water dischargers indicate intention to follow the specifications in the appropriate permit by filing a Notice of Intent with the State Water Board.

The Regional Water Board will take all measures necessary to protect the quality of surface and ground waters from treatment or disposal of urban runoff.

- The Regional Water Board will issue waste discharge requirements on the discharge of urban runoff when a threat to water quality exists.

- The Regional Water Board will regulate large and medium municipal stormwater dischargers and, at its discretion, specific industrial dischargers through the issuance of individual NPDES permits. Industrial dischargers may also be

Lake Isabella Dam Inundation Zone, 24 Hour Evacuation Map, Northwest Kern County


24 Hour
Evacuation Map
Time for Evacuaction (Hours)
0.5
1
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3
4
6
8
12
16
22
24
Kern County Fire
Bakersfield Fire
California City Fire
Hospitals
Shelters
Escape Routes
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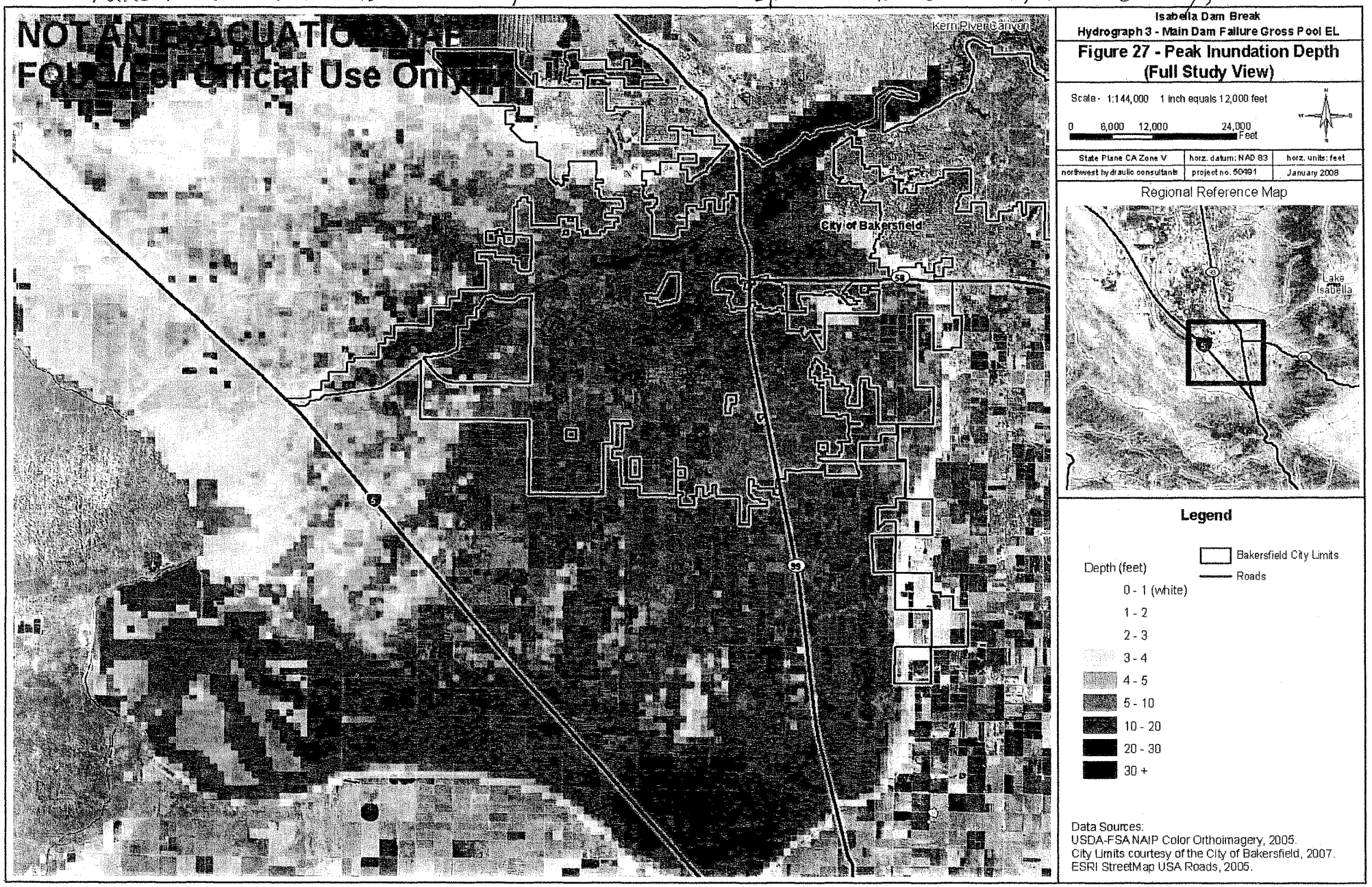
BARKER RD
KECKS RD
KING RD
TWISSELMAN RD
SHELCO RD
WEISER RD
HOLLOWAY RD
LOST HILLS RD
G.P. RD
BITTERWATER VALLEY RD
BROWN MATERIAL RD
SEVENTH STANDARD RD
LOKERN RD
WESTERN REWARD RD
CECIL AV
GARCES HWY
HOWLEE RD
SCOFIELD AV
WASCO
POND RD
SCHUSTER RD
PETERSON RD
ELMO HWY
HANAWALT AV
WILDWOOD RD
MC COMBS RD
CARMEL RD
JACKSON AV
KIMBERLINA RD
DRESSER AV
MERCED AV
FRESNO AV
RIVERSIDE ST
BURBANK ST
IMPERIAL ST
SULLIVAN RD
BRIMHALL RD
STOCKDALE HWY
COUNTY LINE RD
Delano High
Chavez (Cesar E.) High
WOOLLOMES AV
HART AV
BANNER AV
PETERSON RD
ELMO HWY
SHERWOOD AV
HANAWALT AV
WHISLER RD
PHILLIPS RD
MC COMBS RD
Wasco High
FAMOSO RD
POSO AV
JACKSON AV
KIMBERLINA RD
DRESSER AV
MERCED AV
FRESNO AV
RIVERSIDE ST
BURBANK ST
IMPERIAL ST
SEVENTH STANDARD RD
SNOW RD
KRATZMEYER RD
SULLIVAN RD
HAGEMAN RD
SIDDINGER RD
BRIMHALL RD
STOCKDALE HWY
WHITE LN
ALLEN RD
MORRIS RD
NCO RD
ADAHR RD
BRUNDAGE LN
ZACHARY AV
WALLACE RD
DRIVER RD
ZERKER RD
KYTE AV
QUALITY RD
QUINN RD
SCHUSTER RD
PALM AV
MAGNOLIA AV
LEONARD AV
SCOFIELD AV
ROOT AV
SMITH AV
SHAFTER AV
CHERRY AV
BEECH AV
POPLAR AV
MAPLE AV
MARTIN AV
SUPERIOR RD
CANNON ST
RUSSELL RD
MAYER AV
LORD AV
HEATH RD
BRENNER RD
CALLOWAY DR
OLIVE DR
FRUITVALE AV
MOHAWK AV
SALLEE RD
BUENA VISTA RD
ASHE RD
STINE RD
GOSFORD RD
MING AV
SHERWOOD AV
PHILLIPS RD
SANTA FE WY
SUPERIOR RD
JUNIPER AV
MELCHER RD
CASEY AV
TRADLEY AV
GARZOLI AV
BROWNING RD
DRIVER RD
ZACHARY AV
WALLACE RD
ZERKER RD
KYTE AV
QUALITY RD
QUINN RD
SALBANY ST
NOGUERA
PORTERVILLE HWY
McFarland High
Shafter High
Wasco High
DELANO EARLIMART CANAL
CORCORAN EL
LOST HILLS EL
WILDWOOD EL
CARMEL EL
PERRAL EL
SUNCHURIA EL
ROWLEY EL
SCOFIELD EL
WILDWOOD EL
MC COMBS EL
PERRAL EL
LOST HILLS

Lake Isabella Dam Inundation Zone, Peak Inundation Depth for Bakersfield, Kern County, CA



Attachment 19

Valley Voice May 27, 2010

Experienced Lawmen Vie For County's Top Job

Two experienced lawmen are seeking to be Tulare County Sheriff. One is seeking his first term, the other his fourth term.

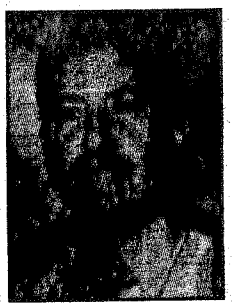
John Zapalac is again challenging Bill Wittman for sheriff. The two squared off four years ago, with Wittman winning with 64 percent of the vote in the June race. Wittman ran unopposed in 2002.

Both men have a ton of law enforcement experience. Zapalac served in the Tulare County Sheriff's Office for 14 years before becoming police chief of Woodlake 11 years ago. He began his career in Orange County in 1978.

Wittman began is law enforcement career in the Bay Area in 1968, served many years in the Visalia Police Department before being elected sheriff in 1994.



Bill Wittman



John Zapalac

Both are committed lawmen and both have worked with youth to keep them from a life of crime and gangs. Zapalac began Camp Zap for young kids in Woodlake and surrounding cities, while Wittman formed the TSCO Police Activities League to work with young people.

While the differences are not great, there are differences. Zapalac makes his case with the statement that it is time for a change. He strongly advocates an approach similar to what he has taken in Woodlake to focus working with youth early and steer them away from crime and drugs.

"Look at what we've done in Woodlake. We started 10 years ago targeting our young people and began seeing results three years go. We just

See SHERIFF page 22

SHERIFF from page 21

need to change the way we do law enforcement. We need to get to young people," the Woodlake chief said.

While Wittman said doing all his department can to keep youth from going astray of the law, enforcement is still his main focus. He said he will continue to "hammer" the gangs with injunctions and strong enforcement.

Wittman feels he has earned another term.

"I still have a passion for the job. I'm supported by the men and women of the organization. I have the experience to pull the organization through the hard times we still face," he said, referring to budget challenges. "I have the proper staff and management team to get us through it."

Zapalac feels it's time for a change.

"The incumbent has been there 16 years and drugs and gang issues have gotten worse – based on county numbers, specifically in the unincorporated areas."

He said that the suppression-based solution is not working. He said if elected, he would start focusing more on prevention measures. "Community base policing has to be a philosophy," he said.

Wittman said through good management, the sheriff's office has been able to so far handle budget cuts and has not had to lay off any deputies.

"I don't know of any county or city that's going to hire additional officers this year. We need to be as efficient as we can. When someone calls 911, people still expect to have a deputy there," he said

He said the department is prepared to take on more prisoners as has been suggested by the governor.

However, "We don't have the resources to put on more deputies. I hope the state has a plan and helps us develop resources to add more staff," he said. He added that he has developed some good plans, such as a work furlough program, to keep people out of the jails to make room for the more harden criminal.

Zapalac said he will bring a new attitude to the office of sheriff and would be very cooperative with the city police departments. "Having a good attitude goes a long way. Wanting to work with other agencies goes a long way and when the leader sends down the right message – we are here to serve, hear to cooperate - that's the kind of message our county and city leaders need as well. It's all about attitudes," he said.

Both men agree having enough money to do their jobs is going to be a challenge.

"We have to work harder. There's a level of service I want to provide the people of this county and will need to find resources to continue to do that - like reserves and volunteers (over 500 now)," Wittman said.

Zapalac said the case must be made to the board of supervisors that public safety is a priority. "I will identify where there are shortages in staffing," he said if elected, then seek the money to fill those positions.

Attachment 19

County of Tulare

Office of
Bill Wittman
Sheriff-Coroner
2404 W. Burrel
Visalia, CA 93291-4
(559) 733-6241

Administration
(559) 733-6233

Detentions
(559) 733-6823

Investigations
(559) 733-6523

Operations
(559) 733-6221

DATE 8/30/10

Carole Clum
45638 S. Fork Drive
Three Rivers, Ca, 93271
(559) 561-4661

Dear Ms. Carole Clum,

We received your written request, dated July 9th, 2010 to provide the Tulare County Sheriff's Department budget for fiscal years 2003 through 2011. I tried called you and left several voice messages. Here is the information you requested.

Tulare County Sheriff's Department
Fiscal Year Adopted Operating Budgets

2003/2004 $ 52,813,577
2004/2005 $ 57,220,302
2005/2006 $ 64,453,055
2006/2007 $ 68,223,974
2007/2008 $ 75,088,099
2008/2009 $ 80,987,383
2009/2010 $ 79,637,246
2010/2011 $ 77,450,448 Requested--Not adopted until Sept. 14, 2010

If I can be of ufrther service to you feel free to call my office at (559) 733-6225.

Sincerely,

Lt John Wells

Sheriff's Lieutenant
for Bill Wittman, Sheriff

cc: Department
Employee
Personnel Department

Attachment 20

California's Divided Fortunes

Wall Street Journal, Feb. 2, 2010

Economy Is Starting to Recover on the Coast, but Inland Areas Remain in a Rut

By Cari Tuna

California's economy is showing signs of stabilizing, but progress is uneven as coastal regions begin to rally and inland areas continue to sink.

Unemployment rates are dipping and home prices are rebounding in the San Francisco Bay area, which is driven by its technology industry and exports, and in coastal Southern California, where entertainment and other industries are starting to benefit from the economic thaw. But in the state's Central Valley and Inland Empire regions, where the downturn struck earlier and harder, unemployment rates are still rising and the battered construction industry keeps shedding workers.

"California has become increasingly divided between coastal and inland areas," said Hans Johnson, associate director at the Public Policy Institute of California, a San Francisco think tank.

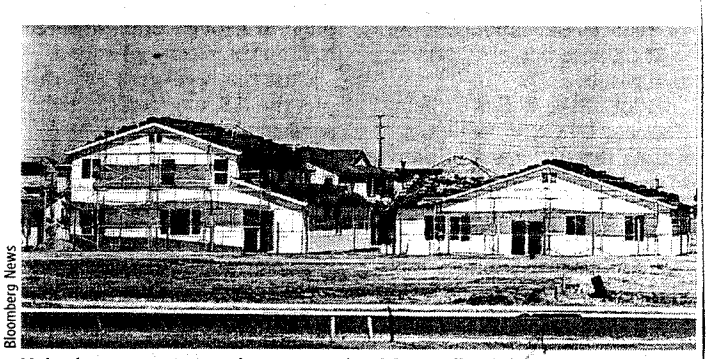
The continuing decline inland could drag down the state's overall recovery and lead to greater inequality between residents. That has national repercussions, since the state's $1.8 trillion economy is often viewed as an economic bellwether.

Overall, California's economy remains weak, and the stabilization on the coast is just beginning. The state's seasonally adjusted unemployment rate was 12.4% in December, down from an October peak of 12.5% but still higher than the national unemployment rate of 10%, according to the California Employment Development Department.

The different economic trajectories of the state's coastal and inland areas are evident in the experiences of **Marvell Technology Group** Ltd. and Pelco Inc. Marvell, a Silicon Valley microchip maker, currently lists on its Web site about 120 job openings at its operational headquarters in Santa Clara, though some of those spots might be filled internally, said Marvell corporate-marketing executive Tom Hayes.

The job openings follow a sales drop in early 2009, when Marvell cut around 130 jobs in Santa Clara. Since then, revenue has picked up due to rising exports to countries such as China, among other factors, Mr. Hayes said. Marvell has about 5,000 employees world-wide.

By contrast, **Schneider Electric** SA's Pelco unit laid off 100 of its roughly 2,200 employees last month amid weak demand. The maker of video and security equipment, located well inland in the Fresno County city of Clovis, said it didn't expect sales to quickly recover. "It was just absolutely necessary to realign the size of our company to match the current economy," spokeswoman Kathleen Rhodes said.



Bloomberg News

Halted construction on homes in inland Roseville, Calif., seen in August.

The inland-coastal split is likely to have significant demographic and social consequences. Mr. Johnson said that during the housing boom, many coastal residents moved inland to buy homes, despite longer commutes to jobs in the Bay area or greater Los Angeles. In recent years, that migration trend reversed, he said, as foreclosures mounted inland and housing prices fell on the coast.

Now, housing prices in coastal areas again are rising, a sign that their economies are reviving. The median home price in the nine-county Bay area increased 15.2% in December from a year earlier to $380,000, according to data provider MDA DataQuick. In coastal Southern California, the median home price increased 7.5% to $360,000.

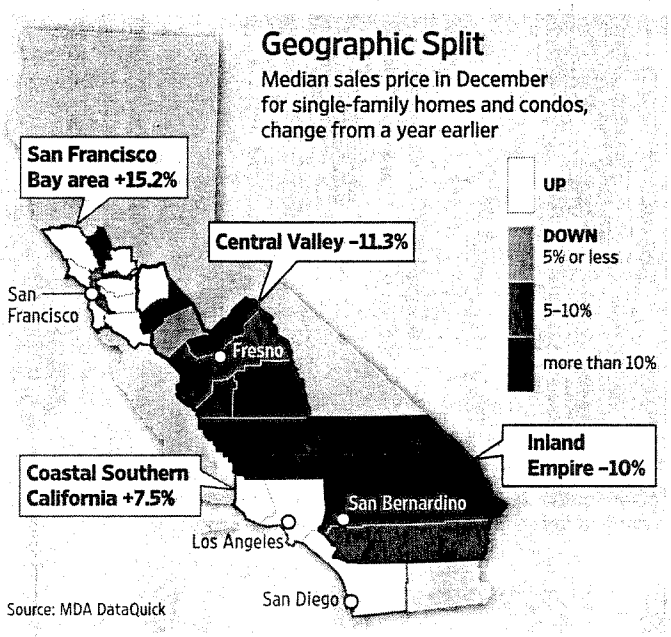
By contrast, the median home price in the eight-county Central Valley fell 11.3% to $142,000 over the same period, according to DataQuick. In the Inland Empire counties of San Bernardino and Riverside, the median home price in December was $180,000, down 10% from a year earlier.

Local jobless rates, which aren't seasonally adjusted, show a similar pattern. Unemployment rates fell in December from November in eight of the Bay area's nine counties and three of coastal Southern California's four counties, according to the state Employment Development Department. But in the Central Valley, where unemployment already is higher, jobless rates rose in six of eight counties and held steady in the other two. In a rare glimmer of positive news, San Bernardino and Riverside saw their unemployment rates fall in December, though joblessness there remained high.

Stephen Levy, director of the Center for Continuing Study of the California Economy, a Palo Alto think tank, said coastal Northern and Southern California are benefiting from a nascent revival in venture-capital investment and exports. In the fourth quarter, venture capitalists invested $2.8 billion in California, according to research firm VentureSource. The Bay area received 76% of that investment and coastal Southern California took in 19%.

The convergence of economic fortunes of coastal Northern and Southern California marks a departure from the past two recessions. In the early 1990s, Southern California hemorrhaged jobs in aerospace and defense and it trailed the Bay area's red-hot economy for the rest of the decade. Southern California weathered the dot-com bust in the early 2000s better than the tech-dependent Bay area.

But recent years saw the rise of a new center of economic activity in inland California, driven primarily by construction. That growth engine is now gone, Mr. Levy said.



Attachment 21

Tulare County General Plan 2030 Update Background Information - March 25, 2010

Tulare County General Plan 2030 Update

The February 2010 draft of the Tulare County General Plan 2030 Update (General Plan Update) documents, which includes Part I, Goals and Policies Report, and Part II, Area Plans, the Recirculated Draft Environmental Impact Report (RDEIR), and the Tulare County General Plan 2010 Background Report are now available for review. A Climate Action Plan has been prepared as an implementation measure of the General Plan Update. The Climate Action Plan is not a part of the formal General Plan Update documents but will be considered for approval subsequent to the adoption of the General Plan Update. These documents are available for review at the County of Tulare Resource Management Agency, located at the Tulare County Government Plaza, 5961 S. Mooney Blvd. in Visalia, California or at any of the Tulare County's library branches. The documents can also be found at the County's website (www.co.tulare.ca.us). For further information, please contact David Bryant, project planner at (559) 624-7000.

The County's General Plan provides a comprehensive, long-term plan for land use and physical development in the unincorporated areas of the County. The County's General Plan consists of development policies that set forth objectives, principles and standards that guide land use decisions within the County. The general plan and its figures, diagrams, and development policies form the basis for the County's zoning, subdivision, and public works decisions.

The General Plan Update maintains the long standing tradition of supporting sustainable agricultural resources through the Rural Valley Lands Plan, and directing future urban growth into established areas containing existing development through the proposed Planning Framework Element (update of the existing Urban Boundaries Element).

The California Environmental Quality Act (CEQA) requires the County to have a public review or comment period wherein interested parties, including but not limited to public entities, private individuals and special interest groups, can comment in writing on the RDEIR. This public comment period will open on March 25, 2010 and close at 5:30 p.m. on May 27, 2010 for a 60 day review period. Notice of this public comment period will be published once on March 25, 2010, in a number of local newspapers in the County. At the end of the public comment period, the County plans on preparing a Final Environmental Impact Report (FEIR) on this project as required under CEQA. The FEIR will consist of the RDEIR and the County's responses to the comments received during the public comment period.

After the preparation of the FEIR, the Tulare County Board of Supervisors and the Tulare County Planning Commission plan to hold a joint public workshop on the General Plan Update in the Chambers of the Board of Supervisors, Administration Building, County Civic Center, 2800 West Burrel, Visalia, California. The workshop will provide the Board of Supervisors and Planning Commission with a review of the preliminary responses to comments on the RDEIR, and seek direction regarding the completion of the General Plan Update process. A notice of this workshop will be published. Copies of the notice will be sent to any individual or entity requesting notice. After this workshop the Planning Commission will meet in a noticed public hearing to review the proposed project and make recommendations to the Board of Supervisors. After the Planning Commission has made its recommendation on the proposed project, the Tulare County Board of Supervisors will notice and hold a public hearing on the proposed General Plan Update and will consider the Final EIR. Both of these public hearings will be noticed separately. Copies of the notice will be sent to any individual or entity requesting notice.

Historical Background:

After many community and County workshops, the County published in January 2008 a proposed Tulare County General Plan Update and Draft Environmental Impact Report (DEIR). The DEIR was circulated for public review and comment for an extended period of over 90 days (January 14, 2008 through April 15, 2008) to allow for maximum public involvement and in[illegible] During the public review period, the County received approximately 95 written communications from agencies, organizations and individuals with comments on the General Plan Update and DEIR.

The County and its consultants reviewed these comments to determine whether any additional environmental analysis would be required to respond to issues raised in the comments. Based on that review, the County determined that several subjects warranted additional information, analysis or clarification. In its role as the lead agency, the County directed the recirculation of a revised DEIR for the proposed project. Consideration of the various comments received on the DEIR, as well as continued developments in the areas of air quality, climate change impacts regulation and water resources resulted in the County's decision to update a number of sections of the previous DEIR as well as the Background Report. This effort has resulted in the proposed General Plan 2030 Update and RDEIR, released on March 25, 2010.

Although a part of the administrative record, the comments from the public and public entities received on the January 2008 DEIR do not require a written response in the FEIR because of the RDEIR that is being circulated at this time. The County, as provided in CEQA Guidelines, section 15088.5(f)(1), will not respond to individual comments received on the January 2008 Draft EIR but will respond to any new comments received on this February 2010 RDEIR as part of the FEIR to be considered by the Planning Commission and Board of Supervisors.

The following is a summary of current revisions to the General Plan Update.

1. Introduction Hierarchy: The Introduction chapter to Part I of the General Plan update has been revised to provide a clear hierarchy and summary of the General Plan Update document and how it relates to the existing General Plan documents the County will retain (i.e. Community Plans).

2. Existing Plans Incorporated by Reference: Part III of the General Plan update consists of the existing Plans and Amendments that will not be revised or re-adopted (Community, Hamlet, County Adopted City General, Valley Sub-Area, Corridor Sub-Area, and Mountain Sub-Area Plans). These plans are not being amended by the General Plan Update but are listed in Part I, Chapter 1 (Introduction) for reference. These plans and amendments are available on the County General Plan Update website or by compact disks (CD) upon request for the cost of copying the CD (six disks total) Each County library branch with computers available to the public will also have a copy of these CDs.

3. Land Use Matrix: A land use designation supersedure table/matrix, similar to a Land Use Designation/Zoning Matrix has been added that will realign existing land use designations into those of the proposed GPR.

4. Updated Figures and Diagrams: Many figures and diagrams have been revised, including but not limited to the following: Figure 4-1 in the Land Use Chapter of Part I has been revised to provide greater clarity. The revised diagram identifies all boundaries including Urban Development Boundaries (UDB's), Area Plans, Foothill Development Corridors, Rural Valley Lands Plan Area, Urban Area Boundaries (UAB's), and all new boundaries such as hamlets (HDB's), and Mountain Service Centers (MSC's). Other figures and diagrams have been added, corrected or revised as needed for clarity.

5. Minor Corrections: Minor changes have been made to the General Plan Update to include material inadvertently omitted in the older (2008) version, to provide clarification to policies, and Implementation timeframes, and to change the formatting to an easier to read (one column style instead of two).

6. Implementation Measures: Certain implementation measures that were simply a restatement of state law have been eliminated or condensed.

7. Initiated Climate Action Strategy: In light of on-going developments in the Global Climate Change arena, the RDEIR suggests new or revised policies that may be added to the General Plan Update policies document, including but not limited to air quality, health and safety, and water resources policies. A Climate Action Plan has been proposed as an implementation measure and will be considered for adoption after the adoption of the General Plan Update.

8. Policies related to unincorporated areas around cities: The proposed General Plan update includes revised policies in unincorporated areas around cities pertaining to urban development. The revised policies would provide a unique opportunity for coordinated development with incorporated cities within County Adopted City Urban Boundaries.

Draft Environmental Impact Report

The RDEIR is designed to assess the environmental impacts of the proposed Tulare County General Plan Update. Additionally, the RDEIR is intended to identify ways to minimize significant effects of the General Plan Update and describes reasonable alternatives to the General Plan Update that would avoid or reduce the General Plan Update's significant effects (Section 15121[a] CEQA Guidelines).

The Background Report, an informational document, offers insight into the conditions and environment that existed in the County during the preparation of the General Plan. The RDEIR lists the potential effects that the new policies found in the General Plan Update will have on the environment and identifies mitigation measures that could potentially lessen the effects of these impacts. The RDEIR also contains an executive summary and describes the environmental setting of the General Plan Update.

The following is a summary of current revisions to the DEIR, resulting in the RDEIR, and Background Report:

1. Initiated Climate Action Strategy: In light of the recent legislative actions specific to sustainability and climate change, the County has initiated a Climate Action Strategy specific to its unique rural nature. As an initial step, the County has prepared a Greenhouse Gas (GHG) Inventory for the Planning Area. Information from the inventory, as well as applicable regulatory information is incorporated into the "Air Quality" and "Energy and Climate Change" sections of the recirculated DEIR. Subsequently, the analysis of air quality impacts now includes a more robust discussion of the proposed project's impacts associated with climate change. Additionally, the RDEIR now includes and will be included within the Final General Plan Update, a number of additional policies (in the areas of sustainability, energy conservation, and climate change) that will assist the County in meeting the GHG emissions reduction goals set by the State.

2. Updated Figures and the Land Use/Circulation Diagram: The County has developed a land use/circulation diagram showing the location of all future growth areas proposed as part of the General Plan Update. Refer to Figure 2-2 in Chapter 2, Project Description. This figure also identifies Development Boundaries within which future urban growth is expected to occur. Updated Geographic Information System mapping data (e.g., Important Farmlands, etc.) and available resource agency data (e.g., air quality monitoring, California Natural Diversity Database (CNDDB), etc.) has been included..

3. Greenhouse Gas Inventory: The RDEIR includes a more thorough list of estimates for stationary sources of air pollution, including industrial emissions, residential emissions, agricultural emissions, landfills, power plants, and oil and gas production. Many of these sources were developed as part of the Greenhouse Gas Inventory report and subsequently incorporated into the RDEIR.

4. Environmental Setting: Updated the environmental setting to include any newly available data. The RDEIR now contains its own environmental setting integrated into the document.

5. Updated General Plan Background 2010 Report: To the extent feasible, the County has reviewed or updated baseline data in the General Plan Background Report for topics for which more recent data was available. These topics include Market Conditions and Demographics, Land Use, Agriculture, Recreation, and Open Space, Biological Resources, Air Quality, Safety (including Geologic and Seismic Hazards, Flood Hazards, Fire Hazards, Human-Made Hazards, and Climate Change), Biological, Archaeological, and Historical Resources, Natural Resources (including Mineral Resources, Oil and Gas Resources, and Timber Resources), and Scenic Landscapes. Changes have been made to the Background Report to include material that was inadvertently omitted from the prior version, clarification provided, and formatting, order and clerical errors corrected including updating information on: Important farmlands (FMMP) and Williamson Act lands, current crop types, updated or current information regarding the Reasonable Available Control Measures (RACM) programs, overall update of the air quality regulatory setting, wil[illegible]nd fire hazard areas, biological resources, which included ur[illegible]ting the California Natural Diversity Data Base (CNDDB), ar[illegible]dated H[illegible]c Resources.

6. Updat Water Supply Evaluation: The RDEIR incorporates the resu f a water supply evaluation prepared for the proposed proj Using the m current (or readily available) data from the Department of W Resources and other sources, the water supply evaluation vides a representation of 'existing' supply and demand conditions and projects 'future' conditions contemplated by the proposed project. The RDEIR updated conditions as it pertains to water, wastewater and sewer. Each community service district (CSD) area was reviewed and updated as needed. Identification of sanitary sewer service providers, community/urban water suppliers, solid waste and storm drainage infrastructure was assessed and updated as needed.

7. Updated Information: The RDEIR was prepared based on the updated technical studies and new information contained in the updated background report and other technical reports.

8. Organization of the RDEIR: The County has simplified the organization of the RDEIR to more closely resemble the CEQA Checklist found in Appendix G of the CEQA Guidelines. While the original DEIR incorporated the Background Report information and data by reference, this RDEIR includes relevant information from the Background Report directly in the "Environmental Setting" and "Regulatory Setting" sections of each EIR resource section. Much of this information has been updated, as described previously.

Climate Action Plan

As part of the Climate Action Strategy, a Climate Action Plan has been prepared. The Tulare County Climate Action Plan (CAP) serves as a guiding document for County actions to reduce greenhouse gas emissions and adapt to the potential effects of climate change. The CAP is an implementation measure of the General Plan 2030 Update. An Implementation Measure is a specific action, program, procedure, or technique. Implementation Measures are provided to help ensure that appropriate actions are taken to implement the General Plan. Implementation Measures may be adjusted over time, without amending the General Plan, based on new information, changing circumstances, and evaluation of their effectiveness, so long as they remain consistent with the intent of the General Plan and adopted mitigation measures. The General Plan provides the supporting framework for development in the County to produce fewer greenhouse gas emissions during Plan buildout. The CAP builds on the General Plan's framework with more specific actions that will be applied to achieve emission reduction targets consistent with California legislation.

Comments on the RDEIR

New comments must be submitted for the RDEIR, because, as mentioned above, Tulare County will not respond to those comments submitted in response to the previous DEIR of January 2008 (Section 15088.5, California Environmental Quality Act (CEQA) Guidelines). The **RDEIR will have a public review period of 60 days**, starting on March 25, 2010 and ending on **May 27, 2010 at 5:30 p.m.** Any written comments on the RDEIR must be received by the County by 5:30 p.m. on May 27, 2010, at the Tulare County Resource Management Agency at Government Plaza, 5961 South Mooney Boulevard, Visalia, CA 93277 to the attention of David Bryant, Project Planner, in order to be included in the FEIR.

Once this public comment period has ended, the County will prepare a proposed Final EIR and set a joint workshop of the Board of Supervisors and Planning Commission. After the joint workshop, it is anticipated that the County will 1) schedule and notice a public hearing on this matter in front of the Planning Commission, and 2) schedule a separate, subsequent public hearing on the matter in front of the Board of Supervisors to consider the recommendations of the Planning Commission before the Board of Supervisors makes its decision on the certification of the FEIR and adoption of the proposed General Plan Update. Anyone desiring mailed or e-mail notice of the workshop and/or future public hearings should make sure that a request for notice is on file with the Tulare County Resource Management Agency.

March 25, 2010
NOTICE OF AVAILABILITY OF
RECIRCULATED DRAFT ENVIRONMENTAL IMPACT REPORT
(State Clearinghouse No. 2006041162)

Tulare County General Plan 2030 Update

The Tulare County General Plan 2030 Update (General Plan Update) provides a comprehensive, long-term plan of the physical development of the County related to planning. The County's General Plan Update consists of development policies that set forth objectives, principles and standards that guide land use decisions within the County. The general plan and its figures, diagrams, and development policies provided in the General Plan Update Part I (Goals and Policies Report), Part II (Area Plans), and Part III (Community, Hamlet, County Adopted City General, Valley Sub-Area, Corridor Sub-Area, and Mountain Sub-Area Plans) form the basis for the County's zoning, subdivision, and public works actions. General Plan Update supporting documents include a 2010 Background Report and Recirculated Draft Environmental Impact Report (RDEIR). The Housing Element, the Animal Confinement Facilities Plan, the Flood Control Master Plan, and (the Part III) Community, Hamlet, County Adopted City General, Valley Sub-Area, Corridor Sub-Area, Foothill Sub-Area, and Mountain Sub-Area Plans will not be modified, amended or readopted by this General Plan Update.

Recirculated Draft Environmental Impact Report (RDEIR)

This RDEIR is designed to assess the environmental impacts of the proposed General Plan Update. Additionally, the RDEIR is intended to identify ways to minimize significant effects of the General Plan Update and describes reasonable alternatives to the General Plan Update that would avoid or reduce the General Plan Update's significant effects (Section 15121[a] CEQA Guidelines). Consistent with CEQA Guidelines (Section 15168[a]), the RDEIR prepared for the proposed General Plan Update is a program-level RDEIR.

In January 2008, the County published the Tulare County General Plan Update Draft Environmental Impact Report (DEIR). The DEIR was circulated for public review and comment for an extended period of over 90 days (January 14, 2008 through April 15, 2008) to allow for maximum public involvement and input. During the public review period, the County received approximately 95 written communications from agencies, organizations and individuals with comments on the Tulare County General Plan Update and DEIR.

The County and its consultants reviewed these comments to determine whether any additional environmental analysis would be required to respond to issues raised in the comments. Based on that review, the County determined that several subjects warranted additional information, analysis or clarification.

In its role as the lead agency, the County has directed the recirculation of the DEIR for the proposed project (RDEIR). Consideration of the various comments received on the DEIR, as well as continued research and documentation in the areas of air quality and climate change regulation resulted in the County's decision to update a number of sections of the RDEIR, as well as the 2010 Background Report.

The RDEIR has determined that implementation of the General Plan Update could result in potentially significant impacts in the following areas: Aesthetics, Air Quality, Traffic and

Attachment 23

Circulation, Energy and Global Climate Change, Noise, Hydrology, Public Safety, Public Services and Utilities, Agricultural Resources, Biological Resources, and Cultural Resources. Hazards (Including evaluation of hazardous material sites identified under Government Code Section 65962.5) are included in the RDEIR.

A copy of this report is available for review at the following locations:

Tulare County Resource Management Agency **Government Plaza** **5961 South Mooney Boulevard** **Visalia, CA 93277**	**Ivanhoe Library** **15964 Heather** **Ivanhoe, CA 93235**	**Terra Bella Library** **23825 Avenue 92** **Terra Bella, CA 93270**
Tulare County Website **http://www.co.tulare.ca.us/**	**Lindsay Library** **165 North Gale Hill Street** **Lindsay, CA 93247**	**Three Rivers Library** **42052 Eggers Drive** **Three Rivers, CA 93271**
Alpaugh Library **3816 Avenue 54** **Alpaugh, CA 93201**	**Cutler/Orosi Library** **12646 Avenue 416** **Orosi, CA 93647**	**Tipton Library** **301 East Woods Avenue** **Tipton, CA 93272**
Dinuba Library **150 South "I" Street** **Dinuba, CA 93618**	**Pixley Library** **Pixley Union Elementary School** **300 North School** **Pixley, CA 93256**	**Visalia Library** **200 West Oak Avenue** **Visalia, CA 93291**
Earlimart Library **780 East Washington Street** **Earlimart, CA 93219**	**Springville Library** **35800 Highway 190** **Springville, CA 93265**	**Woodlake Library** **400 West Whitney** **Woodlake, CA 93286**
Exeter Library **230 East Chestnut** **Exeter, CA 93221**	**Strathmore Library** **19646 Road 230** **Strathmore, CA 93267**	

The **RDEIR has a public review period of 60 days**, starting on March 25, 2010 and ending on **May 27, 2010 at 5:30 p.m.** Any written comments on the RDEIR must be sent or delivered to the Tulare County Resource Management Agency at the following address: Tulare County Resource Management Agency, Government Plaza, 5961 South Mooney Boulevard, Visalia, CA 93277 to the attention of David Bryant, Project Planner.

Comments on the previous DEIR released in January 2008, although a part of the administrative record, will not require a written response in the Final Environmental Impact Report (FEIR). New comments must be submitted for the RDEIR. The County, as provided in CEQA Guidelines, section 15088.5(f)(1), will not respond to individual comments received on the January 2008 Draft EIR but will respond to any new comments received on this February 2010 RDEIR as part of the FEIR to be considered by the Planning Commission and Board of Supervisors.

The Tulare County Board of Supervisors and the Tulare County Planning Commission will hold a joint public workshop after the close of the public review period on the RDEIR and upon completion of a proposed Final EIR.. The workshop will be held on a date to be scheduled later in the Chambers of the Board of Supervisors, Administration Building, County Civic Center, 2800 West Burrel, Visalia, California. The workshop will pertain to the General Plan Update and the associated RDEIR.

For further information regarding this project, contact David Bryant, Project Planner, at (559) 624-7000.

Cynthia Echavarria
ENVIRONMENTAL ASSESSMENT OFFICER

==========

TO BE PUBLISHED ONCE ONLY ON: March 25, 2010

SEND BILL AND TEAR SHEET TO:
TUL CO RESOURCE MGMT.
5961 SOUTH MOONEY BLVD.
VISALIA, CA 93277-9394

SEND TO: Visalia Times Delta
Porterville Recorder
Tulare Advance Register
Valley Voice
Dinuba Sentinel
Foothills Sun-Gazette
Kaweah Commonwealth

Tulare County - RMA
Payment Voucher (GAX)

Sch Pay Date:		Tms. CD:	GAX
Document Total:	21,811.60	Tms. #:	1023001950
Single Chk Flag:	N	Date:	01/15/10
Check Category:	01	Aprd:	0510
Vendor Name: MICHAEL BRANDMAN ASSOC		Vendor #:	887200
		Altr. Addr:	
Address: 220 COMMERCE ST SUITE 200			
IRVINE, CA 92602			

Ln No	Pc Number Ln / Inv. #	Fund	Dept	Unit	S Unit	Objt	S Ob	Rsrc	S Rv	R Ct	BSA	Disc	Amount
	Description:												
01		001	230	8500	00	2150	00						21,811.60
	00048573	REF# CC-2319.0016.8											
02													
03													
04													
05													
06													
07													

ATTACH ORIGINAL SUPPORTING DOCUMENTATION

Total	21,811.60

Prepared by: WINCAMS Ext: Date: 01/15/10

Entered by: WINCAMS Ext: Date: 01/15/10 Reviewed by Auditor:

I have reviewed and approved the attached invoices with this payment voucher. I certify that the are correct and the goods and/or services have been received and that they represent a valid claim for payment.

Date: _____ Authorized Signature: _____

AUD 303 11/27/07 Revised

Attachment 24

Michael Brandman Associates

ENVIRONMENTAL SERVICES • PLANNING • NATURAL RESOURCES MANAGEMENT

January 5, 2010
Invoice No: 00048573

Remit To:
Michael Brandman Associates
220 Commerce, Suite 200
Irvine, CA 92602

Julia Roberts
County of Tulare
Resource Management Agency
5961 South Mooney Blvd.
Visalia, CA 93277-9394

Project 2319.0016.0 DEIR AQ Section General Plan Update Peer Review/Edit

Statement of Professional Services: November 28, 2009 through December 31, 2009

010 Professional Fees

Description	Contract Amount	Percent Complete	Total Billed	Previously Billed	Current Invoice
GP-Initial Document Review	1,240.00	100.00	1,240.00	0.00	1,240.00
GP-Backround Report Review	2,480.00	100.00	2,480.00	0.00	2,480.00
GP-Review AQ & Climate Change Chapters	4,650.00	100.00	4,650.00	0.00	4,650.00
GP-Review Recirculated Draft EIR	6,820.00	100.00	6,820.00	0.00	6,820.00
GP-Respond to County Comments	2,480.00	0.00	0.00	0.00	0.00
GP-Meetings	930.00	0.00	0.00	0.00	0.00
CAP-Information Gathering & Assessment	1,240.00	100.00	1,240.00	0.00	1,240.00
CAP-Emission Reduction Analysis	3,200.00	82.00	2,624.00	0.00	2,624.00
CAP-Administrative Draft Climate Act Pln	6,000.00	44.00	2,640.00	0.00	2,640.00
CAP-Draft Climate Action Plan	2,000.00	0.00	0.00	0.00	0.00
CAP-Meetings	1,160.00	0.00	0.00	0.00	0.00
CAP-Project Management & Coordination	930.00	12.00	111.60	0.00	111.60

David P. Bryant JAN 13 2010

001-230-6500-2150

Bakersfield 661.334.2755 | Fresno 559.497.0310 | Irvine 714.508.4100 | Palm Springs 760.322.8847 | Sacramento 916.447.1100 | San Bernardino 909.884.2255 | San Ramon 925.830.2733 | Santa Cruz 831.262.1731

www.brandman.com mba@brandman.com

Total	33,130.00	21,805.60	0.00	21,805.60	
	Total		**21,805.60**		
		Section Total	**$21,805.60**		

030 Direct Costs

Description	Contract Amount	Percent Complete	Total Billed	Previously Billed	Current Invoice
Direct Costs	200.00	3.00	6.00	0.00	6.00
Total	200.00		6.00	0.00	6.00
	Total			**6.00**	
		Section Total		**$6.00**	
		Invoice Total		**$21,811.60**	

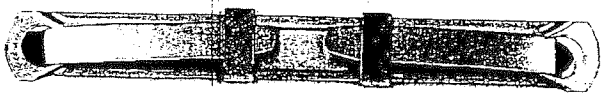
This Invoice is Due and Payable Upon Receipt.

Bud Exp: 001-230-6500-00-2150-00

Cost Ctr: 001-605-0016 Div: 0605 Act: 1001

Project: 0605-00002150-000

Total Compensation 33,330.00



AGREEMENT # CC-2319.0016.0

I. INTRODUCTION

THIS AGREEMENT, is entered into as of December 8, 2009, between the COUNTY OF TULARE, COUNTY COUNSEL (hereinafter "COUNTY COUNSEL"), and MICHEAL BRANDMAN ASSOCIATES, Inc. (hereinafter "CONSULTANT"), with reference to the following:

II. RECITALS

A. COUNTY COUNSEL desires to employ an environmental impact report consultant to assist in investigation and analysis of evidence pertaining to the Tulare County General Plan Update 2030 and environmental impact report. COUNTY COUNSEL seeks assistance in preparation of a legally defensible General Plan and environmental impact report.

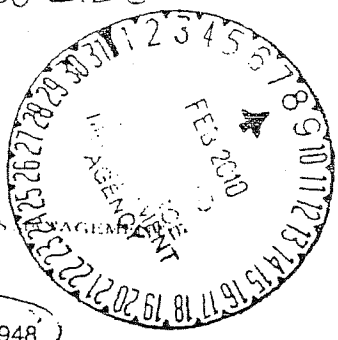
B. CONSULTANT has presented evidence to COUNTY COUNSEL of its competence and professional qualifications and has represented to COUNTY COUNSEL, on the basis of such, that it is qualified, able and willing to provide the services described herein under the terms and conditions set forth.

C. COUNTY COUNSEL has selected the CONSULTANT as possessing the expertise and qualifications to render certain expert technical and professional services to assist COUNTY COUNSEL in the investigation and analysis of evidence pertaining to the Tulare County General Plan Update 2030 and environmental impact report, based upon the demonstrated competence and professional qualifications of the CONSULTANT.

D. COUNTY COUNSEL wishes to enter into an agreement with CONSULTANT to perform environmental impact report consulting services and related activities and CONSULTANT is willing and able and holds the proper experience to provide such services. COUNTY COUNSEL also desires to retain CONSULTANT pursuant to a confidential relationship.

E. Government Code Section 31000 authorizes the County of Tulare to contract for special services with persons who are specially trained, experienced, and competent to perform such services. In addition, Tulare County Ordinance Code Section 1-03-1290, subdivision (c), authorizes COUNTY COUNSEL to enter into contracts on behalf of the County for expert services required by the department, within the limits of its budget.

Applied to 001-230-6200-2150
& Should have been
001-230-6500-2150



Michael Brandman Associates

ENVIRONMENTAL SERVICES • PLANNING • NATURAL RESOURCES MANAGEMENT

February 3, 2010
Invoice No: 00048948

APPROVED FOR PAYMENT
RESOURCE MANAGEMENT AGENCY
BY Paula P. Bryant

Julia Roberts
County of Tulare
Resource Management Agency
5961 South Mooney Blvd
Visalia, CA 93277-9394

Remit To:
Michael Brandman Associates
220 Commerce, Suite 200
Irvine, CA 92602

001-230-6500-2150

Project 2319.0016.0 DEIR AQ Section General Plan Update Peer Review/Edit

Statement of Professional Services: January 1, 2010 through January 29, 2010

010 Professional Fees

Description	Contract Amount	Percent Complete	Total Billed	Previously Billed	Current Invoice
GP-Initial Document Review	1,240.00	100.00	1,240.00	1,240.00	0.00
GP-Backround Report Review	2,480.00	100.00	2,480.00	2,480.00	0.00
GP-Review AQ & Climate Change Chapters	4,650.00	100.00	4,650.00	4,650.00	0.00
GP-Review Recirculated Draft EIR	6,820.00	100.00	6,820.00	6,820.00	0.00
GP-Respond to County Comments	2,480.00	100.00	2,480.00	0.00	2,480.00
GP-Meetings	930.00	17.00	158.10	0.00	158.10
CAP-Information Gathering & Assessment	1,240.00	100.00	1,240.00	1,240.00	0.00
CAP-Emission Reduction Analysis	3,200.00	100.00	3,200.00	2,624.00	576.00
CAP-Administrative Draft Climate Act Pln	6,000.00	100.00	6,000.00	2,640.00	3,360.00
CAP-Draft Climate Action Plan	2,000.00	20.00	400.00	0.00	400.00
CAP-Meetings	1,160.00	13.00	150.80	0.00	150.80
CAP-Project Management & Coordination	930.00	14.00	130.20	111.60	18.60

Project 2319.0016.0 DEIR AQ Section General Plan Update Peer Review/Edit Invoice 00048948

Total	33,130.00	28,949.10	21,805.60	7,143.50	
	Total		7,143.50		
		Section Total	$7,143.50		

030 Direct Costs

Description	Contract Amount	Percent Complete	Total Billed	Previously Billed	Current Invoice
Direct Costs	200.00	4.00	8.00	6.00	2.00
Total	200.00		8.00	6.00	2.00
	Total			2.00	
		Section Total		$2.00	
		Invoice Total		$7,145.50	

This Invoice is Due and Payable Upon Receipt.

Total Compensation 33,330.00

Tulare County - RMA
Payment Voucher (GAX)

Sch Pay Date:	
Document Total:	8,829.00
Single Chk Flag:	N
Check Category:	01

Tms. CD:	GAX
Tms. #:	1023002611
Date:	03/24/10
Aprd:	0810
Vendor #:	887200
Altr. Addr:	

Vendor Name: MICHAEL BRANDMAN ASSOC

Address: 220 COMMERCE ST SUITE 200
IRVINE, CA 92602

Ln	Pc	Number	Ln	Fund	Dept	Unit	S Unit	Objt	S Ob	Rsrc	S Rv	R Ct	BSA	Disc	Amount
No	Inv. #			Description:											
01				001	230	6500	00	2150	00						8,829.00
	00049260			CC-2319.0016.0											
02															
03															
04															
05															
06															
07															

ATTACH ORIGINAL SUPPORTING DOCUMENTATION

Total 8,829.00

Prepared by: WINCAMS Ext: Date: 03/24/10

Entered by: WINCAMS Ext: Date: 03/24/10 Reviewed by Auditor:

I have reviewed and approved the attached invoices with this payment voucher. I certify that the are correct and the goods and/or services have been received and that they represent a valid claim for payment.

Date: _____ Authorized Signature: _____

AUD 303 11/27/07 Revised

Michael Brandman Associates

ENVIRONMENTAL SERVICES • PLANNING • NATURAL RESOURCES MANAGEMENT

March 4, 2010
Invoice No: 00049260

Remit To:
Michael Brandman Associates
220 Commerce, Suite 200
Irvine, CA 92602

Julia Roberts
County of Tulare
Resource Management Agency
5961 South Mooney Blvd.
Visalia, CA 93277-9394

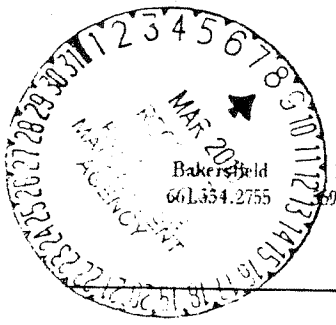
MAR 24 2010
APPROVED FOR PAYMENT
RESOURCE MANAGEMENT AGENCY
BY David P. Bryant
001-230-6500-2150

Project 2319.0016.0 DEIR AQ Section General Plan Update Peer Review/Edit

Statement of Professional Services: January 30, 2010 through February 26, 2010

010 Professional Fees

Description	Contract Amount	Percent Complete	Total Billed	Previously Billed	Current Invoice
GP-Initial Document Review	1,240.00	100.00	1,240.00	1,240.00	0.00
GP-Backround Report Review	2,480.00	100.00	2,480.00	2,480.00	0.00
GP-Review AQ & Climate Change Chapters	4,650.00	100.00	4,650.00	4,650.00	0.00
GP-Review Recirculated Draft EIR	6,820.00	100.00	6,820.00	6,820.00	0.00
GP-Respond to County Comments	2,480.00	100.00	2,480.00	2,480.00	0.00
GP-Meetings	930.00	17.00	158.10	158.10	0.00
CAP-Information Gathering & Assessment	1,240.00	100.00	1,240.00	1,240.00	0.00
CAP-Emission Reduction Analysis	3,200.00	100.00	3,200.00	3,200.00	0.00
CAP-Administrative Draft Climate Act Pln	6,000.00	100.00	6,000.00	6,000.00	0.00
CAP-Draft Climate Action Plan	2,000.00	100.00	2,000.00	400.00	1,600.00
CAP-Meetings	1,160.00	50.00	580.00	150.80	429.20
CAP-Project Management & Coordination	930.00	90.00	837.00	130.20	706.80
Contingency	6,770.00	90.00	6,093.00	0.00	6,093.00



Project	2319.0016.0	DEIR AQ Section General Plan Update Peer Review/Edit	Invoice 00049260		
Total		39,900.00	37,778.10	28,949.10	8,829.00
		Total		**8,829.00**	

Section Total **$8,829.00**

030 Direct Costs

Description	Contract Amount	Percent Complete	Total Billed	Previously Billed	Current Invoice
Direct Costs	200.00	4.00	8.00	8.00	0.00
Total	200.00		8.00	8.00	0.00
	Total			**0.00**	

Section Total **$0.00**

Invoice Total **$8,829.00**

This Invoice is Due and Payable Upon Receipt.

Total Compensation 40,000.00

Resp. Person Dave Bryant

Vender # 887200

Dept County Counsel

Contract with Michael Brandman Assoc.

Contract Amount 39,900.00 Not to exceed $40,000.

NOTE: 2319.0016.0

County of Tulare
State of California
RECORDS OF CONTRACTS OR AGREEMENTS

BOARD ORDER NO.

Contract of Agreement No. 2319.0016.0

Effective Date

001-230-6500-2150

LINE# ACCOUNT LINE

FINAL PAYMENT DUE FINAL CLAIM DATE

ENCUMBRANCE AMOUNT 0 - Not encumbered.

Date	PVQ # or Warrant No.	Invoice Number	Payment	10% Withheld	Total Paid	Unpaid Balance	NOTES
4/10		00048523	21,811.60				
/10		00048583	780.00		22591.60		
4/10		00049260	8829.00		31420.60		

DIV 0605 ACTIVITY 1001

COST CENTER 001 - 6003 - 0016

PROJECT 0605 - 2150 -

ENCUMBRANCE AUTHORIZATION

BY

DATE

EDMUND G. BROWN JR.
Attorney General

State of California
DEPARTMENT OF JUSTICE

1515 CLAY STREET, 20TH FLOOR
P.O. BOX 70550
OAKLAND, CA 94612-0550

Public: (510) 622-2100
Telephone: (510) 622-4038
Facsimile: (510) 622-2270
E-Mail: Timothy.Sullivan@doj.ca.gov

November 4, 2009

VIA E-MAIL & U.S. MAIL

Dave Warner
Director of Permit Services
San Joaquin Valley Air Pollution Control District
1990 East Gettysburg Ave.
Fresno, CA 93726-0244

RE: Final Draft Staff Report on Greenhouse Gas Emissions Under CEQA

Dear Mr. Warner:

We have reviewed the San Joaquin Valley Air Pollution Control District's September 17, 2009, Final Draft Staff Report on "Addressing Greenhouse Gas Emissions Under the California Environmental Quality Act."[1] We appreciate the Air District's extensive efforts and leadership in this area.[2] We are concerned, however, that the approaches suggested in the Staff Report will not withstand legal scrutiny and may result in significant lost opportunities for the Air District and local governments to require mitigation of greenhouse gas (GHG) emissions.

The Staff Report sets out a proposed threshold of significance for GHG emissions for stationary source projects under the Air District's permitting authority. A threshold of significance is, in effect, a working definition of significance to be applied on a project-by-project basis that can help a lead agency determine which projects normally will be determined to be less than significant, and which normally will be determined to be significant.[3] In the context of GHG emissions, the relevant question is whether the project's emissions, when considered in conjunction with the emissions of past, current, and probable future projects, are

[1] The Attorney General submits these comments pursuant to his independent power and duty to protect the natural resources of the State. (See Cal. Const., art. V., § 13; Cal. Gov. Code, §§ 12511, 12600-12612; *D'Amico v. Board of Medical Examiners* (1974) 11 Cal.3d 1, 14-15.)

[2] The Staff Report states that "[n]o state agency has provided substantial and helpful guidance on how to adequately address GHG emissions under CEQA, nor has there been guidance on how to determine if such impacts are significant." (Report at p. 2.) In fact, there are numerous sources of guidance, including information on the Attorney General's website (http://ag.ca.gov/globalwarming/ceqa.php), a Technical Advisory issued by the Governor's Office of Planning and Research (http://opr.ca.gov/ceqa/pdfs/june08-ceqa.pdf); and the Resources Agency's proposed CEQA Guidelines amendments (http://ceres.ca.gov/ceqa/guidelines/), which is accompanied by a detailed, 78-page Initial Statement of Reasons (http://ceres.ca.gov/ceqa/docs/Initial_Statement_of_Reasons.pdf).

[3] Cal. Code Regs., tit. 14, § 15064.7, subd. (a).

Attachment 25

cumulatively considerable.[4] Thresholds can be a useful interim tool until cities and counties have in place programmatic approaches, e.g., Climate Action Plans, which allow local government to consider a wide variety of mitigation opportunities and can substantially streamline the CEQA process for individual projects.[5] Staff's proposed stationary source GHG threshold relies on implementation of GHG emission control technologies. Under this proposal, projects that implement currently unspecified GHG Best Performance Standards ("BPS") would be deemed to not have significant impacts, regardless of the total amount of GHGs emitted.

The Staff Report also recommends a threshold of significance for cities and counties to use in determining whether a development or transportation project's GHG emissions are significant under CEQA. Like the stationary source threshold, this threshold would also rely on performance measures that are not currently identified. BPS for these projects would be any combination of identified GHG reduction measures that reduce project-specific GHG emission by at least 29 percent as compared to "business as usual," as calculated based on a point system to be developed in the future by the Air District.

The Staff Report contains a useful analysis of possible GHG mitigation measures for a variety of stationary sources and for development and transportation projects. This discussion will certainly assist lead agencies and project proponents in considering what mitigation measures currently are available and should be considered. It is not clear to us, however, how much additional analysis the Air District plans to do to support the proposed CEQA thresholds of significance recommended in the Staff Report. A public agency proposing to adopt a CEQA threshold of significance should be able to answer at least the following questions about its proposed approach:

What defined, relevant environmental objective is the threshold designed to meet, and what evidence supports selection of that objective?

The Staff Report does not discuss a particular environmental objective that would be achieved by implementing the proposed thresholds, such as meeting a GHG emissions reduction trajectory consistent with that set forth in AB 32 and Executive Order S-03-05 within the Air District's jurisdiction.[6] It appears that the Air District has not yet determined what amount of

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[4] Cal. Code Regs., tit. 14, § 15064, subd. (h)(1); see also Initial Statement of Reasons at p. 17 ("Due to the global nature of GHG emissions and their potential effects, GHG emissions will typically be addressed in a cumulative impacts analysis.")

[5] See Proposed Cal. Code Regs., tit. 14, § 15183.5, subd. (b) (describing tiering and streamlining available under "Plans for the Reduction of Greenhouse Gas Emissions"), available at http://ceres.ca.gov/ceqa/docs/FINAL_Text_of_Proposed_Amendemts.pdf; Draft Initial Statement of Reasons (discussing proposed § 15183.5) , available at http://ceres.ca.gov/ceqa/docs/Initial_Statement_of_Reasons.pdf#page=56; see also See Attorney General's General Plan/CEQA Frequently Asked Questions, available at http://ag.ca.gov/globalwarming/pdf/CEQA_GP_FAQs.pdf.

[6] Pursuant to these mandates, California is committed to reducing GHG emissions to 1990 levels by 2020, and to 80 percent below 1990 levels by 2050. These objectives are consistent with the underlying environmental objective of stabilizing atmospheric concentrations of greenhouse gases at a level that will substantially reduce the risk of dangerous climate change. (See AB 32 Scoping Plan at p. 4 ["The 2020 goal was established to be an aggressive,

GHG reduction it is aiming to achieve. Setting a relevant environmental objective is an essential step in establishing any legally defensible threshold of significance; without it, there is nothing against which to gauge the success of the threshold in operation.

What is the evidence that adopting the threshold will meet this objective?

Because the BPS discussed in the Staff Report are described as "illustrative" only, it is not possible at this time to determine whether the BPS ultimately adopted will reduce GHG emissions in the San Joaquin Valley and, if so, by how much. There is no stated commitment to tie BPS proposed in the future to regional GHG reduction objectives.

How does the threshold take into account the presumptive need for new development to be more GHG-efficient than existing development?

The Staff Report seems to assume that if new development projects reduce emissions by 29 percent compared to "business as usual," the 2020 statewide target of 29 percent below "business as usual" will also be achieved, but it does not supply evidence of this. Indeed, it seems that new development must be more GHG-efficient than this average, given that past and current sources of emissions, which are substantially less efficient than this average, will continue to exist and emit.[7]

Will the threshold routinely require new projects to consider mitigation beyond what is already required by law?

Because "business as usual" for a development project is defined by the Staff Report as what was typically done in similar projects in the 2002-2004 timeframe, and requirements affecting GHG emissions have advanced substantially since that date, it appears that the Air District's proposal would award emission reduction "points" for undertaking mitigation measures that are already required by local or state law.[8]

Similarly, we are concerned that project proponents could "game" the system. Under the current proposal, each project will be considered against a hypothetical project that could have been built on the site in the 2002-2004 time period. It is not clear why the project should be compared against a hypothetical project if that hypothetical project could not legally be built

---

but achievable, mid-term target, and the 2050 greenhouse gas emissions reduction goal represents the level scientists believe is necessary to reach levels that will stabilize climate."])

[7] We note that CAPCOA expressly found that an approach that would rely on 28 to 33 percent reductions from BAU would have a "low" GHG emissions reduction effectiveness. CAPCOA, CEQA and Climate Change (Jan. 2008) at p. 56, available at http://www.capcoa.org/CEQA/CAPCOA%20White%20Paper.pdf.

[8] To take one important example, Title 24 has undergone two updates since 2002-2004 – in 2005 and 2008. The 2008 Title 24 standards are approximately 15 percent more stringent that the 2005 version. In addition, a significant number of local governments have adopted green building ordinances that go beyond Title 24 in just the past few years, and many more are considering adopting such ordinances as part of their Climate Action Plans. See http://ag.ca.gov/globalwarming/pdf/green_building.pdf.

today,[9] and the approach would appear to offer an incentive to project proponents to artificially inflate the hypothetical project to show that the proposed project is, by comparison, GHG-efficient.[10]

Will operation of the threshold allow projects with large total GHG emissions to avoid environmental review? What evidence supports such a result?

It appears that any project employing certain, as of yet unidentified, mitigation measures would be considered to not be significant, regardless of the project's total GHG emissions, which could be very large. For instance, under the Air District's proposal, it would appear that even a new development on the scale of a small city would be considered to not have a significant GHG impact and would not have to undertake further mitigation, provided it employs the specified energy efficiency and transportation measures. This would be true even if the new development emitted hundreds of thousands of tons of GHG each year, and even though other feasible measures might exist to reduce those impacts.[11] The Staff Report has not supplied scientific or quantitative support for the conclusion that such a large-emitting project, even if it earned 29 "points," would not have a significant effect on the environment.

Will the threshold benefit lead agencies in their determinations of significance?

For the reasons set forth above, we fear that the recommended approach in its current form may unnecessarily subject lead agencies that follow them to CEQA litigation. This would be detrimental not only to the lead agencies, but to the many project proponents who may face unnecessary delay and legal uncertainty.[12]

---

[9] The appropriate baseline under CEQA is not a hypothetical future project, but rather existing physical conditions. (Cal. Code Regs., tit. 14, § 15126.2, subd. (a).)

[10] A detailed analysis of the proposed amendments to Rule 2301 (emissions reduction credit banking) is beyond the scope of this letter. It is important, however, that any such plan comply with CEQA's requirements for additionality. As the most recent draft of the proposed CEQA Guidelines notes, only "[r]eductions in emissions that are not otherwise required may constitute mitigation pursuant to this subdivision." Proposed Cal. Code Regs., tit. 14, § 15126.4, subd. (c), available at http://ceres.ca.gov/ceqa/docs/Text_of_Proposed_Changes.pdf.

[11] In the advance of a programmatic approach to addressing GHG emissions, lead agencies must examine even GHG-efficient projects with some scrutiny where total emissions are large. Once a programmatic approach is in place, the lead agency will be able to determine whether even a larger-emitting project is, or is not, consistent with the lead agency's overall strategy for reducing GHG emissions. If it is, the lead agency may be able to determine that its incremental contribution to climate change is not cumulatively considerable.

[12] The Staff Report states that "[l]ocal land-use agencies are facing increasing difficulties in addressing GHG emissions in their efforts to comply with CEQA." (Report at p. 2.) We strongly believe that this experience is not universal. In fact, many cities and counties are actively taking up their role as "essential partners" in addressing climate change (see AB 32 Scoping Plan at p. 26) by making commitments to develop local Climate Action Plans.

We support staff's continued work in this area. However, before formally endorsing or adopting any particular threshold, we recommend that the Air District consider the issues that we have raised in this letter; if warranted, evaluate the approaches currently under consideration by other districts; and, if possible, work with those districts to devise approaches that are complementary and serve CEQA's objectives.

Sincerely,

/ s /

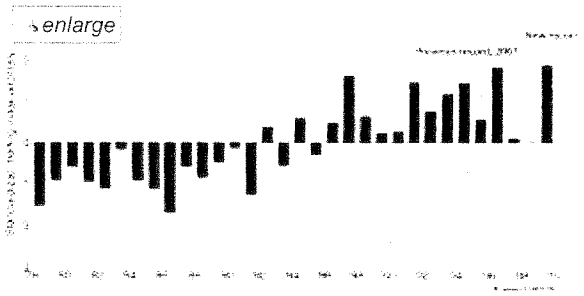
TIMOTHY E. SULLIVAN
Deputy Attorney General

For EDMUND G. BROWN JR.
Attorney General

Science News

New Melt Record for Greenland Ice Sheet: 'Exceptional' Season Stretched Up to 50 Days Longer Than Average

ScienceDaily (Jan. 21, 2011) — New research shows that 2010 set new records for the melting of the Greenland Ice Sheet, expected to be a major contributor to projected sea level rises in coming decades.



The figure above shows the standardized melting index anomaly for the period 1979 -- 2010. In simple words, each bar tells us by how many standard deviations melting in a particular year wa above the average. For example, a value of ~ 2 fo 2010 means that melting was above the average t two times the 'variability' of the melting signal alon the period of observation. (Credit: M. Tedesco CCNY/CUNY)

See Also:

Earth & Climate
- Global Warming
- Climate
- Oceanography
- Ice Ages
- Snow and Avalanches
- Weather

Reference
- Greenland ice sheet
- Ice shelf
- Ice sheet
- Antarctic ice sheet

"This past melt season was exceptional, with melting in some areas stretching up to 50 days longer than average," said Dr. Marco Tedesco, director of the Cryospheric Processes Laboratory at The City College of New York (CCNY -- CUNY), who is leading a project studying variables that affect ice sheet melting.

"Melting in 2010 started exceptionally early at the end of April and ended quite late in mid- September."

The study, with different aspects sponsored by World Wildlife Fund (WWF), the National Science Foundation and NASA, examined surface temperature anomalies over the Greenland ice sheet surface, as well as estimates of surface melting from satellite data, ground observations and models.

In an article published in *Environmental Research Letters*, Professor Tedesco and co-authors note that in 2010, summer temperatures up to 3C above the average were combined with reduced snowfall.

The capital of Greenland, Nuuk, had the warmest spring and summer since records began in 1873.

Bare ice was exposed earlier than the average and longer than previous years, contributing to the extreme record.

"Bare ice is much darker than snow and absorbs more solar radiation," said Professor Tedesco. "Other ice melting feedback loops that we are examining include the impact of lakes on the glacial surface, of dust and soot deposited over the ice sheet and how surface meltwater affects the flow of the ice toward the ocean."

WWF climate specialist Dr. Martin Sommerkorn said "Sea level rise is expected to top 1 metre by 2100, largely due to melting from ice sheets. And it will not stop there -- the longer we take to limit greenhouse gas production, the more melting and water level rise will continue."

Dr. Tedesco's continuing research on ice sheets can be followed on www.cryocity.org.

For more on Arctic climate change, visit www.panda.org/arctic.

Email or share this story: | More

Story Source:

The above story is reprinted (with editorial adaptations by Science*Daily* staff) from materials provided by **City College of New York**, via EurekAlert!, a service of AAAS.

Journal Reference:

1. M. Tedesco, X. Fettweis, M. R. van den Broeke, R. S. W. van de Wal, C. J. P. P.Smeets, W. J. van de Berg, M.C. Serreze, J. E. Box. **The role of albedo and accumulation in the 2010 melting record in Greenland**. *Environmental Research Letters*, 2011; 6: 014005 DOI: 10.1088/1748-9326/6/1/014005

Attachment 26

JAMES MAY'S REPORT ON RISK OF FLOODING AND LEVEE FAILURE

James May, civil engineer and the Tulare County Flood Control Officer, gave a presentation on July 27, 2009 to the Tulare County Water Commission concerning the risk of flooding on all Tulare County rivers and streams and the risk of levee failure in the county. Flood potential in Tulare County occurs on all rivers and streams (St. John's River, Pozo Creek, Cross Creek, Deer Creek, Cottonwood Creek, White River, Yokohl Creek, Sand Creek, Frazier Creek, Strathmore Creek, Tule River.) Flooding has reached Highway 43 in the past, gone through culverts, and flooded the town of Allensworth. Floodwaters reached Highway 99 and flooded part of the city of Earlimart. Some culverts are too small to accommodate floodwaters, which will cause backflows. The problems with Tulare County's rivers and streams are constricted channels, channels choked with vegetation and trash, unpredictable flows, and bridge piers undermined by previous floods. The County does not maintain the channels because of inadequate funds.

All levees in Tulare County are primitive. They do not meet FEMA or Army Corps of Engineers standards. The levees were not constructed of the proper materials, not compacted enough, not built high enough, are not continuous (breached), and are too close to channels to accommodate floodwaters. They have been breached by property owners. An abandoned raised railroad right-of-way that served as a levee has been breached.

Laser leveling of agricultural land will transform traditional flood patterns to sheet flooding. There have been significant changes to county topography since a flood study was conducted in the 1980s. Many property owners have graded their land since then. Therefore, floodwater flows are unpredictable. Groundwater overdrafting and subsequent land subsidence will increase flood depths in some areas.

Attachment 27

Tulare County Grand Jury 2005/2006 Findings

FLOOD POTENTIAL ON THE ST. JOHNS RIVER LEVEE DISTRICTS I AND II

INTRODUCTION

The watercourses traversing Tulare County originate in the Sierra Nevada Mountains and flow west and southwest. The two primary rivers are the Kaweah and Tule.

The three forks of the Kaweah River along with other tributaries flow into Lake Kaweah. Water released from Lake Kaweah continues as the Kaweah River. It is joined by Dry Creek about one mile below Terminus Dam then almost two miles beyond that, near McKay's point, there is a control structure that diverts the water into either the Lower Kaweah or the St. Johns River. The Kaweah Delta Water Conservation District (KDWCD) operates this control structure. When ranchers and other owners of water rights need water, or when the Army Corps of Engineers (COE) orders a flood release the control structure is adjusted to direct the water into the appropriate river or rivers.

Terminus Dam was originally completed in 1962. During 2003 and 2004 the spillway was raised 21 feet, by the installation of fusegates. [en] In July 2004 there was a ceremony at the Dam to celebrate completion of this project Water was stored behind the fusegates for the first time in 2005. The capacity of Lake Kaweah was increased and the possibility of floods below the dam was reduced, but not eliminated. The Federal Government, the State of California, the Tulare County Flood Control District (TCFCD) along with the City of Visalia, KDWCD, Kings County, and the Tulare Lake Basin Water Storage District sponsored the lake enlargement project through various agreements.

Success Dam, completed at approximately the same time as Terminus Dam, provides some control of the Tule River. Success Dam will be undergoing retrofit and increased spillway height within the next few years. The Federal Government, The State of California, the TCFCD, the Lower Tule River Irrigation District, and the City of Porterville sponsor this project through various agreements. This project is being done to meet the State of California's earthquake standards.

The Tulare County Board of Supervisors (BOS) sits as the TCFCD Board of Directors.

In the late 1800s primitive levees were built along the St. Johns River using earth, rock and sand. These levees were embankments that ran alongside the river to prevent high water from flooding the bordering land. Levee District I was formed on July 22, 1890 to maintain the south bank of the St. Johns River between Road 172 and Shirk Road/Road 92. The levees were rebuilt with the same kind of materials in the 1930s. In 1945 Levee District II was formed to maintain the north bank of the St. Johns River between Road 172 and Demaree/Road 108. The districts run through the northern part of Visalia.

Channels are different from levees in that they are the deepest part of water-ways. The KDWCD has historically maintained the natural channels under its jurisdiction from west of

McKay's Point to north of Corcoran and east of Hanford. Since private property lines run across the levees and down through the middle of the channel, this maintenance does not take place in all areas of the channel.

Traditionally rain floods occur between November and June, and snow-melt floods between April and June. Within the last ten years severe floods have occurred in Tulare County. The last major levee failure was in the winter of 1998-1999, when Highway 99 was shut down at Earlimart due to the levee failure on the White River. Deer Creek and Sand Creek also have levees.

REASON FOR INVESTIGATION

Shortly prior to Hurricane Katrina and the flooding disaster in New Orleans, the 2005-2006 Tulare County Grand Jury decided to investigate Tulare County's two levee districts. The condition and maintenance of the levees had not been reviewed in the last ten years.

PROCEDURES FOLLOWED

The Grand Jury:
1. Interviewed relevant witnesses.
2. Examined relevant maps and documents.
3. Toured Terminus Dam.
4. Visited several sites on the St. Johns levees.

FINDINGS

1. Levee District I, on the south side of the St. Johns River, has been officially inactive since March 2005 [See map] when the last remaining Levee District Board Member sent in his letter of resignation. On November 21, 2005, the BOS notified the Auditors office to stop the mailings for audit reports.

2. Levee District II, on the north side of the St. Johns River, has been inactive for over 18 years. [See map]

3. Some county officials were unaware that the Levee Districts were inactive until the Grand Jury began this investigation.

4. Levee Districts I and II are taxing agencies. After passage of Proposition 13 the incoming taxes were significantly reduced. At that time, Levee District I sold some land and used the interest from that sale to finance the District's operation and maintenance.

5. In 2002, the Resource Management Agency (RMA) asked the over 1000 property owners in District II for input regarding levee inspection, maintenance and repairs. The owners were uninterested and/or assumed that KDWCD or RMA did the work. The owners did not want a new tax for this purpose.

6. Property owners were given the opportunity to serve as a director on the three-member Levee District II Board of Directors, but expressed a negligible amount of interest.

7. The State of California Legislature formed the Tulare County Flood Control District (TCFCD) in 1972. On June 13, 1972, the BOS, acting as TCFCD, appointed a seven member commission to advise the TCFCD.

8. TCFCD officially has no employees and is overseen part time by the Transportation Division of the RMA.

9. TCFCD is funded by Tulare County property taxes. It receives approximately $350,000 per year. This amount fluctuates with the revenue stream of Tulare County's property tax base and interest earnings.

10. The last time the BOS transferred general fund monies over to TCFCD for channel clearing was the winter of 1997-1998 in the amount of $350,000.

11. The main focus of TCFCD is a channel maintenance spraying program. TCFCD pays for the chemicals and labor, and the Tulare County Agriculture Commission implements the program. This is for channel maintenance only and has no impact on the levees.

12. Tulare County has no property rights to any levees except Sand Creek, which flows through some county land.

13. In March 2005, renewal of the liability insurance policy held by District I was denied due to the age and condition of the levee.

14. There are no active programs for levee maintenance or channel inspections within Tulare County. Most citizen complaints to RMA are for construction encroachment on the levees and fallen trees in the channel.

15. The Tulare Irrigation District comprises approximately 20% of the KDWCD area and maintains its channels, but no levees. Many irrigation districts do not maintain their channels.

16. Vegetation and trash clog many of the county's tributaries.

17. The California Department of Fish and Game requires a 1602 Stream Bed Alteration Agreement Permit for spraying vegetation inside the natural channels. No large clearing equipment is allowed in the channel. Workers can use only hand tools and then clear no more than half way up the bank of the water-way.

18. The Federal Emergency Management Agency (FEMA) has stated that the land west and south of Terminus Dam is still within a flood plain, even with the increase in height of the dam spillway.

19. The Army Corps of Engineers (COE) claims jurisdiction, through the Federal Clean Water Act, over all county lakes and water-ways.

20. The COE will not certify the levees within the two levee districts because they do not meet the COE certification standards. Some of the standards are:

    a. Type of materials used in construction.
    b. Compaction.
    c. Height of levee.
    d. Continuous formation of levees.
    e. Non-rolling banks on the channel side of water-ways.
    f. An active maintenance program in place.

21. FEMA also recognizes that the levees are not up to standards.

22. The Santa Fe Railroad abandoned its right of way and filled up the trestle on the south side of the St. Johns River. In a high-water situation this could push water toward Visalia.

23. RMA estimated that the cost to reconstruct the levees on the St Johns River, within the Certification Standards of the COE, would be close to $17,000,000.

24. The City of Visalia planted over 100 oak trees within the St. Johns channel. These trees have since been removed.

25. In 2004, the City of Visalia entered into a co-operative technical partners agreement with FEMA to have the flood plain from Kaweah Lake west to Highway 99 re-mapped. This includes LiDAR (Light, Detection And Ranging) topographical and aerial mapping. The proposed completion of this project is summer 2006.

26. RMA indicated that Ventura County is a good example of a well-managed flood control model. It consists of both flood control and watershed protection elements including ground water recharge. The county is split into numerous "benefit assessment districts" which help fund the planning, construction and maintenance of projects.

27. The Federal Government and the State of California may provide funding for joint use projects in flood control.

RECOMMENDATIONS

1. The Board of Supervisors acting as the Tulare County Flood Control District should thoroughly examine the flood potential for the entire county.

2. The Board of Supervisors should adequately fund the Tulare County Flood Control District for regular inspection and maintenance for all tributaries and levees in Tulare County.

3. The Resource Management Agency should consider the possibility of obtaining State and Federal grants for matching fund proposals dealing with water issues.

4. Tulare County needs to take a more regional approach and enter into partnerships/JPAs with the irrigation districts, the Army Corps of Engineers, the City of Visalia and the Kaweah Delta Water Conservation District, in joint-use projects incorporating both flood control and groundwater recharge.

5. The Board of Supervisors should look into the possibility of a new flood plan along the lines of the Ventura County plan.

6. The Resource Management Agency's Code Enforcement Department needs to enforce county ordinances regarding weed abatement along the levees. This should be done through fire abatement regulations, which allows clearing on private property.

7. The owners of the properties along the levees should be held responsible for clearing their portions of the levee or be cited for non-compliance.

8. Intra-agency communication needs to be improved so that all agencies involved in any one situation will be informed and able to take action thereon in a timelier manner.

RESPONSES REQUIRED

1. Tulare County Board of Supervisors, acting as the Tulare County Flood Control District Board
2. Resource Management Agency
3. City of Visalia
4. Kaweah Delta Water Conservation District

[en] There are six fusegates on Terminus Dam spillway. They were placed there to raise the spillway and, most importantly, to protect the dam by tipping when necessary. Each fusegate weighs approximately 450 tons. Each is designed to tip at a designated lake level. When the lake fills to a certain point water wells connected to the six fusegates will start to fill. When the fusegate wells get to a predetermined level they will sequentially tip, letting more water through the spillway. This will continue until the lake level stops increasing or all the fusegates have tipped.

U.S. Department of Homeland Security
1111 Broadway, Suite 1200
Oakland, CA 94607-4052

FEMA

December 27, 2010

Mr. Steve Worthley
Chairman of the Board of Supervisors, Tulare County, California
2800 West Burrel Avenue
Visalia, CA 93291

Dear Mr. Worthley:

Thank you for the courtesy extended by County staff during the recent Community Assistance Visit (CAV) on August 11, 2010. The purpose of the meeting was to provide your staff with the most current information on the National Flood Insurance Program (NFIP), give them an opportunity to discuss concerns they might have had, and assess the county's enforcement of the local floodplain management ordinance that was adopted to meet requirements of the NFIP.

FEMA's evaluation of Tulare's floodplain management program indicates that the County is appropriately and effectively enforcing floodplain requirements. The County's administrative practices and procedures should effectively ensure full compliance with NFIP construction standards. There is, however a deficiency in Tulare's inspection process. Specifically, there is an apparent lack of cooperation by the Building Department in terms of recognition of the relationship between inspection and maintaining the integrity of the local ordinance in order to remain in good standing within the NFIP for the benefit of the entire community. A procedural document will need to be developed in order to define departmental roles throughout the permitting process. A draft will be due to FEMA Region IX by April 1, 2011. In addition, the Flood Prevention Ordinance must be updated; this requires follow-up action. Ordinance language suggestions have been provided to the appropriate County staff and a draft ordinance is due to FEMA Region IX by April 1, 2010. After the necessary changes have been adopted by the County Board of Supervisors, a signed and dated copy of the new ordinance is due to this office.
Finally, there are other highly-recommended action items listed in the last section of this CAV report.

Currently 2,363 policies are in force for residential and commercial buildings in Tulare, representing $473,762,700.00 in coverage. Loss payments totaling $814,284.90 have been made on 7 claims since Tulare joined the NFIP. In order to provide information about the value, location, type, and occurrences of repetitive losses, the Community Repetitive Loss summary sheet has been attached to the end of this CAV report.

If you have any questions, or if I can be of any assistance, please call 510-627-7183.

Sincerely,

Jane Hopkins
Community Compliance
National Flood Insurance Program

Attachment 29

Cc: Mr. Jack Raper, Resource Management Agency Director, Tulare County, CA
Mr. James May, Surveyors/Flood Control/Subdivision Engineer; FPM, Tulare County, CA
Mr. Ed Perez, Water Resources Engineer, CA Department of Water Resources

FEDERAL EMERGENCY MANAGEMENT AGENCY
COMMUNITY ASSISTANCE VISIT REPORT

SECTION I

1. NAME OF COMMUNITY	2. STATE	3. COMMUNITY ID NUMBER	4. COUNTY
Tulare County	CA	065066	Tulare

5. VISIT CONDUCTED BY	6. AGENCY	7. DATE OF VISIT
FM & JH	FEMA	8/11/2010

SECTION II

8. NAME OF LOCAL OFFICIAL	9. TELEPHONE NUMBER
James May	(559) 624-7000

10. ADDRESS OF LOCAL OFFICIAL
Resource Management Agency - Public Works Branch, Government Plaza, 5961 South Mooney Boulevard, Visalia, CA 93277

SECTION III – FINDINGS

PART A

QUESTIONS – Select appropriate response	RESPONSE		
	Serious	Minor	None
1. Are there problems with the community's floodplain management regulations?	x		
2. Are there problems with the community's administrative/enforcement procedures?		x	
3. Are there engineering or other problems with the maps or Flood Insurance Study?		x	
4. Are there any other problems in the community's floodplain management program?		x	
5. Are there problems with the Biennial Report data?	N/A YES ___ NO		
6. Are there any programmatic issues or problems identified?	x YES ___ NO		

7. Are there any potential violations of the community's floodplain management regulations? Yes

x A potential violation or violations has/have been identified.

___ No violations have been identified.

x Actions are being taken on the part of the community to remedy the violation(s) identified during the CAV.

SECTION III – FINDINGS (continued)

PART B - Narrative

Background

1. Floodplain Management Regulations

All ordinance review requests resulting from 2002 Community Assistance Visit (CAV) conducted by the California Department of Water Resources (DWR) were amended and incorporated as recommended. There are additional changes to be made after the 2010 ordinance review. Copies of the California Ordinance Review Checklist and a Federal Emergency Management Agency (FEMA) memo have been attached to the back of this report. The memo contains a list of requested and recommended modifications, with a description of each change and citation of the corresponding federal and state regulations.

2. Administrative and Enforcement Procedures

When applying for a permit, the applicant's first County contact is the Planning Department. The application gets reviewed by other departments, including the Department of Flood Control, Surveyors, Subdivisions, and Encroachments (FSSE). In terms of delivery of National Flood Insurance Program (NFIP), state, and local regulations, FSSE has two engineers for staff. There is a need for assistance with checking plans, including such items as floodproofing and openings. This department is responsible for issuing the preliminary construction permits for projects located within the Special Flood Hazard Area (SFHA). Elevation certificates (ECs) are required for issuance of a final permit. The final permits are filed by one of two surveyors in FSSE. The administrative process for A-Zone development differs for individual residences and subdivisions in that the developer must produce Base Flood Elevations (BFEs) to the County before commencement of construction. It should be noted that there have been no A-Zone developments within the past five years. Many County projects use negative declaration. Regarding Executive Order 11988, the Planning Department is in charge of identifying other affected or concerned regulatory agencies.

The responsibility for the determination of whether or not a substantial improvement is located within the SFHA has been delegated to FSSE. If applicable, the building inspector then determines whether or not the project constitutes substantial improvement. A real estate appraiser typically assists with those determinations. In addition, FSSE is familiar with and has used the Residential Substantial Damage Estimator (RDSI). FEMA stressed the need for consistency with respect to the method of determination. This process does not occur often, and the engineer could only recall one instance within the past five years.

Although there is a substantial ordinance section related to several variance–related issues, such as evaluation criteria, processing procedure, and other topics, variances tend not to be permitted in Tulare County, and any variances granted within past decade have occurred outside of flood zones.

Enforcement procedures are typically triggered by a citizen complaint. FSSE notifies the Code Enforcement Department and they are responsible for the resolution of violations. Currently, there is the case of a pre-FIRM pole barn that was recently enclosed. The County is requiring documentation of floodproofing and an elevation certificate. The Inspector resorted to hand-delivery of County communication after it became clear that the owner would not pick up their mail.

It is not uncommon in many communities to find that certain departments or divisions are not engaged in comprehensive floodplain management. The biggest challenges for this department include enlisting the full cooperation of the Building Department in terms of understanding the fundamentals of NFIP requirements, the importance of these regulations in relation to their inspection duties and other job-related tasks, and the necessity of maintaining the integrity of their local ordinance in order to remain in good standing in terms of their NFIP for the benefit of the entire community. Concrete examples include events such as refusal by inspectors to check buildings for floodproofing and openings. Finally, the task of administering the NFIP and its delivery need not be confined to engineering staff. This is a programmatic issue, and in a large county such as Tulare, delivery of the NFIP and application of the local floodplain management ordinance would be enhanced by involvement of the Building and Planning Departments. As floodplain management is primarily a building construction program, it stands to reason that a community's Building Department be actively engaged, if not the delegated entity.

3. **Maps and Flood Insurance Study**

Map issues were discovered during the CAV as a result of the pre-CAV fieldwork. Several of the residences that were identified as potential violations of NFIP were in fact no longer County property, and are now located with Visalia city boundaries. Although reporting changes to FEMA is the responsibility of the annexing community, it would be helpful if counties would review map boundaries (*e.g.*, a review of those maps that were distributed to communities before new FIRM maps were released). It is recommended that County staff assist the City of Visalia with addressing the potential violations. During the CAV fieldwork, several of the Tulare staff identified sites that may need more in-depth studies around growing areas. Some of these included the south fork of the Kaweah River, Cottonwood Creek, the north fork of Tule River, and Yokul Ranch. Staff has been given contact information for Eric Simmons of FEMA and Mark Delorey of FEMA subcontractor Michael Baker Jr., Inc. For the sake of convenience, this information is repeated in this paragraph.

Senior FEMA engineer Eric Simmons is the contact for Tulare County. His contact information follows:

(510) 627-7029

eric.simmons@dhs.gov

FEMA subcontractor Michael Baker Jr., Inc. His contact information follows:

(510)879-0953

MDelorey@mbakercorp.com

The State also has flood plain evaluation, delineation and mapping resources available. State DWR contacts for floodplain study funds/assistance are listed below:

Tom Christensen

(916) 574-1407

thomasc@water.ca.gov

Ricky Doung

(916) 574-1405

rdoung@water.ca.gov

4. **Other Problems**

   On February 10, 2009 there was flooding around Strathmore that affected approximately 30 properties. The source is believed to be flow from a Frazier Creek tributary east of the U.S. Bureau of Reclamation's Friant-Kern Canal levee, where a temporarily plugged inverted siphon drain under the canal blew out.

   In another case, a farmer filled in the floodplain below a newly constructed Caltrans bridge located just south of a Caltrans rest stop near the intersection of Highway 99 and Road 112. Caltrans understands that this fill will have to be removed.

   As discussed in previous emails between Tulare County and FEMA, there was straightening and grading of Frazier Creek. The County is planning a meeting that will include the Regional Water Quality Control Board, Department of Water Resources, Department of Fish and Game, Fish and Wildlife Service, the Central Valley Flood Protection Board, FEMA, Army Corps of Engineers, the Bureau of Reclamation and the landowner and his engineer. The County coordinated for December 2010. The ideal solution would be to restore the creek to its former condition.

5. **Follow-up Required by FEMA Region IX and DWR Staff**

   FEMA agreed to the following items:

   - Provide information about upcoming federal and state training opportunities (emailed). Here is link to list of DWR courses offered. This link also connects

to online registration for the State's various floodplain management and flood insurance workshops.

http://www.water.ca.gov/floodmgmt/lrafmo/fmb/fas/nfip/workshop/dwr.cfm

There are also federal training opportunities available, specifically, the Emergency Management Institute (EMI) 273 Managing Floodplain Development through the NFIP (National Floodplain Insurance Program in Emmitsburg, Maryland. This course is designed for local officials responsible for administering local floodplain management ordinances, including, but not limited to, floodplain management administrators, building inspectors, code enforcement/zoning officers, planners, city/county managers, attorneys, engineers, and public works officials. Federal/state/regional floodplain managers also are encouraged to attend. The course is designed for those officials with limited floodplain management experience. Important to note is that attendance will be limited to two participants from any state for each offering. The course length is four days, and would provide an excellent starting point for County staff to begin to take a more active role in assisting with local floodplain management and enforcement. This course is paid for by FEMA and includes airfare, ground transportation and accommodation. Remaining costs are for per diem (approximately $100 for the week). Travel occurs Sunday with the return trip on the following Friday. It is key to remember that applications must be at EMI six weeks before class begins. Available dates include the following: 2011 January 24-27, May 16-19, and Aug 29- Sept 1. Finally, these courses will also be offered once or twice in California in 2011, but currently no dates have been established. The web link for EMI is listed below.

http://www.training.fema.gov/

- Provide Keyhole Markup Language (KML) layer in support of the Geographic Information System (GIS) software to county (emailed). During the CAV, FEMA staff was under the impression that KML file changed regularly, and promised to figure out a process that would notify County about updated versions. After discussion with FEMA GIS Coordinator Scott McAfee, it was discovered that this layer is in fact currently very stable, and that majority of changes occurred during the early stages of development of this product. However, any changes that may occur will be available at the web address:

  https://hazards.fema.gov/femaportal/wps/portal/NFHLWMSkmzdownload

- During the CAV drive there were two properties identified as photos # 5 & 6, located at 1016 West Riverway Drive and 1230 West Riverway Drive. Specifically, staff wanted to know how to advise the homeowners in terms of the insurance available for their properties. When constructed, these building were listed as being sited in the C-zone, but now designated as AE-zone since the map updates. Because there were many conditional questions that

needed to be addressed before FEMA Insurance Specialist Jana Critchfield could properly answer, Jana's contact information was emailed to County staff, with an invitation to resolve this with a conference call. This has not yet occurred, and the information is repeated here for the sake of convenience. FEMA Insurance Specialist Jana Critchfield's contact information follows:

510-627-7266

Jana.R.Critchfield@fema.gov

- During the CAV drive, it was discovered that a new school was under construction. County staff requested that FEMA make them aware of the local floodplain regulations. DWR was contacted by FEMA for assistance with this matter because they are both State entities. Bill Hom of DWR stated that DWR has been working with the State Architect's Office on the school issue and that they would get answers about this project. There has not yet been a response, but Bill Hom, an engineer and certified floodplain manager with Floodplain Assistance Section in DWR's Division of Flood Management, has agreed to investigate this matter. His contact information is listed below.

  916-574-1413

  billh@water.ca.gov

- County staff mentioned that they had submitted their biennial report, but it did not appear in FEMA's Community Information Service (CIS) database. An email was sent to both Tulare County staff and Juanita Thompson, NFIP Policy Specialist at FEMA's Washington headquarters. Since that time, it has been decided that the Biennial Report requirements have been suspended.

- As requested by County staff, information about the Community Rating System (CRS) was emailed to Tulare County Chairman of the Board of Supervisors Steve Worthley and Tulare County Resource Management Agency Director Jake Raper. A copy of the "what if?" sheet from CIS is attached to this report. A web address that has multiple links to several CRS documents related to various aspects of this program, including literature about joining this program is also listed below. As promised, the information transmitted in the email will be repeated in this report:

  NFIP's CRS is a voluntary incentive program that recognizes and encourages community floodplain management activities that exceed the minimum NFIP requirements. As a result, flood insurance premium rates are discounted to reflect the reduced flood risk resulting from the community actions meeting the three goals of the CRS:

  1. Reduce flood losses;
  2. Facilitate accurate insurance rating; and
  3. Promote the awareness of flood insurance.

  http://training.fema.gov/EMIWeb/CRS/

Dave Arkens of the Insurance Services Office, Inc. is a CRS specialist. His contact information is listed below:

(541) 261-9186

dmarkens@iso.com

- FEMA promised to get cost per linear foot for more detailed studies needed in remote areas now subject to development. This is difficult as there are so many contingencies that would affect costs for individual sites. The roughest answer is $10,000- $20,000 per mile, and the email exchange on this topic was forwarded to the County. In addition, there is an opportunity for cooperating technical partners in the form of FEMA CTP program. The link follows:

  http://www.fema.gov/plan/prevent/fhm/ctp_main.shtm

  Senior FEMA engineer Eric Simmons is the contact for Tulare County. His contact information follows:

  (510) 627-7029

  eric.simmons@dhs.gov

  It is recommended to keep in contact with the FEMA engineer; the more aware they are of mapping needs, the better that prioritization for available funding will be.

  For additional assistance, please refer to the state contacts previously listed in this report under the mapping section of this report.

- Because some of the potential violation addresses obtained were erroneously recorded, FEMA staff promised to revisit these sites and collect correct information. This was done, and these properties were determined to be in compliance.

- The county requested information about potential sources of funding for levee repair. Exact answers were not easy to obtain, because there are typically many "depends" conditions, including considerations such as history and site-specific factors, so these details would best be discussed with the individuals in charge of administering their programs. A hard copy of FEMA's Policy for Rehabilitation Assistance for Levees and Other Flood Control Works is attached to this report and can be accessed online at the following web address:

  http://www.fema.gov/government/grant/pa/9524_3.shtm

This document provides an introduction to the fact that the United States Army Corps of Engineers (USACE) and the Natural Resources Conservation Service (NRCS) have primary authority for the repair of flood control works. For the purposes of this report, the representative for this region is Kimberly Carsell. Additional names have been provided in the event that Ms. Carsell is not immediately available. Though USACE contact information has been emailed to the County, the information is repeated below:

Kimberly Carsell at Sacramento USACE: (916) 557-7635

kimberly.m.carsell@asace.army.mil.

Craig Connor at San Francisco USACE: (415) 503-6903

craig.s.conner@usace.ary.mil

Mr. Kim Gavigan at Los Angeles USACE: (602) 640-2015 x 274

Kim.M.Gavigan@usace.army.mil

In California, tens of millions of dollars have been directed to repair levee systems, and were funded by the American Recovery and Reinvestment Act of 2009 (ARRA). Program contact information is listed below:

US Army Corps of Engineers' Recovery Act Contact Information Recovery Act Information Line: 877-515-1187

Recovery Act Email Address:

recoveryact@usace.army.mil

NRCS has various programs related to flood plain management, including some that are designed to be preventive, Such as the Floodplain Easement Program (restore, protect and maintain existing floodplain functions) and the Wetland Reserve Program (targets marginal agricultural land that is frequently flooded and where planned restoration offers the potential to maximize wildlife habitat and improve water quality).

There is also an emergency response program (Emergency Watershed Protection Program (EWP) designed to respond to emergencies created by natural disasters and to relieve imminent hazards to life and property caused by floods and other natural occurrences. The links to some introductory program information are included below:

http://www.ca.nrcs.usda.gov/programs/ewp/

http://www.ca.nrcs.usda.gov/programs/

The program manager is Alan Forkey, and his contact information follows:

(530)-792-5653

Alan.Forkey@ca.usda.gov

There are multiple State programs available for levee repair, and DWR engineer Michael Sabbaghian has emailed to say that he is willing to assist those trying to access this sort of funding. The state also has a webpage with a matrix listing their grant programs, eligible projects, and respective funding sources. State information is listed below:

(916) 574-1243

msabbagh@water.ca.gov

http://www.water.ca.gov/floodmgmt/fpo/sqb/llap/

Regarding levee repair, there was a helpful collection of papers associated with the following link. This site included one document related to seepage prevention by low-tech and low-cost bentonite slurry, and is based on Sacramento Valley experiences.

http://www.escalera.com/safelevee/index.htm

6. **Community Action Needed**

- Make permit applicants aware of anchoring requirements for structures such as propane tanks.
- Raise community awareness regarding potential flood level and other flood-related impacts of massive nurseries or other storage areas in flood zones
- Develop written procedures to document the process of permitting developments and residences beginning with the initial permit application, during construction, and through issuance of the final elevation certificate and certificate of occupancy. Staff roles from the various county departments should be specified. This should be completed by April 1, 2011.
- Several ordinance modifications are required. As previously mentioned, there is a hard copy of the State Ordinance Review worksheet and a FEMA memo that describes the required edits/additions. These changes will have to be adopted by the County. This should be completed by April 1, 2011.

- Obtain final permits for 12558 First Drive, or locate record of elevation certificate that dwellers claimed they paid for and delivered to County. Resolve potential violation at 29752 Avenue 304.This should be completed by April 1, 2011. The associated photos are attached to the appendix at the end of the report.

- During the next CAV, staff from the Planning Department and Building Department will participate in that meeting, and discuss their role(s) in delivery of the NFIP and administration of the local floodplain ordinance.

- Compile and transmit all requests for areas needing additional study for flood risk and for any other map changes.

- It is recommended that Tulare County staff assist the City of Visalia with the resolution of potential violations identified during the fieldwork portion of the Tulare County CAV, that are located in areas annexed by the City. The associated photos are attached to the appendix at the end of the report.

7.

SECTION IV – List of Attendees

City or County: James May; Craig Anderson

State: N/A

Federal Emergency Management Agency: Frank Mansell; Jane Hopkins

U.S. Department of Homeland Security
1111 Broadway, Suite 1200
Oakland, CA 94607-4052

FEMA

DATE: September 14, 2010

MEMORANDUM FOR: Tulare County

FROM: Jane Hopkins
Natural Hazards Program Specialist

SUBJECT: Ordinance Review, Tulare County

Findings of Part VII, Chapter 27 Flood Prevention Ordinance Numbers 2726, 3212, and 1998 Tulare County Municipal Code, Floodplain Management.

1. Definitions:
    a. Amend the definition of "Development" to include the words "mining" and "dredging", and the phrase "storage of equipment and materials", as per section 59.1 of the Code of Federal Regulations (CFR §59.1), and section 2.0 of the California Model Floodplain Management Ordinance" (CMFMO §2.0).
    b. Include the definition of "Historic Structure" as per CFR §59.1 and CMFMO §2.0.
    c. Amend the definition of "New Construction" to include "subsequent improvements to such structures", as per CFR §59.1 and CMFMO §2.0.
    d. Include the definition of "New Manufactured Home Park or Subdivision" as per CFR §59.1 and CMFMO §2.0.
    e. Amend the definition of "Recreational Vehicle" to replace "2,400 square feet" with "400 square feet", as per CFR §59.1 and CMFMO §2.0.
    f. Amend the definition of "Special Flood Hazard Area" to replace "A, AO, AH, A1-99, VO, V1-30" by "A, AO. A1-A30, AE, A99, or AH", as per CFR §59.1 and CMFMO §2.0.
    g. Amend the definition of "Structure" to include "a gas or liquid storage tank", as per CFR §59.1 and CMFMO §2.0.
2. There is a requirement to submit new technical data t to FEMA within six months. Develop a section to address this omission, as per CFR §65.3 and CMFMO §4.2.D.2.
3. A required provision for all adopted ordinances includes certification, the signature of an appropriate official, and the date of ordinance adoption. FEMA has these items for Ordinances 3212 and 3287. Ordinance Code Part VII, Chapter 27 Flood Damage Prevention was obtained from the internet, and so has no certification and has no signature.
4. There is a requirement to assure that all other State and Federal permits are obtained. Develop a section to address this omission, as per CFR §60.3(a)(2) and CMFMO §4.2.A.2.
5. There is a requirement to assure that subdivision proposals are reviewed such that these proposals minimize flood damage. Develop a section to address this omission, as per CFR §60.3(a)(4)(i) and CMFMO §5.3.B.

6. There is a requirement to assure that public utilities and facilities are sited and constructed such that flood damage will be minimized. Develop a section to address this omission, as per CFR §60.3(a)(4)(ii) and CMFMO §5.3.C.
7. There is a requirement to assure that all subdivisions and other proposed development provide adequate drainage. Develop a section to address this omission, as per CFR §60.3(a)(4)(ii) and CMFMO §5.3.C.
8. There is a requirement that all subdivisions greater than 50 lots or five acres develop base flood elevation data. Include a section to address this omission, as per CFR §60.3(b)(3) and CMFMO §5.3.A.
9. Alteration and/or relocation of a watercourse requires a provision for notification of DWR. Modify §7-27-1110-a to incorporate the corresponding model ordinance language, as per CFR §60.3(b)(6) and CMFMO §4.2.D.1.a
10. Alteration and/or relocation of a watercourse requires assurance that flood-carrying capacity is maintained in the watercourse. Incorporate the corresponding model ordinance language, as per CFR §60.3(b)(7) and CMFMO §4.2.D.1.c.
11. There is a requirement that flood openings be on two different sides of a structure, and that buildings with more than one opening must have flood openings for each enclosed space.. Include a section to address this omission, as per CFR §60.3(c)(5) and CMFMO §5.1.C.3.
12. Clarification regarding §7-27-1215 is needed. CFR § 60.3(c)(10) and CMFMO §5.6.A require that the water surface elevation not increase more than one foot above BFE. If the conditions associated with §7-27-1215 indicate that some increase that would amount to more than a one-foot increase in the BFE, then this section must be modified to stipulate that no increase in BFE greater than one foot is allowed.

California Ordinance Review Checklist

March 25, 2007

Community: Tulare County, CA

Level of Regulations: a b c √d e
(If a community has both floodways & coastal high hazard areas, circle d & e.) (circle one)

Ordinance Numbers: Chapter 27 part VII(09/29/86); 3212, (1998); & 3287 (2003)
Adopted on: 05/20 2003 **Effective date:** 06/19/03

Date of Review: 09/13/2010 **Reviewer:** J. Hopkins **FEMA STATE- CA**

NOTE: The "Item Description" is a synopsis of the regulatory requirement and should not be construed as a complete description. Refer to the actual language contained in the National Flood Insurance Program Rules and Regulations for complete descriptions of the required standards.

Item Description (Section reference of NFIP Regulations follows)	CA State Model Ordinance Section	Applicable Ordinance Section
Required provisions for all ordinances		
1. Citation of Statutory Authorization. [59.22(a)(2)]	1.1	17-27-1001
2. Purpose section citing health, safety, and welfare reasons for adoption. [59.22(1)]	1.2 & 1.3	17-27-1002
3. Adopt definitions of: ☑ Base Flood ☑ Basement ☐ Development ☑ Existing Manufactured Home Park or Subdivision ☑ Expansion to an Existing Manufactured Home Park or Subdivision ☑ Flood Insurance Rate Map ☑ Flood Insurance Study ☑ Floodproofing ☑ Floodway ☑ Highest Adjacent Grade ☐ Historic Structure ☑ Lowest Floor ☑ Manufactured Home ☑ Manufactured Home Park or Subdivision ☐ New Construction ☐ New Manufactured Home Park or Subdivision ☐ Recreational Vehicle ☐ Special Flood Hazard Area ☑ Start of Construction ☐ Structure ☑ Substantial Damage ☑ Substantial Improvement ☑ Violation and other definitions as appropriate. [59.1]	NOTE: Definitions for Existing, Expansion to An Existing or New Manufactured Home Park are not required if community requires elevation of all manufactured homes to the BFE (1986 regulations).	
	2.0	17-27-1010 **Refer to enclosed ordinance review memo for file: items # 1. a-g.**
4. Adopt or reference correct Flood Insurance Rate Map (and where applicable, Flood Boundary Floodway Map) and date.[1] [60.2(h)]	3.2	17-27-1020
5. Adopt or reference correct Flood Insurance Study and date.[1] [60.2(h)]	3.2	17-27-1020
6. Include a reference to all subsequent revisions and amendments to above-referenced flood maps and Flood Insurance Study.	3.2	17-27-1020

Community: Tulare County — Level of Regulations: a b c √d e

7. Adequate enforcement provisions including a violations/penalty section specifying community actions to assure compliance. [60.2(e)]	3.3	17-27-1025
8. Abrogation and Greater Restriction section. [60.1(b)]	3.4	17-27-1030

1 If a community has annexed territory (e.g. county land) not covered on its flood maps or FIS, the FIS and appropriate FIRM panels (usually County) must be adopted.

Item Description (Section reference of NFIP Regulations follows)	State Model Ordinance Section	Applicable Ordinance Section
Required provisions for all ordinances (continued)		
9. Disclaimer of Liability (Degree of flood protection required by the ordinance is considered reasonable but does not imply total flood protection.)	3.6	17-27-1040
10. Severability section. (If any section, provision or portion of the ordinance is deemed unconstitutional or invalid by a court, the remainder of the ordinance shall be effective.)	3.7	17-27-1041
11. Framework for administering the ordinance (permit system, establish office for administering the ordinance, etc.) [59.22(b)(1)]	4.0	17-27-1095 & 17-27-1100
12. Designate title of community Floodplain Administrator [59.22 (b)]	4.1	17-27-1095
13. Requirement to submit new technical data: within 6 months, notify FEMA of changes in the base flood elevation by submitting technical or scientific data so insurance & floodplain management can be based on current data. [65.3]	4.2.D.2	Missing Refer to enclosed ordinance review memo for file: item # 2.
14. Variance section with evaluation criteria & insurance notice. [60.6(a)]	6.0	17-27-1080-a & 17-27-1080-b-1
15. For adopted ordinance: Signature of Appropriate Official & Certification. Date ordinance adopted: _____	N/A	Missing Refer to enclosed ordinance review memo for file: item # 3.
60.3 (a) When no SFHA's have been identified, no water surface elevation data has been provided, and floodways and coastal high hazards areas have not been identified and the community applies for participation in the NFIP, the following are required:		
16. Require permits for all proposed construction or other development including placement of manufactured homes. [60.3(a)(1)]	N/A for 60.3(b)-(e) communities	N/A
17. Assure that all other State and Federal permits are obtained. [60.3(a)(2)]	4.2.A.2	Missing Refer to enclosed ordinance review memo for file: item # 4.
18. Review permits to assure sites are reasonably safe from flooding and require for new construction and substantial improvements in flood-prone areas: [60.3(a)(3)]	4.2.A.3	17-27-1170-a-2
(a) Anchoring (including manufactured homes) to prevent floatation, collapse, or lateral movement. [60.3(a)(3)(i)]	5.1.A	17-27-1170
(b) Use of flood-resistant materials. [60.3(a)(3)(ii)]	5.1.B.1	17-27-1175-a
(c) Construction methods/practices that minimize flood damage. [60.3(a)(3)(iii)]	5.1.B.2	17-27-1175-b

Community: Tulare County Level of Regulations: a b c √d e

(d) Electrical, heating, ventilation, plumbing, air conditioning equipment, and other service facilities designed and/or located to prevent water entry or accumulation. **[60.3(a)(3)(iv)]**	5.1.B.3	**17-27-1175-c**
19. Review subdivision proposals to assure that: (a) Such proposals minimize flood damage. **[60.3(a)(4)(i)]**	5.3.B	**Missing** **Refer to enclosed ordinance review memo for file: item # 5.**
(b) Public utilities and facilities are located & constructed so as to minimize flood damage. **[60.3(a)(4)(ii)]**	5.3.C	**Missing** **Refer to enclosed ordinance review memo for file: item # 6.**
(c) Adequate drainage is provided. **[60.3(a)(4)(iii)]**	5.3.D	**Missing** **Refer to enclosed ordinance review memo for file: item # 7.**
20. Require new and replacement water supply and sanitary sewer systems to be designed to minimize or eliminate infiltration. **[60.3(a)(5) & (6)]**	5.2 A.1 & 2	**17-27-1200-a**
21. Require on-site waste disposal systems be located to avoid impairment or contamination. **[60.3(a)(6)(ii)]**	5.2.B	**17-27-1200-b**

Community: Tulare County — Level of Regulations: a b c √d e

Item Description (Section reference of NFIP Regulations follows)	State Model Ordinance Section	Applicable Ordinance Section
60.3(b) When SFHA's are identified by the publication of a community's FHBM or FIRM, but water surface elevation data have not been provided or a floodway or coastal high hazard area has not been identified, then all the above ordinance provisions for 60.3(a) and the following are required:		
22. Require permits for all proposed construction and other development within SFHAs on the FIRM. [60.3(b)(1)]	4.3	17-27-1090
23. Require base flood elevation data for subdivision proposals or other developments greater than 50 lots or 5 acres. [60.3(b)(3)]	5.3.A	Missing Refer to enclosed ordinance review memo for file: item # 8.
24. In A Zones, in the absence of FEMA BFE data and floodway data, consider other available data as basis for elevating residential structures to or above base flood level, and for floodproofing or elevating nonresidential structures to or above base flood level. [60.3(b)(4)]	4.2.C	17-27-1100-b
25. Where BFE data are utilized, obtain and maintain records of lowest floor and floodproofing elevations for new construction and substantial improvements. [60.3(b)(5)]	4.2.E.1 & 2	17-27-1100-b-4 & 17-27-1100-c
26. Notify neighboring communities of watercourse alterations or relocations. [60.3(b)(6)]	4.2.D.1.a	17-27-1100-b Incomplete Refer to enclosed ordinance review memo for file: item # 9.
27. Maintain carrying capacity of altered or relocated watercourse. [60.3(b)(7)]	4.2.D.1.c	Missing Refer to enclosed ordinance review memo for file: item # 10.
28. Require all manufactured homes to be elevated and anchored to resist flotation, collapse, or lateral movement. [60.3(b)(8)]	5.1.A, 5.1.C.4, & 5.4	17-27-1210 & 17-27-1170
60.3(c) When final flood elevations, but no floodways or coastal high hazard areas have been provided on a community's FIRM, then all the above ordinance provisions for 60.3(a) & 60.3(b) and the following are required:		
29. Require all new and substantially improved residential structures within A1-30, AE, and AH Zones have their lowest floor (including basement) elevated to or above the BFE. [60.3(c)(2)]	5.1.C.1.a	17-27-1180-a
30. In AO Zones, require that new and substantially improved residential structures have their lowest floor (including basement) at or above the highest adjacent grade at least as high as the FIRM's depth number. [60.3(c)(7)]	NOTE: Item 29 is not required if community has no AO zones.	
	5.1.C.1.b	17-27-1180-b & 17-27-1180-c

Community: Tulare County Level of Regulations: a b c √d e

31. Require that new and substantially improved nonresidential structures within A1-30, AE, and AH Zones have their lowest floor elevated or floodproofed to or above the base flood elevation. [60.3(c)(3)]	5.1.C.2	17-27-1180-d
32. In AO Zones, require new and substantially improved nonresidential structures have their lowest floor elevated or completely floodproofed above the highest adjacent grade to at least as high as the depth number on the FIRM. [60.3(c)(8)]	NOTE: Item 31 is not required if community has no AO zones.	
	5.1.C.2	17-27-1180-d
33. Require that, for floodproofed non-residential structures, a registered professional/architect certify that the design and methods of construction meet requirements at (c) (3) (ii). [60.3(c)(4)]	5.1.C.2.c	17-27-1180-d

Community: Tulare County — Level of Regulations: a b c √d e

Item Description (Section reference of NFIP Regulations follows)	State Model Ordinance Section	Applicable Ordinance Section
60.3(c) (continued)		
34. Require, for all new construction and substantial improvements, that fully enclosed areas below the lowest floor that are usable solely for parking of vehicles, building access or storage have permanent openings designed to allow the entry and exit of flood waters in accordance with specifications of **60.3(c)(5).**	5.1.C.3	**17-27-1180-e Incomplete Refer to enclosed ordinance review memo for file: item # 11.**
35. Within Zones A1-30 and AE without a designated floodway, new development shall not be permitted unless it is demonstrated that the cumulative effect of all past and projected development will not increase the BFE by more than 1 foot. **[60.3(c)(10)]**	NOTE: Item 34 is not required if *all* streams have floodways designated.	
	4.2.A.4 & 5.6.A	**17-27-1180-a-3 & 17-27-1215-b Unclear &/or missing Refer to enclosed ordinance review memo for file: item # 12.**
36. In Zones AO and AH, require drainage paths around structures on slopes to guide water away from structures. **[60.3(c)(11)]**	NOTE: Item 35 is not required if community has neither AO nor AH zones.	
	5.1.B.4	17-27-1175-d
37. Require that manufactured homes placed or substantially improved within A1-30, AH, and AE Zones, which meet one of the following location criteria, to be elevated such that the lowest floor is at or above the BFE and be securely anchored: i. outside a manufactured home park or subdivision; ii. in a new manufactured home park or subdivision; iii. in an expansion to an existing manufactured home park or subdivision; iv. on a site in an existing park which a manufactured home has incurred substantial damage as a result of flood. **[60.3(c)(6)]**	NOTE: Item 36 is not required if community requires elevation of all manufactured homes to the BFE (1986 regulations).	
	5.1.A, 5.4.A.1 (non-coastal) & 5.4.A.2 (coastal)	17-27-1210
38. In A1-30, AH, and AE Zones, require that manufactured homes to be placed or substantially improved in an existing manufactured home park to be elevated so that: i. the lowest floor is at or above the BFE ***or*** ii. the chassis is supported by reinforced piers no less than 36 inches above grade and securely anchored. **[60.3(c)(12)]**	NOTE: Item 37 is not required if community requires elevation of all manufactured homes to the BFE (1986 regulations).	
	5.4.B	N/A
39. In A1-30, AH, and AE Zones, all recreational vehicles to be placed on a site must be elevated and anchored ***or*** be on the site for less than 180 consecutive days ***or*** be fully licensed and highway ready. **[60.3(c)(14)]**	5.5	17-27-1211
60.3(d) When final flood elevations and floodway delineations have been provided on a community's FIRM, then all the above ordinance provisions for 60.3(a), 60.3(b) & 60.3(c) and the following are required:		
40. In a regulatory floodway, prohibit any encroachment which would cause any increase in the base flood level unless hydrologic and hydraulic analyses prove that the proposed encroachment would not increase flood levels during the base flood discharge. **[60.3(d)(3)]**	5.6.B	17-27-1215-a

Community: Tulare County — Level of Regulations: a b c √d e

Item Description (Section reference of NFIP Regulations follows)	State Model Ordinance Section	Applicable Ordinance Section
60.3(e) When final flood elevations and coastal high hazard areas have been provided on a community's FIRM, then all the above ordinance provisions for 60.3(a), 60.3(b) & 60.3(c) and the following are required: **NOTE: If a community has both floodways and coastal high hazard areas, it must meet the requirements of both 60.3(d) and 60.3(e).**		
41. In V1-30, VE, and V Zones, obtain and maintain the elevation of the bottom of the lowest structural member of the lowest floor of all new and substantially improved structures. **[60.3(e)(2)]**	4.2.E.6 & 5.7.F.2	
42. In V1-30, VE, and V Zones, require that all new construction and substantial improvements: (a) Are elevated and secured to anchored pilings or columns so that the lowest portion of the lowest horizontal structural member is at or above the BFE. **[60.3(e)(4)]**	5.7.A	
(b) A registered professional engineer/architect certify that the design and methods of construction meet elevation and anchoring requirements at (e)(4)(i) and (ii). **[60.3(e)(4)]**	5.7.F.1	
(c) Have the space below the lowest floor constructed with breakaway walls or left open. **[60.3(e)(5)]**	5.7.C	
(d) All new construction is landward of the reach of mean high tide. **[60.3(e)(3)]**	5.7.B	
(e) Prohibit use of fill for structural support. **[60.3(e)(6)]**	5.7.D	
(f) Prohibit alteration of sand dunes and mangrove stands which would increase potential flood damage. **[60.3(e)(7)]**	5.7.E	
43. Require that manufactured homes placed or substantially improved within V1-30, VE, and V Zones, which meet one of the following location criteria, meet the V Zone standards in 60.3(e)(2) through (e)(7): i. outside a manufactured home park or subdivision; ii. in a new manufactured home park or subdivision; iii. in an expansion to an existing manufactured home park or subdivision; iv. on a site in an existing park which a manufactured home has incurred substantial damage as a result of flood. **[60.3(e)(8)]**	NOTE: Item 43 is not required if community requires all manufactured homes meet the V Zone standards (1986 regulations). 5.4.A.2	
44. In V1-30, VE and V Zones, require that manufactured homes to be placed or substantially improved in an existing manufactured home park to be elevated so that: i. the lowest floor is at or above the BFE, ***or*** ii. the chassis is supported by reinforced piers no less than 36 inches above grade and securely anchored. **[60.3(e)(8)(iv); 60.3(c)(12)]**	NOTE: Item 44 is not required if community requires all manufactured homes meet the V Zone standards (1986 regulations). 5.4.B	
45. In V1-30, VE, and V Zones, all recreational vehicles to be placed on a site must be elevated and anchored or be on the site for less than 180 consecutive days or be fully licensed and highway ready. **[60.3(e)(9)]**	5.5.B	

From: "Hopkins, Jane" <Jane.Hopkins@fema.dhs.gov>
To: 'James May' <JMay@co.tulare.ca.us>
Date: 10/24/2011 12:12 PM
Subject: CAV Closure
Attachments: Regarding the ordinance review.docx; March 2007 CA Ordinance Review Checklist.docm

Dear James:
Thank you very much for the updates & address corrections on all remaining closure issues. So everything has been addressed, but regarding the ordinance review, several of the memo items were resolved, but there are still some omissions that must be addressed in order for the community ordinance to be NFIP-compliant. All points are included in the attached memo. For convenience, I've also included a copy of the CA State Model Ordinance for language reference. At least one point bears consulting with County atty. The flow chart is a great idea, and I hope that it would be fine to share with other communities as need arises. I also appreciate that there is a procedure being developed for record transfer with neighboring communities after boundary changes. If you get a copy soon, that would be nice to use as a model for other counties. Otherwise, it can be a topic for the next CAV. It was very nice working with you & Craig and I appreciate your helpfulness. Thank you.
Sincerely,
Jane Hopkins

Attachment 30

Regarding the ordinance review, several of the memo items were addressed. However, there are still some omissions:

1) After the changes below have been adopted, a copy of the revised ordinance, including signature(s) of appropriate official(s); certification (*e.g.,* seal/stamp); and date of ordinance adoption.
2) In the "Notification of Other Agencies" section, there are still some omissions. The first refers to the requirement to notify DWR and other adjacent communities about "alteration and relocation of a watercourse". This requirement corresponds to section 4.2.D.1.a of the California State Model Ordinance, which has been attached for convenient referral.
3) The second omission from the "Notification of Other Agencies" section is the requirement to maintain the carrying capacity of an altered or relocated watercourse. This requirement corresponds to section 4.2.D.1.c of the California State Model Ordinance.
4) In section 17-27-1180-e, it would make sense to revise "and must exceed the following minimum criteria" to state "and must meet the following minimum criteria ".
5) Section 17-27-1180-e.1 must have language specifying that the flood openings have to be paced "on different sides" of a structure.
6) Section 17-27-1180-e.1 must be revised to correspond to California State Model Ordinance sections 5.1.C.3.a.3 **and** 5.1.C.3.a.4 **or** 5.1.C.3.b
7) Regarding 7-27-1180-c, the language must be revised such that 7-27-1180-c-3 is the mandatory first step, and preferably, the only step. If The County chooses to retain the options of 7-27-1180-c-1 and 7-27-1180-c-2, FEMA strongly recommends consulting with the County attorney in order to address the potential liability of flood level exceeding either of these two default limits. This is not to say that these two alternate limits could not be used in the absence of any data to support 7-27-1180-c-3; one of those alternatives might be what is decided without any data to support a locally developed BFE. This edit might prove useful in a situation with flooding exceeding either of these limits, and a judge asking why a certain elevation limit was selected that resulted in damages.

   Another perspective about elevation can be found in the FEMA Flood Insurance Manual, in which increased elevation corresponds to less expensive flood insurance. Below is an example excerpted from the manual. The link to this document is included here:
   http://www.fema.gov/pdf/nfip/manual200910/cover.pdf

TABLE 3C. REGULAR PROGRAM -- POST-FIRM CONSTRUCTION RATES
ANNUAL RATES PER $100 OF COVERAGE
(Basic/Additional)

UNNUMBERED ZONE A --WITHOUT
BASEMENT/ENCLOSURE/CRAWLSPACE1,6

Elevation
Difference to nearest foot BUILDING RATES CONTENTS RATES TYPE OF ELEVATION

CERTIFICATE
Occupancy Occupancy
1-4 Family Other & Non-
Residential
Residential2 Non-
Residential2
+5 or more .35 / .10 .47 / .15 .61 / .12 .64 / .12
NO ESTIMATED
BASE FLOOD ELEVATION3
+2 to +4 1.08 / .13 .99 / .20 .86 / .17 .97 / .23
+1 2.07 / .63 2.23 / .74 1.52 / .56 1.45 / .71
0 or below *** *** *** ***
+2 or more .40 / .08 .33 / .09 .50 / .12 .48 / .12
WITH THE ESTIMATED
BASE FLOOD ELEVATION4
0 to +1 1.05 / .12 .90 / .18 .84 / .16 .83 / .21
-1 3.45 / 1.29 4.37 / 1.01 2.68 / .69 2.18 / 1.01
-2 or below *** *** *** ***
No Elevation
Certificate5 4.02 / 1.41 5.45 / 1.68 3.33 / .99 3.21 / 1.34 No Elevation
Certificate

California Ordinance Review Checklist

March 25, 2007

Community: _____

Level of Regulations: a b c d e
(If a community has both floodways & coastal high hazard areas, circle d & e.)

Ordinance Number: _____ **Adopted on:** _____ **Effective date:** _____

Date of Review: _____ **Reviewer:** _____ *(circle one)* **FEMA STATE**

NOTE: The "Item Description" is a synopsis of the regulatory requirement and should not be construed as a complete description. Refer to the actual language contained in the National Flood Insurance Program Rules and Regulations for complete descriptions of the required standards.

Item Description (Section reference of NFIP Regulations follows)	CA State Model Ordinance Section	Applicable Ordinance Section
Required provisions for all ordinances		
1. Citation of Statutory Authorization. **[59.22(a)(2)]**	1.1	
2. Purpose section citing health, safety, and welfare reasons for adoption. **[59.22(1)]**	1.2 & 1.3	
3. Adopt definitions of: ☐ Base Flood ☐ Basement ☐ Development ☐ Existing Manufactured Home Park or Subdivision ☐ Expansion to an Existing Manufactured Home Park or Subdivision ☐ Flood Insurance Rate Map ☐ Flood Insurance Study ☐ Floodproofing ☐ Floodway ☐ Highest Adjacent Grade ☐ Historic Structure ☐ Lowest Floor ☐ Manufactured Home ☐ Manufactured Home Park or Subdivision ☐ New Construction ☐ New Manufactured Home Park or Subdivision ☐ Recreational Vehicle ☐ Special Flood Hazard Area ☐ Start of Construction ☐ Structure ☐ Substantial Damage ☐ Substantial Improvement ☐ Violation and other definitions as appropriate. **[59.1]**	NOTE: Definitions for Existing, Expansion to An Existing or New Manufactured Home Park are not required if community requires elevation of all manufactured homes to the BFE (1986 regulations). 2.0	
4. Adopt or reference correct Flood Insurance Rate Map (and where applicable, Flood Boundary Floodway Map) and date.[1] **[60.2(h)]**	3.2	
5. Adopt or reference correct Flood Insurance Study and date.[1] **[60.2(h)]**	3.2	
6. Include a reference to all subsequent revisions and amendments to above-referenced flood maps and Flood Insurance Study.	3.2	
7. Adequate enforcement provisions including a violations/penalty section specifying community actions to assure compliance. **[60.2(e)]**	3.3	
Abrogation and Greater Restriction section. **[60.1(b)]**	3.4	

[1] If a community has annexed territory (e.g. county land) not covered on its flood maps or FIS, the FIS and appropriate FIRM panels (usually County) must be adopted.

Community: _____ Level of Regulations: a b c d e

Item Description (Section reference of NFIP Regulations follows)	State Model Ordinance Section	Applicable Ordinance Sect.
Required provisions for all ordinances (continued)		
9. Disclaimer of Liability (Degree of flood protection required by the ordinance is considered reasonable but does not imply total flood protection.)	3.6	
10. Severability section. (If any section, provision or portion of the ordinance is deemed unconstitutional or invalid by a court, the remainder of the ordinance shall be effective.)	3.7	
11. Framework for administering the ordinance (permit system, establish office for administering the ordinance, etc.) **[59.22(b)(1)]**	4.0	
12. Designate title of community Floodplain Administrator **[59.22 (b)]**	4.1	
13. Requirement to submit new technical data: within 6 months, notify FEMA of changes in the base flood elevation by submitting technical or scientific data so insurance & floodplain management can be based on current data. **[65.3]**	4.2.D.2	
14. Variance section with evaluation criteria & insurance notice. **[60.6(a)]**	6.0	
15. For adopted ordinance: Signature of Appropriate Official & Certification. Date ordinance adopted: _____	N/A	
60.3 (a) When no SFHA's have been identified, no water surface elevation data has been provided, and floodways and coastal high hazards areas have not been identified and the community applies for participation in the NFIP, the following are required:		
16. Require permits for all proposed construction or other development including placement of manufactured homes. **[60.3(a)(1)]**	N/A for 60.3(b)-(e) communities	
17. Assure that all other State and Federal permits are obtained. **[60.3(a)(2)]**	4.2.A.2	
18. Review permits to assure sites are reasonably safe from flooding and require for new construction and substantial improvements in flood-prone areas: **[60.3(a)(3)]**	4.2.A.3	
(a) Anchoring (including manufactured homes) to prevent floatation, collapse, or lateral movement. **[60.3(a)(3)(i)]**	5.1.A	
(b) Use of flood-resistant materials. **[60.3(a)(3)(ii)]**	5.1.B.1	
(c) Construction methods/practices that minimize flood damage. **[60.3(a)(3)(iii)]**	5.1.B.2	
(d) Electrical, heating, ventilation, plumbing, air conditioning equipment, and other service facilities designed and/or located to prevent water entry or accumulation. **[60.3(a)(3)(iv)]**	5.1.B.3	
19. Review subdivision proposals to assure that: (a) Such proposals minimize flood damage. **[60.3(a)(4)(i)]**	5.3.B	
(b) Public utilities and facilities are located & constructed so as to minimize flood damage. **[60.3(a)(4)(ii)]**	5.3.C	
(c) Adequate drainage is provided. **[60.3(a)(4)(iii)]**	5.3.D	
20. Require new and replacement water supply and sanitary sewer systems to be designed to minimize or eliminate infiltration. **[60.3(a)(5) & (6)]**	5.2 A.1 & 2	
21. Require on-site waste disposal systems be located to avoid impairment or contamination. **[60.3(a)(6)(ii)]**	5.2.B	

Community: _____ Level of Regulations: a b c d e

Item Description (Section reference of NFIP Regulations follows)	State Model Ordinance Section	Applicable Ordinance Section
60.3(b) When SFHA's are identified by the publication of a community's FHBM or FIRM, but water surface elevation data have not been provided or a floodway or coastal high hazard area has not been identified, then all the above ordinance provisions for 60.3(a) and the following are required:		
22. Require permits for all proposed construction and other development within SFHAs on the FIRM. **[60.3(b)(1)]**	4.3	
23. Require base flood elevation data for subdivision proposals or other developments greater than 50 lots or 5 acres. **[60.3(b)(3)]**	5.3.A	
24. In A Zones, in the absence of FEMA BFE data and floodway data, consider other available data as basis for elevating residential structures to or above base flood level, and for floodproofing or elevating nonresidential structures to or above base flood level. **[60.3(b)(4)]**	4.2.C	
25. Where BFE data are utilized, obtain and maintain records of lowest floor and floodproofing elevations for new construction and substantial improvements. **[60.3(b)(5)]**	4.2.E.1 & 2	
26. Notify neighboring communities of watercourse alterations or relocations. **[60.3(b)(6)]**	4.2.D.1.a	
27. Maintain carrying capacity of altered or relocated watercourse. **[60.3(b)(7)]**	4.2.D.1.c	
28. Require all manufactured homes to be elevated and anchored to resist flotation, collapse, or lateral movement. **[60.3(b)(8)]**	5.1.A, 5.1.C.4, & 5.4	
60.3(c) When final flood elevations, but no floodways or coastal high hazard areas have been provided on a community's FIRM, then all the above ordinance provisions for 60.3(a) & 60.3(b) and the following are required:		
29. Require all new and substantially improved residential structures within A1-30, AE, and AH Zones have their lowest floor (including basement) elevated to or above the BFE. **[60.3(c)(2)]**	5.1.C.1.a	
30. In AO Zones, require that new and substantially improved residential structures have their lowest floor (including basement) at or above the highest adjacent grade at least as high as the FIRM's depth number. **[60.3(c)(7)]**	NOTE: Item 29 is not required if community has no AO zones. 5.1.C.1.b	
31. Require that new and substantially improved nonresidential structures within A1-30, AE, and AH Zones have their lowest floor elevated or floodproofed to or above the base flood elevation. **[60.3(c)(3)]**	5.1.C.2	
32. In AO Zones, require new and substantially improved nonresidential structures have their lowest floor elevated or completely floodproofed above the highest adjacent grade to at least as high as the depth number on the FIRM. **[60.3(c)(8)]**	NOTE: Item 31 is not required if community has no AO zones. 5.1.C.2	
33. Require that, for floodproofed non-residential structures, a registered professional/architect certify that the design and methods of construction meet requirements at (c) (3) (ii). **[60.3(c)(4)]**	5.1.C.2.c	

Community: _____ Level of Regulations: a b c d e

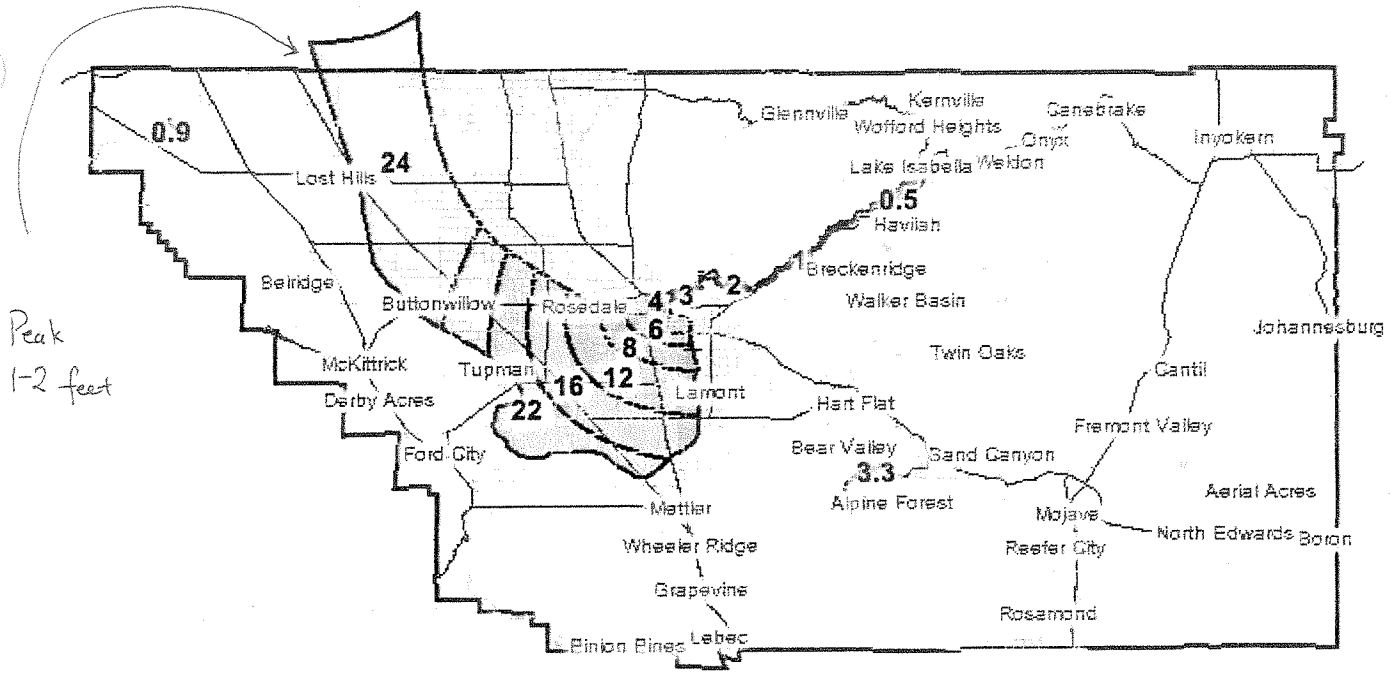
Item Description (Section reference of NFIP Regulations follows)	State Model Ordinance Section	Applicable Ordinance Sec.
60.3(c) (continued)		
34. Require, for all new construction and substantial improvements, that fully enclosed areas below the lowest floor that are usable solely for parking of vehicles, building access or storage have permanent openings designed to allow the entry and exit of flood waters in accordance with specifications of **60.3(c)(5).**	5.1.C.3	
35. Within Zones A1-30 and AE without a designated floodway, new development shall not be permitted unless it is demonstrated that the cumulative effect of all past and projected development will not increase the BFE by more than 1 foot. **[60.3(c)(10)]**	NOTE: Item 34 is not required if ***all*** streams have floodways designated.	
	4.2.A.4 & 5.6.A	
36. In Zones AO and AH, require drainage paths around structures on slopes to guide water away from structures. **[60.3(c)(11)]**	NOTE: Item 35 is not required if community has neither AO nor AH zones.	
	5.1.B.4	
37. Require that manufactured homes placed or substantially improved within A1-30, AH, and AE Zones, which meet one of the following location criteria, to be elevated such that the lowest floor is at or above the BFE and be securely anchored: i. outside a manufactured home park or subdivision; ii. in a new manufactured home park or subdivision; iii. in an expansion to an existing manufactured home park or subdivision; iv. on a site in an existing park which a manufactured home has incurred substantial damage as a result of flood. **[60.3(c)(6)]**	NOTE: Item 36 is not required if community requires elevation of all manufactured homes to the BFE (1986 regulations).	
	5.1.A, 5.4.A.1 (non-coastal) & 5.4.A.2 (coastal)	
38. In A1-30, AH, and AE Zones, require that manufactured homes to be placed or substantially improved in an existing manufactured home park to be elevated so that: i. the lowest floor is at or above the BFE ***or*** ii. the chassis is supported by reinforced piers no less than 36 inches above grade and securely anchored. **[60.3(c)(12)]**	NOTE: Item 37 is not required if community requires elevation of all manufactured homes to the BFE (1986 regulations).	
	5.4.B	
39. In A1-30, AH, and AE Zones, all recreational vehicles to be placed on a site must be elevated and anchored ***or*** be on the site for less than 180 consecutive days ***or*** be fully licensed and highway ready. **[60.3(c)(14)]**	5.5	
60.3(d) When final flood elevations and floodway delineations have been provided on a community's FIRM, then all the above ordinance provisions for 60.3(a), 60.3(b) & 60.3(c) and the following are required:		
40. In a regulatory floodway, prohibit any encroachment which would cause any increase in the base flood level unless hydrologic and hydraulic analyses prove that the proposed encroachment would not increase flood levels during the base flood discharge. **[60.3(d)(3)]**	5.6.B	

Community: _____ Level of Regulations: a b c d e

Item Description (section reference of NFIP Regulations follows)	State Model Ordinance Section	Applicable Ordinance Section
60.3(e) When final flood elevations and coastal high hazard areas have been provided on a community's FIRM, then all the above ordinance provisions for 60.3(a), 60.3(b) & 60.3(c) and the following are required: **NOTE: If a community has both floodways and coastal high hazard areas, it must meet the requirements of both 60.3(d) and 60.3(e).**		
41. In V1-30, VE, and V Zones, obtain and maintain the elevation of the bottom of the lowest structural member of the lowest floor of all new and substantially improved structures. **[60.3(e)(2)]**	4.2.E.6 & 5.7.F.2	
42. In V1-30, VE, and V Zones, require that all new construction and substantial improvements: (a) Are elevated and secured to anchored pilings or columns so that the lowest portion of the lowest horizontal structural member is at or above the BFE. **[60.3(e)(4)]**	5.7.A	
(b) A registered professional engineer/architect certify that the design and methods of construction meet elevation and anchoring requirements at (e)(4)(i) and (ii). **[60.3(e)(4)]**	5.7.F.1	
(c) Have the space below the lowest floor constructed with breakaway walls or left open. **[60.3(e)(5)]**	5.7.C	
(d) All new construction is landward of the reach of mean high tide. **[60.3(e)(3)]**	5.7.B	
(e) Prohibit use of fill for structural support. **[60.3(e)(6)]**	5.7.D	
(f) Prohibit alteration of sand dunes and mangrove stands which would increase potential flood damage. **[60.3(e)(7)]**	5.7.E	
43. Require that manufactured homes placed or substantially improved within V1-30, VE, and V Zones, which meet one of the following location criteria, meet the V Zone standards in 60.3(e)(2) through (e)(7): i. outside a manufactured home park or subdivision; ii. in a new manufactured home park or subdivision; iii. in an expansion to an existing manufactured home park or subdivision; iv. on a site in an existing park which a manufactured home has incurred substantial damage as a result of flood. **[60.3(e)(8)]**	NOTE: Item 43 is not required if community requires all manufactured homes meet the V Zone standards (1986 regulations).	
	5.4.A.2	
44. In V1-30, VE and V Zones, require that manufactured homes to be placed or substantially improved in an <u>existing</u> manufactured home park to be elevated so that: i. the lowest floor is at or above the BFE, ***<u>or</u>*** ii. the chassis is supported by reinforced piers no less than 36 inches above grade and securely anchored. **[60.3(e)(8)(iv); 60.3(c)(12)]**	NOTE: Item 44 is not required if community requires all manufactured homes meet the V Zone standards (1986 regulations).	
	5.4.B	
45. In V1-30, VE, and V Zones, all recreational vehicles to be placed on a site must be elevated and anchored <u>or</u> be on the site for less than 180 consecutive days <u>or</u> be fully licensed and highway ready. **[60.3(e)(9)]**	5.5.B	

Yokohl Ranch Project Cost Summary
thru September 2011

	FY 2006/2007	FY 2007/2008	FY 2008/2009	FY 2009/2010	FY 2010/2011	FY 2011/2012 Thru Sept. 2011	Total
Permit Fees	4,328.00						4,328.00
County Staff Charges	94,060.00	145,355.00	66,385.00	41,967.00	79,575.00	15,200.00	442,542.00
Training			635.13				635.13
Travel for Comm Tour					209.67		209.67
TC WID		3,471.41					3,471.41
Print Shop (Copies)		827.98	568.09				1,396.07
Meeting		254.58	271.46		54.99		581.03
Office Supplies		49.46	107.50				156.96
County Counsel		18,698.30	22,253.90	11,106.80	11,048.00	2,319.80	65,426.80
Consultant Invoices	23,940.00	953,222.23	939,938.18	517,381.05	240,705.05	46,116.00	2,721,302.51
TOTAL	**122,328.00**	**1,121,878.96**	**1,030,159.26**	**570,454.85**	**331,592.71**	**63,635.80**	**3,240,049.58**



Peak
1-2 feet

This was presented in 2007.

Anticipated Flooded Areas Caused by Possible Failure of Lake Isabella Dam, 24 Hour Peak Inundation Map Extending into Tulare County

from U.S. Army Corps of Engineers model

Attachment 32

TULARE COUNTY
FIRE DEPARTMENT

907 West Visalia Road, Farmersville, CA 93223 - Phone (559) 747-8233 - Fax (559) 747-8242

TEODORO A. MENDOZA
INTERIM CHIEF

October 11, 2011

Carol Clum
45638 So. Fork Dr.
Three Rivers, CA 93271

Dear Ms. Clum,

Here is the Tulare County Fire Department budget information you requested.

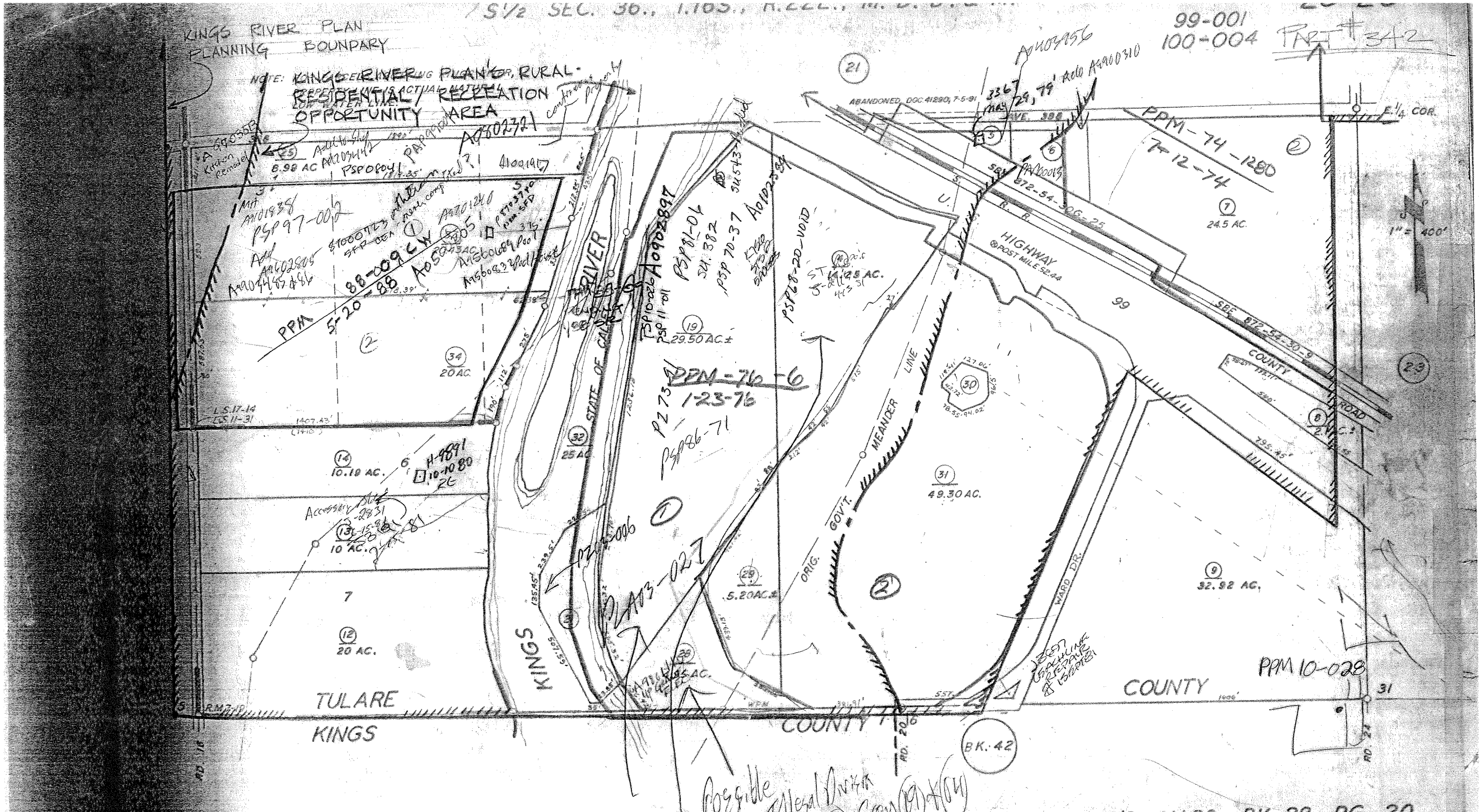
Budget Fiscal Year	Approved Budget	
2011-2012	$12,839,750	
2010-2011	$12,998,300	
2009-2010	$13,529,548	
2008-2009	$13,334,398	
2007-2008	$13,501,839	
2006-2007	$14,256,605	*
2005-2006	$11,763,622	
2004-2005	$10,661,618	
2003-2004	$11,362,352	

* Transition year from CDF Contract to County Fire Dept.

If you have any questions please call me at 559-747-8233.

Steve King
Steve King
Administrative Services Officer II

Attachment 33



POR. OF LAGUNA DE TACHE GRANT R.M. 7-19
POR. RECORD OF SURVEY, L.S. 11-31
RECORD OF SURVEY L.S. 17-14

ASSESSOR'S MAPS BK. 28, PG. 20.
COUNTY OF TULARE, CALIF.

NOV 07 1991

NOTE- ASSESSOR'S BLOCK NUMBERS SHOWN IN ELLIPSES
ASSESSOR'S PARCEL NUMBERS SHOWN IN CIRCLES

(1959)

Tulare County - Disadvantaged Community
Water and Sewer Issues
November 2010

Disadvantaged Communities / Schools	IRWMP	Type of Project	MHI	Entity	Issues	On-going MCL Violation	Solutions Id'd	Estimated Cost	Potential Funding Sources	App / Pre-App Submitted	Date Constructon App Submtd	Feasibility Study Needed	App Amnt Submitted	Date Planning App Submtd	Prelim. Engin. / CEQA Needed
Allensworth	Tule*	Water	$23,750	Allensworth CSD	Arsenic levels in both wells have now exceeded MCL, prblems with control system, inadequate storage	Yes	Sealing off bottom of west well, refinement of power at motor control panels, additional storage		CDPH-DWSRF Prop 84	Yes	Jan-08	Yes			Yes
Alpaugh	Tule*	Water	$23,688	Alpaugh Joint Powers Authority	Water from both new wells exceeds arsenic MCL (16 to 25 ppb)	Yes	Arsenic Treatment Plant	$1,368,000	CDPH- Prop 84	Yes			$389,200		No
Beverly-Grand	Tule	Water	$29,000	Beverly Grand Mutual Water Company	Nitrates exceed MCL	Yes	Consolidate with City of Porterville	$801,000	CDPH-Prop 84	Yes	Feb-09	Yes	$142,600	Feb-10	Yes
Cutler	Upper Kings	Water	$24,330	Cutler PUD	Need to complete metering of customers										
Ducor	Tule	Water	$23,000	Ducor Community Services District	Well collapse, lack of adequate supply of water, H2S		New water supply (well &/or consolidation)	$700,000	USDA DWSRF	Yes					
East Orosi	Upper Kings	Water	$26,071	East Orosi CSD	Both wells at times exceed nitrate MCL		Short Term: Rehabilitate both wells	$137,000	IRWMP CDPH-DWSRF Prop 84	Yes	Yes	Yes	IRWMP $102,600 DWSRF $137,000		Yes
East Orosi	Upper Kings	Sewer	$26,071	East Orosi CSD	Both wells at times exceed nitrate MCL		Long Term: Drill new well/ Investigate connection to Orosi		IRWMP CDPH-DWSRF Prop 84	Yes			IRWMP $152,788		
Fairways Tract	Tule	Water		Fairways Tract MWC	Water from only well exceeds NO3 MCL by almost 3 times	Yes	Consolidate with City of Porterville	$892,886	DPH-DWSRF	Yes		No	$892,886		No
Lemon Cove and Sequoia Union School	Kaweah	Water	$28,333	Lemon Cove Sanitary District/Sequoia Union School District	Nitrates exceed MCL	Yes	Feasibility Study Drill test well(s), new well(s), storage and transmission		CDPH-DWSRF Prop 84	Yes	N/A	Yes	$315,070	Oct-08	Yes
Lemon Cove	Kaweah	Sewer	$28,333	Lemon Cove Sanitary District	Regional Board has requested treatment plant modifications		upgrade treatment plant								
London	Upper Kings	Water	$21,678	London CSD	Inadequate supply, storage, distribution		New well, storage, replace and loop undersized pipelines	$2,800,000	USDA DWSRF IRWMP	Yes	under contract	No	USDA app submited ->	Jul-10	No
Matheny Tract	Kaweah	Water	$27,467	Pratt MWC	1 well shut down due to high NO3, the other 2 wells wells excxeed arsenic MCL. Distribution system needs replacement	Yes	Consolidate with City of Tulare and replace water distribution system.	$6,000,000	CDPH-DWSRF Prop 84	Yes	Dec-05	No	SRF$389,200 P84 $97,300 $486,500	Feb-10	Yes
Matheny Tract	Kaweah	Sewer	$27,468	County-City of Tulare ??	Unsewered community on septic systems		Negotiate, secure funding and connect with City of Tulare system								
Monson	Upper Kings	Water		Sultana CSD ?	Private wells with nitrate levels over MCL		Determine community and County support and that of neighboring Sultana for potential consolidation with Sultana system.		CDPH-DWSRF Prop 84	Yes		Yes	$495,000	Feb-10	Yes
Pixley	Tule	Water	$23,304	Pixley Public Utility District	3 of 4 wells at times exceed arsenic MCL	Yes	Drill new wells and provide storage	$3,000,000	CDPH- Prop 84	Yes	Jan-08	No	$500,000	Feb-10	No
Plainview	Tule	Sewer		Plainview MWC	Unsewered community with septic system problems		Initiate preliminary engineering and build community sewer system, investigate connection with Strathmore or Lindsay		USDA SWRCB-SCWGP						

Tulare County - Disadvantaged Community Water and Sewer Issues November 2010

Disadvantaged Communities / Schools	IRWMP	Type of Project	MHI	Entity	Issues	On-going MCL Violation	Solutions Id'd	Estimated Cost	Potential Funding Sources	App / Pre-App Submitted	Date Constructon App Submtd	Feasibility Study Needed	App Amnt Submitted	Date Planning App Submtd	Prelim. Engin. / CEQA Needed
Richgrove	Poso	Water	$22,885	Richgrove Community Services District	1 well has arsenic/DBCP MCL issues;Other well close to nitrate MCL		Drill new well and/or blend	$1,698,000	CDPH- Prop 84	Yes	Jan-08	No	$393,100	Feb-10	Yes
Richgrove	Poso	Sewer	$22,886	Richgrove Community Services District	Treatment plant inflow is in excess of rated capacity		Modify RWQCB Discharge permit and upgrade and expand treatment and disposal facilities		USDA SWRCB-SCWG/ CWSRF						
Rodriguez Labor Camp	Poso	Water	$18,144	Richgrove Community Services District	Nitrate 130 ppm	Yes	Consolidate with Richgrove CSD	included w/ Richgrove	CDPH- Prop 84	Yes	included w/ Richgrove	included w/ Richgrove	included w/ Richgrove	included w/ Richgrove	Yes
Seville	Upper Kings	Water	$14,000	Tulare County as Receiver	Old leaky pipelines, lack of storage		Replace water distribution system and install storage tank	$3,200,000	DPH-SRF & Prop 84 USDA	Yes	Jan-08	Yes	$120,000	Feb-10	Yes
Seville	Upper Kings	Water	$14,000	Tulare County as Receiver	Shallow well (125'), nitrate fluctates above and below MCL		Drill new well and connect with Yettem's water system								
Seville	Upper Kings	Sewer	$14,000	TCCSAZOB	Sewer system at capacity, lines too shallow to allow extensions										
Soults Mutual Water Company	Kaweah	Water	$41,000	Soults Mutual Water Company	Nitrates exceed MCL	Yes	Consolidate with City of Tulare	$982,500	CDPH- Prop 84	Yes	Jan-08	No			No
Sultana	Upper Kings	Water	$12,000	Sultana CSD	1 active well, DBCP over MCL for backup well		Need Feasibility Study to determine best options		IRWMP CDPH-DWSRF Prop 84	Yes		Yes	IRWMP $123,750 DWSRF $396,000	Feb-10	
Teviston	Tule	Water		Teviston CSD	Bottom of one of system's 2 wells has collapsed		Rehabilitate well or drill new well								
Tipton	Tule														
Tipton CSD-Burnett Road	Tule	Water	$19,500	Tipton Community Services District	Temporary connection for water outage has been in place for 10 years		Consolidate with Tipton CSD	$249,283	Prop 84 DWSRF	Yes	Jan-08	No	$55,000	Feb-10	No
Tonyville	Kaweah	Water		City of Lindsay ?	Disinfection byproducts with surface water - nitrate when groundwater temporarily used		Consolidate with City of Lindsay		CDPH-DWSRF Prop 84			Yes	$262,500	Feb-10	
Tooleville	Kaweah	Water	$15,500	Tooleville NMWA	Bolth wells exceed Nitrate MCL, Water capacity		Drill new well west of Exeter and wheel water thru Exeter to replacement distribution system	$3,100,000	USDA DPH-DWSRF Prop 84 CDBG	Yes		No	$408,000	Feb-10	No
Tract 92	Kaweah	Water		Tract 92 CSD	39 abandoned wells need proper destruction										

*TCCSAZOB - Tulare County County Service Area #1 Zone of Benefit
CDBG
DPH Prop 84
DWSRF
USDA
SWRCB
SCWG

Peck Planning and Development, LLC
Planning Development Economics

Stephen Peck, AICP
President
1850 S. Maselli St.
Visalia, CA 93277
559 731-5778
stephen_peck@sbcglobal.net

December 14, 2011

Jake Raper, Director
Tulare County Resource Management Agency
5961 South Mooney Boulevard
Visalia, California 93277

Re: County Regional Corridor Policies

Thank you for meeting with me today regarding the County's Corridor Policies (Policies C 1.1-C 1.8). On their face, the County's' Growth Corridor policies appear to provide for the development of intersections for non-agricultural uses that are regional in nature. These policies call for the development of a single for multiple Corridor Plans for these parcels, followed by General Plan Amendment, Zoning Amendment, and Special Use Permit for individual properties. In order to successfully implement these policies and actually construct projects that meet the County's intent, there may need to be further clarification and refinement of the terms and policies that are described in the applicable policies. It would also be useful to determine the probable timing of the Growth Corridor Plans given County priorities and funding constraints.

In order to initiate development of a project within the Regional Growth Corridor Opportunity Areas, the following issues should be considered and addressed during the General Plan Update by the County Board of Supervisors:

1. Growth Corridor Plan(s). There seems to be some ambiguity about whether each prospective site in a corridor would have its own corridor plan, if there was one comprehensive plan for each corridor, or if there would be one plan for all of the corridors. By way of example, in response to their General Plan policy requirement for a specific plan to facilitate regional retail growth on Mooney south of Packwood Creek, the City of Visalia allowed a site-specific specific plan for the Packwood Creek shopping center. Perhaps a similar approach is intended here; this should be clarified. It should also be clarified if site-specific plans, if allowed, would be initiated/driven by the advisory committee described in Implementation Measure 2.3 (1), or whether this process would apply only to multi-site or comprehensive corridor plans.

2. Interim Policy Restrictions. The latter half of Policy 1.6 and all of Policy C 1.8 appear to allow the County to designate property for a highway-oriented commercial, industrial or mixed use development if the development is a regionally significant proposal that has "special significance" because it has innovative design principles, or habitat or ag resources preservation, or substantial financial benefits to the County, or other relevant benefits. Otherwise, it appears, development may not take place unless it occurs on sites

that have Class III or poorer soils, that have not been used for "commercial agriculture" over the last five years, and several other factors. Depending on how each of these is interpreted, these several restrictions appear to disqualify all properties in the corridors. Further, they appear to encourage landowners to discontinue any ag operations on their properties at least five years prior to and during the entitlement process, something that appears to be contrary to other County policies. Is it really the intent of this policy to have these properties fallow for 7-10 years? The County's RVLP policies are probably adequate in this area; to be sure, since any prospective project would need an EIR, GPI, GPA and Special Use Permit ag impacts will be adequately addressed during the process. I suggest that the restriction for non-prime soils and commercial agriculture farming restriction be eliminated from this policy because of their redundancy and consistency with other policies in the General Plan.

3. Definitions. A number of definitions appear to be key, including "Commercial Agriculture", and "Class III Soils" (irrigated or non-irrigated?). It should be relatively clear to a developer or property owner who chooses to undertake the expensive and time-consuming entitlement process whether or not there are any real inconsistencies between their proposal and County policies and regulations.

I'd like to reiterate our request in our November correspondence that the Board include a graphic (like Figure 1 attached) in the General Plan policy document which shows the specific intersections or site(s) that would qualify for consideration under the growth corridor policies. If that is considered undesirable or infeasible, addressing the above issues seems to be appropriate to clarify what sites could meet the County's policies.

Thank you for your consideration of this matter.

Sincerely,

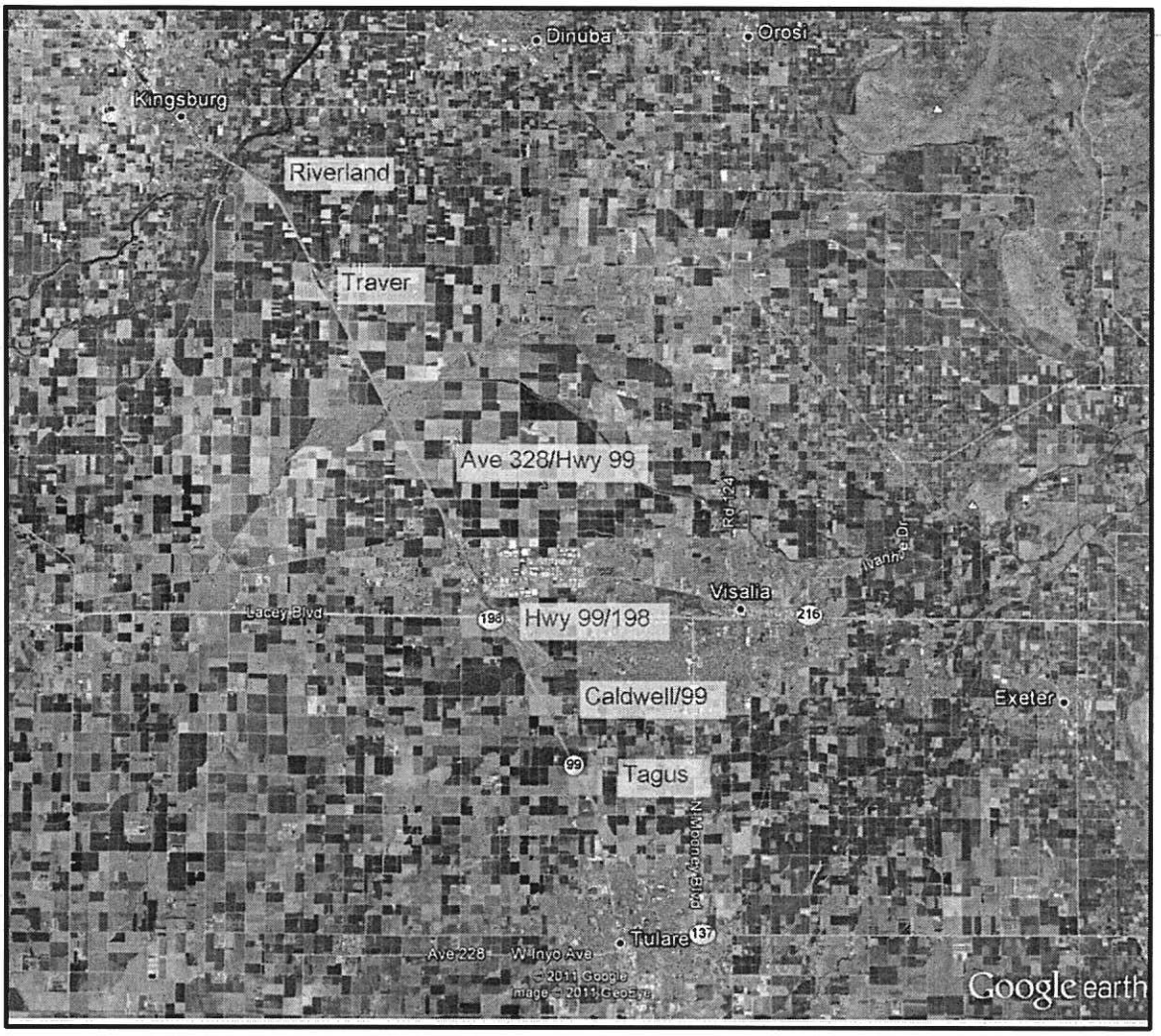
Stephen Peck

Stephen J. Peck, AICP

Xc: William Travis
Jim Jackson
Bob Dowds

Attachments: Figure 1: Potential Regional Growth Opportunity Areas

Figure 1
Regional Growth Opportunity Areas



California
Rural Legal
Assistance
Foundation

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Amagda Pérez, Esq.
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Mark S. Schacht
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--Sustainable Communities Project
--Workers Rights Project

December 27, 2011

VIA ELECTRONIC SUBMISSION

The Honorable Members of the Tulare County Board of Supervisors
Administration Building
2800 West Burrel Avenue
Visalia, CA 93291

RE: Tulare County General Plan 2030 Update and SB 244

Dear Honorable Members of the Tulare County Board of Supervisors:

For over 30 years, California Rural Legal Assistance Foundation (CRLAF) has successfully assisted farm workers, migrant workers and the rural poor to improve their economic and social conditions in the United States by providing community education, public policy advocacy, training, and both technical and legal assistance. CRLAF respectfully requests that, in good faith, the Honorable Members of the Tulare County Board of Supervisors keep in mind SB 244 (Wolk) which goes into effect January 1, 2012 when engaging in the important conversation of the Tulare County General Plan 2030 Update.

On October 7, 2011, Governor Jerry Brown signed SB 244 which sets forth new requirements and requires local agencies to plan for disadvantaged unincorporated communities through the Local Agency Formation Commission (LAFCO) planning process and General Plan updates. SB 244 was brought forth because, according to US Census data, approximately one million Californians live in disadvantaged, unincorporated communities. These communities often lack the most basic infrastructure such as streets, sidewalks, streetlights, storm drains, parks, safe housing, clean drinking water, adequate sewer service and public transportation.

An inhabited unincorporated community falls within the parameters of SB 244 if it has at least 12 registered voters or the Local Agency Formation Commission (LAFCO) determines that all or a portion of the community has an annual median household income that is less than 80 percent of the statewide annual median household income. Although SB 244 does not go into effect until January 1, 2012, there is no time like the present to start preparing for these new requirements. Thus, we respectfully urge Tulare County to keep in mind the requirements of SB 244 as there are several inhabited unincorporated communities in this area including the following: Cutler/Orosi, Earlmart, Goshen, West Goshen, Ivanhoe, Pixley, Poplar, Richgrove, Seville, Strathmore, Terra Bella, Teviston, Tonyville,Waukena, Lemon cove, London, Tipton, Alpaugh, Tooleville, East Orosi, , Lemon Cove, Sultana, Allensworth, Monson, Yettem, etc.

As Tulare County is currently engaging in updating its General Plan, it is particularly important to note that SB 244 includes the requirement to update the general plan to include the following:

- The identification of each unincorporated island or fringe community within a counties sphere of influence. For the purposes, identification

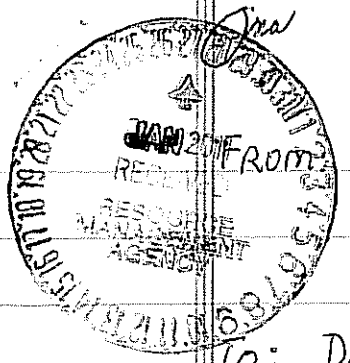
includes a description of the community and a map designating its location.

- An analysis of water, wastewater, stormwater drainage, and structural fire protection needs or deficiencies. The aforementioned needs to be done for each identified unincorporated or fringe community within a counties sphere of influence.
- An analysis of benefit assessment districts or other financing alternatives that could make the extension of services to these communities financially feasible.
- A review, and if necessary, amendments before every revision of the housing element. With the adoption of its housing element, the need to amend the land use element of the general plan would also arise.

SB 244 provides a path to inclusion for disadvantaged, unincorporated communities that have faced severe inequities as a result of being unable to access basic infrastructure and community services. There is truly no time like the present to take a serious look at the requirements of SB 244 that go into effect on January 1, 2012. Thus, in advance, we thank you for taking the time to review this important matter.

Respectfully,

Amparo Cid



January 28, 2011

From: Carole A. Clum and J. Peter Clum, 45638 South Fork Drive, Three Rivers, CA 93271 (559) 561-4661

To: David Bryant, Project Planner, Tulare County Resource Management Agency, Government Plaza, 5961 South Mooney Boulevard, Visalia, California 93277

Subj: Non-compliance with Government Code Section 65302(b)(2)(A), Effective January 1, 2011, Requires Modification of the Tulare County General Plan 2030 Update (GPU) and Recirculation of the Recirculated Draft Enviromental Impact Report (RDEIR)

Ref: (a) Update to the General Plan Guidelines: Complete Streets and the Circulation Element, Governor's Office of Planning and Research

Encl: (1) A. B. No. 1358, Leno, 2008, California Complete Streets Act of 2008

1. Enclosure (1) passed September 2008 and effective commencing January 1, 2011, establishes new requirements for and necessitates modification of the circulation element of the G P U. Government Code Section 65302 (b)(2)(A), by its plain language, applies to the pending GPU.

2. Reference (a) provides guidance to local jurisdictions on

preparing circulation elements to comply with the Complete Streets Act of 2008 directive to "modify the circulation element to plan for a balanced, multimodal transportation network." Page 11 of reference (a) states: "[t]his means that although AB 1358 only requires cities and counties to modify the circulation element to plan for a balanced, multimodal transportation network, jurisdictions will need to examine, and amend as necessary, the land use element. Jurisdictions should also consider the housing, open space, noise, conservation, and safety elements."

3. The County must correct the GPU to comply with Government Code Section 65302(b)(2)(A), and update and recirculate the RDEIR.

Sincerely,

Carole A. Clum

J. Peter Clum

Copy to: Kathleen Bales-Lange, County Counsel
Babak Naficy, Counsel for Sierra Club
Gordon Nipp, Kern-Kaweah Chapter Sierra Club
Laurie Schwaller, Tulare County Citizens for Responsible Growth
Susan Fiering, Deputy Attorney General
Matt Vespa, Center for Biological Diversity
Winter King, Shute, Mihaly and Weinberger LLP

(c) Grants or loans may be made to a private entity pursuant to this section only for projects or activities that further public purposes consistent with Sections 35510 and 35515.

(d) Consistent with the purposes specified in Section 35515, and in furtherance of the findings in Sections 7059 and 7060 of the Fish and Game Code, the council, in authorizing grants or loans for projects or expenditures pursuant to this section, shall promote coordination of state programs and activities that protect and conserve ocean resources to avoid redundancy and conflicts to ensure that the state's programs and activities are complementary.

COUNTIES—PLANNING—TRANSPORTATION

CHAPTER 657

A.B. No. 1358

AN ACT to amend Sections 65040.2 and 65302 of the Government Code, relating to planning.

[Filed with Secretary of State September 30, 2008.]

LEGISLATIVE COUNSEL'S DIGEST

AB 1358, Leno. Planning: circulation element: transportation.

(1) Existing law requires the legislative body of each county and city to adopt a comprehensive, long-term general plan for the physical development of the county or city with specified elements, including a circulation element consisting of the general location and extent of existing and proposed major thoroughfares, transportation routes, terminals, any military airports and ports, and other local public utilities and facilities, all correlated with the land use element of the plan.

This bill would require, commencing January 1, 2011, that the legislative body of a city or county, upon any substantive revision of the circulation element of the general plan, modify the circulation element to plan for a balanced, multimodal transportation network that meets the needs of all users of streets, roads, and highways, defined to include motorists, pedestrians, bicyclists, children, persons with disabilities, seniors, movers of commercial goods, and users of public transportation, in a manner that is suitable to the rural, suburban, or urban context of the general plan. By requiring new duties of local officials, this bill would impose a state-mandated local program.

(2) Existing law establishes in the Office of the Governor the Office of Planning and Research with duties that include developing and adopting guidelines for the preparation of and content of mandatory elements required in city and county general plans.

This bill would require the office, commencing January 1, 2009, and no later than January 1, 2014, upon the next revision of these guidelines, to prepare or amend guidelines for a legislative body to accommodate the safe and convenient travel of users of streets, roads, and highways in a manner that is suitable to the rural, suburban, or urban context of the general plan, and in doing so to consider how appropriate accommodation varies depending on its transportation and land use context. It would authorize the office, in developing these guidelines, to consult with leading transportation experts, including, but not limited to, bicycle transportation planners, pedestrian planners, public transportation planners, local air quality management districts, and disability and senior mobility planners.

(3) The California Constitution requires the state to reimburse local agencies and school districts for certain costs mandated by the state. Statutory provisions establish procedures for making that reimbursement.

This bill would provide that no reimbursement is required by this act for a specified reason.

The people of the State of California do enact as follows:

SECTION 1. This act shall be known and may be cited as the California Complete Streets Act of 2008.

SEC. 2. The Legislature finds and declares all of the following:

(a) The California Global Warming Solutions Act of 2006, enacted as Chapter 488 of the Statutes of 2006, sets targets for the reduction of greenhouse gas emissions in California to slow the onset of human-induced climate change.

(b) The State Energy Resources Conservation and Development Commission has determined that transportation represents 41 percent of total greenhouse gas emissions in California.

(c) According to the United States Department of Transportation's 2001 National Household Travel Survey, 41 percent of trips in urban areas nationwide are two miles or less in length, and 66 percent of urban trips that are one mile or less are made by automobile.

(d) Shifting the transportation mode share from single passenger cars to public transit, bicycling, and walking must be a significant part of short- and long-term planning goals if the state is to achieve the reduction in the number of vehicle miles traveled and in greenhouse gas emissions required by current law.

(e) Walking and bicycling provide the additional benefits of improving public health and reducing treatment costs for conditions associated with reduced physical activity including obesity, heart disease, lung disease, and diabetes. Medical costs associated with physical inactivity were estimated by the State Department of Health Care Services to be $28 billion in 2005.

(f) The California Blueprint for Bicycling and Walking, prepared pursuant to the Supplemental Report of the Budget Act of 2001, sets the goal of a 50 percent increase in bicycling and walking trips in California by 2010, and states that to achieve this goal, bicycling and walking must be considered in land use and community planning, and in all phases of transportation planning and project design.

(g) In order to fulfill the commitment to reduce greenhouse gas emissions, make the most efficient use of urban land and transportation infrastructure, and improve public health by encouraging physical activity, transportation planners must find innovative ways to reduce vehicle miles traveled and to shift from short trips in the automobile to biking, walking, and use of public transit.

(h) It is the intent of the Legislature to require in the development of the circulation element of a local government's general plan that the circulation of users of streets, roads, and highways be accommodated in a manner suitable for the respective setting in rural, suburban, and urban contexts, and that users of streets, roads, and highways include bicyclists, children, persons with disabilities, motorists, movers of commercial goods, pedestrians, public transportation, and seniors.

SEC. 3. Section 65040.2 of the Government Code is amended to read:

65040.2. (a) In connection with its responsibilities under subdivision (*l*) of Section 65040, the office shall develop and adopt guidelines for the preparation of and the content of the mandatory elements required in city and county general plans by Article 5 (commencing with Section 65300) of Chapter 3. For purposes of this section, the guidelines prepared pursuant to Section 50459 of the Health and Safety Code shall be the guidelines for the housing element required by Section 65302. In the event that additional elements are hereafter required in city and county general plans by Article 5 (commencing with Section 65300) of Chapter 3, the office shall adopt guidelines for those elements within six months of the effective date of the legislation requiring those additional elements.

(b) The office may request from each state department and agency, as it deems appropriate, and the department or agency shall provide, technical assistance in readopting, amending, or repealing the guidelines.

(c) The guidelines shall be advisory to each city and county in order to provide assistance in preparing and maintaining their respective general plans.

(d) The guidelines shall contain the guidelines for addressing environmental justice matters developed pursuant to Section 65040.12.

(e) The guidelines shall contain advice including recommendations for best practices to allow for collaborative land use planning of adjacent civilian and military lands and facilities. The guidelines shall encourage enhanced land use compatibility between civilian lands and any adjacent or nearby military facilities through the examination of potential impacts upon one another.

(f) The guidelines shall contain advice for addressing the effects of civilian development on military readiness activities carried out on all of the following:

(1) Military installations.

(2) Military operating areas.

(3) Military training areas.

(4) Military training routes.

(5) Military airspace.

(6) Other territory adjacent to those installations and areas.

(g) By March 1, 2005, the guidelines shall contain advice, developed in consultation with the Native American Heritage Commission, for consulting with California Native American tribes for all of the following:

(1) The preservation of, or the mitigation of impacts to, places, features, and objects described in Sections 5097.9 and 5097.993 of the Public Resources Code.

(2) Procedures for identifying through the Native American Heritage Commission the appropriate California Native American tribes.

(3) Procedures for continuing to protect the confidentiality of information concerning the specific identity, location, character, and use of those places, features, and objects.

(4) Procedures to facilitate voluntary landowner participation to preserve and protect the specific identity, location, character, and use of those places, features, and objects.

(h) Commencing January 1, 2009, but no later than January 1, 2014, upon the next revision of the guidelines pursuant to subdivision (i), the office shall prepare or amend guidelines for a legislative body to accommodate the safe and convenient travel of users of streets, roads, and highways in a manner that is suitable to the rural, suburban, or urban context of the general plan, pursuant to subdivision (b) of Section 65302.

(1) In developing guidelines, the office shall consider how appropriate accommodation varies depending on its transportation and land use context, including urban, suburban, or rural environments.

(2) The office may consult with leading transportation experts including, but not limited to, bicycle transportation planners, pedestrian planners, public transportation planners, local air quality management districts, and disability and senior mobility planners.

(i) The office shall provide for regular review and revision of the guidelines established pursuant to this section.

SEC. 4. Section 65302 of the Government Code is amended to read:

65302. The general plan shall consist of a statement of development policies and shall include a diagram or diagrams and text setting forth objectives, principles, standards, and plan proposals. The plan shall include the following elements:

(a) A land use element that designates the proposed general distribution and general location and extent of the uses of the land for housing, business, industry, open space, including agriculture, natural resources, recreation, and enjoyment of scenic beauty, education, public buildings and grounds, solid and liquid waste disposal facilities, and other categories of public and private uses of land. The location and designation of the extent of the uses of the land for public and private uses shall consider the identification of land and natural resources pursuant to paragraph (3) of subdivision (d). The land use element shall include a statement of the standards of population density and building intensity recommended for the various districts and other territory covered by the plan. The land use element shall identify and annually review those areas covered by the plan that are subject to flooding identified by flood plain mapping prepared by the Federal Emergency Management

Agency (FEMA) or the Department of Water Resources. The land use element shall also do both of the following:

(1) Designate in a land use category that provides for timber production those parcels of real property zoned for timberland production pursuant to the California Timberland Productivity Act of 1982 (Chapter 6.7 (commencing with Section 51100) of Part 1 of Division 1 of Title 5).

(2) Consider the impact of new growth on military readiness activities carried out on military bases, installations, and operating and training areas, when proposing zoning ordinances or designating land uses covered by the general plan for land, or other territory adjacent to military facilities, or underlying designated military aviation routes and airspace.

(A) In determining the impact of new growth on military readiness activities, information provided by military facilities shall be considered. Cities and counties shall address military impacts based on information from the military and other sources.

(B) The following definitions govern this paragraph:

(i) "Military readiness activities" mean all of the following:

(I) Training, support, and operations that prepare the men and women of the military for combat.

(II) Operation, maintenance, and security of any military installation.

(III) Testing of military equipment, vehicles, weapons, and sensors for proper operation or suitability for combat use.

(ii) "Military installation" means a base, camp, post, station, yard, center, homeport facility for any ship, or other activity under the jurisdiction of the United States Department of Defense as defined in paragraph (1) of subsection (e) of Section 2687 of Title 10 of the United States Code.

(b)(1) A circulation element consisting of the general location and extent of existing and proposed major thoroughfares, transportation routes, terminals, any military airports and ports, and other local public utilities and facilities, all correlated with the land use element of the plan.

(2)(A) Commencing January 1, 2011, upon any substantive revision of the circulation element, the legislative body shall modify the circulation element to plan for a balanced, multimodal transportation network that meets the needs of all users of streets, roads, and highways for safe and convenient travel in a manner that is suitable to the rural, suburban, or urban context of the general plan.

(B) For purposes of this paragraph, "users of streets, roads, and highways" means bicyclists, children, persons with disabilities, motorists, movers of commercial goods, pedestrians, users of public transportation, and seniors.

(c) A housing element as provided in Article 10.6 (commencing with Section 65580).

(d)(1) A conservation element for the conservation, development, and utilization of natural resources including water and its hydraulic force, forests, soils, rivers and other waters, harbors, fisheries, wildlife, minerals, and other natural resources. The conservation element shall consider the effect of development within the jurisdiction, as described in the land use element, on natural resources located on public lands, including military installations. That portion of the conservation element including waters shall be developed in coordination with any countywide water agency and with all district and city agencies, including flood management, water conservation, or groundwater agencies that have developed, served, controlled, managed, or conserved water of any type for any purpose in the county or city for which the plan is prepared. Coordination shall include the discussion and evaluation of any water supply and demand information described in Section 65352.5, if that information has been submitted by the water agency to the city or county.

(2) The conservation element may also cover all of the following:

(A) The reclamation of land and waters.

(B) Prevention and control of the pollution of streams and other waters.

(C) Regulation of the use of land in stream channels and other areas required for the accomplishment of the conservation plan.

(D) Prevention, control, and correction of the erosion of soils, beaches, and shores.

(E) Protection of watersheds.

(F) The location, quantity and quality of the rock, sand and gravel resources.

(3) Upon the next revision of the housing element on or after January 1, 2009, the conservation element shall identify rivers, creeks, streams, flood corridors, riparian habitats, and land that may accommodate floodwater for purposes of groundwater recharge and stormwater management.

(e) An open-space element as provided in Article 10.5 (commencing with Section 65560).

(f)(1) A noise element that shall identify and appraise noise problems in the community. The noise element shall recognize the guidelines established by the Office of Noise Control * * * and shall analyze and quantify, to the extent practicable, as determined by the legislative body, current and projected noise levels for all of the following sources:

(A) Highways and freeways.

(B) Primary arterials and major local streets.

(C) Passenger and freight on-line railroad operations and ground rapid transit systems.

(D) Commercial, general aviation, heliport, helistop, and military airport operations, aircraft overflights, jet engine test stands, and all other ground facilities and maintenance functions related to airport operation.

(E) Local industrial plants, including, but not limited to, railroad classification yards.

(F) Other ground stationary noise sources, including, but not limited to, military installations, identified by local agencies as contributing to the community noise environment.

(2) Noise contours shall be shown for all of these sources and stated in terms of community noise equivalent level (CNEL) or day-night average level (L_{dn}). The noise contours shall be prepared on the basis of noise monitoring or following generally accepted noise modeling techniques for the various sources identified in paragraphs (1) to (6), inclusive.

(3) The noise contours shall be used as a guide for establishing a pattern of land uses in the land use element that minimizes the exposure of community residents to excessive noise.

(4) The noise element shall include implementation measures and possible solutions that address existing and foreseeable noise problems, if any. The adopted noise element shall serve as a guideline for compliance with the state's noise insulation standards.

(g)(1) A safety element for the protection of the community from any unreasonable risks associated with the effects of seismically induced surface rupture, ground shaking, ground failure, tsunami, seiche, and dam failure; slope instability leading to mudslides and landslides; subsidence, liquefaction, and other seismic hazards identified pursuant to Chapter 7.8 (commencing with Section 2690) of Division 2 of the Public Resources Code, and other geologic hazards known to the legislative body; flooding; and wildland and urban fires. The safety element shall include mapping of known seismic and other geologic hazards. It shall also address evacuation routes, military installations, peakload water supply requirements, and minimum road widths and clearances around structures, as those items relate to identified fire and geologic hazards.

(2) The safety element, upon the next revision of the housing element on or after January 1, 2009, shall also do the following:

(A) Identify information regarding flood hazards, including, but not limited to, the following:

(i) Flood hazard zones. As used in this subdivision, "flood hazard zone" means an area subject to flooding that is delineated as either a special hazard area or an area of moderate or minimal hazard on an official flood insurance rate map issued by the Federal Emergency Management Agency. The identification of a flood hazard zone does not imply that areas outside the flood hazard zones or uses permitted within flood hazard zones will be free from flooding or flood damage.

(ii) National Flood Insurance Program maps published by FEMA.

(iii) Information about flood hazards that is available from the United States Army Corps of Engineers.

(iv) Designated floodway maps that are available from the Central Valley Flood Protection Board.

(v) Dam failure inundation maps prepared pursuant to Section 8589.5 that are available from the Office of Emergency Services.

(vi) Awareness Floodplain Mapping Program maps and 200-year flood plain maps that are or may be available from, or accepted by, the Department of Water Resources.

(vii) Maps of levee protection zones.

(viii) Areas subject to inundation in the event of the failure of project or nonproject levees or floodwalls.

(ix) Historical data on flooding, including locally prepared maps of areas that are subject to flooding, areas that are vulnerable to flooding after wildfires, and sites that have been repeatedly damaged by flooding.

(x) Existing and planned development in flood hazard zones, including structures, roads, utilities, and essential public facilities.

(xi) Local, state, and federal agencies with responsibility for flood protection, including special districts and local offices of emergency services.

(B) Establish a set of comprehensive goals, policies, and objectives based on the information identified pursuant to subparagraph (A), for the protection of the community from the unreasonable risks of flooding, including, but not limited to:

(i) Avoiding or minimizing the risks of flooding to new development.

(ii) Evaluating whether new development should be located in flood hazard zones, and identifying construction methods or other methods to minimize damage if new development is located in flood hazard zones.

(iii) Maintaining the structural and operational integrity of essential public facilities during flooding.

(iv) Locating, when feasible, new essential public facilities outside of flood hazard zones, including hospitals and health care facilities, emergency shelters, fire stations, emergency command centers, and emergency communications facilities or identifying construction methods or other methods to minimize damage if these facilities are located in flood hazard zones.

(v) Establishing cooperative working relationships among public agencies with responsibility for flood protection.

(C) Establish a set of feasible implementation measures designed to carry out the goals, policies, and objectives established pursuant to subparagraph (B).

(3) After the initial revision of the safety element pursuant to paragraph (2), upon each revision of the housing element, the planning agency shall review and, if necessary, revise the safety element to identify new information that was not available during the previous revision of the safety element.

(4) Cities and counties that have flood plain management ordinances that have been approved by FEMA that substantially comply with this section, or have substantially equivalent provisions to this subdivision in their general plans, may use that information in the safety element to comply with this subdivision, and shall summarize and incorporate by reference into the safety element the other general plan provisions or the flood plain ordinance, specifically showing how each requirement of this subdivision has been met.

(5) Prior to the periodic review of its general plan and prior to preparing or revising its safety element, each city and county shall consult the California Geological Survey of the Department of Conservation, the Central Valley Flood Protection Board, if the city or county is located within the boundaries of the Sacramento and San Joaquin Drainage District, as set forth in Section 8501 of the Water Code, and the Office of Emergency Services for the purpose of including information known by and available to the department, the office, and the board required by this subdivision.

(6) To the extent that a county's safety element is sufficiently detailed and contains appropriate policies and programs for adoption by a city, a city may adopt that portion of the county's safety element that pertains to the city's planning area in satisfaction of the requirement imposed by this subdivision.

SEC. 5. No reimbursement is required by this act pursuant to Section 6 of Article XIII B of the California Constitution because a local agency or school district has the authority to levy service charges, fees, or assessments sufficient to pay for the program or level of service mandated by this act, within the meaning of Section 17556 of the Government Code.

SIERRA CLUB

KERN-KAWEAH CHAPTER



Carole A. and J. Peter Clum
45638 South Fork Drive
Three Rivers, CA 93271
(559) 561-4661
February 24, 2012

David Bryant, Project Planner
Tulare County Resource Management Agency
Government Plaza
5951 South Mooney Blvd
Visalia CA 93277

Re: Additional Comments on the Tulare County General Plan 2030 Update Final Environmental Impact Report (FEIR)

Dear Mr. Bryant:

We are submitting these additional comments on the FEIR because of the County's continuing unwillingness to respond in any meaningful manner to our concerns about the FEIR's failure to comply with Assembly Bill No. 162, to adequately describe the environmental setting for and to adequately analyze and to mitigate for the General Plan 2030 Update's flood hazard impacts. Since the release of the FEIR on August 30, 2011, the County has issued a number of Public Policy Comment Matrices, Summary of Changes, and Correctory Tables. The last Correctory Table we have reviewed is the version dated 11-10-11 which we received at the Planning Commission meeting December 7, 2011, as Attachment 3C to agenda item number 6A.

Some of the attachments to this comment letter appeared in our earlier comment letters. For convenience of reference, we again included the shorter ones.

Sincerely,

Carole A. Clum

Carole A. Clum
Member
Kern-Kaweah Chapter Sierra Club

J. Peter Clum

J. Peter Clum
Member
Kern-Kaweah Chapter Sierra Club

Attachments:

1. Tulare County Flood Control District Act (1969 ch 1149 as amended through Stats 1984 ch 1128)

2. An Agreement Between the Reclamation Board of the State of California and the County of Tulare dated November 28, 1989

3. Goals and Policies Report (Part I) page 15-1, Incorporation by Reference of the 1972 Tulare County Flood Control Master Plan as Chapter 15 of the General Plan Update

4. (a) Tulare County Resource Management Agency July 13, 2000, Request for Proposals for Review of the Tulare County Flood Control Master Plan and Hydrology Appendix
   (b) Spink Corporation August 11, 2000, Cost Proposal to Prepare Scope of Services to Update Tulare County Flood Control Master Plan and Hydrology Appendix
   (c) Agreement of October 6, 2000, between Tulare County and Spink Corporation to Prepare the Scope of Services
   (d) Scope for the Tulare County Flood Control Master Plan Update, February 2001, The Spink Corporation

5. Tulare County Grand Jury Report 2005/2006, Flood Potential on St. Johns River Levee Districts I and II

6. Flood Insurance Study, Tulare County, California and Incorporated Areas, Federal Emergency Management Agency, June 16, 2009, cover page, table of contents, and pages 30-38

7. 44 CFR Ch.1 (10-1-10 Edition) pages 203 to 211 and pages 294 to 295

8. California Model Floodplain Management Ordinance for Noncoastal Communities, December 2006

9. Pending Amendments to the Tulare County Flood Damage Prevention Ordinance Code of Tulare County, Part VII, Chapter 27, Sections 7-27-1010, 7-27-1100 and 7-27-1180

10. California Public Records Act request by Carole and Peter Clum dated December 27, 2011, (assigned PRA number 20112023 by County) and eight subsequent documents prepared variously by Tulare County Counsel or Clums consisting of:

Tulare County Counsel letter to Clums dated January 6, 2012;
Clums letter to Tulare County Counsel dated January 12, 2012;
Tulare County Counsel letter to Clums dated January 13, 2012;
Tulare County Counsel letter to Clums dated January 18, 2012;
Tulare County Counsel letter to Clums dated January 20, 2012;
Clums letter to Tulare County Counsel dated January 27, 2012;
Tulare County Counsel letter to Clums dated February 1, 2012;
Peter Clum's Public Comments delivered February 7, 2012, to Tulare County Board of Supervisors

11. FEMA letter of November 25, 2011, to Mr. Jack (sic) Raper, Resource Management Agency Director, Tulare County

12. Tulare County Counsel letter to Peter Clum dated October 10, 2011

13. March 28, 2011, Minutes of Tulare County Water Commission Meeting

14. July 19, 2011, Minutes of Tulare County Flood Control Commissioners Meeting

15. September 23, 2011, Minutes of Tulare County Flood Control Commissioners Meeting

16. October 28, 2011, Minutes of Tulare County Flood Control Commissioners Meeting

17. February 3, 2012, Minutes of Tulare County Flood Control Commissioners Meeting

18. March 7, 2011, Minutes of Tulare County Water Commission

19. Flood Plain Determination for the Kaweah River Basin Investigation, California, January 1991, U.S. Army Corps of Engineers

20. March 23, 2011, Minutes of Tulare County Flood Control Commissioners Meeting

21. James May's Presentation to Tulare County Water Commission, April 26, 2010

22. April 29, 2011, Minutes of Tulare County Flood Control Commissioners Meeting

23. James May's July 27, 2009, Report to the Tulare County Water Commission on the Risk of Flooding and Levee Failure

24. California Public Records Act request by Carole Clum dated December 16, 2011, (assigned PRA number 20111989 by County) and nine subsequent documents prepared variously by Tulare County Counsel or Clums consisting of:

Tulare County Counsel letter to Clums dated December 21, 2011;
Carole Clum letter to Tulare County Counsel dated December 27, 2011;
Tulare County Counsel letter to Clums dated January 6, 2012;
Clums letter to Tulare County Counsel dated January 12, 2012;
Tulare County Counsel letter to Clums dated January 13, 2012;
Tulare County Counsel letter to Clums dated January 18, 2012;
Tulare County Counsel letter to Clums dated January 20, 2012;
Tulare County Counsel letter to Clums dated February 1, 2012;
Tulare County Counsel letter to Clums dated February 15, 2012

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The FEIR Fails to Adequately Determine and Describe the Environmental Setting for and to Analyze and Mitigate for the General Plan 2030 Update's Flood Hazard Impacts

Despite being on notice that the environmental setting for flood hazards is inadequate, Tulare County has failed in its responsibility to exercise reasonable efforts first, to determine and second, to describe and depict with any particularity the existing physical conditions in the project area, that is, the real conditions on the ground relative to flooding. This failure is compounded by the General Plan's lack of a valid land use element and map. The result of these flaws is a void of meaningful and useful information for the decision makers and the public to evaluate the General Plan's impact on flood hazards and how they relate to the development permitted under the General Plan.

These comments will first touch on some information which highlights the County's authority over flooding and flood hazards, its failures to properly exercise its authority, and thereafter discuss specific aspects in detail.

In 1979, California enacted the Tulare County Flood Control District Act "to create a flood control district to be called Tulare County Flood Control District; to provide for the control of flood and stormwaters and the protection of watercourses, watersheds, harbors, public highways, life and property from damage or destruction from such waters. . ." Attachment 1. Section 6 designates the Tulare County Board of Supervisors as the Board of Supervisors of the Tulare County Flood Control District. The RDEIR states "The Tulare County Flood Control District, a countywide district governed by the County Board of Supervisors, is the local flood management agency. Tulare County participates in the National Flood Insurance Program Rating System, uses FEMA insurance rate maps, and enforces Ordinance Code of Tulare County Part VII, Chapter 27, Flood Damage Prevention" (third paragraph page 3.6-29) and "As such, the County Flood (sic) District has authority to address local drainage, flooding and related issues such as levee failure." (third paragraph page 3.6-34)

RDEIR page 3.6-7, last paragraph notes "A 1995 [typographical error, correct date is **1989] jurisdictional Agreement between Tulare County and the Bureau of Reclamation authorizes Tulare County's determination of flood controls** for Cottonwood Creek, Cross Creek and the St. Johns River. (emphasis added.) We have attached this 1989 agreement, which was obtained from the Central Valley Flood Protection Board (formerly the Reclamation Board), as Attachment 2. We encourage the reader to review this agreement which settled "a lawsuit contesting the jurisdiction of the Board over the St. Johns River and Cottonwood Creek floodways in Tulare County. . ." (page 1, line 11, Attachment 2.) Page 2, line 3 notes "Whereas, the Board and County are interested in administering a program for controlling water courses within the floodplains of the St. Johns River, Cottonwood Creek and Cross Creek by **exercise of local control over encroachments into these water courses** (emphasis added) in consultation with the Board in connection therewith; now, therefore, it is mutually agreed as follows: 1. The County shall administer the St. Johns River, Cottonwood Creek and Cross Creek floodplains pursuant to its own building, zoning and subdivision regulations adopted by the Board of Supervisors. . ." Line 25 provides "4. FEMA Zone A, AO, AH, A1-30 and B, as in Tulare County Ordinance No. 2725, Section 7006.20a(b) and the

FEMA maps for the St. Johns River, Cottonwood Creek and Cross Creek shall be administered as set out in exhibit "A" attached hereto." The first sentence of Exhibit A provides "The County will administer the FEMA Zones A, AO, AH, A1-A30 and B for the St. Johns River, Cottonwood Creek and Cross Creek. . ." The 1989 agreement discusses the County's permitting responsibilities and notes on page 3, line 20 the County may amend pertinent County ordinances "**as long as such amendments comply with the requirements of FEMA's program.**" The last line on page 3 notes "**Amendments required by the Federal Government under the FEMA program. . .**" (emphasis added.)

Another means by which the County is authorized to act relative to flooding and flood hazards is the **Flood Control Master Plan for Tulare County** prepared in 1971 and adopted in 1972. The County's Flood Damage Prevention Ordinance (Ordinance Code of Tulare County, Part VII, Chapter 27) Section 7-27-1115 provides "The Board of Supervisors, Planning Commission, Site Plan Review committee and Zoning Administrator **shall weigh all requests for future flood plain development against the Flood Control Master Plan of the Tulare County** (sic) **Control District.** (emphasis added.) See Attachment 5(a) Sierra Club November 15, 2011, comments. The Flood Control Master Plan was adopted by the Tulare County Board of Supervisors in 1972 upon the recommendation of the Tulare County Flood Control District. Goals and Policies Report (Part 1) Page 15-1 notes "This adopted element is incorporated into this General Plan Update document as Chapter 15 and is not being amended at this time. A copy of the adopted element is available through the Tulare County Resource Management Agency and is also available on the internet at http://generalplan.co.tulare.ca.us/." Page 15-1 is included as Attachment 3. The description further provides "This element addresses issues particularly related to flood control along natural watercourses in Tulare County." This one sentence is an example of the County's failure to fulfill CEQA informational requirements, see CEQA Guidelines Section 15150(c) pertaining to incorporation by reference. This description is so general and incomplete as to be misleading. One need only spend a brief period reviewing the Flood Control Master Plan to appreciate that it covers much more than issues "particularly related to flood control along natural water courses." Page 5 states "This report presents a Flood Control Master Plan for Tulare County and portions of Fresno, Kings and Kern Counties where flooding problems are related to those in Tulare County. It includes significant meteorologic, hydrologic, geologic and typographic factors important to flooding in the area and the effect of man's activities on distribution of flood waters." For example, the third and fourth paragraphs on page 1, the third paragraph on page 13, and the third paragraph on page 15 describe the effects on flood flows of major canal systems, numerous irrigation ditches, and stream bed alteration and obliteration. Presumably the County incorporated by reference the 1972 Tulare County Flood Control Master Plan because it believed it had some relevance to the General Plan 2030 Update as it indicated on (Part 1) page 1-12 Goals and Policies Report that it addressed the State mandated elements of land use and safety. However, we note that **an existing plan is inadequate to establish a baseline if the plan is out of date.**

As discussed later in these comments, **the County knows or should know the Flood Control Master Plan is out of date.** Tulare County retained the services of the Spink

Corporation (the same corporation which prepared the 1972 Flood Control Master Plan) to review the existing Flood Control Master Plan and Hydrology Appendix, prepare a recommendation for necessary updates, identify the tasks required to prepare a comprehensive update, and prepare costs estimate. Attachments 4(a), (b), (c) and (d). Interestingly, the date of this report would indicate the County was concerned about the currency/validity of the 1972 Flood Control Master Plan and Hydrology Appendix inasmuch as the date of the County's request for proposals, and the subsequent agreement with and report of the Spink Corporation coincide with the earliest time we know the County was working on the General Plan Update. Page 10-1 of both the December 2007 and February 2010 Background Report refer in the third paragraph to the 2001 Tulare County General Plan Background Report. The report of the Spink Corporation dated February 2001 identified a variety of reasons why the County needed to update the 1972 Flood Control Master Plan and Hydrology Appendix. The County apparently decided against an update as evidenced by the existence of the 1972 Flood Control Master Plan incorporated by reference as part of the General Plan 2030 Update. **One must ask, if you know you have an out of date Flood Control Master Plan and Hydrology Appendix, how can you reasonably expect to produce a valid land use, safety, circulation and conservation element in your general plan update?**

The 2005/2006 Grand Jury Report on Flood Potential on the St. Johns River Levee Districts 1 and 11 is yet another reason the county knew it lacked accurate baseline information relative to flooding in Tulare County. The reader is encouraged to review Attachment 5. Finding 14 provides "There are no active programs for levee maintenance or channel inspections within Tulare County." Finding 16 states "Vegetation and trash clog many of the county's tributaries." Finding 20 "The COE [Army Corps of engineers] will not certify the levees within the two levee districts because they do not meet the COE certification standards." Finding 21 "FEMA also recognizes that the levees are not up to standards."

Another clear indication to the County that it had an out of date Flood Control Master Plan is the language contained in the December 2007 Background Report which accompanied the 2008 release of the DEIR and the February 2010 Background Report which was released with the 2010 release of the RDEIR. And remember, we know that at least as early as 2001 the County had prepared a General Plan Background Report. **Both page 8-14 of the 2007 and 2010 Background Report and page 3.6-30 RDEIR put the County on clear notice there is a problem with data and information pertaining to flood hazards.** The Third paragraph of page 8-14 in each Background Report starts off "**The flood carrying capacity in rivers and streams has decreased** as trees, vegetation, and structures (e.g., bridges, trestles, buildings) have increased along the Kaweah, Kings, and Tulare Rivers." The Fourth paragraph on page 8-14 in each Background Report starts off "**Updated channel analyses have not been performed** to determine the amount of obstruction posed by vegetation and development in the Kaweah, Kings, or Tule River channels. **As such, FEMA maps depicting the 100-year floodplain for rivers probably do not reflect the true extent and risk of flooding hazards in Tulare County."** (emphasis added.) The last paragraph of page 3.6-30 RDEIR repeats the same language and contains the additional caveat "**Also, FEMA analysis of predicted flooding does not account for**

the effects of continued land subsidence, local drainage issues . . .." Given the County's statement in the Goals and Policies Report (Part I) page 15-1 that the 1972 Flood Control Master Plan addresses "issues particularly related to flood control along natural watercourses in Tulare County; given the County's authority under the 1969 Tulare County Flood Control District Act; given the County's assertion of local control in the 1989 settlement agreement with the Reclamation Board of the State of California; given the 2005/2006 Grand Jury Report of Flood Potential on the St. Johns River Levee District I and II (Attachment 5); given the above quoted statements from the Background Reports and RDEIR; and given the statements in various forums by James May, the Tulare County Flood Control District Engineer, which are detailed later in the comments at pages 17, 18, 20 to 25, and 30 and Attachments 13 to 23, how could any concerned County official or concerned member of the public conclude the 1972 Tulare County Flood Control Master Plan was current and that he or she should proceed with a General Plan 2030 Update which incorporates this out of date plan? Perhaps this is why the RDEIR at page 3.67-53 at the end of the second paragraph states '**Until the County has implemented needed updates of its land use maps with current flood information and met Safety Element provisions now defined in Government Code 65302(g),** flood related impacts of the proposed project will be significant." (emphasis added.) Regardless of the meaning intended by the consultants who drafted the language, we are concerned that there is no straightforward discussion in the analysis of Impact 3.6-5, pages 3.6-52 to 54 RDEIR, of the import of the statements quoted above from page 8-14 of the Background Report and page 3.6-30 RDEIR. Similarly, we are concerned that the statements on page 3.6-33 RDEIR under the heading Local Drainage and Levee Failure Issues receive no meaningful discussion in the analysis of Impact 3.6-6 on pages 3.6-55 to 57. "Levees have been built throughout the region, primarily to increase available land for agriculture. Such levees rarely meet current standards for flood protection. In locations where homes or other urban development occurs behind agricultural levees, those areas are likely to experience drainage issues as flood waters are held behind the levees, unable to drain to the river. Identification of potential drainage and levee issues and prevention of development in affected areas has been found to be more effective than fixing such problems through larger levees. Continued encroachment by adjacent property owners, budget limitations, along with environmental limitations on maintenance of natural and manmade watercourses has resulted in the reduced effectiveness of these structures."

Also of concern are the qualifications of information appearing in the **Flood Insurance Study (FIS), Tulare County, California and Incorporated Areas**, conducted by FEMA and dated June 16, 2009, and upon which flood insurance rate maps (FIRM) are based. This study is referred to in the RDEIR, for example, pages 3.6-7, 3.6-8, 3.6-29, and 3.6-53 but is not incorporated by reference. The FIS, if accurate, includes the type of detail required for land use planning and preparing the safety and conservation elements. The FIS does contain some very important caveats which should place County officials and concerned citizens on notice that information contained in the FIS may not be a good predictor. These caveats appear in pages 30 to 38 which we have included as Attachment 6. First, the next to last paragraph on page 30 states "The hydraulic analyses for this FIS were based on unobstructed flow. The flood elevations shown on the profiles are thus considered valid only if hydraulic structures remain unobstructed, operate properly, and do not fail." Of course we know from page 8-14 Background

Report, page 3.6-30 RDEIR, the Findings of the 2005/2006 Grand Jury Report, and statements of the Tulare County Flood Control District Engineer, all discussed earlier and later in these comments, that unobstructed flow through hydraulic structures is not likely to be the case. Secondly, pages 36 through 38 discusses the lack of accreditation of the levees and notes on page 36 "For FEMA to continue to accredit the identified levees with providing protection from the base flood, the levees must meet the criteria of the Code of Regulations, Title 44, Section 65.10 (44 CFR 65.10), titled Mapping of Areas Protected by Levee Systems." On page 37 it is noted that "FEMA understood that it may take time to acquire and/or assemble the documentation necessary to fully comply with 44 CFR 65.10." The FIS update published June 16, 2009, appears to have addressed only four levees along St. Johns River and notes in the last sentence of the first paragraph on page 38 that "for all four levees, no accreditation data were ever submitted." As noted on page 3.6-33 RDEIR, the comments of the Tulare County Flood Control Engineer referred to on pages 24, 25 and 30 and Attachment 23 of these comments, and the 1989 jurisdictional agreement between the Reclamation Board of the State of California and Tulare County (Attachment 2), there are other levees in Tulare County. None are up to standards. Further, as noted earlier, the language in the last paragraph of page 3.6-30 RDEIR "Also FEMA analysis of predicted flooding does not account for the effects of continued land subsidence, local drainage issues . . ." should give one pause about the reliability of the 2009 FIS.

The County has failed to properly exercise its authority to determine and describe and depict the environmental setting of flood hazard conditions. At best what we have is a generalized discourse much of which is generic in nature and non-specific to Tulare County. It is not enough to state "The flood carrying capacity in rivers and streams has decreased as trees, vegetation, and structures (e.g. bridges, trestles, buildings) have increased along the Kaweah, Kings, and Tule Rivers" or that "Updated channel analyses have not been performed to determine the amount of obstruction posed by vegetation and development in the Tulare County river channels," or that "FEMA maps probably do not reflect the true extent and risk of flooding hazards in Tulare County," or as noted by the Tulare County Flood Control District Engineer that because of human changes to topography and structures flood flows are unpredictable or no more accurate than throwing darts at a dartboard. Rather, the environmental setting or real conditions on the ground as to flood flows and flooding hazards have not been determined because of the County's failure to exercise its authority and responsibility to determine, describe and depict accurately the actual flood hazard conditions. Flood plain overflow patterns are a dynamic problem constantly changing with time because of urban and agricultural development. No analysis is perfect of course, but in Tulare County the Board of Supervisors has failed to exercise the appropriate level of reasonable governance over flood hazards and the human actions which effect them and as a result has failed to determine the real conditions on the ground as to flood hazards. Without the appropriate baseline, significant environmental effects cannot be determined and analyzed nor mitigation measures or alternatives developed. A crapshoot is not good enough.

As noted in our May 26, 2010, and November 15, 2011, comments, the County has failed to comply with **Assembly Bill No. 162** approved October 10, 2007, which amended and added sections to California's general plan law. With the changes to the

land use, conservation, and safety elements, the State has clearly stated that, in addition to past practice, it wants certain existing/baseline conditions to be determined and considered. Government Code Section 65302(a) was amended to include "**The location and designation of the extent of the uses of land for public and private uses shall consider the identification of land and natural resources pursuant to paragraph 3 of subdivision (d).**" (emphasis added.) Government Code Section 65302(d)(3) added the **statutorily imposed baseline** of "Upon the next revision of the housing element on or after January 1, 2009, the conservation element **shall identify rivers, creeks, streams, flood corridors, riparian habitats, and land that may accommodate floodwater for purposes of groundwater recharge and stormwater management.**" (emphasis added.) Safety element provisions were also amended to add statutorily imposed determination of baseline conditions, discussed later at pages 15 to 34. Since the release of the FEIR on August 30, 2011, the County has issued a number of "correctories" which purport to demonstrate the County's belated compliance with Assembly Bill No. 162. Not only do these changes fail to correct the defects, as we will discuss in detail, but they also fail to address a fundamental flaw in the general plan land use, conservation, and safety elements. That is, that this statutorily mandated baseline data like all "baseline determination is the first rather than the last step in the environmental process." *Save Our Penisula Committee v. Monterey Board of Supervisors* (6th Dist. 2001) 87 Cal.App.4th 99 at p. 125. "It is only against this baseline that any significant environmental effects can be determined." *County of Amador v. El dorado County Water Agency* (3d Dist. 1999) 76 Cal.App.4th 931 at 952.

As a participant in the **National Flood Insurance Program (NFIP)** administered by FEMA, the County, in order to comply with flood plain management criteria for flood-prone areas, is obliged (1) to report, or assure the reporting, to FEMA of new technical data affecting flooding conditions, and (2) to notify adjacent communities and the Department of Water Resources prior to any alteration or relocation of a watercourse and submit evidence of such notification to FEMA, and (3) to assure that the flood carrying capacity within the altered or relocated watercourse is maintained. "**Watercourse** means a lake, river, creek, stream, wash, arroyo, channel or other topographic feature on or over which waters flow at least periodically. Watercourse includes specifically designated areas in which substantial flood damage may occur." 44 CFR Ch. 1 (10-1-10 Edition) Sections 59.1, 60.1(a) and (b), 60.3(b), 65.1, and 65.3 (See Attachment 7); California Model Floodplain Damage Ordinance sections 2.0, 4.2A and D, and 4.3 (See Attachment 8); and Ordinance Code of Tulare County Part VII, Chapter 27, (hereafter Tulare County Flood Damage Prevention Ordinance) Articles 1010 and 1100(a) and 1c (See Attachment 9 these comments and Attachments 5(a) and (b) Sierra Club November 15, 2011, comments). Attachment 9, amendments to Sections 7-27-1010, 7-27-1100, and 7-27-1180 of the Tulare County Flood Damage Prevention Ordinance is pending approval by the Tulare County Board of Supervisors in order to bring the ordinance into compliance with NFIP regulations. It is anticipated these amendments will be adopted on February 28, 2012, and become effective March 30, 2012. Attachment 11 is a letter from FEMA dated November 25, 2011 reminding the County its Flood Damage Prevention Ordinance is still not FEMA compliant. (In this regard, see also Attachments 29, 5(c), and 30 of Sierra Club Comments dated November 15, 2011.)

At this point, it is appropriate to define "development." "**Development** means any man-made change to improved or unimproved real estate, including, but not limited to, buildings or other structures, mining, dredging, filling, grinding, paving, excavation or drilling operations or storage of equipment or materials" within the area of special flood hazard. See Section 59.1 Attachment 7, Section 2.0 Attachment 8, and Section 7-27-1010 Attachment 9.

The ultimate purpose of this intended regulatory scheme is to provide a permitting and oversight process to keep track of baseline conditions affecting flood flows and hazards. We note that the section of the Code of Federal Regulations cited in these comments have been in effect since at least 1986. Section 65.3 "**Requirement to submit new technical data**" notes "A community's base flood elevations may increase or decrease resulting from physical changes affecting flooding conditions" and emphasizes that the requirement to submit to FEMA new technical or scientific data as soon as practicable but not later than six months after the date such information becomes available "**is necessary so that upon confirmation of those physical changes affecting flooding conditions, risk premium rates and flood plain management requirements will be based upon current data**." (emphasis added.) This requirement has been in existence since 1986. See regulatory citation 51 FR 30313, Aug. 25, 1986, at end of Section 65.3 **Its omission** from the Tulare County Flood Damage Prevention Ordinance was one of the **serious deficiencies** noted in the County's ordinance during FEMA's Community Assistance Visit of August 11, 2010. See Attachment 29, Sierra Club comment letter of November 15, 2011, specifically therein: (1) FEMA letter of December 29, 2010, to Steve Worthley, Chairman of the Board of Supervisors, Tulare County; (2) page 1 of FEMA Community Assistance Visit Report noting serious problems with community's floodplain management regulations; and (3) FEMA memorandum for Tulare County dated September 14, 2010, item 2 on first page, as well as other noted ordinance deficiencies. This serious deficiency in the Tulare County Flood Damage Prevention Ordinance would seem to explain, in part, why the County has been unable to produce any documents in response to Carole and Peter Clum's Public Record Act request of December 27, 2011 (Attachment 10). Perhaps it also explains Tulare County Counsel's position expressed in County Counsel's January 20, 2012, and February 1, 2012 letters to the Clums that the County has no affirmative responsibility to either submit or assure that others submit new technical and scientific data of physical changes affecting flooding conditions. See Attachment 10, documents six and eight therein. County Counsel expressed this opinion even though Tulare County had amended its Flood Damage Prevention Ordinance on June 10, 2011, at FEMA's direction to include the requirement. See Attachment 5(b) Sierra Club November 15, 2011, comment letter. Specifically Section 7-27-1100(c) on page numbered "10". Unfortunately, with its June 10, 2011, amendments to the Flood Damage Prevention Ordinance, the County failed to correct all deficiencies earlier noted by FEMA thus necessitiating further correction to the Flood Damage Prevention Ordinance which was again presented to the Board of Supervisors on February 8, 2012. See Attachment 30, Sierra Club November 15, 2011, comment letter, as well as Attachments 11 and 9 of this present comment letter.

The Code of Federal Regulations 44 CFR Ch.1 (10-1-10 Edition) "Part 60- Criteria for Land Management and Use, Subpart A – Requirements for Flood Plain Management Regulations" provides in Section 60.1(b) "These regulations [flood plain management

regulations] must be legally-enforceable, applied uniformly throughout the community to all privately and publicly owned land within flood-prone, mudslide (i.e., mudflow) or flood-related erosion areas, and the community must provide that the regulations take precedence over any less restrictive conflicting local laws, ordinances or codes." (See Attachment 7). It should be noted that in the 1989 Agreement between the Reclamation Board of State of California and the County of Tulare, the County agreed that its ordinances pertaining to building, zoning and subdivision regulations would comply with requirements of FEMA's program. See Attachment 2, page 3. On Page 7 of the 1989 agreement, Julia J. Roberts, Deputy County Counsel, signed for County Counsel. Julia J. Roberts is presently one of the Chief Deputies to County Counsel.

As previously discussed, Attachments 5(c), 29 and 30 of Sierra Club's November 15, 2011, comments contain various FEMA correspondence to Tulare County which, in part, identify a number of problem areas with Tulare County's compliance with the above described FEMA regulations, including building inspections and serious problems with Tulare County's Flood Damage Prevention Ordinance. (The initial FEMA correspondence to the County, Attachment 29 of Sierra Club comments of November 15, 2011, came to light as a result of the County's compliance with a Public Records Act request originating on September 19, 2011, from Peter Clum whether, as stated on page 3.6-53 RDEIR, the Tulare County Flood Damage Prevention Ordinance had been approved by FEMA. By letter dated October 10, 2011 [Attachment 12], Tulare County Counsel stated "There is no record of FEMA approval for the Flood Damage Prevention Ordinance," and forwarded the FEMA document contained in Attachment 29 of Sierra Club comments of November 15, 2011.) Paragraphs 2 and 3 on the first page of Attachment 11 indicate the County's Flood Damage Prevention Ordinance is still not in compliance with NFIP regulations. Attachment 9 represents the County's present effort to correct its ordinance.

It is against this backdrop that Carole and Peter Clum submitted on December 27, 2011, a Public Records Act request to examine County records since 1986 of:

(1) Tulare County records since 1986 of notification of other agencies of base flood elevation changes due to physical alterations: within six months of information becoming available or project completion, whichever comes first, the floodplain administrator shall submit or assure that the permit applicant submits technical or scientific data to the Federal Emergency Management Agency for a Letter of Map Revision, and

(2) Tulare County records since 1986 of alteration of watercourses: notification to adjacent cities and counties and the California Department of Water Resources prior to any alteration and relocation of a watercourse, and County records documenting the submission of evidence of such notification to the Federal Emergency Management Agency.

This request is the first document contained within Attachment 10. This Public Records Act request was submitted to get some idea of the County's compliance with regulatory requirements established by the cited provisions of the Code of Federal Regulations in light

of the shortcomings identified in the correspondence from FEMA. The County's response has been less than reassuring. Attachment 10 consists of nine different documents related to the Public Records Act request. Particular attention should be paid to the last four documents. On page 2 of County Counsel's January 20, 2012, letter it is stated:

> 3. "Tulare County Records since 1986 of Notification of other agencies of base flood elevation changes due to physical alterations."
>
> Response: This information, in the form of letters of map change issued by FEMA, is contained in the RMA files and is available for review. Any changes to the base flood elevations are undertaken by individual persons and not necessarily by the county. Please contact Jim May or Craig Anderson of the Department to arrange a time to review this material.
>
> 4. "Tulare County records since 1986 of Alteration of Watercourses."
>
> Response: Tulare County has not initiated any alteration of watercourses. Any alteration of watercourses would be undertaken by individuals or other jurisdictions.

Upon receipt of this letter, Carole and Peter Clum delivered a letter to County Counsel date stamped January 27, 2012, renewing the Public Records Act request and reminding County Counsel of the County's responsibilities in light of its participation in the NFIP program. Carole and Peter Clum received County Counsel's response in a February 1, 2012, letter which on page 2 states:

> 3. "Tulare County Records since 1986 of Notification of other agencies of base flood elevation changes due to physical alterations."
>
> Response: This information, in the form of letters of map change issued by FEMA, is contained in the RMA files and is available for review. Any changes to the base flood elevations are undertaken by individual persons and not necessarily by the county. Craig Anderson of the Department has arranged a time with you to review this material.
>
> **The County does not possess any records of notifications due to physical alterations to land that would change the base flood elevations since such changes are undertaken by individual persons directly with FEMA and not the County.** (emphasis added.)
>
> 4. "Tulare County records since 1986 of Alteration of Watercourses."
>
> Response: Tulare County has not initiated any alteration of watercourses. Any alteration of watercourses would be undertaken by individuals or other jurisdictions. **The County does not possess records regarding alteration of watercourses since 1986. The alteration of watercourses is a process administrated by the State of California.** (emphasis added.)

County Counsel's response not only seems to suggest the County has no role to play in the notification of other agencies of (1) alteration or relocation of a watercourse or (2) base flood elevation changes due to physical alteration resulting from development in the special flood hazard area unless the County is the entity initiating the development, but also suggests a profound lack of understanding of FEMA requirements, a lack of commitment to ensure the integrity of the Tulare County Flood Damage Prevention Ordinance, and a lack of commitment to ensure regulatory compliance. Such statements are troubling because (1) they seem to ignore the findings of FEMA during its Community Assistance Visit to Tulare County on August 11, 2010, and the required corrective action directed by FEMA; (2) they occur at the same time the County is moving forward with efforts to bring its Flood Damage Prevention Ordinance into compliance with NFIP requirements (In fact, the amendments to Section 7-27-1100 deal with the very same "notification to other agencies" requirement which County Counsel seems unaware of or unwilling to comply with); (3) they seem to completely ignore the agreement the County entered into in 1989 (Attachment 2); and (4) this leaves one wondering how diligent the County was over the years in complying with the regulatory scheme and how much information pertaining to alteration or relocation of watercourses and base flood elevation changes due to physical alteration resulting from development in the special flood hazard area may have gone unreported to FEMA. **Against this context one must question the County's efforts in determining and the accuracy of the environmental setting/baseline of physical conditions on the ground relative to flood hazards.** The last document contained in Attachment 10 is Peter Clum's public comments to the Tulare County Board of Supervisors concerning County Counsel's response to the Public Record Act request. To date, no response has been received.

Returning to County Counsel's February 1, 2012, letter to Carole and Peter Clum, we believe her response in paragraph numbered "4" is disingenuous in light of the language on page 2 of the 1989 Agreement (Attachment 2) between the State of California Board of Reclamation and the County of Tulare settling a lawsuit initiated by Tulare County, Tulare County Flood Control District, and others

> WHEREAS, the Board and County are interested in administering a program for controlling water courses within the floodplains of the St. Johns River, Cottonwood Creek and Cross Creek **by exercise of local control over encroachments in these water courses** in consultation with the Board in connection therewith

Clearly, by the express provisions of the agreement, local control is ceded to the County over encroachments [an alteration of a watercourse] into the watercourses of the St. Johns River, Cottonwood Creek and Cross Creek.

We ask what procedures has the County had in place since 1986 to assure compliance with the notification to the agencies requirement? The record seems to suggest none. The existence of an ordinance is not enough. The county's ordinance and procedures for reasonably assuring compliance therewith "must be legally enforceable, applied uniformly throughout the community to all privately and publicly owned land within flood-prone areas . . ." 44 CFR Ch. 1 (10-1-10 Edition) Section 60.1(b). See Attachment 7.

The General Plan Update Safety Element Does Not Comply With Assembly Bill No. 162

Government Code Section 65302(g)(2)(A) requires the County to identify information regarding flood hazards, but not limited to, (emphasis added) the sources listed (flood hazard zones, National Flood Insurance Program maps published by FEMA, U.S. Army Corps of Engineers studies, designated floodway maps available from the Central Valley Flood Protection Board.)

Goals and Policies Report (Part I page 15-1 incorporates the Flood Control Master Plan as an element of the General Plan Update. In the June 4, 1971, letter of transmittal from Murray, Burns & Kienlen and the Spink Corporation to the Tulare County Flood Control District, the engineers say they are "pleased to transmit our proposed Flood Control Master Plan for Tulare County, together with the Hydrology Appendix." The Hydrology Appendix is an integral part of the Tulare County Flood Control Master Plan. Page 7 of the Flood Control Master Plan provides "any plan for control of flooding in Tulare County must begin with hydrological analyses of floods. A separate Appendix to this report presents the detailed information on the hydrology of the area, including the technical approaches employed to develop anticipated flood peaks and volumes." Page 12 provides "Hydrologic studies for this report have developed estimates of the volumes of water occurring on each of the watersheds for return periods of 25 and 50 years and for 1-, 2-, 3- and 5-day maximum volumes during rain-floods. Development of these estimates is presented in the Appendix." Prior to February 20, 2012, the Hydrology Appendix was not available for examination at the Resource Management Agency, the minimum level of public availability required by CEQA Guidelines Section 15150(b). It is one of the eight reports requested by Carole Clum on December 16, 2011. As of February 15, 2012, the county was still continuing to search for the other documents. See Attachment 24.

In response to the Sierra Club's November 15, 2011, comments Section II page 23 on the FEIR's failure to include information about flood hazards identified by the U.S. Army Corps of Engineers, the County states in the General Plan 2030 Update Correctory Table Version Date 11-10-11 this information "is identified in the Flood Control Master Plan selected bibliography on page 58." The 24 reports in the selected bibliography date from the 1960s and 1970 and 1971. They are not available on the internet, Amazon.com or any other bookseller, or local libraries (except for the "Flood Plain Information, Kaweah River, Three Rivers, CA" 1967 in the Three Rivers Public Library.) These reports are not reasonably available. On December 16, 2011, Carole Clum asked David Bryant for eight reports from the selected bibliography so she could view them. Attachment 24. County Counsel chose to treat this request as a California Public Record Act request. One report, "Flood Plain Management Study, Tulare County," which was found in a Sea Train storage container two months after our request to review the eight reports, was presented for our review February 15, 2012. Another report, the Hydrology Appendix, was made available on February 20. The County is still searching for the other six reports. Their unavailability strongly suggests they could not possibly have been used by the County to identify and evaluate flood risk in the RDEIR. They certainly were not used by the County to satisfy the requirement of Assembly Bill No. 162 which requires the County to identify flood hazard

information [Government Code Section 65302(g)(2)(A) and then establish goals, policies, objectives, and feasible implementation measures to protect the County from unreasonable risk of flooding [Government Code Sections 65302(g)(2)(B) and (C)]. The information from the selected bibliography should have been presented in the safety element.

The February 2010 Background Report page 8-13 under Existing Conditions and RDEIR page 3.6-28 under Flooding and Drainage claims "Tulare County has a long history of flooding, but minimum definitive data is available for specific floods, particularly on the small streams."

The RDEIR page 3.6-14 under Tulare County Land Development Regulations, paragraph 2, states:

> County flood management regulations will be effected by the proposed project as State laws passed in 2007 require additional flood management measures be incorporated into the County ordinance code, flood maps and General Plan Safety Element.

Tulare County has not fulfilled the requirements of 2007 Flood Management Regulations of Assembly Bill No. 162.

RDEIR page 3.6-28 paragraph 3 states "Historical records indicate that nine significant flood events occurred in Fresno County [?] between 1840's and 1900, with the most recent large-scale flood occurring in 1955 and during the 1966-1967 water years. As recently as January 1997 and spring 1998, areas in the mountains, including the communities of Three Rivers and Springville, sustained flooding as heavy rains swelled creeks over their banks. Similarly, the City of Lindsay and the community of Earlimart sustained flooding in their vicinities during the same period and Earlimart as recently as 2005." This is too simplified a description of flood hazard zones.

RDEIR page 3.6-29 paragraph 3 states:

> Until recently, the County program described above was sufficient to meet federal, State and local regulations. However, Tulare County is now required to use State and local information (in addition to FEMA maps) to annually incorporate updated flood information into the County's General Plan Land Use Element (Government Code Sections 65302(a)) after January 2009, into the County General Plan Conservation and Safety Element (Government Code Sections 65302(d) and (g)). Tulare County will be subject to Statewide requirements that require up-to-date flood risk and drainage problem areas be identified, mapped, and addressed through County General Plan policies, maps and land use diagrams. If new areas are identified as flood risk areas in the General Plan maps, the County Zoning Ordinance (including zone district maps for affected areas) will need to be amended to correlate with the General Plan.

Since the 1972 Flood Control Master Plan is out of date and many topographical changes have occurred in the past 41 years, the County does not know where flood waters will flow.

Because the 1972 Flood Control Master Plan is out of date and many topographical changes have occurred in the past 41 years, the County does not know where flood waters will flow. The Tulare County Flood Control District Engineer told Carole Clum in a telephone conversation on January 24, 2012 that "**We used to know where the flood flows were going. Now it's a shot in the dark.**"

The RDEIR's discussion of 100-Year flood hazard on page 3.7-30 and 200-year and 500-year flood hazards on page 3.6-33 are generic and do not identify any specific areas vulnerable to flooding.

RDEIR page 3.6-52 under Impact Analysis states "A number of cities, communities, and hamlets within the county are located within or near 100-year flood plains which includes Cutler-Orosi, East Orosi, Traver, Woodlake, West Goshen, Visalia, Farmersville, Lindsay, Tulare, Strathmore, Tipton, Porterville, Pixley, Teviston, and Allensworth (see Figure 3.6-5.)" The Impact Analysis omits flood risk in the foothills and does not identify where the flooding would occur in the listed communities except to state "Floodplains occur primarily along creeks, rivers, and sloughs that flow throughout the County." This omits the complicated system of irrigation canals crisscrossing the valley. "Flood control concepts for Tulare County . . . must recognize the extensive canal systems which traverse the region in a complex and frequently interconnected network . . . ." "During many severe storms, however, the systems are not capable of [distributing damaging flood flows] . . .." and may, in fact, enlarge the area inundated by causing water to pond against canal banks or to enter canals and then flow to some point where capacity is inadequate." Tulare County Flood Control Master Plan 1972, page 13, paragraph 3.

There is no discussion of the statement that FEMA maps probably do not reflect the true extent and risk of flooding hazards in Tulare County. See Background Report page 8-14 (last two paragraphs) and RDEIR page 3.6-30 (last two paragraphs). The RDEIR repeats verbatim the language of the Background Report in the Flood and Drainage portion of the Environmental Setting but makes no mention of it in the analysis of Impact 3.6-5 on RDEIR pages 3.6-52 to 54. Similarly, the RDEIR pages 3.6-33 and 3.6-34 identified problems with levees in Tulare County and at page 3.6-7 (last paragraph) notes Tulare County's jurisdiction over levees. (The "1995 Jurisdictional Agreement between Tulare County and the Bureau of Reclamation" referenced on page 3.6-7 is actually a 1989 agreement. See Attachment 2.) The problems with the Tulare County levees receive no discussion in the analysis of Impact 3.6-5, pages 3.6-52 to 54 or of Impact 3.6-6 at pages 3.6-55 to 57. The analysis of Impact 3.6-6 does contain a generic discussion of levee failure, second paragraph page 3.6-55.

There are U.S. Army Corps of Engineers reports on flood plains of Kaweah River in Three Rivers, Tule River in Springville, and St. Johns River in greater Visalia which cover multiple flood events. These reports are discussed later in our comments. The 2009 FEMA Flood Insurance Study of greater Visalia is discussed later. In addition, as noted later in these comments Tulare County Flood Control District Engineer James May has made several reports to the Tulare County Water Commission concerning flooding, its causes, and its locations. The Background Report page 8-13 and RDEIR page 3.6-28 briefly mention flooding in Three Rivers and Springville (mountain communities) and the city of Lindsay and community of Earlimart in 1997 and 1998 but fail to mention repeated flooding or to delineate the extent of flooding or depth of flooding or how may homes, commercial

buildings, roads, bridges, or utilities were damaged. This gloss over does not satisfy CEQA's public disclosure and informational purposes.

The 1972 Tulare County Flood Control Master Plan, is incorporated by reference in the Goals and Policies Report (Part 1) page 15-1 as Chapter 15 Flood Control Master Plan Element. Attachment 3. This information should have been included in the Background Report, Goals and Policies Report, and RDEIR. Although the Flood Control Master Plan is out of date, it contains county wide historical information on locations of 1966 and 1969 flooding, its unpredictability due to man-made alterations, roads, cities, communities, and some landmarks at risk of flooding, and maximum release of water in cubic feet per second for once-in-25-year-floods and once-in-50-year-floods. Pertaining to the Flood Control Master Plan being out of date, see statements by the Tulare County Flood Control District Engineer to the Tulare County Water Commission on March 28, 2011. See last paragraph of page 2 of minutes. Attachment 13. See also second paragraph, page 2 of minutes of July 19, 2011, Tulare County Flood Control Commissioners meeting. Attachment 14. Also see minutes of the September 23, 2011, October 28, 2011, and February 3, 2012, Tulare County Flood Control Commissioners meeting which state no progress has been made on the Flood Control Master Plan Update. Attachments 15, 16 and 17. Also see Attachment 4(d), Scope for the Tulare County Flood Control Master Plan Update, February 2001, prepared by the Spink Corporation. The Flood Control Master Plan is not reasonably available to the general public or decision makers. It does exist on-line but the maps are in so small scale as to be of no practical use. It is not in the Tulare County public library system. A hard copy must be requested at the RMA desk, printed, and a week later picked up and paid for by the requestor. The first paragraph of Public Resources Code Section 21061, Environmental Impact Report states in part:

> provided that information or data which is relevant to such a statement and is a matter of public record or is generally available to the public need not be repeated in its entirety in such a statement, but may be specifically cited as the source for conclusions stated therein; and **provided further that such information or data shall be briefly described, that its relationship to the environmental impact report shall be indicated, and that the source thereof shall be reasonably available for inspection at a public place or building.**

The RDEIR does not specifically cite the Flood Control Master Plan as a source for conclusions, does not briefly describe the information in the Flood Control Master Plan or explain what its relationship to the RDEIR is.

CEQA Guideline Section 15150(c) Incorporation By Reference states:

> Where an EIR or Negative Declaration uses incorporation by reference, the incorporated part of the referenced document shall be briefly summarized where possible or briefly described if the data or information cannot be summarized. The relationship between the incorporated part of the referenced document and the EIR shall be described.

The RDEIR does not summarize or describe the information in the Flood Control Master Plan. The relationship between the RDEIR and Flood Control Master Plan is not described.

CEQA Guidelines Section 15150(f) Incorporation By Reference states:

> Incorporation by reference is most appropriate for including long, descriptive, or technical materials that provide general background but do not contribute directly to the analysis of the problem at hand.

The Flood Control Master Plan contains historical information about flood hazards in Tulare County and is an important document to be considered in fulfilling requirements of the safety element as modified by Assembly Bill No. 162.

Perhaps one reason the Background Report and RDEIR do not refer to the 1972 Tulare County Flood Control Master Plan is because it was known to be out of date. Yet (Part I page 15-1 Goals and Policies Report specifically incorporates the Flood Control Master Plan as an element of the General Plan. See Table 1.1 (Part I page 1-12, Goals and Policies Report and Table 2-5, page 2-7 RDEIR which list the relationship between the County's General Plan and the State Mandated Elements. The last item listed under Part I is "Flood Control Master Plan." Table 1.1 lists it as relating to the State mandated elements of Land Use and Safety. We suggest a Flood Control Master Plan would also relate to the conservation element (see Government Code Section 65302(d)(3) which provides "Upon the next revision of the housing element on or after January 1, 2009, the conservation element shall identify rivers, creeks, streams, flood corridors, riparian habitats and land that may accommodate floodwater for purposes of groundwater recharge and stormwater management." Instead, the County has identified rivers and streams that cannot accommodate floodwaters. See page 8-14 paragraphs 3 and 4 of both the Background Report and RDEIR which read:

> The flood carrying capacity in rivers and streams has decreased as trees, vegetation, and structures (e.g., bridges, trestles, buildings) have increased along the Kaweah, Kings, and Tule Rivers. Unsecured and uprooted material can be carried down a river, clogging channels and piling up against trestles and bridge abutments that can, in turn, give way or collapse, increasing blockage and flooding potential. Flooding can force waters out of the river channel and above its ordinary floodplain. Confined floodplains can result in significantly higher water elevations and higher flow rates during high runoff flood events.
>
> Updated channel analyses have not been performed to determine the amount of obstruction posed by vegetation and development in the Kaweah, Kings, or Tule River channels. Also, FEMA analysis of predicted flooding does not account for the effects of continued land subsidence, local drainage issues or the rise in sea level associated with the greenhouse effect. As such, FEMA maps depicting the 100-year floodplain for the rivers probably do not reflect the true extent and risk of flooding hazards in Tulare County. (Underlining added.)

The underlined sentence does not exist in the Background Report. Where in the RDEIR are the drainage problem areas identified? The "greenhouse effect" commonly called global climate change will not impact flooding in Tulare County because of sea level rise, but because of more intense storms predicted.

How can the County have a valid land use, safety and conservation element without a current Flood Control Master Plan?

The February 2001 Spink Corporation study "Scope for the Tulare County Flood Control Master Plan Update," states the need for an update due to:

- ongoing projects and studies by U.S. Army Corps of Engineers (Corps) and others,
- physical changes within individual drainage basins (such as grading, levees, in-stream and land storage, irrigation and drainage ditches, and diversions), caused by development and agricultural activities have impacted the quantity, frequency, and quality of run off,
- additional data on subsequent floods,
- new technologies which have led to major improvements in modeling techniques,
- regulatory changes enacted by state and federal government since 1971,
    - the National Flood Insurance Program (NFIP), administered by FEMA, which establishes guidelines for development of the Base Flood Elevations and Flood Hazard Boundary Maps and encourages floodplain management activities that exceed the minimum NFIP standards. (emphasis added.)
    - the 1973 Endangered Species Act (ESA) which can play a major role in permitting and construction of flood control projects, as well as the maintenance of existing facilities,
    - The Federal Water Pollution Control Act (also known as the Clean Water Act [CWA]) was amended in 1972 and requires the discharge of pollutants to waters of the United States is unlawful unless the discharge is in compliance with a National Pollutant Discharge Elimination System (NPDES) permit. New stormwater permit application requirements were published by the U.S. Environmental Protection Agency (USEPA) in 1990, which apply to construction projects that encompass five or more acres of soil disturbance and will require a NPDES permit. See Attachment 4 pages 1 to 3.

The 2001 scoping document provided by the Spink Corporation states that updating of the Flood Control Section is "very important for establishing critical projects and priorities." See Attachment 4 pages 7 to 8.

James May on Frequency of Flood Control Commission Meetings and Railroad Berm Removal Causing Altered Flood Flows

James May, Tulare County Flood Control District Engineer, stated the Flood Control Commission was inactive from December 15, 2005 to March 16, 2011, in a telephone conversation with Carole Clum on January 10, 2012. He also said that although the Flood Control Commission intended to meet quarterly prior to December 15, 2005, it actually met twice on most years and only once during one year.

James May also stated on January 10, 2012, that since the 2001 Spink study, there have been even more changes in valley topography than in the 30 years prior to the 2001 Spink study because railroad berms have been removed or lowered by railroads. Some landowners have breached the berms of abandoned railroad tracks to allow floodwaters to drain from their land to their neighbors.' The berms acted as levees. **He feels flood flow predictions now are as accurate as throwing darts at a dart board.**

James May gave a report to the Tulare County Water Commission on March 7, 2011, concerning flooding in Tulare County in December 2010. In this report, he said that flooding conditions in the County have been exacerbated by practices of agricultural land leveling, natural watercourse realignment, and constriction of the waterways. This is exemplified by the problems in Cottonwood Creek and its impacts in the area of Avenue 360. Mr. May pointed out that historic reliance on railroad track berms for flood controls has been impacted by the abandonment and removal of those lines. The railroad berms and tracts also served to protect communities by diverting storm flows to established watercourses. Later, in a telephone conversation with Carole Clum, James May identified Porterville and Strathmore as communities impacted by abandonment of the Visalia electric railway and removal of the berms. See Attachment 18.

James May on January 24, 2012, told Carole Clum in a telephone conversation, **"We used to know where the flood flows were going. Now it's a shot in the dark."**

The RDEIR pages 3.6-7 and 3.6-8 mentions the June 2009 FEMA map modifications. On page 3.6-30 under 100-Year Flood Hazard the County states:

> **The flood carrying capacity in rivers and streams has decreased as trees, vegetation, and structures (e.g., bridges, trestles, buildings) have increased along the Kaweah, Kings, and Tule rivers**. Unsecured and uprooted material can be carried down a river, clogging channels and piling up against trestles and bridge abutments that can, in turn, give way or collapse, increasing blockage and flooding potential. Flooding can force waters out of the river channel and above its ordinary floodplain. Confined floodplains can result in significantly higher water elevations and higher flow rates during high runoff flood events.
>
> **Updated channel analyses have not been performed to determine the amount of obstruction posed by vegetation and development in the Kaweah, Kings, or Tule River channels**. Also, **FEMA analysis of predicted flooding does not account for the effects of continued land subsidence, local drainage issues** or the rise in sea level associated with the greenhouse effect. As such, **FEMA maps depicting the 100-year floodplain for the rivers probably do not reflect the true extent and risk of flooding hazards in Tulare County.**

The RDEIR's analysis of Impact 3.6-5, pages 3.6-52 to 54 make no mention of this. This omission undercuts the validity of the impact analysis. The County needs an updated Flood Control Master Plan. Without it intelligent land use, conservation and safety decisions cannot be made.

Figure 3.6-5 Flood Hazards on page 3.6-31 RDEIR depicts in small scale the FEMA 100-Year Flood Zones and 500-Year Flood Zones. But we have just been informed by the RDEIR in the text on the previous page 3.6-30 that the FEMA map is probably inaccurate. Additionally, because the map is in such a small scale and does not show the locations of any of the communities and hamlets in Tulare County, it is impossible to determine what areas are at risk for flooding. And, the flood zones in the vicinity of Visalia, which is vulnerable to 100-year flood events do not correspond with the far more extensive flooding depicted by the Army Corps of Engineers, 1991 Flood Plain Determination for the Kaweah River Basin Investigation. See Attachment 19. No flooding is shown for Three Rivers, contrary to the 1967 Army Corps of Engineers report Flood Plain Information Kaweah River, Three Rivers, California. No flooding is shown for Springville, contrary to the 1968 Army Corps of Engineers report Flood Plain Information Tule River, Springville, California. These two reports are in the 1972 Flood Control Master Plan selected bibliography on page 58. The General Plan 2030 Update Correctory Table Version Date 11-10-11 page 9 refers the reader to Flood Control Master Plan selected bibliography for information about flood hazards, available from the United States Army Corps of Engineers. RDEIR Figure 3.6-5 Flood Hazards is practically useless because it is so small scale.

Figure 10-1A of the FEIR, Flood Hazards and Faults, which the County intends to insert at (Part I page 10-3, Goals and Policies Report, is even worse because the Urban Area Boundaries, Urban Development Boundaries, and Hamlet Development Boundaries obscure the depiction of flood hazards. The RDEIR's assessment on page 3.6-30 that the FEMA maps probably do not reflect the true extent and risk of flooding hazards in Tulare County is substantiated by the quote on page 30 of the Flood Insurance Study, Tulare County, California and Incorporated Areas, June 16, 2009, FEMA.

> The hydraulic analyses for this FIS were based on unobstructed flow. The flood elevations shown on the profiles are thus considered valid only if hydraulic structures remain unobstructed, operate properly, and do not fail. (See page 30, Attachment 6.)

This is a very important caveat which along with the statements in the Background Report, RDEIR, and the statements of James May, Tulare County Flood Control District Engineer, raise serious, substantial questions about the validity of the Flood Insurance Study and its usefulness for decisions regarding the land use element, safety element and conservation element.

The County cites compliance with Assembly Bill No. 162 in Public Policy Comment Matrix Version Date: November 21, 2011, page 4, by way of Health and Safety, 10.5 Flood Hazards Policies HS-5.1 through HS-5.11 and Implementation Measure 14. As noted in the RDEIR, the FEMA flood zones are probably not accurate. The Sierra Club has analyzed and commented on HS-5.1 through HS-5.11 and Implementation Measure 14 in its May 26, 2010 RDEIR comments at Section II, Impact 3.6-3, FEIR pages 3-259 through 3-262. For the most part the policies and Implementation Measure 14 are weak, unenforceable, or do not address the goal.

On September 23, 2011, after the conclusion of the Tulare County Flood Control Commission meeting, James May, the Tulare County Flood Control District Engineer,

stated that **no land had been identified yet for retention basins**. Attachment 20 is the minutes of the Tulare County Flood Control Commission March 23, 2011, meeting. The last paragraph on the first page reflects the commissioners were talking about development of detention ponds for recharge and to reduce peak flows but first the flow rates throughout the County had to be developed. Similarly, James May gave a presentation on March 28, 2011 to the Tulare County Water Commission. Attachment 13. The minutes reflect James May briefed the Water Commission on the Flood Control Commissioners' discussion on March 23 about development of detention basins throughout the County and that they determined there was a need for a database that recorded flow volumes throughout the County so that they could more accurately address problems and assign areas for detention ponds. On pages 15 and 16, General Plan 2030 Update Correctory Table Version Date 11-10-11 the County claims that Figure 8.1 (Plan for Open Space) Goals and Policies Report (Part I page 8-1 complies with the Assembly Bill No. 162 2007 amendment to the **conservation element "upon the next revision of the housing element on or after January 1, 2009, the conservation element should identify rivers, streams, creeks, flood corridors, riparian habitats, and land that may accommodate floodwaters for the purposes of groundwater recharge and stormwater management**." Government Code Section 65302(d)(3). As noted above, land has not yet been identified for retention basins. Yet, the County seems to be saying okay, that may be true but here's a map of Tulare County and, by golly, the retention ponds will go here somewhere, some day, once the appropriate locations are identified. We do not believe such an approach constitutes compliance with the cited Government Code Section. "The intent of this code section is to conserve areas used for groundwater recharge and stormwater management and to minimize urban development in these areas." . . . "Any area being considered to accommodate excess floodwaters for the purpose of groundwater recharge and/or stormwater management should be investigated to determine the area's recharge capability and suitability (possible contamination) as well as potential impacts to existing groundwater uses." See first and third paragraphs, page 32 of Attachment 4 to Sierra Club November 15, 2011, comments. Additionally, there is the problem that Figure 8.1 (Plan for Open Space) Goals and Policies Report (Part I page 8.1 is so small scale that no meaningful correlations between the land use, safety, and conservation elements can be made. Then there is the problem that both the Background Report at page 8-14 and the RDEIR at page 3.6-30 state "The flood carrying capacity in rivers and streams has decreased as trees, vegetation, and structures (e.g., bridges, trestles, buildings) have increased along the Kaweah, Kings, and Tulare Rivers." "Updated channel analyses have not been performed to determine the amount of obstruction posed by vegetation and development in the Kaweah, Kings, or Tule River channels." This after the fact attempt by the County to comply with Assembly Bill No. 162 hardly complies with Public Resources Code Section 21003(b) which states "Documents prepared pursuant to this division be organized and written in a manner that will be meaningful and useful to decision makers and to the public."

The FEIR cites the new policy WR-3.9 Establish Critical Water Supply Areas which promises to designate areas critical to groundwater recharge (on-going). It's four implementation measures do not accomplish this. Three implementation measures (25, 26, 27) are postponed to the future, 2010-2015 or 2015-2020. The fourth, Implementation Measure 24, promises "carefully regulating the type of development within these areas.

Regulations may include, but are not limited to, the limitation of structural coverage and impervious surfaces with the potential to discharge harmful pollutants, increase erosion, or create other impacts degrading water quality or affecting groundwater supply." The use of "may include" weakens the implementation measure. And there are no performance standards.

On page 3.6-7 RDEIR under Federal Emergency Management Agency (FEMA) the County refers to FEMA's 2009 Flood Insurance Study for Tulare County and states the FEMA "mod map" is now being integrated with the County flood management program. FEMA's study of flood hazards in Visalia area was conducted in 2008. Many of the other Tulare County studies in the 2009 Flood Insurance Study (FIS) are old (1950s, 1960s, 1970s). Nevertheless, even old studies contain valuable information. For instance, the FIS discussed 100-year-flood hazard zones in the cities of Dinuba, Farmersville, Lindsay, Porterville, Tulare, Visalia, Woodlake, and 23 rivers, creeks, canals and bayous. Detailed discussion of areas at risk for 100-year-flood events should have been included in the Background Report and RDEIR. Figure 3.6-5 RDEIR page 3.6-31 is not informative.

Jim May's (Tulare County Flood Control District Engineer) presentation to the Tulare County Water Commission on Stormwater, April 26, 2010, states irrigation canals "prevent stormwater from moving in a natural manner. The consequence is ponding of water or flooding areas that historically had not experienced this impact, with damaging results to public and private property." Attachment 21.

The Tulare County Flood Control Commission which commenced meeting again on March 23, 2011, after a hiatus from late 2005, has discussed the need for MOUs with irrigation districts for wet weather use of irrigation district ditches to carry flood flow, the flood prone nature in Strathmore Community and the Friant-Kern Canal, Road 88 being cut by flood flows, and the need to develop detention ponds to reduce peak flows. Attachment 20.

The Tulare County Flood Control Commission meeting minutes of April 29, 2011, reveal that Success Dam will not be remediated in the near future, the proposed temporary incremental pool elevation of the reservoir was placed on hold due to risk, repair of county wide flood damages from Winter 2010 storms are being hampered by environmental agency restrictions, need for more staff to meet needs of an active Flood Control District, request for mapping of frequently occurring or potential flood prone areas, and recommendation of project list of areas impacted by flooding. Attachment 22. See also Attachment 13.

The Tulare County Flood Control Commission meeting minutes of July 19, 2011, reveal a need for a new Flood Control Master Plan and an evaluation of an overlay of past winter flood areas on the existing Master Plan. Attachment 14. See also Attachment 13.

The Tulare County Water Commission meeting minutes of March 28, 2011, indicate James May, Flood Control District Engineer, stated the Flood Control Commission determined there was a need for a database that recorded flow volumes throughout the County so they could more accurately assess problems and assign areas for detention ponds and he indicated a priority is to get the Flood Control Master Plan updated. Attachment 13.

James May gave a report to the Tulare County Water Commission on July 27, 2009, concerning the risk of flooding on all Tulare County rivers and streams and the risk of levee failure in the County. He said Allensworth and Earlimart have flooded and floodwater flows are unpredictable. Attachment 23.

The City of Visalia was determined by FEMA's 2009 Flood Insurance Study (FIS) on page 7 to be vulnerable to a 1% annual chance of shallow flooding one to three feet deep due to overflows of Mill Creek, Mill Creek Ditch, Persian Ditch, and Packwood Creek. The primary watercourse contributing to potential flooding within the City of Tulare is Elk Bayou (FIS, page 12). According to the RDEIR page 3.6-30 fourth paragraph under 100-Year Flood Hazard, "FEMA analysis of predicted flooding does not account for the effects of continued land subsidence, local drainage issues or the rise in sea level associated with the greenhouse effect." Marti Ikehara, National Geodetic Survey, at the Groundwater Withdrawal Induced Land Subsidence in the San Joaquin Valley: a 2009 Perspective Symposium, Fresno, California, on November 4, 2009, stated there has been 1 foot of contour subsidence around Visalia and four feet of contour subsidence around the City of Tulare. The subsidence in these two cities has been caused by long-term, continuing overdrafting of groundwater. At the symposium, representatives from Department of Water Resources, Lawrence Berkeley Lab, and United States Geological Survey (USGS) stated, "There will be massive problems of flooding due to land subsidence." "There can be almost one acre foot of subsidence for every three feet of groundwater withdrawal" according to Devin Galloway, USGS.

Tulare County's General Plan Update process included the preparation of a Background Report in 2001. See page 10-1 Background Report wherein under the heading Methods it is stated "The information contained in this section was obtained from various sources, including the 2001 Tulare County General Plan Background Report." This is the same year the Spink Corporation, under contract to the County, deemed the Flood Control Master Plan out of date. Despite this judgment, the County chose not to update the Flood Control Master Plan and proceeded to make land use decisions. In July 2000, the County circulated a request for proposals for the review of the Tulare County Flood Control Master Plan and Hydrology Appendix originally prepared in June 1971 to provide the County with an estimated cost and recommendation including a complete scope of services for proceeding with a Master Plan update. Attachment 4(a). The Spink Corporation submitted a cost proposal to prepare a scope of services to update the Tulare County Flood Control Master Plan and Hydrology Appendix. Attachment 4(b). Subsequently, the County and Spink Corporation entered into a contract for preparation of scope of services to:

A. Review existing report
B. Prepare recommendation for updating the report
C. Provide a detailed scope for tasks required to prepare a comprehensive update
D. Develop cost estimates for preparation of the final report.

See Attachment 4(c). In February 2001, the Spink Corporation delivered "Scope for Tulare County Flood Control Master Plan Update" to the County. Attachment 4(d).

Government Code Section 65302(g)(2)(A)(ii) requires the County to identify in the safety element National Flood Insurance Maps published by FEMA. While the map Figure 10-1A is county wide and shows widespread risk of 100-year flood events, it is in far too small scale to determine what roads, bridges, dwellings, commercial buildings and utilities are at risk. It would be far more useful to include the 50-60 FEMA maps in the General Plan Update so that meaningful correlation between land use, safety, and conservation could be made. They need to be accompanied by elucidating text describing the extent and depth of flooding. Public Resources Code Section 21003(b) states "Documents prepared pursuant to this division be organized and written in a manner that will be meaningful and useful to decision makers and to the public."

Government Code Section 65302(g)(2)(A)(iii) requires identification of "information about flood hazards that is available from the United States Army Corps of Engineers."

There is a 1991 U.S. Army Corps of Engineers report on Flood Plain Determination for the Kaweah River Investigation, California which shows detailed extensive flood zones for the 1955, 1969 and 1972 events and a flooding composite map of a specific event on the Kaweah River which shows flooding in the town of Goshen, much of Visalia and Exeter, all of Farmersville, and the unincorporated areas surrounding these cities and towns and rural areas, including Mehrten Creek and Yokohl Creek. This is a valuable history of flooding in the Kaweah River Basin. Why were this study and these maps not identified, considered and included in the preparation of the Safety Element?

Flood Plain Information, Tule River, Springville, California, prepared for Tulare County by the Corps of Engineers, U.S. Army Sacramento District, California, July 1968 reports on past largest known floods beginning with the first account of flooding in 1861, and the possible damage, hazards to life, and depth and extent of flooding that would be associated with probable future floods in the Springville area. Photos of damaged buildings and homes, six detailed topographic maps of flooded areas, six matching photo maps, four high water profiles, and nine cross sections of the Tule River are included. This is the level of historical detail needed for the reader and decision makers to determine appropriate land uses in flood zones. Not identifying this information and then not considering and including it in the preparation of the safety element constitutes noncompliance with Assembly Bill No. 162.

At the same time, in 1968, the Corps prepared a folder for public dissemination, Floods, Springville, California, July 1968. This folder begins:

"FLOODS IN SPRINGVILLE

> "The Tule River has a long history of floods. Beginning with the first account of flooding in 1861, rainfloods have occurred 13 times, or about once every 8 years on the average. Before the early 1900's, flood damage was only nominal because of limited development in the flood plain, even though some of the floods were very large. The more recent floods have caused substantial damage to roads and bridges, public utilities, homes, and recreational facilities. Part of Springville was inundated during floods that occurred in November 1950, December 1955, and December 1966.

"A large flood now could cause serious damage to the community and adjacent areas along the Tule River and its Middle and North Forks. Roads, bridges, dwellings, public utilities, commercial properties, and recreational facilities would bear the brunt of such a misfortune; in addition, the general economy and welfare of Springville would also be affected.

"Large floods can be expected to recur in the Springville area. However, information to guide safe community development and methods to reduce potential flood damage are available. The Board of Supervisors of Tulare County believes that citizens should know that future large floods are inevitable, but that flood damage can be greatly reduced if appropriate measures are taken.

"PAST FLOODS

"The flood of December 1966 was one of the largest known to have occurred on the Tule River. Although there are no formal comparative records, historical accounts indicate that the flood of December 1867 was of about the same magnitude as the flood of December 1966. Flood damage during that flood included destruction of riverside residences and lots in Springville, and severe damage to many other residences, a trailer park, the domestic water supply, and sewage treatment plant. Three bridges were destroyed and two others badly damaged. The golf course downstream from Springville was extensively damaged. Although the floods of November 1950 and December 1955 were much smaller than the 1966 flood, homes in low-lying areas of Springville were damaged, residents had to be evacuated, roads and bridges were damaged, and public utilities were interrupted.

"Floods in the vicinity of Springville result mainly from prolonged heavy rainfall, and most frequently occur during the winter months. Melting snow may intensify rainfloods in this area, but flooding from snowmelt alone would rarely occur.

"FUTURE FLOODS

"Floods greater than those of the past can occur. Hydrologic studies of past floods and storm patterns show that future floods in the Springville area could be significantly more severe than any of those that have occurred since 1861.

"An Intermediate Regional Flood on the Tule River, which has a frequency of occurrence of about once in 100 years on the average, was determined from studies of historical flood data. Maximum stages from an Intermediate Regional Flood would be less than those of the December 1966 flood, but much greater than either the November 1950 or December 1955 flood.

"A Standard Project Flood, which represents the upper limits of flooding that would result from the most severe combination of meteorological and hydrological conditions considered reasonably characteristic of the region, has been developed from studies of the storms and floods that have occurred in the Tule River and adjoining watersheds. On the average, a Standard Project Flood would exceed the December 1966 flood height by about 1 foot in the vicinity of Springville."

"POSSIBLE SOLUTIONS

. . .

"Although past floods have caused substantial damage along the Tule River, future floods could cause even greater damage due to increased development in the flood plain. As economic development of the area continues, there will be even greater demand for use of flood plain lands. Without regulation, improvements in flood prone locations would be vulnerable to serious flood damage and could restrict floodflows, thus increasing flood heights and possibly threaten areas not previously subject to flood damage."

(End of quotations from folder for public dissemination.)

The 1967 Flood Plain Information, Kaweah River, Three Rivers, California prepared by the U.S. Army Corps of Engineers contains historical flood data starting with 1844, photographs of damaged buildings and bridges, photographs of flood elevations, maps of intermediate and high flood zones, and existing buildings, bridges, and roads in these flood zones. This detailed historical flood information should have been included in the safety element.

Government Code Section 65302(g)(2)(A)(iv) requires the safety element to identify "designated floodway maps that are available from the Central Valley Protection Board." The FEIR response that "The designated floodway maps from the Central Valley Flood Protection Board are described and established through the Tulare County Flood Prevention Ordinance Flood Plain Zones" is not compliant with Assembly Bill No. 162 for the following reasons:

1. The Background Report Figure 8-1 on page 8-15 and the RDEIR map Figure 3.6-5 on page 3.6-31 do not show any Central Valley Flood Prevention Board floodways in Tulare County.
2. The new FEIR Figure 10-1A Flood Hazards and Faults, which was included in General Plan 2030 Update Correctory Table Version Date 11-10-11 and which the County intends to insert in the Goals and Policies Report obscures the dam failure inundation zone, FEMA 100 and 500-year flood zones, and DWR Awareness Flood Plain Boundary by covering them with the solid color Urban Area Boundaries, Urban Development Boundaries, and Hamlet Development Boundaries. Also, because no communities or hamlets are identified on the map, it is impossible to determine what communities and hamlets exist in the floodways. Further, the map is so small scale as to be useless for informed decision making relative to land uses, flood hazards, and conservation.
3. The DWR Awareness Floodplain Boundary on Figure 10-1A FEIR was added on November 10, 2011, <u>after</u> the Goals and Policies were completed. This information was not considered when the land use, safety, and conservation elements were written or when the FEIR was released on August 30, 2011. Adding information afterward does not constitute compliance with Assembly Bill No. 162 Government

Code Sections 65302(g)(2)(A), (B), and (C), which first require the identification of flood hazard information and then the establishment of goals, policies, objectives, and feasible implementation measures to protect the County from unreasonable risk of flooding.

4. The FEIR Figure 10-1A is not depicted in large enough scale to determine which homes and businesses are at risk or what the appropriate land use should be.

Government Code Section 65302(g)(2)(A)(v) requires the safety element to identify information regarding "dam failure inundation maps prepared pursuant to Section 8589.5 that are available from the Office of Emergency Services." The County failed to include the dam failure inundation zone for Lake Isabella Dam (in Kern County) which would flood the southwestern corner of Tulare County. See November 15, 2011, Sierra Club comments on the FEIR, Section II page 26 and Attachments 17 and 32 thereto.

If Lake Isabella Dam failed, the southwest corner of Tulare County, the old Tulare Lake bed, would flood 1-2 feet deep during a peak inundation. This dam inundation area was omitted by the County in its dam inundation map, Figure 3.6-5 on page 3.6-31 RDEIR. Attachments 17, 18 and 32 of the Sierra Club November 15, 2011, comments show the floodwaters sweeping through Bakersfield and up northwesterly across the Tulare/Kern County line at peak inundation within 24 hours of failure of Lake Isabella Dam.

The new FEIR Figure 10-1A Flood Hazards and Faults which the County intends to insert in the Goals and Policies Report shows the dam inundation zones in too small detail to determine what buildings, bridges, roads, and utilities are at risk. Similarly, the Urban Area Boundaries, Urban Development Boundaries, and Hamlet Development Boundaries at least partially obscure the zones.

Government Code Section 65302(g)(2)(A)(vi) requires the safety element to identify information regarding "Awareness Floodplain Mapping Program maps and 200-year flood plain maps that are or may be available from, or accepted by, the Department of Water Resources." The County claims the map Figure 10-1A of the FEIR includes the DWR Awareness Boundaries. Because the map is in such small scale; does not specifically identify communities and hamlets; and because the Urban Area Boundaries, Urban Development Boundaries, and Hamlet Development Boundaries obscure the Awareness Floodplain Boundaries, it is impossible to understand what development lies within the Awareness Floodplain Boundaries and to make informed decisions relative to land uses and flood hazards.

Government Code Section 65302(g)(2)(A)(viii) requires the safety element identify information regarding "areas subject to inundation in the event of the failure of project or **non-project levees or flood walls**." (emphasis added.) The County claims in the General Plan 2030 Update Correctory Table Version Date 11-10-11 page 13 that these levee and floodwall inundation areas are addressed in the Flood Control Master Plan. The Tulare County Flood Control Master Plan is 41 years old and out of date. See the Spink Corporation "Scope for the Tulare County Flood Control Master Plan Update." Attachments 4(a) to 4(d).

The Tulare County Grand Jury 2005/2006 report on flood potential on the St. Johns River Levee Districts I and II identified numerous deficiencies with the levees under the heading "Findings" and recommended the County thoroughly examine flood potential of the entire county, adequately fund the Tulare County Flood Control District for regular inspection and maintenance for all tributaries and levees in Tulare County, should look into the possibility of a new flood plan along the lines of the Ventura County plan, and should enforce country ordinances along levees. Attachment 5.

Flood Potential in Tulare County by Carole Clum, Sierra Club May 26, 2010, comments on RDEIR, Attachment 22, FEIR pages 3-594 to 3-597, lays out deficiencies of Tulare County levees, constricted, debris-choked channels; greater flood depths due to land subsidence; and no consideration of more intense storms in future due to global climate change.

James May in a telephone conversation with Carole Clum on January 24, 2012, stated **there are levees on the St. Johns River, White River, Deer Creek, Sand Creek, and Cottonwood Creek. And there is an extensive system of crisscrossing irrigation district levees.**

The RDEIR at page 3.6-29, third paragraph, states "the Tulare County Flood Control District, a countywide district governed by the County Board of Supervisors, is the local flood management agency." We attach the 1969 enabling legislation to these comments. Attachment 1. "The jurisdiction of the Central Valley Flood Protection Board (formerly the Reclamation Board) extends into Tulare County, where it retains its oversight of the levees." RDEIR page 3.6-29, second paragraph. "A 1995 jurisdictional Agreement between Tulare County and the Bureau of Reclamation authorizes Tulare County's determination of flood controls for Cottonwood Creek, Cross Creek and the St. John's River. This agreement will cover the levee section, the waterside area between project levees, a 10-foot-wide strip adjacent to the landward levee toe, the area within 30 feet of the top to the banks with no levees, and within designated floodways adopted by the Flood Board." RDEIR page 3.6-7, last paragraph. The actual date of this agreement is 1989. See Attachment 2.

The RDEIR at page 3.6-34, as amended by the FEIR at page 2-9, "There is one flood control district, the Tulare County Flood Control District (TCFCD), established by State legislation in November 1969 and encompassing the entire County (Figure 3.6-6). The Act establishing the District provides the following powers to the District: The functions of the TCFCD are to construct, maintain, and operate facilities for control and disposition of flood and storm waters."

Government Code Section 65302(g)(2)(A)(ix) requires the safety element to identify "historical data on flooding, including locally prepared maps of areas that are subject to flooding, areas that are vulnerable to flooding after wildfires, and sites that have been repeatedly damaged by flooding."

The County claims (in General Plan 2030 Update Correctory Table Version Date 11-10-11 page 13 and 14) that the 1972 "Tulare County Flood Control Master Plan contains historical data on flooding, including locally prepared maps of areas subject to flooding, and sites that have been repeatedly damaged by flooding." Other than in the portion titled "Mountain Unit," the Flood Control Master Plan appears to contain text and maps only on flooding in

the years 1966 and 1969. Sierra Club does not consider two years of flood event data meets the definition of "repeatedly."

The following locally prepared study with historical data on flooding and maps should have been referenced by the RDEIR. Instead, it languished in a Sea Train storage container, unconsulted. Flood Plain Management Study, Tulare County, California, dated March 1, 1970, was prepared by the Tulare County Planning Department. On page 12 it states "In recent years Tulare County has experienced the ravages of several severe floods: December 1955, January 1963, December 1966, January/February 1969." On page 15 "Tulare County has a long history of floods. For example, since 1844, there have been approximately 20 recorded occurrences . . ." "The following list indicates those essentially uncontrolled, intermittent stream systems which have historically caused damage in highwater periods. (From North to South) Sand Creek, Cottonwood Creek, Antelope Creek, Mehrten Creek, Yokohl Creek, Lewis Creek, Frazier Creek, Deer Creek, White River." Page 25. On page 27 it states "The following table indicates those urban places having a history of flooding:

Table II
Urban Places Subject to Flooding

Place	Principle Source of Flood Water
Woodlake Area	Antelope Creek and local ponding
Cutler-Orosi-East Orosi Area	Sand Creek
Three Rivers	Kaweah River and its tributaries
Northeast Lindsay-Tonyville-El Rancho	Lewis Creek and local ponding
Springville	Tule River and its tributaries
Dinuba	Alta Canal and local ponding
Strathmore	Frazier Creek and local ponding
Exeter-Tuleville	Yokohl Creek
Pixley	Deer Creek and local ponding
Farmersville	Deep Creek
Alpaugh-Allensworth-Earlimart	White River and local ponding"

FEMA prepared a Flood Insurance Study (FIS) for Tulare County, California in June 2009. The FIS developed flood risk data for various areas of the County including the cities of Dinuba, Exeter, Farmersville, Lindsay, Porterville, Tulare, Visalia and Woodlake as well as 23 rivers and creeks. It is intended to be used by local planners to promote sound land use and floodplain development. FEMA used many flood plain studies to create the FIS. Many of the studies were old (see pages 59 to 62). The FIS contained two caveats:

- The hydraulic analyses for this FIS were based on unobstructed flow. The flood elevations shown on the profiles are thus considered valid only if hydraulic structures remain unobstructed, operate properly, and do not fail. [Hydraulic structures include natural and manmade channels, dams, weirs, culverts, drains, pipes, pumps, siphons, bridge abutments.] Page 30, Attachment 6.

- [A]pproximate areas of flooding in the event of failure of the levees [on the St. Johns River] were determined based on engineering judgment. For all four levees, no accreditation data were submitted. Page 38, Attachment 6.

Because all the levees in Tulare County do not meet Army Corps of Engineers' standards or FEMA standards, some levees have been breached, and the water carrying capacity of all water channels has been reduced by vegetation and debris, flood risk is likely higher than the FIS predicts. The FIS flood risk data are not analyzed or discussed in the Background Report or RDEIR. In addition to the levees on the St. Johns River, there are levees on White River, Deer Creek, Sand Creek, and Cottonwood Creek.

The 1967 Flood Plain Information, Kaweah River, Three Rivers, California, prepared by the U.S. Army Corps of Engineers and the 1968 Flood Plain Information, Tule River, Springville, California prepared by the U.S. Army Corps of Engineers contain historical flood data starting with 1844, photographs of flood elevations, maps of intermediate and high flood zones, and existing buildings, bridges, and roads in these flood zones. This detailed flood information should have been included in the safety element and land use element. On pages 8 and 9 of the General Plan 2030 Update Correctory Table Version Date 11-10-11 under item iii "Information about flood hazards available from the United States Army Corps of Engineers," the County states such information "is identified in the Flood Control Master Plan selected bibliography on page 58." The County provides no more specifics. Where is the meaningful discussion of these flood hazards? On February 15, 2012, two months after Carole Clum's request of December 16, 2011, to examine eight reports listed in the selected bibliography, Attachment 24, the County produced one of them and as to the others stated that "the search continues for the remainder of the documents. We anticipate completion of the search for this material on or before February 29, 2012." Attachment 24, tenth document. The Hydrology Appendix, one of the reports in the selected bibliography which was requested by Carole Clum, was made available on February 20, 2012.

The 1991 U.S. Army Corps of Engineers report on "Flood Plain Determination for the Kaweah River Basin Investigation, California" documents the 1955, 1969, and 1972 flood events with maps for the greater Visalia area, including the flood sources (Kaweah River, Mehrten Creek and Yokohl Creek) and the resultant flooding west to Highway 99 and south to Sierra Avenue. Attachment 19.

No areas that are vulnerable to flooding after wildfire were identified in the safety element. See RDEIR page 3.6-30 under 100-Year Flood Hazard, page 3.6-33 under 200-Year and 500-Year Flood Hazards, and page 3.8-29 under Wildland Fire Hazards. The foothills and mountains of Tulare County are steep and forested and at high and very high risk for wildfire. See Figure 3.8-2 Wildland Fire Threat, RDEIR page 3.8-31. Almost all of the foothills and mountains are vulnerable to flooding after wildfire except those areas above the tree line. Foothill and mountain topsoil is thin, about one foot deep, over rock and clay. The native trees and shrubs hold the topsoil, protect it from direct pummeling by intense rain events, and absorb precipitation, reducing stormwater runoff. Wildfires could strip the slopes of vegetation and topsoil. These areas should have been identified as vulnerable to flooding after wildfires. The County claims in General Plan 2030 Update Correctory Version Date 11-10-11, page 7 that the new "Figure 10.1A Fire Threat contains data of areas

vulnerable to wildfires and FEMA flood zones. (Presumably the County is referring to new Figure 10.1A Flood Hazards and Faults) which can be used in conjunction to determine areas vulnerable to flooding after wildfires." These two maps are too small scale; have solid color areas for Three Rivers and Springville growth boundaries which completely obscure rivers, creeks, streams, and flood corridors that are subject to flooding; and do not show steepness of slope. We are not seers. Where are the south- and west-facing, chaparral covered slopes? Chaparral vegetation is highly flammable. Where is the existing and anticipated foothill and mountain development which is traditionally built of wood? Where are the intermittent streams? "The following list indicates those essentially uncontrolled, intermittent stream systems which have historically caused damage in highwater periods. (From North to South) Sand Creek, Cottonwood Creek, Antelope Creek, Dry Creek, Mehrten Creek, Yokohl Creek, Lewis Creek, Frazier Creek, Deer Creek, White River." Flood Plain Management Study, Tulare County, California dated March 1, 1970, page 25. "Small foothill watersheds, as well as major rivers, contribute flood water during intense rainstorms." Flood Control Master Plan, page 1, last sentence. How can an intelligent decision be made about land use? There is no text on specific communities vulnerable to flooding after wildfires. Adding information afterward does not constitute compliance with Assembly Bill No. 162, Government Code Section 65302(g)(2)(A), (B) and (C), which first require the identification of flood hazard information and then the establishment of goals, policies, objectives, and feasible implementation measures to protect the County from unreasonable risk of flooding.

No sites were identified that have been repeatedly damaged by flooding. See 100-Year Flood Hazard page 3.6-30 RDEIR and 200-Year and 500-Year Flood Hazard page 3.6-33 RDEIR.

The General Plan Background Report on page 8-13 under Existing Conditions and the RDEIR page 3.6-28 under Flooding and Drainage claims:

> Tulare County has a long history of flooding, but minimum definitive data is available for specific floods, particularly on smaller streams. . . . As recently as 1997 and 1998, areas in the mountains, including the communities of Three Rivers and Springville, sustained flooding as heavy rains swelled creeks over their banks. Similarly, the city of Lindsay and the community of Earlimart sustained flooding in their vicinities during this same period.

This is very vague. Where are the sites that are repeatedly flooded?

If the County wanted to document sites that have been repeatedly damaged by flooding, it should ask the Tulare County Flood Control District Engineer James May to list the sites, the roads, the canals, the culverts, the bridges and bridge abutments that have had to be repaired or replaced repeatedly and where ponding of floodwaters occurs.

Government Code Section 65302(g)(2)(A)(x) requires the safety element identify information regarding "existing and planned development in flood hazard zones, including structures, roads, utilities, and essential Public facilities." The County has failed to provide this information in the safety element. A very large New Town in Yokohl Valley has been in the planning stages for years. Its environmental impact report is expected to be released in

2012. The 1991 U.S. Army Corps of Engineers report on Flood Plain Determination for the Kaweah River Investigation, California shows extensive flooding in Yokohl Valley, Mehrten Creek, and greater Visalia. Where is the anticipated, Master Planned development in Yokohl Valley?

Simply stating the law does not constitute compliance. Referring the reader to the selected bibliography in the out-of-date 1972 Flood Control Master Plan does not satisfy the requirement of Government Code Sections 63502(2)(A), (B) and (C). The new FEIR Figure 10-1A Flood Hazards and Faults, which was included in General Plan 2030 Update Correctory Table Version Date 11-10-11 and which the County intends to insert in the Goals and Policies Report obscures the dam failure inundation zone, FEMA 100 and 500-year flood zones, and DWR Awareness Flood Plain Boundary by covering them with the solid color Urban Area Boundaries, Urban Development Boundaries, and Hamlet Development Boundaries. Also, because no communities or hamlets are identified on the map, it is impossible to determine what communities and hamlets exist in the floodways. Further, the map is so small scale as to be useless for informed decision making relative to land uses, flood hazards, and conservation. The relevant data and maps contained in these 24 reports need to be presented in the safety element.

The County's noncompliance with the changes to the land use, conservation, and safety elements required by Assembly Bill No. 162 constitutes a fundamental flaw in the General Plan Update. The County must correct the General Plan Update to comply with California planning law and then recirculate the General Plan Update.

ACT 1380

Tulare County Flood Control District Act (1969 ch 1149)

[Added Stats 1969 ch 1149. Amended Stats 1975 ch 584, ch 585, operative July 1, 1976; Stats 1981 ch 408; Stats 1984 ch 1128.]

AN ACT to create a flood control district to be called Tulare County Flood Control District; to provide for the control of flood and storm waters and the protection of watercourses, watersheds, harbors, public highways, life and property from damage or destruction from such waters; to authorize the incurring of indebtedness, the issuance and sale of bonds, and the levying and collection of taxes and assessments on property within said district and in the respective zones thereof; to provide for the government, management, and operation of said district and for the acquisition and construction of property and works to carry out the purposes of the district; to define the powers of said district and its officers.

Section
1. Citation of act
2. Creation of district; Territory included; "District"
3. Flood control zones; Boundaries
4. Objects and purposes of act
5. Body corporate and politic; Enumeration of powers
5.5. Power to perform acts of water conservation
6. Board of supervisors of county designated board of supervisors of district; Compensation; Adoption of ordinances, resolutions and other acts
7. Appointment of commission; Delegation of powers; Compensation and expenses; Term of office; Powers
8. County officers, assistants, etc., as ex officio officers, assistants, etc.; Duties; Reimbursement to county; Expenses
9. Rules and regulations; Appointment of chairman, secretary, officers, agents and employees; Duties; Compensation
10. Employment of registered civil engineers; Reports
11. Projects; Determination as to benefit to district, two or more zones or single zone
12. Projects for single zones and joint projects; Procedure; Hearing; Exclusion of property not benefited; Protest
13. Election
14. Taxes and assessments
14.5. Revenues from taxation
15. Bonds; Election
16. Form
17. Sale; Disposition of proceeds
18. Manner of payment; Zones not liable for obligations of other zones
19. Taxes or assessments

Section
20. Taxes and assessments; Applicability of general laws; Duties of county officers; Exempt property
21. Limitation on amount; Property located in more than one zone
22. Inapplicability of District Investigation Law of 1933
23. Bonds as legal investments; Use as security for performance of act; Repeal of provisions in conflict with section
24. Exemption of bonds from taxation; District declared reclamation district within constitutional definition
25. [Repealed]
26. Improvements to conform to report, plans, specifications and map; Authorized changes
27. Additional bonds; Procedure
28. Defeat of proposition; Limitation on calling election for same objects and purposes
29. Refunding bonds
30. Effect of repeal or amendment on obligations of outstanding bonds or indebtedness
31. [No section of this number]
32. [Repealed]
33. Claims against district
34. Title to acquired property; Powers concerning acquired property
35. Action to determine legality of existence of district
36. Bonds for officers and employees
37. Use of revenue or interest from temporary investment of proceeds from sale of bonds
38. Liberal construction of act
39. Severability of provisions
40. Overlapping districts and powers
41. Effect on vested rights to water

§ 1. Citation of act

This act shall be known and may be cited as the Tulare County Flood Control District Act.

Added Stats 1969 ch 1149.

Attachment 1

§ 2. Creation of district; Territory included; "District"

A flood control district is hereby created to be called the Tulare County Flood Control District. Said district shall consist of all the territory of the County of Tulare lying within the exterior boundaries of said county. As used in this act "district" means the Tulare County Flood Control District.

Added Stats 1969 ch 1149.

§ 3. Flood control zones; Boundaries

The board of supervisors of the district created by this act, by resolutions thereof adopted from time to time, may establish flood control zones within the district without reference to the boundaries of other zones, setting forth in such resolutions descriptions thereof by metes and bounds and entitling each of such zones by a zone number, and institute zone projects for the specific benefit of such zones. The board may, by resolution, amend the boundaries by annexing property to, or by withdrawing property from, the zones or may divide existing zones into two or more zones or may superimpose a new or amended zone on zones already in existence, setting forth in such resolutions descriptions of the amended, divided, or superimposed zones by metes and bounds and entitling each of such zones by a zone number. Any territory in the district may be included within one or more flood control zones. As used in this act, "zone" means a flood control zone.

After a project has been approved at an election held pursuant to Section 13 of this act, the boundaries of the zone or zones approving the project shall not be changed.

Proceedings for the establishment of such zones may be conducted concurrently with and as a part of proceedings for the instituting of projects relating to such zones, which proceedings shall be instituted in the manner prescribed in Section 12 of this act. However, zones may be established without complying with the procedure in Section 12.

The boundaries of any proposed zone which includes any territory within a city shall be submitted to the city council of such city for consideration before the final approval of the boundaries of such zone by the board of supervisors of the district. If the city council does not approve the boundaries of the zone lying within the city, or including the city as a whole, the city council may recommend realigned boundaries for the portion of the zone within the city. The board of supervisors may then form the zone with such boundaries as have been recommended by the city council, or the board of supervisors may approve the zone as originally submitted to the city council for consideration.

Added Stats 1969 ch 1149. Amended Stats 1981 ch 408 § 1.

§ 4. Objects and purposes of act

The objects and purposes of this act are to provide for the control of the flood and storm waters of said district and the flood and storm waters of streams that have their source outside of said district, but which streams and the floodwaters thereof flow into said district.

Added Stats 1969 ch 1149.

§ 5. Body corporate and politic; Enumeration of powers

The district is hereby declared to be a body corporate and politic and as such shall have, in addition to the other powers vested in it by this act, the following powers:

1. To have perpetual succession.
2. To sue and be sued in the name of said district.
3. To adopt a seal.
4. To acquire by grant, purchase, lease, gift, devise, contract, construction, or otherwise, and to hold, use, enjoy, sell, let, and dispose of real and personal property of every kind, including lands, structures, buildings, rights-of-way, easements, and privileges, and to construct, maintain, alter and operate any and all works or improvements, within or without the district, necessary or proper to carry out any of the objects or purposes of this act and convenient to the full exercise of its powers,

and to complete, extend, add to, alter, remove, repair or otherwise improve any works, or improvements, or property acquired by it as authorized by this act.

5. To control the flood and storm waters of said district and the flood and storm waters of streams that have their sources outside of said district, but which streams and the floodwaters thereof, flow into said district, and protect from damage from such flood or storm waters the watercourses, watersheds, harbors, public highways, life and property in said district, and the watercourses outside of the district of streams flowing into the district.
6. To cooperate and to act in conjunction with the State of California, or any of its engineers, officers, boards, commissions, departments or agencies, or with the government of the United States, or any of its engineers, officers, boards, commissions, departments or agencies, or with any public district, or with any public or private corporation, or with any city or county, in the construction of any works for the controlling of flood or storm waters of or flowing into said district or for the protection of life or property therein, or in any other works, acts, or purposes provided for herein, and to adopt and carry out any definite plan or system of work for any such purpose.
7. To carry on technical and other investigations of all kinds, make measurements, collect data and make analyses, studies, and inspections pertaining to control of floods both within and without said district, and for such purposes said district shall have the right of access through its authorized representatives to all properties within said district. The district, through its authorized representatives, may enter upon such lands and make examinations, surveys, and maps thereof.
8. To enter upon any land, to make surveys and locate the necessary works of improvement and the lines for channels, conduits, canals, pipelines, roadways and other rights-of-way; to acquire by purchase, lease, contract, gift, devise, or other legal means all lands and other property necessary or convenient for the construction, use, supply, maintenance, repair and improvement of said works, including works constructed and being constructed by private owners, lands for reservoirs for storage of flood or storm water, and all necessary appurtenances; to enter into and do any acts necessary or proper for the performance of any agreement with the United States, or any state, county, district of any kind, public or private corporation, association, firm or individual, or any number of them, for the joint acquisition, construction, leasing, ownership, disposition, use, management, maintenance, repair or operation of any rights, works or other property of a kind which might be lawfully acquired or owned by the district; to acquire the right to carry water through any canal, ditch or conduit not owned or controlled by the district.
9. To incur indebtedness and to issue bonds in the manner herein provided.
10. To cause taxes or assessments to be levied and collected for the purpose of paying any obligation of the district, and to carry out any of the purposes of this act, in the manner hereinafter provided.
11. To make contracts, and to employ labor, and to do all acts necessary for the full exercise of all powers vested in said district or any of the officers thereof by this act.
12. To exercise the right of eminent domian within said district to take any property necessary to carry out any of the objects or purposes of this act. The district in exercising such power shall in addition to the damage for the taking, injury, or destruction of property, also pay the cost of removal, reconstruction, or relocation or any structure, railways, mains, pipes, conduits, wires, cable, poles, of any public utility which is required to be moved to a new location. No right shall exist in said district to take by proceedings in eminent domian any property appropriated to public use by any existing county or municipal utility district. Nothing in this act contained shall be deemed to authorize said district, or any person or persons to divert the waters of any river, creek, stream, irrigation system, canal or ditch, or the waters thereof or therein unless compensation therefor be first provided in the manner prescribed by law.
13. To make contracts with the County of Tulare, and to employ labor for the purpose of doing flood control work and for inspecting and passing upon the adequacy of drainage plans provided for each proposed new subdivision in the County of Tulare, except subdivisions within incorporated cities.

14. To have power to cooperate and contract with the United States under the Federal Reclamation Act of June 17, 1902, and all acts amendatory thereof or supplementary thereto or any other act of Congress heretofore or hereafter enacted permitting cooperation or contract for the purposes of contracting works, for drainage or flood control, or for the acquisition, purchase, extension, operation, or maintenance of such works, or for the assumption as principal or guarantor of indebtedness to the United States, or for carrying out any of the purposes of the district, and to carry out and perform the terms of any contract so made.

Added Stats 1969 ch 1149. Amended Stats 1975 ch 584 § 28, operative July 1, 1976.

Collateral References:
Federal Reclamation Act of June 17, 1902: 43 USCS §§ 372 et seq.

§ 5.5. Power to perform acts of water conservation

In addition to the powers specified in Section 5 of this act, the district shall have the power to perform acts of water conservation when such water conservation is undertaken in connection with the control of flood and storm waters and is incidential to such flood control. In particular, the district shall have the power to spread, store, distribute, buy, and sell water, and to cause water to be percolated into the soil, for beneficial and useful purposes. All of the powers, duties, and procedures set forth in this act, with regard to control of flood and storm waters, shall also apply to such powers to conserve water. None of the provisions of this act shall preclude the exercise by any other political subdivision that may now or hereafter exist, in whole or in part, within the district from exercising its powers, although such powers may be of the same nature as the powers of the district. Within the boundaries of any other public district having water conservation powers, the powers granted by this section shall be exercised only in concert and cooperation with that district.

Added Stats 1981 ch 408 § 2.

§ 6. Board of supervisors of county designated board of supervisors of district; Compensation; Adoption of ordinances, resolutions and other acts

The Board of Supervisors of Tulare County shall be and is hereby designated as, and empowered to act as, ex officio the Board of Supervisors of the Tulare County Flood Control District. As used elsewhere in this act the terms "board" and "board of supervisors" mean the Board of Supervisors of the Tulare County Flood Control District.

Each member of the board of supervisors of the district shall receive as compensation for his services fifty dollars ($50) per month and his actual and necessary expenses in the performance of official duties under this act, payable from the funds of said district in addition to his salary as county supervisor.

All ordinances, resolutions and other legislative acts for said district shall be adopted by said board of supervisors, and certified to, recorded and published, in the same manner, except as herein otherwise expressly provided, as are ordinances, resolutions or other legislative acts for the County of Tulare.

Added Stats 1969 ch 1149.

§ 7. Appointment of commission; Delegation of powers; Compensation and expenses; Term of office; Powers

The board shall appoint a commission consisting of seven (7) members, three (3) of whom shall be freeholders and residents of the incorporated municipal territory of the County of Tulare, and the remaining members shall be freeholders and residents of said county. The board may delegate any or all of its powers to the commission. The board may by resolution provide for compensation for services and payment of the actual necessary expenses incurred by said members in the performance of official duties under this act, payable from the funds of the district. Members of the commission shall serve at the pleasure of the board.

When the board of supervisors has delegated any or all of its powers to the commission, the terms "board" and "board of supervisors" mean the commission. The commission may, by resolution, certified to by the chairman of the commission, take action with reference to any and all matters which have been delegated to it by the Board of Supervisors of the County of Tulare.

Added Stats 1969 ch 1149.

§ 8. County officers, assistants, etc., as ex officio officers, assistants, etc.; Duties; Reimbursement to county; Expenses

The County Counsel, County Surveyor, County Assessor, County Tax Collector, County Clerk, County Auditor, Purchasing Agent and County Treasurer of the County of Tulare, and their successors in office, and all their assistants, deputies, clerks and employees, and all other officers of said Tulare County, their assistants, deputies, clerks and employees, shall be ex officio officers, assistants, deputies, clerks and employees, respectively, of the district, and shall respectively perform, unless otherwise provided by the board, the same various duties for the district as for said Tulare County, in order to carry out the provisions of this act.

Reimbursement may be made to the county for services rendered to the district by county officers and employees and the amounts of reimbursement shall be established by mutual agreement of the board of supervisors of the county and the board of the district.

All such officers, deputies, clerks and employees shall receive their actual necessary expenses in the performance of official duties under this act payable from the funds of the district, in accordance with such regulations as may be adopted by the Board of Supervisors of Tulare County.

Added Stats 1969 ch 1149.

§ 9. Rules and regulations; Appointment of chairman, secretary, officers, agents and employees; Duties; Compensation

The board shall have power to make and enforce all needful rules and regulations for the administration and government of the district and in addition to the officers and employees herein otherwise prescribed, the board may in its discretion appoint a chairman, a secretary and such other officers, agents and employees for the board or district as in its judgment may be deemed necessary, prescribe their duties and fix their compensation.

Added Stats 1969 ch 1149.

§ 10. Employment of registered civil engineers; Reports

The board shall have jurisdiction and power to employ competent registered civil engineers to investigate and carefully devise a plan or plans for the accomplishment of any of the purposes of this act; and to obtain such other information in regard thereto as may be deemed necessary or useful for carrying out the purposes of this act. The board may direct such engineer or engineers to make and file reports from time to time with the board, which shall show:

1. A general description of the work proposed to be done, together with general plans, profiles, cross sections, and general specifications relating thereto, on each project or work of improvement.

2. A general description of the lands, rights-of-way, easements and property proposed to be taken, acquired or injured in carrying out said work.

3. A map or maps which shall show the location and zones, as may be required, of each of said projects or improvements, and lands, rights-of-way, easements and property to be taken, acquired or injured in carrying out said work, and any other information in regard to the same that may be deemed necessary or useful.

4. An estimate of the cost of each project or work of improvement, including an estimate of the cost of lands, rights-of-way, easements and property proposed to be taken, acquired or injured in carrying out said project or work of improvement, and also of all incidental expenses incurred or likely to be incurred in connection

therewith, including legal, clerical, engineering, superintendence, inspection, printing and advertising, and stating the total amount of bonds, if any, necessary to be issued to pay for the same.

Such engineer or engineers shall from time to time and as directed by the board file with the board supplementary, amendatory and additional reports and recommendations, as necessity and convenience may require.

Added Stats 1969 ch 1149.

§ 11. Projects; Determination as to benefit to district, two or more zones or single zone

The board shall determine which projects or works of improvement shall be carried out and shall determine, as to each project or work of improvement, that it is either:

1. For the common benefit of the district as a whole; or
2. For the benefit of two or more zones hereinafter referred to as participating zones; or
3. For the benefit of a single zone.

Added Stats 1969 ch 1149.

§ 12. Projects for single zones and joint projects; Procedure; Hearing; Exclusion of property not benefited; Protest

The board may institute projects for single zones and joint projects for two or more zones, for the financing, constructing, maintaining, operating, extending, repairing or otherwise improving any work or improvement of common benefit to such zone or participating zones. For the purpose of acquiring authority to proceed with any such project, the board shall adopt a resolution specifying its intention to undertake such project, together with the engineering estimates of the cost of same to be borne by the particular zone and in the case of participating zones. Said resolution shall also set forth whether bonds are to be used to finance the project or taxes or assessments, and the amounts to be raised for the project. If taxes or assessments are to be used to finance the project, the resolution shall specify the procedure to be followed, under subdivisions 2 and 3 of Section 14, to levy such taxes or assessments. Said resolution shall fix a time and place for public hearing of said resolution and which shall refer to a map or maps showing the general location and general construction of said project. Notice of such hearing shall be given for a period of not less than twenty (20) days. If there is a newspaper of general circulation published or circulated in the territory proposed to be formed into a zone, notice shall be given by publication once a week for two (2) consecutive weeks prior to the hearing, the last publication of which must be at least seven (7) days before said hearing. If there is no such newspaper, notice shall be given by posting notice of the hearing for a period of fourteen (14) days prior to said hearing in five (5) public places as their said territory designated by the board. Said notice shall designate a public place where a copy of the map of the project may be seen by any interested person.

At the time and place fixed for the hearing, or at any time to which said hearing may be continued, the board shall consider all written and oral objections to the proposed project, to the proposed methods and amounts of financing the project, and to the inclusion or exclusion of property within the proposed zone or participating zone.

If, in the judgment of the board, evidence given at the public hearing indicates that changes in the proposed project or the methods and amounts of financing the project are necessary or desirable, the board may, at the conclusion of the hearing, adopt a resolution making changes in the proposed project and the methods and amounts of financing the project.

At the conclusion of the hearing, unless the board abandons the proposed project, it shall exclude from the zone or participating zones all property which, in the judgment of the board, will not be benefited by the proposed project.

If, prior to the conclusion of said hearing a written protest against the proposed project signed by a majority in number of the holders of title to real property, or

assessable rights therein, or evidence of title thereto, representing one-half or more of the assessed valuation of the real property within such zone or within any of the participating zones for which said project was initiated, be filed with the board. The proceedings relating to such project must be terminated and a new hearing shall be conducted before the board may proceed with the project. Such new hearing may not be held until at least six months following such termination.

In all matters in this section referred to, the last equalized assessment roll of the County of Tulare next preceding the filing of the protest shall be prima facie evidence as to the ownership of real property, the names and number of the persons who are the holders of title or evidence of title, or assessable rights therein, and as to the assessed valuation of real property within the zone or within any of the participating zones for which the project was initiated.

Executors, administrators, special administrators, and guardians may sign the protest provided for in this act on behalf of the estate represented by them. If the property is assessed in the name of such representatives, that fact shall establish the right of such representatives to sign the protest; if assessed in the name of the decedent, minor or incompetent person, certified copies of the letters or such other evidence as may be satisfactory to the board must be produced.

Where real property appears to be owned in common or jointly or by a partnership, or where letters of representatives of decedents, minors or guardians are joint, only one of the owners or representatives or partners may sign the protest for all joint owners or representatives or partners; provided, the party claiming the right to protest for all produces the written consent of his co-owners or representatives or partners so to do, duly acknowledged by the consenting co-owners or representatives or partners in the manner that deeds of real property are required to be acknowledged to entitle such deeds to be recorded in the recorder's office of the county.

Where real property is assessed in the name of a trustee or trustees, such trustee or trustees shall be deemed to be the person entitled to sign the protest, and if assessed in the name of more than one trustee the right to sign the protest shall be determined in like manner as above provided with respect to co-owners.

The protest of any public or quasi-public corporation, private corporation or unincorporated association, may be signed by any person authorized by the board of directors or trustees or other managing body thereof, which authorization shall be in writing; and a proxy executed by an officer or officers thereof, attested by its seal and duly acknowledged, shall constitute sufficient evidence of such authority, and shall be filed with the board.

The owner of any real property or interest therein, appearing upon the assessment roll, which has been assessed in the wrong name or to unknown owners, or which has passed from the owner appearing as such on the last equalized assessment roll, since the same was made, shall be entitled to sign the protest represented thereby, either by the production of a proxy from such former owner, or by furnishing evidence of his ownership by a conveyance duly acknowledged showing the title to be vested in the person claiming the right to sign the protest, accompanied by a certificate of a competent searcher of titles, certifying that a search of the official records of the county, since the date of the conveyance, discloses no conveyance or transfer out from the grantee or transferee named in the conveyance.

Where the real property has been contracted to be sold, the vendee shall be entitled to sign the protest, unless such real property is assessed in the name of the vendor, in which event the vendor shall be entitled to so do.

The board shall be entitled to inquire and take evidence for the purpose of identifying any person claiming the right to sign the protest as being the person shown on the assessment roll or otherwise as entitled thereto. And, unless satisfactory evidence is furnished, the right to sign said protest may be denied.

Added Stats 1969 ch 1149.

§ 13. Election

If the board determines to proceed with a project in a zone or zones, after the conclusion of the public hearing, it shall call an election to be held in the zone or

zones on the question of proceeding with the project. Said election shall be called by the adoption of a notice of election, which shall state the date of the election, the proposition to be voted upon, the hours the polls will be open, and shall designate the election precincts, the polling place within each precinct and the names of the election officers consisting of one inspector, one judge and one clerk for each precinct. Only registered voters within the zone or zones shall be entitled to vote at said election.

The notice of election shall be published or posted pursuant to the same procedure and time limits prescribed for giving notice of the public hearing pursuant to Section 12 of this act. No other notice of such election need be given nor need sample ballots or polling place cards be issued.

The ballot for the election shall contain the following ballot measure:

Shall the proposed flood control project for Zones No. ..... in the Tulare County Flood Control District be approved?	Yes No

The election shall be conducted as one election comprising all of the zones affected, rather than separately in each zone, and precincts established may comprise territory in more than one zone. If a majority of the voters voting upon the proposition are in favor of the project, the board may proceed with the project. If a majority of said voters vote against said project, the board shall not proceed with said project unless it is later approved by the voters at a subsequent election called and conducted pursuant to this section. Such subsequent elections may be called by the board without conducting additional public hearings.

Said election may be consolidated with any district, city or county election or statewide primary or general election under the provisions of the Elections Code relating to the consolidation of elections and in case of consolidation the notice herein provided for may be modified as provided in the Elections Code.

If the board determines that bonded indebtedness should be incurred to pay for any portion of the cost of a proposed project, then the election required under this section shall be fully consolidated with the bond election, without complying with the procedures for consolidation of elections set forth in the Elections Code, and the procedures for calling and conducting the bond election shall be applicable to both elections, and both propositions shall be included on the ballot for said election. In the case of such a consolidated election, the ordinance required under Section 15 of this act shall constitute the notice of election required under this section and shall contain the information required under this section. If a majority of the voters voting in all of the zones participating in the election, considering such zones as a single unit rather than separately, vote in favor of approving the project, but the bond election fails, the board may proceed to pay the costs of the project out of the taxes or assessments levied under this act or from other sources, excluding bonds.

In all particulars not provided in this act, such election shall be held and conducted and the returns canvassed and declared in the manner provided in the Elections Code for state or county general elections in the County of Tulare, including the provisions governing absentee ballots.

Added Stats 1969 ch 1149.

§ 14. Taxes and assessments

The board shall have power, in any year:

1. To levy ad valorem taxes or assessments upon all property in the district to pay the general administrative costs and expenses of the district, and to carry out any of the objects or purposes of this act of common benefit to the district; provided, however, that said ad valorem tax or assessment shall not exceed two cents ($0.02) on each one hundred dollars ($100) of assessed valuation, and

2. To levy such taxes or assessments in each or any of said zones and participating zones as have been authorized after proceedings in the manner prescribed in Sections 12 and 13, to pay the cost and expenses of carrying out, constructing, maintaining, operating, extending, repairing or otherwise improving any or all works or improvements established or to be established within or on behalf of said respective zones, according to the benefits derived or to be derived by said respective zones, by either of the following methods:

(a) By a levy or assessment upon all property within a zone or participating zone, including land, improvements thereon, and personal property;

(b) By a levy or assessment upon all real property within a zone or participating zones, including both land and improvements thereon. It is declared that for the purposes of any tax or assessment levied under this subdivision, the property so taxed or assessed within a given zone is equally benefited.

3. To levy taxes or assessments by either method authorized by subdivision 2 of this section in each or any of said zones, according to the special benefits derived or to be derived by the specific properties therein, to pay the cost and expenses of carrying out any of the objects or purposes of this act of special benefit to such zone or zones, including the constructing, maintaining, operating, extending, repairing, or otherwise improving any or all works of improvement established or to be established within or on behalf of said respective zone or zones.

In the event of project cooperation with any of the governmental bodies as authorized in subdivision 6 of Section 5 of this act, and requiring the making of a contract with any such governmental body for the purposes set forth in said subdivision 6, by the terms of which work is to be performed by any such governmental body in any specified zone or participating zones, for the particular benefit thereof, and by said proposed contract the district is to pay to such governmental body, a sum of money in consideration or subvention for the performance of said work by such governmental body, the board may, after proceedings in the manner prescribed in Sections 12 and 13 of this act, levy and collect a special tax or assessment upon the property in such zone or participating zones, whereby to raise funds to enable the district to make such payment, in addition to other taxes or assessments herein otherwise provided for.

Said taxes or assessments shall be levied and collected together with, and not separately from taxes for county purposes, and the revenues derived from said district taxes or assessments shall be paid into the county treasury to the credit of said district, or the respective zones thereof, and the board shall have the power to control and order the expenditure thereof for said purposes; provided, however, that no revenues, or portions thereof, derived in any zone from the taxes or assessments levied under the provisions of subdivision 2 or 3 of this section shall be expended for constructing, maintaining, operating, extending, repairing or otherwise improving any works or improvements located in any other zone, except in the case of joint projects, or for projects authorized or established outside of such zone, or zones, but for the benefit thereof. In cases of projects joint to two or more zones, such zones will become, and shall be referred to as, participating zones.

Added Stats 1969 ch 1149.

§ 14.5. Revenues from taxation

Because of the enactment of Article XIII A of the California Constitution and implementing legislation, no ad valorem taxes or assessments are presently being levied under subdivision 1 of Section 14 of this act. However, such revenues from taxation as are received by the district in lieu of such taxes and assessments may, if they exceed the amount needed to carry out the purposes specified in subdivision 1 of Section 14, be used for any flood control or water conservation projects or purposes of benefit within the district even though they are not of common benefit to the entire district.

Added Stats 1981 ch 408 § 3.

§ 15. Bonds; Election

(1) Whenever the board determines that a bonded indebtedness should be incurred to pay the cost of any work or improvement in any zone or zones, the board may, by resolution, determine and declare the respective amounts of bonds necessary to be issued in each zone in order to raise the amount of money necessary for

each work or improvement and the denomination and the maximum rate of interest of said bonds. The board shall cause a copy of the resolution, duly certified by the clerk, to be filed for record in the Office of the Recorder of Tulare County within five days after its issuance. From and after said filing of said copy of said resolution the board shall be deemed vested with the authority to proceed with the bond election.

(2) After the filing for record of the resolution specified in subdivision (1) of this section, the board may call a special bond election in said zone or participating zones at which shall be submitted to the qualified electors of said zone or participating zones the question whether or not bonds shall be issued in the amount or amounts determined in said resolution and for the purpose or purposes therein stated. Said bonds and the interest thereon shall be paid from revenue derived from annual taxes or assessments levied as provided in this act.

(3) Said board shall call such special bond election by ordinance and submit to the qualified electors of said zone or participating zones, the proposition of incurring a bonded debt in said zone or participating zones in the amount and for the purposes stated in said resolution and shall recite therein the objects and purposes for which the indebtedness is proposed to be incurred; provided, that it shall be sufficient to give a brief, general description of such objects and purposes, and refer to the recorded copy of such resolution adopted by said board, and on file for particulars; and said ordinance shall also state the estimated cost of the proposed work and improvements, the amount of the principal of the indebtedness to be incurred therefor, and the maximum rate of interest to be paid on said indebtedness, and shall fix the date on which such special election shall be held, and the form and contents of the ballot to be used. For the purposes of said election, said board shall in said ordinance establish special bond election precincts within the boundaries of each zone and participating zone and may form election precincts by consolidating the precincts established for general elections in said district to a number not exceeding six general precincts for each such special bond election precinct, and shall designate a polling place and appoint one inspector, one judge and one clerk for each of such special bond election precincts.

In all particulars not recited in said ordinance, such special bond election shall be held as nearly as practicable in conformity with the general election laws of the state.

Said board shall cause a map or maps to be prepared covering a general description of the work to be done, which said map shall show the location of the proposed works and improvements and shall cause the said map to be posted in a prominent place in the county courthouse for public inspection for at least thirty (30) days before the date fixed for such election.

Said ordinance calling for such special bond election shall, prior to the date set for such election, be published in a newspaper of general circulation circulated in each zone and participating zone affected for six consecutive times if published in a daily newspaper of general circulation, or two times if published in a weekly newspaper of general circulation. The last publication of such ordinance must be at least fourteen (14) days before said election, and if there be no such newspaper, then such ordinance shall be posted in five public places designated by the board, in each zone and participating zone for at least thirty (30) days before the date fixed for such election. No other notice of such election need be given nor need sample ballots or polling place cards be issued.

Any defect or irregularity in the proceedings prior to the calling of such special bond election shall not affect the validity of the bonds authorized by said election. Where a project affects a single zone only, if at such election two-thirds (⅔) of the votes cast in said zone on the proposition of incurring a bonded indebtedness are in favor thereof, then bonds for such zone for the amount stated in such proceedings shall be issued and sold as in this act provided. Where the incurring of bonded indebtedness by participating zones is to be determined at such election, no bonds for any of such participating zones shall be issued or sold unless two-thirds (⅔) of the votes cast on the proposition in each such participating zone are in favor of incurring the bonded indebtedness to be undertaken by such zone.

Added Stats 1969 ch 1149.

§ 16. Form

The board shall, subject to the provisions of this act, prescribe by resolution the form of said bonds, which must include a designation of the zone or participating zone affected, and of the interest coupons attached thereto. Said bonds shall be payable annually or semiannually at the discretion of the board each and every year on a day and date, and at a place to be fixed by said board, and designated in such bonds, together with the interest on all sums unpaid on such date until the whole of said indebtedness shall have been paid.

The board may divide the principal amount of any issue into two or more series and fix different dates for the bonds of each series. The bonds of one series may be made payable at different times from those of any other series. The maturity of each series shall comply with this section. The board may fix a date, not more than two years from the date of issuance, for the earliest maturity of each issue or series of bonds. Beginning with the date of the earliest maturity of each issue or series, not less than one-fortieth of the indebtedness of such issue or series shall be paid every year. The final maturity date shall not exceed 40 years from the time of incurring the indebtedness evidenced by each issue or series.

The bonds shall be issued in such denomination as the board may determine, except that no bonds shall be of a less denomination than one hundred dollars ($100), nor of a greater denomination than five thousand dollars ($5,000), and shall be payable on the days and at the place fixed in said bonds, and with interest at the rate specified in such bonds, and shall be made payable annually or semiannually, and said bonds shall be numbered consecutively and shall be signed by the chairman of the board, and countersigned by the auditor of said district, and the seal of said district shall be affixed thereto by the clerk of the board. Either or both such signatures may be printed, engraved or lithographed. The interest coupons of said bonds shall be numbered consecutively and signed by the said auditor by his printed, engraved or lithographed signature. In case any such officers whose signatures or countersignatures appear on the bonds or coupons shall cease to be such officer before the delivery of such bonds to the purchaser, such bonds and coupons, and signatures or countersignatures shall nevertheless be valid and sufficient for all purposes the same as if such officer had remained in office until the delivery of the bonds.

Added Stats 1969 ch 1149.

§ 17. Sale; Disposition of proceeds

The board may issue and sell the bonds of any such zones authorized at not less than par value. Before selling the bonds, or any part thereof, the board shall give notice not less than 10 days prior to the date of sale by publication in a newspaper of general circulation circulating in the district inviting sealed bids in such manner as the board shall prescribe. If satisfactory bids are received, the bonds offered for sale shall be awarded to the highest responsible bidder. If no bids are received, or if the board determines that the bids received are not satisfactory as to price or responsibility of the bidders, the board may reject all bids received, if any, and either readvertise or sell the bonds at private sale. The proceeds of the sale of such bonds shall be placed in the Treasury of the County of Tulare to the credit of said district and the respective participating zones thereof, for the uses and purposes of the zone or zones voting said bonds; and the proper record of such transactions shall be placed upon the books of said county treasurer, and said respective zone funds shall be applied exclusively to the purposes and objects mentioned in the ordinance calling for such special bond election as aforesaid, subject to the provisions in this act contained. Payments from said zone funds shall be made upon demands prepared, presented, allowed and audited in the same manner as demands upon the funds of the County of Tulare.

Added Stats 1969 ch 1149.

§ 18. Manner of payment; Zones not liable for obligations of other zones

Any bonds issued under the provisions of this act, and the interest thereon, shall be paid by revenue derived from an annual tax or assessment levied as provided in

clause (a) or (b) of subdivision 2 of Section 14 of this act. No zone nor the property therein shall be liable for the bonded indebtedness of any other zone, nor shall any moneys derived from taxation or assessments in any of the several zones be used in payment of principal or interest or otherwise of the bonded indebtedness chargeable to any other zone.

Added Stats 1969 ch 1149.

§ 19. Taxes or assessments

The board shall levy a tax or assessment each year sufficient to pay the interest and such portion of the principal of said bonds as is due or to become due before the time for making the next general tax levy. Such taxes or assessments shall be levied and collected in the respective zones of issuance together with and not separately from taxes for county purposes, and when collected shall be paid into the County Treasury of Tulare County to the credit of the zone of issuance, and be used for the payment of the principal and interest on said bonds, and for no other purpose. The principal and interest on said bonds shall be paid by the County Treasurer of said Tulare County in the manner provided by law for the payment of principal and interest on bonds of said county.

Added Stats 1969 ch 1149.

§ 20. Taxes and assessments; Applicability of general laws; Duties of county officers; Exempt property

The provisions of law of this state, prescribing the time and manner of levying, assessing, equalizing and collecting county property taxes, including the sale of property for delinquency, and the redemption from such sale, and the duties of the several county officers with respect thereto, are, so far as they are applicable, and not in conflict with the specific provisions of this act, hereby adopted and made a part hereof. Such officers shall be liable upon their several official bonds for the faithful discharge of the duties imposed upon them by this act. All property exempt from taxation for county purposes under the provisions of the Constitution and the Revenue and Taxation Code of the State of California is exempt from taxation for the purposes of this act.

Added Stats 1969 ch 1149.

§ 21. Limitation on amount; Property located in more than one zone

The total amount of taxes and assessments levied by the district on property within any zone shall not exceed twenty cents ($0.20) on each one hundred dollars ($100) of assessed valuation for flood control purposes exclusive of the amounts necessary for interest and redemption of any bonds voted within such zone and exclusive of the tax authorized by subdivision 1 of Section 14 of this act. Such taxes and assessments shall not be levied until approved in accordance with Sections 12 and 13 of this act. If property is located in more than one zone, the maximum rate of taxes and assessments levied on said property for all of the zones, collectively, in which the property is located shall not exceed the maximum set forth above.

Added Stats 1969 ch 1149.

§ 22. Inapplicability of District Investigation Law of 1933

A zone formed or proposed to be formed under this act, or the acquisition of any property or the construction of any improvement thereby, shall not be subject to any of the provisions of the District Investigation Law of 1933.

Added Stats 1969 ch 1149.

Editor's Notes—The District Investigation Law of 1933 consisting of §§ 58500–58732 of Chapter 2 of Division 1 of Title 6 of the Government Code, was repealed by Stats 1988 ch 1055.

§ 23. Bonds as legal investments; Use as security for performance of act; Repeal of provisions in conflict with section

The bonds of the district issued for any zone thereof pursuant to this act shall be legal investments for all trust funds, and for the funds of all insurance companies, banks, both commercial and savings, and trust companies, and for the state school funds, and whenever any money or funds may by law now or hereafter enacted be invested in bonds of cities, cities and counties, counties, school districts or municipalities in the State of California, such money or funds may be invested in the said bonds of said district issued in accordance with the provisions of this act, and whenever bonds of cities, cities and counties, school districts or municipalities, may by any law now or hereafter enacted be used as security for the performance of any act, such bonds of said district may be so used.

This section of this act is intended to be and shall be considered the latest enactment with respect to the matters herein contained and any and all acts or parts of acts in conflict with the provisions hereof are hereby repealed.

Added Stats 1969 ch 1149.

§ 24. Exemption of bonds from taxation; District declared reclamation district within constitutional definition

All bonds issued by said district under the provisions of this act shall be free and exempt from all taxation within the State of California. It is hereby declared that the district organized by this act is a reclamation district within the meaning of Section 1 ¾ of Article XIII and Section 13 of Article XI of the Constitution of this state.

Added Stats 1969 ch 1149.

Editor's Notes—The versions of Cal Const Art XIII § 1¾ and Article XI § 13 were repealed in 1974 and 1970. See now Cal Const Art XIII §§ 1 and 2, and Art XI § 11.

§ 25. [Section repealed 1984.]

Added Stats 1969 ch 1149. Repealed Stats 1984 ch 1128 § 175. See Pub Con C § 21581.

§ 26. Improvements to conform to report, plans, specifications and map; Authorized changes

Any improvement for which bonds are voted under the provisions of this act, shall be made in conformity with the report, plans, specifications and map theretofore adopted, as above specified, unless the doing of any of such work described in said report, shall be prohibited by law, or be rendered contrary to the best interests of the district by some change of conditions in relation thereto, subsequent to the date of filing the report, plans, specifications and map theretofore adopted, in which event the board of supervisors may order necessary changes made in such proposed work or improvements and may cause any plans and specifications to be made and adopted therefor.

Added Stats 1969 ch 1149.

§ 27. Additional bonds; Procedure

Whenever bonds have been authorized by any zone or participating zone of said district and said bonds have been issued as in this act authorized, and the board shall by resolution determine that additional bonds should be issued for carrying out the work of flood control, or for any of the purposes of this act, the board may again proceed as in this act provided, and submit to the qualified voters of said zone or participating zone, the question of issuing additional bonds in the same manner and with like procedure as hereinbefore provided, and all the above provisions of this act for the issuing and sale of such bonds, and for the expenditure of the proceeds thereof, shall be deemed to apply to such issue of additional bonds.

Added Stats 1969 ch 1149.

§ 28. Defeat of proposition; Limitation on calling election for same objects and purposes

Should a proposition for issuing bonds for any zone or participating zones submitted at any election under this act fail to receive the requisite number of votes of the qualified electors voting at such election to incur the indebtedness, the board shall not for six months after such election call or order another election in such zone or participating zone for incurring indebtedness and issuing bonds under the terms of this act for the same objects and purposes.

Added Stats 1969 ch 1149.

§ 29. Refunding bonds

The board may, with the consent of any holder or holders of outstanding bonds of the district, exchange refunding bonds bearing a lower rate of interest for such outstanding bonds.

Whenever any holder of outstanding bond or bonds shall have consented to such exchange, the board may, by resolution entered in its minutes, order the refunding of such bonds. The resolution shall designate the numbers, denominations, dates of maturity and aggregate principal amounts of the bonds so to be refunded and shall provide for the issuance of refunding bonds in exchange therefor, the form, numbers, denominations, dates of maturity and aggregate principal amounts of which shall be the same as the bonds so to be refunded. The resolution shall also fix the rate of interest said refunding bonds shall bear, which rate shall be less than the rate provided in the bonds to be refunded. The resolution shall also fix the form of the interest coupons attached to said refunding bonds, which shall be the same as the bonds so to be refunded, excepting that the rate and amounts of interest shall be less as hereinabove provided.

The refunding bonds shall be signed by the chairman of the board or such other member of the board as said board may by resolution designate, and shall be countersigned by the treasurer of the district, and the seal of said district shall be affixed thereto. The interest coupons shall be numbered consecutively and signed by the treasurer of said district by his engraved or lithographed signature. In case any officer whose signature or countersignature appears on said bonds or coupons shall cease to be such officer before the delivery of such bonds to the purchaser, such signature or countersignature shall nevertheless be valid and sufficient for all purposes the same as if such officer has remained in office until the delivery of the bonds.

Each refunding bond may be exchanged for its corresponding outstanding bond as the board by agreement with the holder of such outstanding bond may determine, except that in effecting such exchange, any and all matured coupons on said refunding bonds shall be detached and canceled and the principal and accrued interest of both issues shall be accepted at par value and the district shall pay said holder in cash out of moneys in the bond interest fund of the district an amount equal to the difference between the interest on the outstanding bond and on the refunding bond accrued to the date of such exchange.

When any refunding bonds shall have been exchanged, taxes shall be levied and collected to pay the principal and interest thereof as provided by Section 19 all the provisions of which section shall apply to said refunding bonds to the same extent as to original issues.

The refunding bonds shall also be legal investments for fiduciaries and others as provided in Section 23.

Added Stats 1969 ch 1149.

§ 30. Effect of repeal or amendment on obligations of outstanding bonds or indebtedness

The repeal or amendment of this act shall not in any way affect or release any of the property in said district or any zone thereof from the obligations of any outstanding bonds or indebtedness until all such bonds and outstanding indebtedness have been fully paid and discharged.

Added Stats 1969 ch 1149.

§ 31. [No section of this number.]

§ 32. [Section repealed 1976.]

Added Stats 1969 ch 1149. Repealed Stats 1975 ch 585 § 32, operative July 1, 1976. The repealed section related to condemnation or agreement requiring relocation of property subject to public use.

§ 33. Claims against district

All claims for money or damages against the district are governed by Part 3 (commencing with Section 900) and Part 4 (commencing with Section 940) of Division 3.6 of Title 1 of the Government Code except as provided therein, or by other statutes or regulations expressly applicable thereto.

Added Stats 1969 ch 1149.

§ 34. Title to acquired property; Powers concerning acquired property

The legal title to all property acquired under the provisions of this act shall immediately and by operation of law vest in said district, and shall be held by said district, in trust for, and is hereby dedicated and set apart to, the uses and purposes set forth in this act. The board is hereby authorized and empowered to hold, use, acquire, manage, occupy and possess said property, as herein provided; and said board may determine, by resolution duly entered in their minutes that any property, real or personal, held by said district is no longer necessary to be retained for the uses and purposes thereof, and may thereafter sell, lease or otherwise dispose of said property in the manner prescribed by law for such action by counties.

Added Stats 1969 ch 1149.

§ 35. Action to determine legality of existence of district

The district formed under this act in order to determine the legality of its existence, may institute a proceeding therefor in the superior court of this state, in and for the County of Tulare, by filing with the clerk of said county a complaint setting forth the name of the district, its exterior boundaries, the date of its organization and a prayer that it be adjudged a legal flood control district formed under the provisions of this act. The summons in such proceeding shall be served by publishing a copy thereof once a week for four weeks in a newspaper of general circulation published in said county. Within thirty (30) days after proof of publication of said summons shall have been filed in said proceeding, the state, any property owner or resident in said district, or any person interested may appear as a defendant in said action by serving and filing an answer to said complaint, in which case said answer shall set forth the facts relied upon to show the invalidity of the district and shall be served upon the county counsel before being filed in such proceeding. Such proceeding is hereby declared to be a proceeding in rem and the final judgment rendered therein shall be conclusive against all persons whomsoever, including the district and the State of California.

Added Stats 1969 ch 1149.

§ 36. Bonds for officers and employees

The board may require any officer or employee to give bond for the faithful performance of the duties of his office, in such penal sum as may be fixed by the board. When deemed expedient by the board, a master bond may be used which shall provide coverage on more than one officer, employee or agent of the district who is required by the district to give bond. Such bond shall be in the form and for the term which is approved by the board. The premium for such bond shall be paid by the district.

Added Stats 1969 ch 1149.

§ 37. Use of revenue or interest from temporary investment of proceeds from sale of bonds

Notwithstanding any provisions of this act to the contrary, in the event the proceeds from the sale of bonds of any zone are invested temporarily in United

States bonds, notes, or certificates of indebtedness, or in other legal investments, pending the expenditure of said funds for the purpose or purposes for which said indebtedness was incurred, any revenue or interest received or accruing therefrom may be used to pay the annual or semiannual installments of principal and/or interest on said bonds as same become due.

Added Stats 1969 ch 1149.

§ 38. Liberal construction of act

This act, and every part thereof, shall be liberally construed to promote the object thereof, and to carry out its intents and purposes.

Added Stats 1969 ch 1149.

§ 39. Severability of provisions

If any provision of this act, or the application thereof to any person or circumstance, is held invalid, the remainder of the act, or the application of such provision to other persons or circumstances, shall not be affected thereby.

Added Stats 1969 ch 1149.

§ 40. Overlapping districts and powers

Neither the establishment of the district nor anything in this act shall affect, restrict, control or supersede the existence, property, right, or power of any county water district, reclamation district, irrigation district, water conservation district, protection district, municipality, flood control district, or other district or political subdivision of the state now or hereafter established in or partially with the limits of the district for the purpose or purposes in whole or in part of flood control. The Legislature because of conditions special to the County of Tulare hereby expressly declares its interest to permit within the limits of the Tulare County Flood Control District the existence of more than one district or municipality having similar powers over the same territory in regard to flood control.

Added Stats 1969 ch 1149.

§ 41. Effect on vested rights to water

The formation of the district or the enactment of this act shall not impair the vested right of any person, association, corporation, public district of any kind, or political subdivision of the state, in or to water or the use thereof.

Added Stats 1969 ch 1149.

AN AGREEMENT BETWEEN THE

RECLAMATION BOARD OF THE STATE OF CALIFORNIA

AND THE COUNTY OF TULARE

THIS AGREEMENT is made and entered into this 28th day of November, 1989, by and between THE RECLAMATION BOARD, an agency of the State of California, hereinafter referred to as the "Board" and the COUNTY OF TULARE, a political subdivision, hereinafter referred to as the "County."

W I T N E S S E T H:

WHEREAS, the County has filed a lawsuit contesting the jurisdiction of the Board over the St. Johns River and Cottonwood Creek floodways in Tulare County, which lawsuit is entitled County of Tulare, Tulare County Flood Control District, Joseph J. Weber, Richard T. Edmington and the Hannah Ranch Partnership through its partners Stanley Dickover, Jr., Catherine C. Kramer and Margaret C. Dofflemeyer Trusts, Plaintiffs v. The Reclamation Board of the State of California, Raymond E. Barsch, General Manager thereof, the Department of Water Resources of the State of California; and Does 1 through 50, inclusive, Defendants, Tulare County Superior Court Case No. 124815, hereinafter referred to as the "Lawsuit"; and

WHEREAS, the Board has adopted designated floodways along the St. Johns River and Cottonwood Creek within the County of Tulare; and

WHEREAS, the County participates in the National Flood Insurance Program of the Federal Emergency Management Agency

TULARE COUNTY AGREEMENT NO. 15646

Attachment 2

("FEMA") through Tulare County Ordinance Nos. 2725, 2726 and 2812; and

WHEREAS, the Board and County are interested in administering a program for controlling water courses within the floodplains of the St. Johns River, Cottonwood Creek and Cross Creek by exercise of local control over encroachments into these water courses in consultation with the Board in connection therewith;

NOW, THEREFORE, IT IS MUTUALLY AGREED AS FOLLOWS:

1. The County shall administer the St. Johns River, Cottonwood Creek and Cross Creek floodplains pursuant to its own building, zoning and subdivision regulations adopted by the Board of Supervisors by Tulare County Ordinance Nos. 2725, 2726 and 2812.

2. For the life of this Agreement and as long as the County has in effect Tulare County Ordinance Nos. 2725, 2726 and 2812, the Board shall suspend enforcement of the designated floodways and regulations it adopted on June 25, 1986, as to the St. Johns River and Cottonwood Creek, and to Cross Creek that it adopted earlier.

3. For purposes of this Agreement, the term "permit" is defined as any entitlement to use for which express county discretionary approval is needed and to which County Ordinance Nos. 2725, 2726 and 2812 apply.

4. FEMA's Zone A, AO, AH, A1-A30 and B, as described in Tulare County Ordinance No. 2725, Section 7006.20a(b) and the FEMA maps for the St. Johns River, Cottonwood Creek and Cross

Creek shall be administered as set out in Exhibit "A" attached hereto. However, such agreement hereunder by the County not to contest the regulations of the Board shall not constitute a waiver of any other rights given to the County under this Agreement.

5. The "Selected Floodlines" shall be as delineated on the National Flood Insurance Maps completed by FEMA and as set forth in Tulare County Ordinance No. 2725, sections 7006.20a(a)(b) and (c). The County may consult the Board's Designated Floodway Maps when implementing the regulations which the County has adopted pursuant to the FEMA program.

6. The County shall notify and solicit comments from and supply permit applications to the Board whenever the County is the lead agency for permits or projects subject to the California Environmental Quality Act and which are within FEMA Zones A, AO, AH, A1-A30 and B for the St. Johns River, Cottonwood Creek and Cross Creek.

7. The County may amend the Ordinances described in Paragraph 1, or the subject Tulare County Ordinance Code Chapters containing the provision addressed in such Ordinances, as long as such amendment or amendments comply with the requirements of FEMA's program. The County must give the Board written notice and the opportunity to negotiate such changes with the County. If the Board does not respond to such notice within sixty days of the mailing of notice and a copy of the proposed changes, the County may proceed to adopt the amendments without further contact with the Board. Amendments required by the Federal

Government under the FEMA program may be made without restriction. The Board shall be notified of such amendments.

8. Permits issued by the County shall become effective as decided by the County. A copy of all applications for which permits were issued and the corresponding permits issued by the County under Tulare County Ordinance Nos. 2725, 2726 and 2812 will be furnished to the Board. Also, every calendar quarter, the County shall furnish the Board a list of all applications denied. The County shall publish notice of the public hearings held on such applications in the Hanford Sentinel newspaper in Kings County. Such publication of notice shall be identical to the publication notice given in Tulare County to the extent allowed by the Kings County newspaper's publication schedule. This paragraph shall apply only to applications and permits issued as to properties within FEMA Zones A, AO, AH, A1-A30 and B for the St. Johns River, Cottonwood Creek and Cross Creek.

9. The Board's Designated Floodway Inspectors will inspect the Designated Floodway for the St. Johns River, Cottonwood Creek and Cross Creek as described in the County's FEMA program. The schedule of inspections will be determined by the Board. The inspectors will notify the County's Director of Public Works of all inspections so as to coordinate the inspections and encourage the County's participation. All inspection reports will be provided to the County's Director of Public Works as soon as practical after an inspection.

10. The County agrees to dismiss, without prejudice, the COMPLAINT FOR DECLARATORY AND INJUNCTIVE RELIEF/PETITION FOR

WRIT OF MANDATE in the Lawsuit. The Reclamation Board agrees to toll for the period of time that this Agreement is in effect the Statute of Limitations as to the plaintiffs for the issues raised by the plaintiffs in the Lawsuit, in order that the plaintiffs may, upon termination of this Agreement and/or upon enforcement by the Board of the designated floodways and/or regulations described in Paragraph 2, contest the designated floodways and regulations as described in Paragraph 2 by refiling the dismissed lawsuit within 60 days of the date of termination of this Agreement.

11. This Agreement may be terminated only as follows:

(a) at any time by mutual, written consent of the parties; or

(b) by the Board <u>after</u> any significant change or repeal by the County of the Ordinances described in Paragraph 1 hereto and upon sixty (60) days' written notice to the County; or

(c) by the Board if the County violates any provision of Paragraph 7 hereto and upon sixty (60) days' written notice to the County; or

(d) by the Board if the County is "suspended" by FEMA and upon sixty (60) days' written notice to the County.

12. Upon termination of this Agreement, the Board, at its expense, may reproduce all files pertaining to all permit applications received by the County for St. Johns River, Cottonwood Creek and Cross Creek.

13. This Agreement may only be amended by mutual written consent of the Board and the County.

14. All notices to be given under this Agreement shall be in writing, personally served or mailed, postage prepaid, by certified mail, return receipt, and addressed as follows:

Board: The Reclamation Board
Department of Water Resources
1416 Ninth Street
Sacramento, CA 95814
ATTN: General Manager

County: The Board of Supervisors
County of Tulare
Administration Building
County Civic Center
Visalia, CA 93291

15. Notice of all activities under paragraphs 11 and 13 shall also be provided to the following:

Stanley Dickover, Jr.
28 Tanglewood Road
Berkeley, CA 94705

Richard H. Cochran
2929 West Main Street, Suite A
Visalia, CA 93291

IN WITNESS WHEREOF, the parties have executed this Agreement as of the day and year first above written.

COUNTY OF TULARE

By Dolores E. (Lorie) Mengine
Chair, Board of Supervisors
"County"

ATTEST: RONALD S. HOLDEN
County Executive/Clerk of the Board
of Supervisors of the County of Tulare

By Linda Magann
Deputy Clerk

BOARD OF SUPERVISORS * TULARE COUNTY, CAL. *

Approved as to Form and Content
LITA O'NEILL BLATNER
County Counsel

By _____
JULIA J. ROBERTS
Deputy County Counsel

Attorneys for "County"

Approved as to Form and Content,

By _____
RICHARD H. COCHRAN
Attorney for Plaintiffs Joseph J. Weber
and Richard T. Edmiston

Approved as to Form and Content,

By _____
STANLEY DICKOVER, JR.
Attorney for Plaintiffs Hannah Ranch
Partnership and the partner thereof

THE RECLAMATION BOARD OF THE STATE
OF CALIFORNIA

By _____
WALLACE McCORMACK, President
"Board"

THE RECLAMATION BOARD OF THE STATE OF CALIFORNIA

By _____
RAYMOND BARSCH, General Manager
"Board"

Approved as to Form and Content
JOHN K. VAN DE KAMP
Attorney General

By _____
LAWRENCE K. KEETHE
Deputy Attorney General

Attorneys for "Board"

EXHIBIT "A"

FEMA'S ZONE A & B

The County will administer the FEMA Zones A, AO, AH, A1-A30 and B for the St. Johns River, Cottonwood Creek and Cross Creek, as set forth in the County Ordinances described in Paragraph No. 1 of the Agreement and with the allowable uses described below when not in conflict with the Ordinances. The County will address the uses described below only when such uses comes before the County as part of the County's existing permit requirements under County Ordinances. The FEMA Zones A, AO, AH, A1-A30 and B are those described in Ordinance No. 2725 SECTION 7006.20a and in the FEMA maps for the St. John's River, Cottonwood Creek and Cross Creek.

I. Open Space and Agricultural Uses

A. All open space and agricultural uses in Zones A & B are allowed without notice. Examples of these uses are as follows: agricultural croplands, orchards, livestock feeding and grazing, or open type public and private recreation areas.

B. Elevated Roadways, levees, canal embankments, and land leveling which increase the height of existing land by more than one foot will be required to be reviewed by the County through their existing permit application process. Embankments with adequate cross drainage culverts are acceptable.

II. Levees Construction and Modification

A. Proposed levees greater than one foot in height will be considered through the County's existing permit application process.

B. Existing levees shall be maintained to their existing height and cross section without notice to the County. Levees which during maintenance are proposed to be raised in height or altered in cross section will be considered through the County's existing permit application process.

C. Ring levees may be constructed above one foot in height around individual structures without a permit. Such levees must be constructed in the immediate vicinity of the structure. Ring levees may not be constructed in a manner that would significantly constrict or obstruct the floodway.

15. Flood Control Master Plan

The Flood Control Master Plan (FCMP) for Tulare County was adopted by the Tulare County Board of Supervisors in 1972 upon the recommendations of the Tulare County Flood Control District. This element addresses issues particularly related to flood control along natural watercourses in Tulare County. This adopted element is incorporated into this General Plan Update document as Chapter 15 and is not being amended at this time. A copy of the adopted element is available through the Tulare County Resource Management Agency and is also available on the internet at http://generalplan.co.tulare.ca.us/

RESOURCE MANAGEMENT AGENCY

5961 SOUTH MOONEY BLVD
VISALIA, CA 93277
PHONE (559) 733-6291
FAX (559) 730-2653

Larry L. Alwbrey — Engineering
Mary Beatie — Current Planning
Michael D Edwards — Transportation
George Finney — Long Range Planning
Roger Hunt — Internal Services Administrative Services

DOUGLAS WILSON, DIRECTOR

JAMES H LARSEN, ASSOCIATE DIRECTOR

July 13, 2000

REQUEST FOR PROPOSALS

INTRODUCTION

The Tulare County Resource Management Agency - Engineering Branch is requesting proposals for the review of the Tulare County Flood Control Master Plan and Hydrology Appendix originally prepared in June 1971.

WORK TO BE PERFORMED

The type of work to be performed consists of reviewing the Tulare County Flood Control Master Plan and accompanying Hydrology Appendix. Such review shall provide the County with an estimated cost and recommendation including a complete scope of services for proceeding with a Master Plan update.

QUALIFICATIONS

A registered civil engineer is required to be in responsible charge of the work.

PROPOSAL

Please describe your qualifications and personnel to perform the identified work. Include a cost proposal (fee schedule) in a sealed envelope to accompany your proposal.

A statement is required indicating your ability to satisfy anticipated insurance requirements.

Attachment 4(a)

SUBMITTAL

Three copies of your proposal must be submitted by August 11, 2000, at 5:00 p.m. in the office of the Resource Management Agency to be considered.

Should you have any questions concerning this request or require additional information (a copy of the Master Plan and Appendix will be provided to those interested in submitting a proposal), please contact Mike Whitlock or Craig Anderson.

Yours very truly,

Mike Whitlock
Engineer IV-Flood Control

MW:mm

Spink

August 11, 2000

Mr. Mike Whitlock
Engineer IV – Flood Control
Tulare County Resource Management Agency
5961 South Mooney Blvd.
Visalia, California 93277

Subject: Cost Proposal for Review of the Tulare County Flood Control Master Plan and Hydrology Appendix

Dear Mr. Whitlock:

We propose to prepare a complete scope of services to update the Tulare County Flood Control Master Plan and Hydrology Appendix for a not to exceed cost of $4,800.

This will include all staff time and direct costs necessary to review the existing report, prepare recommendations for updating the report, provide a detailed scope for the tasks required to prepare a comprehensive update, and develop cost estimates for the preparation of the final report.

Please contact me at (916) 925-5550 if you have any questions regarding our cost proposal.

Sincerely,

The ***Spink*** *Corporation*

Pal A. Hegedus, C.E.
Senior Principal

Attachment 4(b)

TULARE COUNTY AGREEMENT
NUMBER 0257

This Agreement is made and entered into this 16th day of OCTOBER, 2000 by and between The Spink Corporation, as the contractor (hereinafter "CONTRACTOR") and the County of Tulare Resource Management Agency-Flood Control District (hereinafter "COUNTY"), as the purchaser of Engineering Services. The rendering of services under this Agreement shall commence from the date first above written and shall terminate no later than June 30, 2001.

1. CONTRACTOR agrees to provide Engineering Services for Review and Update of Tulare County Flood Control Master Plan and Hydrology Appendix as requested by COUNTY. Scope of services:

   A. Review existing report.
   B. Prepare recommendations for updating the report.
   C. Provide a detailed scope for tasks required to prepare a comprehensive update.
   D. Develop cost estimates for preparation of the final report.

2. All work under this Agreement shall be done in accordance with all applicable federal, state and local laws, statutes, ordinances, rules and regulations, and using the best practices of the profession/trade(s), and shall be completed to the satisfaction of the Tulare County Resource Management Agency-Flood Control District Director or his designee.

3. CONTRACTOR shall hold harmless, defend and indemnify COUNTY, its agents, officers and employees from and against any liability, claims, actions, costs, damages or losses of any kind, including death or injury to any person and/or damage to property, including COUNTY property, arising out of the act or omissions of CONTRACTOR or its agents, officers and employees under this Agreement. This indemnification specifically includes any claims that may be made against COUNTY by any taxing authority asserting that an employer-employee relationship exists by reason of this Agreement, cost of any penalty or sanction imposed by any agency with regulatory authority over the activities carried out by Contractor, and any claims made against County alleging civil rights violations by Contractor under Government Code sections 12920 et. Seq. (California Fair Employment and Housing Act). Contractor specifically agrees to hold harmless and indemnify County for any and all claims arising out of any injury, disability, or death of Contractor's employees or agents. This indemnification obligation shall continue beyond the term of this Agreement as to any acts or omissions occurring under this Agreement or any extension of this Agreement.

4. This Agreement is entered into by both parties with the express understanding that CONTRACTOR will perform all services required under this Agreement as an independent contractor. Nothing in this Agreement shall be construed to constitute the CONTRACTOR or any of its agents, employees or officers as an agent, employee or officer of COUNTY. CONTRACTOR agrees to advise everyone it assigns or hires to perform any duty under this agreement that they are not employees, agents or officers of COUNTY. CONTRACTOR shall be solely responsible for determining the means and methods of performing the specified services and COUNTY shall have no right to control or exercise any supervision over CONTRACTOR as to how the services will be performed. As CONTRACTOR is not COUNTY'S employee, CONTRACTOR is responsible for paying all required state and federal taxes. In particular, COUNTY will not:

   E. Withhold FICA (Social Security) from CONTRACTOR'S payments.
   F. Make state or federal unemployment insurance contributions on CONTRACTOR'S behalf.
   G. Withhold state or federal income tax from payments to CONTRACTOR.
   H. Make disability insurance contributions on behalf of CONTRACTOR.
   I. Obtain unemployment compensation insurance on behalf of CONTRACTOR.

Attachment 4(c)

Notwithstanding this independent contractor relationship, COUNTY, through the Tulare County Resource Management Agency Director, shall have the right to designate the sites at which services are to be performed, and to monitor and evaluate the performance of CONTRACTOR to assure compliance with this Agreement.

5. This Agreement may be terminated by the COUNTY without cause at any time by provision of written fourteen (14) day notice to CONTRACTOR at the address set forth in this Agreement. This Agreement may be modified or amended at any time by the mutual written consent of both parties.

6. CONTRACTOR shall submit for COUNTY approval a detailed invoice describing the work performed. All payments under this Agreement shall be made in accordance with the COUNTY's normal payment cycle. It is mutually agreed that the COUNTY shall pay CONTRACTOR no more than a maximum of Four Thousand Eight Hundred and 00/100 Dollars ($4,800.00) for all services rendered under this Agreement. Expenses for other services or materials not herein listed are not authorized nor reimbursable.

7. Prior to approval of this Agreement by COUNTY, CONTRACTOR shall file with the Purchasing Department, evidence of its compliance with the requirements of Labor Code Section 3700 relating to worker's compensation benefits and policies of insurance, or certificates thereof, issued by companies licensed to transact business in the State of California providing comprehensive liability insurance with combined single limit of liability coverage of at least ONE MILLION DOLLARS ($1,000,000.00) per single occurrence, and a policy of professional liability insurance or certificates with primary and/or excess limits of at least ONE MILLION DOLLARS AND NO/CENTS ($1,000,000.00) per occurrence. The insurance coverage shall insure against errors and omissions of the CONTRACTOR covering all of its activities under this Agreement and any extension thereof. Such policies shall name the County of Tulare, its officers, agents, and employees as additional insured. The insurance coverage shall be issued at the expense of and maintained by the CONTRACTOR during the entire term of this Agreement. Said policy shall provide that insurance carrier notify COUNTY of any cancellation or material change in coverage within ten (10) days prior to effective date.

8. CONTRACTOR shall comply with all State and Federal confidentiality requirements.

9. It is the policy of the County of Tulare Board of Supervisors that in connection with all work performed under a Purchase Order or Agreement with Tulare County, there shall be no discrimination against any prospective or active employee engaged in the work because of race, color, ancestry, national origin, sex, or religious creed, and therefore, the CONTRACTOR agrees to comply with applicable Federal and California laws regarding employment practices. In addition, the CONTRACTOR agrees to require like compliance by all sub-contractors employed on the work by CONTRACTOR.

10. It is understood and agreed that this Agreement is not meant to be exclusive and the COUNTY reserves the right to enter into other contracts for same services if it so desires.

11. Neither party shall assign this Agreement nor the rights and duties under this Agreement without the prior written consent of both parties.

12. The products of all work under this Agreement including but not limited to any reports, manuals, and other documentation shall be the property of the COUNTY.

13. The complete contract between COUNTY and CONTRACTOR consists of the following contract documents in existence: This Agreement and all amended bulletins and modifications incorporated in those documents before their execution. The work called for in one document and not expressly mentioned in the other is to be performed the same as if mentioned in all contract documents. It is hereby mutually agreed and understood that if any particulars and provisions of parts thereof in any contract document is contrary to another contract document, the provisions contained in this Agreement shall control and supersede such provisions in any other contract documents.

14. Non-Funding Clause: Funds provided for commodities or service under the terms of this Agreement are contingent on availability of public funds. Should sufficient funds not be allocated during those terms, this Agreement may be modified or terminated at any time by the County upon thirty (30) day notice. Notice shall be fully given in writing or through service in person or by first class mail.

15. All notices, demands, or other written communications to be given under this Agreement shall be deemed to have been fully given when made in writing and addressed to the respective parties as follows:

CONTRACTOR

THE SPINK CORPORATION
2590 VENTURE OAKS WAY
SACRAMENTO CA 95833-3288

AGREED: _____
PAL HEGEDUS

DATE: 9/2/2008

COUNTY

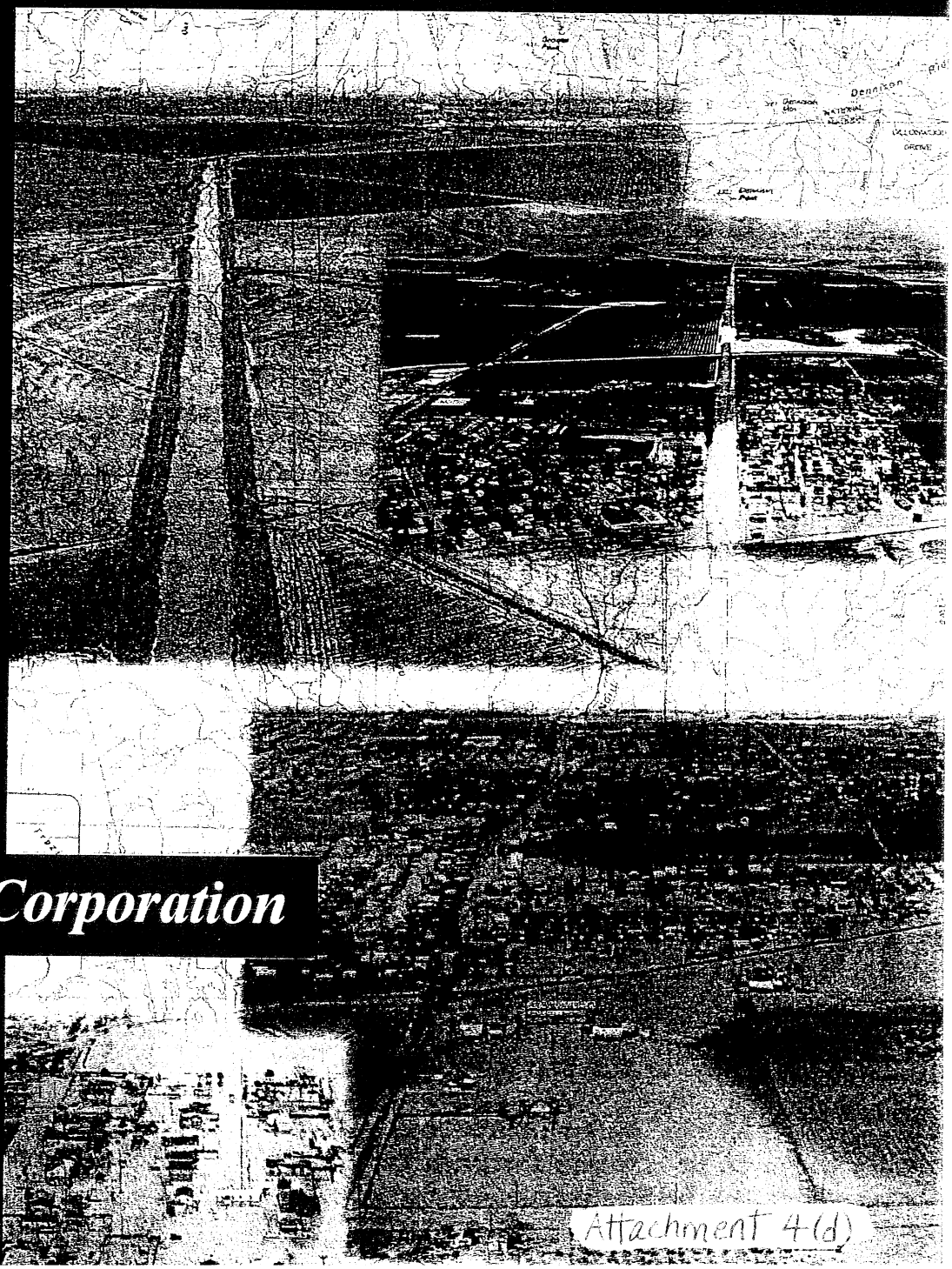
COUNTY OF TULARE
PURCHASING DEPARTMENT
COURTHOUSE ROOM #3
221 SO MOONEY BLVD
VISALIA CA 93291

AGREED: _____

DATE: 10-6-08



Scope for the Tulare County Flood Control Master Plan Update



County of Tulare
Resource
Management
Agency

February 2001

The Spink Corporation

2590 Venture Oaks Way
Sacramento, California
95833-3288
(916) 925-5550
FAX (916) 921-9274
www.spink.com

Attachment 4(d)

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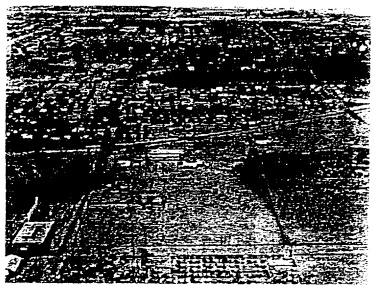
Prepared by:
*The **Spink** Corporation*
2590 Venture Oaks Way
Sacramento, California 95833
(916) 925-5550
Fax (916) 921-9274
www.spink.com

Contact:
Pal A. Hegedus, P.E.
Senior Principal

Introduction



The County of Tulare Resource Management Agency-Flood Control District (County) has retained the services of The Spink Corporation (Spink) to:

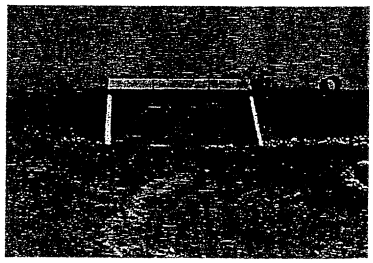
- Review the existing Flood Control Master Plan
- Prepare a recommendation for necessary updates
- Provide a detailed scope outlining the tasks required to prepare a comprehensive update
- Develop a cost estimate for update preparation

Need for Update



The original Flood Control Master Plan (Plan) was prepared in 1971 and the Hydrology Appendix revised in 1973. The very comprehensive Plan included detailed sections on hydrology and hydraulics for each major watershed within the County. It also includes significant amount of information on meteorologic, geologic and topographic factors important to flooding in the area and the effect of man's activities on the distribution of flood waters. The Plan has sections dedicated to potential flood control projects, financing options and strategies.

In the almost 30 years that have passed since the preparation of the report, numerous technological, regulatory and physical changes have occurred. These changes include:



- **Ongoing Projects and Studies** – The U.S. Army Corps of Engineers (Corps), along with state and local partners, have undertaken several flood control projects in the region, such as the Terminus Dam and Success Reservoir Enlargement projects.

- **Physical Changes within the Individual Drainage Basins** – The effect of development and even changes in agricultural activities have impacted the quantity, frequency and quality of runoff.

- **Additional Data** – Since the completion of the Plan, major flood events have occurred in the area. Data collected during these events should be included in the comprehensive Plan update.



- **New Technologies** – The widespread availability of powerful personal computers has led to major improvements in modeling techniques. The new computer programs available to water resources engineers are much more powerful analytical tools than those available in 1971 and can be used to more effectively evaluate complex drainage and flooding problems. The development of radar rainfall data collection has also provided new insights to meteorological events. In addition, the comprehensive Plan update should be developed in a way that will allow it to be incorporated into the County's GIS system.



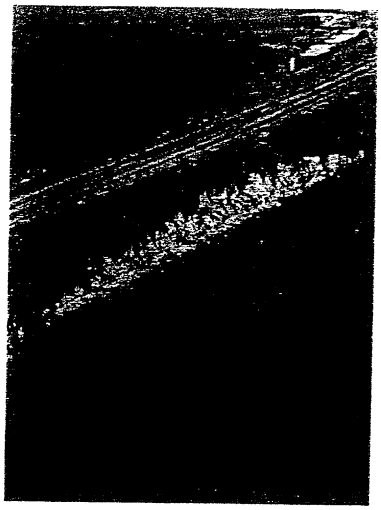
- **Regulatory Changes** – State and federal regulations enacted since 1971 will have a major impact on present and future flood control planning and development. Some of these regulations are:

    - ***The National Flood Insurance Program (NFIP) administered by the Federal Emergency Management Agency (FEMA).*** The program establishes guidelines for the development of Base Flood Elevations (BFE) and Flood Hazard Boundary Maps. In 1990, the program also implemented the Community Rating System (CRS) for recognizing and encouraging community floodplain management activities that exceed the minimum NFIP standards.

    - ***The 1973 Endangered Species Act.*** This act can play a major role in the permitting and construction of flood control projects, as well as the maintenance of existing facilities. It provides a program for the conservation of threatened and endangered plants and animals and the habitats in which they are found. The

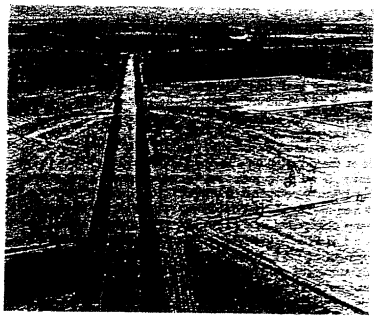


U.S. Fish and Wildlife Service (Service), maintains a list of 632 endangered species (326 are plants) and 190 threatened species (78 are plants). Endangered and threatened species include birds, insects, fish, reptiles, mammals, crustaceans, flowers, grasses and trees. In addition to the current listed species, anyone can petition the Service to include a new species on the list.



The law prohibits any action, administrative or real, that results in a "taking" of a listed species or adversely affects their habitat. As a result, habitat mitigation costs for flood control construction projects have increased considerably.

- ***The Federal Water Pollution Control Act*** (also referred to as the Clean Water Act [CWA]). In 1972, this act was amended to provide that the discharge of pollutants to waters of the United States from any point source is unlawful unless the discharge is in compliance with a National Pollutant Discharge Elimination System (NPDES) permit. The 1987 amendments to the Clean Water Act added a section that established a framework for regulating storm water discharges under the NPDES Program. On November 16, 1990, the U.S. Environmental Protection Agency (USEPA) published final regulations that established storm water permit application requirements for specified categories of industries. The regulations provide that discharges of storm water to waters of the United States from construction projects that encompass five or more acres of soil disturbance are effectively prohibited unless the discharge is in compliance with an NPDES Permit.





Recommendations for Necessary Updates

The Plan should be updated in order to include the changes described in the previous section, and to provide a guideline for future project planning and maintenance. The update should be organized into the following five major sections:

Hydrology
Hydraulics
Water Quality
Flood Control Concepts
Drainage Design Manual

Even though all five sections are closely related, each can be developed separately, giving the County the flexibility to contract for the work when funding becomes available. The update should utilize the available new modeling techniques and be consistent with the requirements of all applicable laws and regulations. Appendix A of this document provides a short description of all computer models mentioned in this document.

Update Tasks

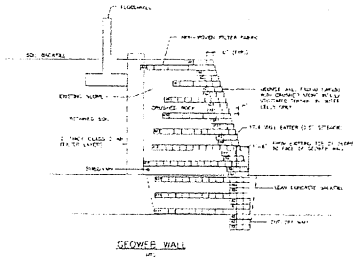
The following is a detailed description of the proposed tasks necessary to update each recommended section of the Plan.

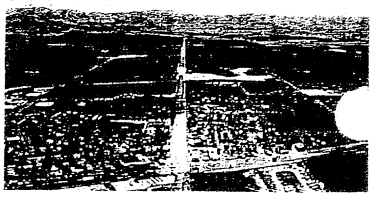
Hydrology

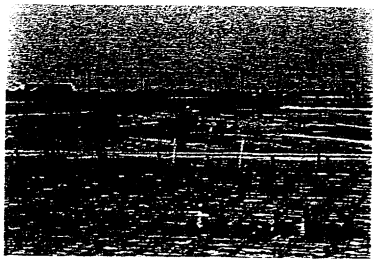
The original Plan utilized the precipitation data for the period of 1911-70. As the first task of the Plan update, the time period should be extended to include the rainfall data collected from 1970 to the present. The distribution patterns should also take into account the latest information available from radar imaging techniques.





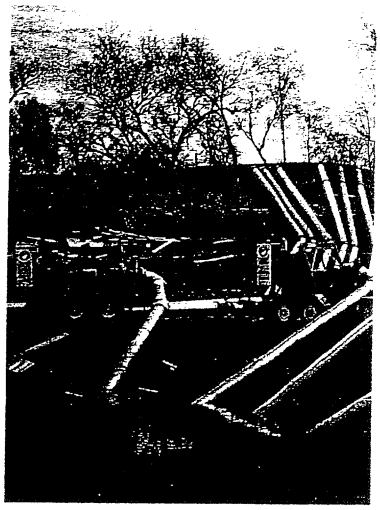






The analysis has to be performed for each hydrologic unit within the County. It will also be important to keep the update consistent with analysis of selected drainage basins recently completed by the Corps. The following specific tasks will be required to update the hydrology section of the Plan:

- **Data Collection** – Extensive data collection will have to be completed for every drainage basin. The types of data that need to be collected include precipitation, stream flow, high water marks, dam operational data, irrigation system operational data, soil characteristics, and land use information. The data can be obtained from federal, state and local agencies such as the Corps, California State Department of Water Resources, State Reclamation Board, National Weather Service, U.S. Geological Survey, U.S Bureau of Reclamation, and local irrigation and flood control agencies. As part of the data collection, input parameters such as soil characteristics, stream characteristics, watershed characteristics, diversions and storage information have to be accumulated for the HEC-HMS program.



- **Extension of precipitation data** – The collected rain gage data should be used in combination with the long-term historical rain gage data and the new radar rainfall data information to extend the historical precipitation data used in the Plan. The radar data will allow better evaluation of the precipitation distribution in areas where stream gage data is not available. It will also provide a better understanding of the orographic effect of the mountains that causes the rapid rise and cooling of clouds and increasing rainfall amounts for the higher elevations. The updated precipitation data will be used to develop the revised county-wide isohyetal map.

- **Prepare HEC-HMS Models** – HEC-HMS models should be prepared for each flood control unit. The models will provide flow information for each stream at key locations. The peak flow should be calculated in accordance with FEMA requirements for the return periods of 10-, 25-, 50-, 100-, and



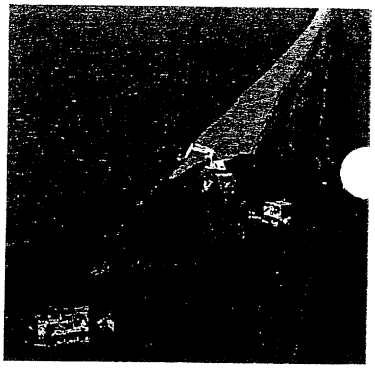
500-year. To the extent possible, the model will have to be calibrated to actual events to assure the correctness of the assumptions. The models will be used to evaluate the locations and size of proposed and potential reservoir sites.



- **Complete Flood Frequency Analysis** – Based on available stream flow data, a flood frequency analysis should be performed using the HEC-FFA program. The result of the analysis should be compared to the result of the HEC-HMS model.

Hydraulics

There have been many advances in hydraulic modeling technique since the completion of the original Plan. Models such as UNET, FLO-2D, FLDWAV, HEC-RAS, XP-SWMM and TABS-MD were not available at the time of the preparation of the Plan. In addition, the existing county-wide FEMA studies were prepared by a FEMA contractor using the HEC-2 hydraulic model. Typically, FEMA studies are not adequate for use as a planning tool since the studies consider only existing flows and conditions.



The Plan update should take advantage of the latest modeling tools in order to get results with the highest possible degree of validity, as well as use of models most appropriate to the unique conditions found in each area. Most of the upper sections of the streams should be modeled with HEC-RAS. The portions of the stream system downstream of the Friant-Kern Canal should be modeled with UNET, a model that allows for the evaluation of the entire system including the impact of in-stream and land storage, irrigation and drainage ditches, and diversions. Depending on the timing of the study update, the use of a separate UNET program may not be required, since HEC is planning to incorporate the UNET program into HEC-RAS.



The following are other programs that should be considered to model special areas:

- *FLO-2D* can be used to evaluate flooding conditions as found in an unconfined alluvial fan.
- *XP-SWMM* is used in urbanized areas where the evaluation of complex underground pipe systems and overland flow is necessary.
- *FLODWAV* is usually used to evaluate the impact of a dam break and its impact on downstream areas, which provides information for emergency evacuation planning. The use of this program may not be necessary for the Plan update since the State Dam Safety and the State Office of Emergency Services have the responsibility to keep up to date emergency information for each jurisdictional dam.
- *TABS-MD* may be used if the evaluation of water circulation issues in reservoirs becomes necessary, although it will most likely not be needed for the Plan update.
- *HEC-6* should be used to evaluate long term scour and deposition in rivers and reservoirs.



The modeling performed for the Plan update must be consistent with all FEMA requirements, however it should also include alternatives for future conditions. The models have to be set up so they provide a useful planning tool for the agency and can be easily updated.



Flood Control Concepts

The largest section in the existing Plan is the one dealing with flood control concepts. It provides detailed flood control strategies for each flood control unit. The update of this section will be very important for establishing critical projects and priorities.

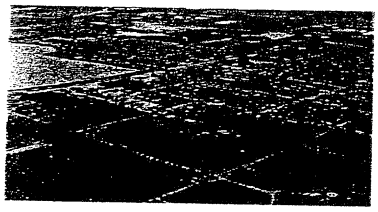
Following major flooding in recent years, such as the Mississippi River flooding and 1997 Central Valley flooding, state and federal officials were spurred to review overall flood control concepts. Politi-

cal and environmental concerns reduced the feasibility of structural solutions for flood control (such as raising levees and dams) and promoted and provided funding for "non structural" options. These strategies were also the cornerstone of the Governor's Flood Emergency Action Team (FEAT) Report completed in May1997. The Report recommends:

- Development of specific multi-objective watershed planning elements
- Mandatory flood insurance
- Proactive non-structural floodplain management strategies
- Evaluation of land use policies for deep flooding high risk areas
- Review of maintenance practices



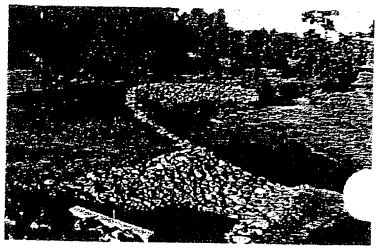
Flood control strategies for Tulare County should follow the recommendations and guidelines of the FEAT Report, be based on the results of updated hydrologic analysis and hydraulic modeling, and incorporate identified water quality requirements. Projects identified within the original Plan should also be reviewed for feasibility and consistency with all new requirements.



Water Quality

Phase II of the NPDES Storm Water Program was signed and published at the end of 1999. It provides new regulations for small municipal storm water systems, construction activities from one to five acres, and revision to the "no exposure" exclusion for industrial facilities. The new rule requires that small communities and small construction activities apply for NPDES coverage by March 10, 2003.

Presently no municipal NPDES permit is in effect within Tulare County. It might be advantageous for the County to lead a combined effort with the cities to develop a consistent storm water management manual for the County and its communities. The manual could include guidelines and design guides for water quality ponds and Best Management Practices (BMPs) that effectively reduce or prevent the discharge of pollutants into receiving waters.





Another upcoming water quality regulation that should be followed to evaluate the impact on drainage and flood control is the Total Maximum Daily Load (TMDL). The proposed TMDL regulation requires the Regional Water Quality Control Board to set maximum daily load limits for different pollutants for impaired water bodies. Presently EPA is in the process of soliciting comments on State resources required for development of TMDLs, estimated annual costs to the regulated community, and estimated costs to small businesses resulting from the proposed regulation. The comment period closed January 3, 2001.

Drainage Design Manual

The County might want to consider the preparation of a Drainage Design Manual as part of the Flood Control Master Plan update. Since drainage outfalls are connected to channels, canals and natural streams located in different jurisdictions, a consistent design standard followed throughout the County should be an important goal.



The Manual should include easy-to-use charts and procedures that enable design engineers and project reviewers to provide cost-effective design solutions for new projects. The manual should include the following sections:

- Hydrology calculations for required design storms
- Hydraulic design criterias such as:
  - Minimum/maximum pipe size
  - Minimum/maximum velocity
  - Allowed material
  - Overland release criteria
  - Open channel design standards
  - Design details and standards
- Pump station design criteria
- Design methodology of detention/retention basins
- Water quality requirements and Best Management Practices
- Levee standards

Financing Opportunities

The 1971 Master Plan included a section regarding financing of flood control projects. This section should also be updated to include all available sources. Traditionally flood control studies and projects have been funded by:

- U.S. Army Corps of Engineers
- State of California
- FEMA
- Local agencies
- Bureau of Reclamation
- Department of Agriculture
- Assessment Districts

In addition, new funding sources should be evaluated, such as Proposition 13 funds. Proposition 13, the Safe Drinking Water, Clean Water, Watershed Protection, and Flood Protection Act approved by voters in March 2000, authorizes the issuance of bonds for the financing of safe drinking water, water quality, flood protection and water reliability programs. Included in the act is $292 million for flood protection, including floodplain mapping, flood protection corridor enhancements and restoration, and urban stream restoration. In addition, $468 million is set aside for watershed protection. Tulare County could qualify for funding under some of the programs identified in Proposition 13.





Cost Estimates for the Tulare County Flood Control Master Plan Update

This cost estimate is based on the proposed scope of work prepared for the Master Plan Update. Its purpose is to provide the County with the information necessary for budget preparation. Since the update is organized and can be prepared by separate sections, the cost estimate is also provided by sections.



Hydrology

Task No.	Description	Estimated Cost Range
1.	**Data Collection and Review** Collect and review all available data from local, state and federal agencies.	$10,000 - $15,000
2.	**Extension of Precipitation Data** Use long term rain gage and radar precipitation data to develop county-wide isohyetal map.	$30,000 - $50,000
3.	**Prepare HEC-HMS Models** Prepare HEC-HMS models for each flood control unit in accordance with FEMA requirements.	$250,000 - $300,000
4.	**Flood Frequency Analysis** Perform flood frequency analysis on available stream flow data using HEC-FFA.	$10,000 - $15,000
	Subtotal	$300,000 - $380,000



Hydraulics

Task No.	Description	Estimated Cost Range
1.	**HEC-RAS Modeling** Prepare HEC-RAS models for all studied streams. The low estimate is without any field work, using only available earlier models, maps and plans.	$375,000 - $500,000
2.	**Extension of Precipitation Data** Prepare UNET model for the stream system down stream from the Friant –Kern canal.	$180,000 - $250,000
	Subtotal	$555,000 - $750,000

Flood Control Concepts

Task No.	Description	Estimated Cost Range
1.	**Prepare Flood Control Concept Report** Provide detailed flood control strategies in accordance with the latest regulatory requirements	$50,000 - $80,000
	Subotal	$50,000 - $80,000

Water Quality Manual

Task No.	Description	Estimated Cost Range
1.	**Prepare Water Quality Manual** Prepare county-wide Water Quality Manual to include guidelines and design guides for water quality ponds and Best Management Practices.	$40,000 - $60,000
	Subotal	$40,000 - $60,000

Drainage Design Manual

Task No.	Description	Estimated Cost Range
1.	**Prepare Drainage Design Manual** Prepare county-wide Drainage Design Manual to include calculation and design guidelines and construction details for drainage facilities	$120,000 - $180,000
	Subotal	$120,000 - $180,000
	Total	**$1,065,000 - $1,450,000**

Appendix A

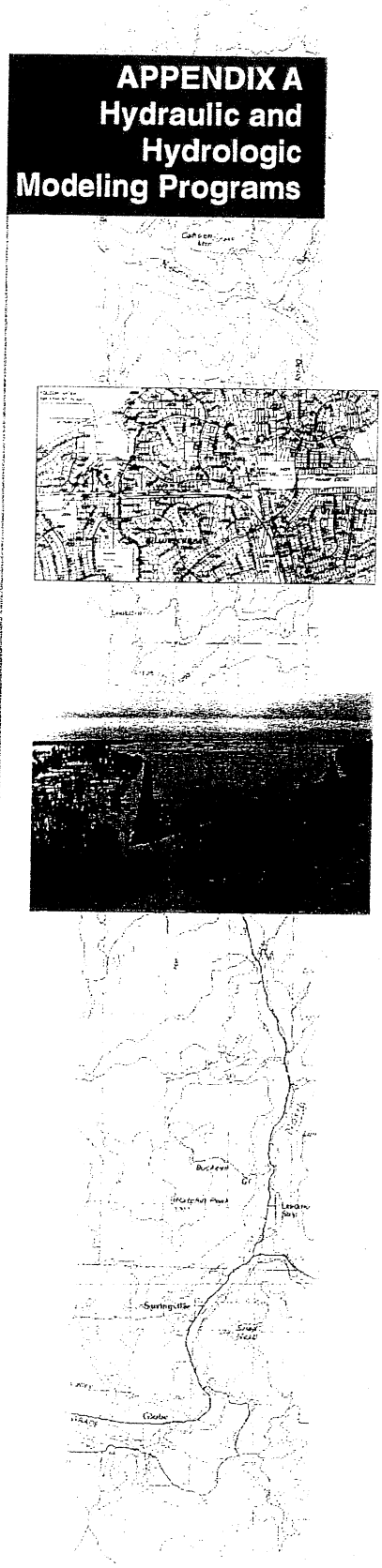
Hydraulic and Hydrologic Modeling Programs

The following is a brief description of the computer programs mentioned within the scope of work for updating the Tulare County Flood Control Master Plan. Most of the programs were developed by the U.S. Army Corps of Engineers Hydrologic Engineering Center (HEC):

- **HEC-1-Flood Hydrograph Package**
  Simulates the surface runoff response of a river basin to precipitation by representing the basin as an interconnected system of hydrologic and hydraulic components. The program is being replaced by HEC-RAS.

- **HEC-2-Water Surface Profiles**
  Computes water surface profiles for one-dimensional, steady, gradually varied flow in natural or man-made channels. Flow may be subcritical or supercritical. Various routines are available for modifying input cross-section data, for example, locating encroachments or inserting a trapezoidal excavation on cross sections. The program can compute the water surface profile through structures, such as bridges, culverts and weirs. Variable channel roughness and variable reach length between adjacent cross sections can also be accommodated. The program is being replaced by HEC-HMS.

- **HEC-6-Scour and Deposition in Streams and Reservoirs**
  One-dimensional, moveable boundary, open channel flow numerical model designed to simulate and predict changes in river profiles resulting from scour and/or deposition over moderate time periods (typically years, although single events may also be analyzed). This program has been incorporated into HEC-RAS.



- **HEC-RAS-River Analysis System**

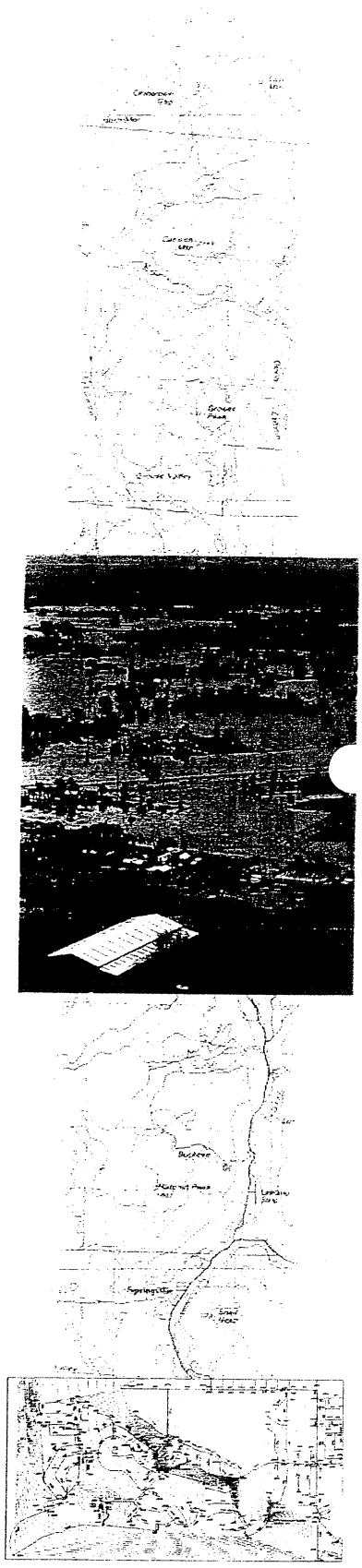
  HEC-RAS is an integrated system of software, designed for interactive use in a multi-tasking, multi-user network environment. The system is comprised of a Graphical User Interface (GUI), separate hydraulic analysis components, data storage and management capabilities, and graphics and reporting facilities. The HEC-RAS system is intended for calculating water surface profiles for steady, gradually varied flow. The system can handle a full network of channels, a dendritic system, or a single river reach. HEC-RAS is capable of modeling subcritical, supercritical and mixed flow regime water surface profiles.

  The basic computation procedure is based on the solution of the one-dimensional energy equation. Energy losses are evaluated by friction (Manning's equation) and contraction/ expansion (coefficient multiplied by the change in velocity head). The momentum equation is utilized in situations where the water surface profile is rapidly varied. These situations include mixed flow regime calculations (i.e. hydraulic jumps), hydraulics of bridges, and evaluating profiles at river confluences.

  The effects of various obstructions such as bridges, culverts, weirs and structures in the flood plain may be considered in the computations. The steady flow system is designed for application in flood plain management and flood insurance studies to evaluate floodway encroachments. The program is still under development by HEC to add unsteady flow and other options.

- **HEC-FFA-Flood Frequency Analysis**

  Performs frequency computations of annual maximum flood peaks in accordance with the Water Resources Council "Guidelines for Determining Flood Flow Frequency," Bulletin 17B.



- **UNET- Unsteady Flow**

  UNET simulates one-dimensional unsteady flow through a full network of open channels. In addition to solving the network system, UNET provides the user with the ability to apply several external and internal boundary conditions, including flow and stage hydrographs; rating curves; gated and uncontrolled spillways; pump stations; bridges; culverts; and levee systems.

- **HEC-HMS – Hydrologic Modeling System**

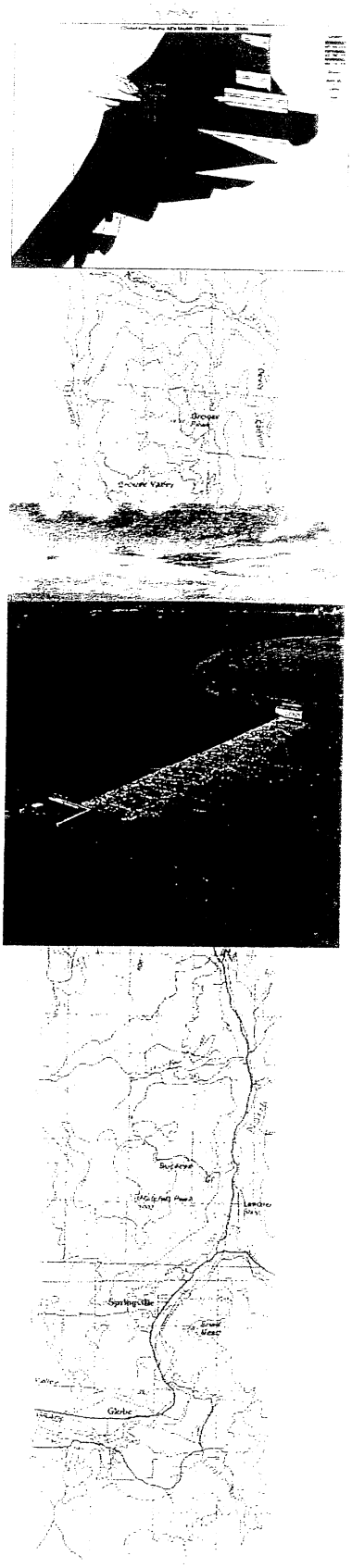
  Windows-based replacement for HEC-1. Simulates rainfall-runoff response of watersheds, including losses due to evapotranspiration, ponding and infiltration. Hydrograph computation, hydrologic routing and storage may be analyzed for dendritic stream watersheds. Graphical user interface allows viewing and plotting of computed hydrographs. The program has a sophisticated GIS interface for land use and terrain surface input.

- **FLO-2D – Two-Dimensional Flood Routing**

  The program is a useful tool to delineate flood hazards, regulate floodplain zoning and design flood mitigation. The model is effective for analyzing river overbank flows, but it is particularly valuable for analyzing unconventional flooding problems such as unconfined flows over complex topography and roughness, mud and debris flows, and urban flooding. The user can enhance typical flood simulations by applying rainfall, infiltration, bridge and culvert components or by modeling the effects of buildings or flow obstructions.

- **FLDWAV – Flood Routing Model**

  The program was developed by the National Weather Service and is the combination of two older models: DAMBRK and DWOPER. FLDWAV is a generalized flood routing (unsteady flow simulation) model. The



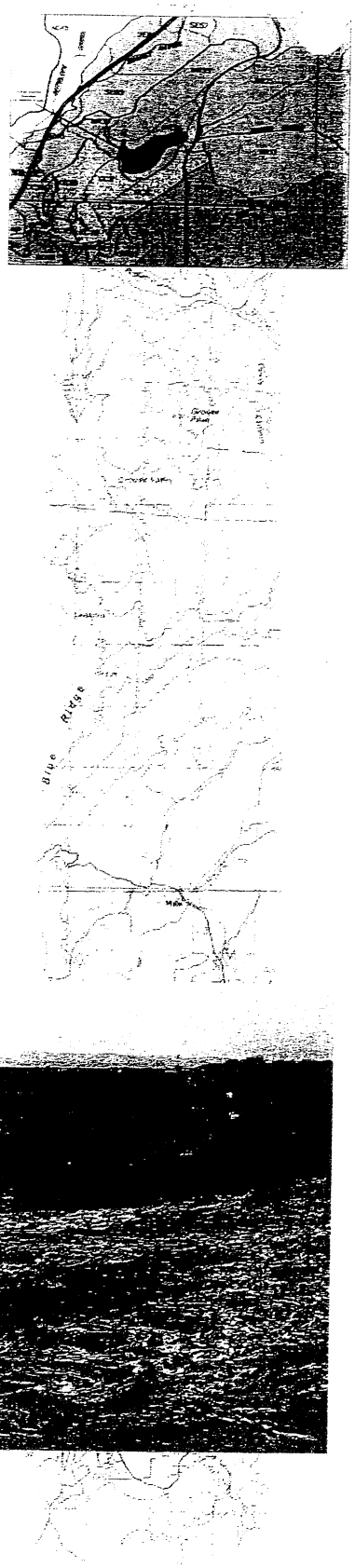
system of equations is solved by an iterative, nonlinear, weighted four-point implicit finite-difference method. The flow may be either subcritical or supercritical or a combination of each varying in space and time from one to the other. FLDWAV also may be used to route mud and debris flows or rainfall/snowmelt floods using user-specified upstream hydrographs.

- **TABS-MD – Finite Element Hydrodynamic Model**

  The TABS-MD program is a finite element hydrodynamic model that can be used to analyze water surface elevation and flow velocity for shallow water flow problems. TABS supports both steady state and transient solutions, allowing for the identification of solutions for a single instance in time or at each of a series of time steps. The TABS program also includes code for modeling pollution migration, scouring and sediment transport.

- **XP-SWMM – Urban Drainage Design Software**

  The program utilizes a self-modifying dynamic wave solution algorithm which allows it to adjust time steps as needed to eliminate numerical attenuation present in some dynamic wave programs. This is especially important in urban systems where steeply rising hydrographs, requiring responses in seconds or fractions of a second, will predominate. The program also has a layer for drainage water quality routing.



Tulare County Grand Jury 2005/2006 Findings

FLOOD POTENTIAL ON THE ST. JOHNS RIVER LEVEE DISTRICTS I AND II

INTRODUCTION

The watercourses traversing Tulare County originate in the Sierra Nevada Mountains and flow west and southwest. The two primary rivers are the Kaweah and Tule.

The three forks of the Kaweah River along with other tributaries flow into Lake Kaweah. Water released from Lake Kaweah continues as the Kaweah River. It is joined by Dry Creek about one mile below Terminus Dam then almost two miles beyond that, near McKay's point, there is a control structure that diverts the water into either the Lower Kaweah or the St. Johns River. The Kaweah Delta Water Conservation District (KDWCD) operates this control structure. When ranchers and other owners of water rights need water, or when the Army Corps of Engineers (COE) orders a flood release the control structure is adjusted to direct the water into the appropriate river or rivers.

Terminus Dam was originally completed in 1962. During 2003 and 2004 the spillway was raised 21 feet, by the installation of fusegates. en In July 2004 there was a ceremony at the Dam to celebrate completion of this project Water was stored behind the fusegates for the first time in 2005. The capacity of Lake Kaweah was increased and the possibility of floods below the dam was reduced, but not eliminated. The Federal Government, the State of California, the Tulare County Flood Control District (TCFCD) along with the City of Visalia, KDWCD, Kings County, and the Tulare Lake Basin Water Storage District sponsored the lake enlargement project through various agreements.

Success Dam, completed at approximately the same time as Terminus Dam, provides some control of the Tule River. Success Dam will be undergoing retrofit and increased spillway height within the next few years. The Federal Government, The State of California, the TCFCD, the Lower Tule River Irrigation District, and the City of Porterville sponsor this project through various agreements. This project is being done to meet the State of California's earthquake standards.

The Tulare County Board of Supervisors (BOS) sits as the TCFCD Board of Directors.

In the late 1800s primitive levees were built along the St. Johns River using earth, rock and sand. These levees were embankments that ran alongside the river to prevent high water from flooding the bordering land. Levee District I was formed on July 22, 1890 to maintain the south bank of the St. Johns River between Road 172 and Shirk Road/Road 92. The levees were rebuilt with the same kind of materials in the 1930s. In 1945 Levee District II was formed to maintain the north bank of the St. Johns River between Road 172 and Demaree/Road 108. The districts run through the northern part of Visalia.

Channels are different from levees in that they are the deepest part of water-ways. The KDWCD has historically maintained the natural channels under its jurisdiction from west of

Attachment 5

McKay's Point to north of Corcoran and east of Hanford. Since private property lines run across the levees and down through the middle of the channel, this maintenance does not take place in all areas of the channel.

Traditionally rain floods occur between November and June, and snow-melt floods between April and June. Within the last ten years severe floods have occurred in Tulare County. The last major levee failure was in the winter of 1998-1999, when Highway 99 was shut down at Earlimart due to the levee failure on the White River. Deer Creek and Sand Creek also have levees.

REASON FOR INVESTIGATION

Shortly prior to Hurricane Katrina and the flooding disaster in New Orleans, the 2005-2006 Tulare County Grand Jury decided to investigate Tulare County's two levee districts. The condition and maintenance of the levees had not been reviewed in the last ten years.

PROCEDURES FOLLOWED

The Grand Jury:

1. Interviewed relevant witnesses.
2. Examined relevant maps and documents.
3. Toured Terminus Dam.
4. Visited several sites on the St. Johns levees.

FINDINGS

1. Levee District I, on the south side of the St. Johns River, has been officially inactive since March 2005 [See map] when the last remaining Levee District Board Member sent in his letter of resignation. On November 21, 2005, the BOS notified the Auditors office to stop the mailings for audit reports.

2. Levee District II, on the north side of the St. Johns River, has been inactive for over 18 years. [See map]

3. Some county officials were unaware that the Levee Districts were inactive until the Grand Jury began this investigation.

4. Levee Districts I and II are taxing agencies. After passage of Proposition 13 the incoming taxes were significantly reduced. At that time, Levee District I sold some land and used the interest from that sale to finance the District's operation and maintenance.

5. In 2002, the Resource Management Agency (RMA) asked the over 1000 property owners in District II for input regarding levee inspection, maintenance and repairs. The owners were uninterested and/or assumed that KDWCD or RMA did the work. The owners did not want a new tax for this purpose.

6. Property owners were given the opportunity to serve as a director on the three-member Levee District II Board of Directors, but expressed a negligible amount of interest.

7. The State of California Legislature formed the Tulare County Flood Control District (TCFCD) in 1972. On June 13, 1972, the BOS, acting as TCFCD, appointed a seven member commission to advise the TCFCD.

8. TCFCD officially has no employees and is overseen part time by the Transportation Division of the RMA.

9. TCFCD is funded by Tulare County property taxes. It receives approximately $350,000 per year. This amount fluctuates with the revenue stream of Tulare County's property tax base and interest earnings.

10. The last time the BOS transferred general fund monies over to TCFCD for channel clearing was the winter of 1997-1998 in the amount of $350,000.

11. The main focus of TCFCD is a channel maintenance spraying program. TCFCD pays for the chemicals and labor, and the Tulare County Agriculture Commission implements the program. This is for channel maintenance only and has no impact on the levees.

12. Tulare County has no property rights to any levees except Sand Creek, which flows through some county land.

13. In March 2005, renewal of the liability insurance policy held by District I was denied due to the age and condition of the levee.

14. There are no active programs for levee maintenance or channel inspections within Tulare County. Most citizen complaints to RMA are for construction encroachment on the levees and fallen trees in the channel.

15. The Tulare Irrigation District comprises approximately 20% of the KDWCD area and maintains its channels, but no levees. Many irrigation districts do not maintain their channels.

16. Vegetation and trash clog many of the county's tributaries.

17. The California Department of Fish and Game requires a 1602 Stream Bed Alteration Agreement Permit for spraying vegetation inside the natural channels. No large clearing equipment is allowed in the channel. Workers can use only hand tools and then clear no more than half way up the bank of the water-way.

18. The Federal Emergency Management Agency (FEMA) has stated that the land west and south of Terminus Dam is still within a flood plain, even with the increase in height of the dam spillway.

19. The Army Corps of Engineers (COE) claims jurisdiction, through the Federal Clean Water Act, over all county lakes and water-ways.

20. The COE will not certify the levees within the two levee districts because they do not meet the COE certification standards. Some of the standards are:

    a. Type of materials used in construction.
    b. Compaction.
    c. Height of levee.
    d. Continuous formation of levees.
    e. Non-rolling banks on the channel side of water-ways.
    f. An active maintenance program in place.

21. FEMA also recognizes that the levees are not up to standards.

22. The Santa Fe Railroad abandoned its right of way and filled up the trestle on the south side of the St. Johns River. In a high-water situation this could push water toward Visalia.

23. RMA estimated that the cost to reconstruct the levees on the St Johns River, within the Certification Standards of the COE, would be close to $17,000,000.

24. The City of Visalia planted over 100 oak trees within the St. Johns channel. These trees have since been removed.

25. In 2004, the City of Visalia entered into a co-operative technical partners agreement with FEMA to have the flood plain from Kaweah Lake west to Highway 99 re-mapped. This includes LiDAR (Light, Detection And Ranging) topographical and aerial mapping. The proposed completion of this project is summer 2006.

26. RMA indicated that Ventura County is a good example of a well-managed flood control model. It consists of both flood control and watershed protection elements including ground water recharge. The county is split into numerous "benefit assessment districts" which help fund the planning, construction and maintenance of projects.

27. The Federal Government and the State of California may provide funding for joint use projects in flood control.

RECOMMENDATIONS

1. The Board of Supervisors acting as the Tulare County Flood Control District should thoroughly examine the flood potential for the entire county.

2. The Board of Supervisors should adequately fund the Tulare County Flood Control District for regular inspection and maintenance for all tributaries and levees in Tulare County.

3. The Resource Management Agency should consider the possibility of obtaining State and Federal grants for matching fund proposals dealing with water issues.

4. Tulare County needs to take a more regional approach and enter into partnerships/JPAs with the irrigation districts, the Army Corps of Engineers, the City of Visalia and the Kaweah Delta Water Conservation District, in joint-use projects incorporating both flood control and groundwater recharge.

5. The Board of Supervisors should look into the possibility of a new flood plan along the lines of the Ventura County plan.

6. The Resource Management Agency's Code Enforcement Department needs to enforce county ordinances regarding weed abatement along the levees. This should be done through fire abatement regulations, which allows clearing on private property.

7. The owners of the properties along the levees should be held responsible for clearing their portions of the levee or be cited for non-compliance.

8. Intra-agency communication needs to be improved so that all agencies involved in any one situation will be informed and able to take action thereon in a timelier manner.

RESPONSES REQUIRED

1. Tulare County Board of Supervisors, acting as the Tulare County Flood Control District Board
2. Resource Management Agency
3. City of Visalia
4. Kaweah Delta Water Conservation District

[en] There are six fusegates on Terminus Dam spillway. They were placed there to raise the spillway and, most importantly, to protect the dam by tipping when necessary. Each fusegate weighs approximately 450 tons. Each is designed to tip at a designated lake level. When the lake fills to a certain point water wells connected to the six fusegates will start to fill. When the fusegate wells get to a predetermined level they will sequentially tip, letting more water through the spillway. This will continue until the lake level stops increasing or all the fusegates have tipped.

County of Tulare

May 16, 2006

DRAFT

BOARD OF SUPERVISORS

Allen R. Ishida
District One

Connie Conway
District Two

Phillip A. Cox
District Three

J. Steven Worthley
District Four

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CLERK OF THE BOARD

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Chief Clerk

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Paul Vortmann, Presiding Judge
Tulare County Superior Court
Room 303, Civic Center
Visalia, California 93291

Dear Judge Vortmann:

On behalf of the Board of Supervisors sitting as the Tulare County Flood Control District Board following is my response to the 2005/2006 Grand Jury report regarding the Flood Potential on the St. Johns River Levee Districts I and II.

Finding 1
Levee District I, on the south side of the St. Johns River, has been officially inactive since March 2005 (see map) when the last remaining Levee District Board Member sent in his letter of resignation. On November 21, 2005, the BOS notified the Auditor's office to stop the mailings for audit reports.

Response: I agree with this finding.

Finding 2
Levee District II, on the north side of the St. Johns River, has been inactive for over 18 years (see map).

Response: I partially agree with this finding. There was a level of activity through 2001. The three trustee vacated their seats in 1995, 1998 and 2001.

Finding 3
Some county officials were unaware that the Levee Districts were inactive until the Grand Jury began this investigation.

Response: I partially agree with this finding. Some County officials were probably aware that the Levee Districts were or, possibly were, inactive prior to the time the Grand Jury began its investigation; others probably were not aware.

Finding 4
Levee Districts I and II are taxing agencies. After passage of Proposition 13 the incoming taxes were significantly reduced. At that time, Levee District I sold some land and used the interest from that sale for finance the District's operation and maintenance.

Response: I agree with this finding. Levee District No. 1 and 2 have the ability to levy and collect assessments subject to requirements of Proposition 218 which requires a vote of approval by property owners within the district. Levee District No. 1 and 2 have not collected taxes or assessments since the passage of Proposition 13 in 1978. Levee District No. 1 reportedly sold land and equipment to fund activities. The fund balance in Levee District No. 1 on April 18, 2006 was $58,064.68. The fund balance in Levee District No. 2 on April 18, 2006 was $6,590.86.

Finding 5
In 2002, the Resource Management Agency (RMA) asked the over 1000 property owners in District II for input regarding levee inspection, maintenance and repairs. The owners were uninterested and/or assumed that KDWCD or RMA did the work. The owners did not want a new tax for this purpose.

Response: Based on information provided by Resource Management Agency, I agree with this finding.

Finding 6
Property owners were given the opportunity to serve as a director on the three-member Levee District II Board of Directors, but expressed a negligible amount of interest..

Response: Based on information provided by Resource Management Agency, I agree with this finding.

Finding 7
The State of California Legislature formed the Tulare County Flood Control District (TCFCD) in 1972. On June 13, 1972, the BOS, acting as TCFCD, appointed a seven member commission to advise the TCFCD.

Response: I agree with this finding. The Flood Control District is distinct from the County; however, the Board of Supervisors serves as the governing board of the District. The District plans, designs, and maintains flood control projects within the County. Duties include maintenance of channels, pumps, and ponding basins. The District also administers the Federal Emergency Management Agency's National Flood Insurance Program, provides flood zone information, and performs flood control investigations.

Finding 8
TCFCD officially has no employees and is overseen part time by the Transportation Division of the RMA.

Response: I partially agree with this finding. Resource Management dedicates 50% of an Engineer IV position to Flood Control as the County Flood Control Engineer. This position is allocated in the Road Fund (Transportation Branch) as the balance of the position is dedicated to Transportation functions.

Finding 9
TCFCD is funded by Tulare County property taxes. It receives approximately $350,000 per year. This amount fluctuates with the revenue stream of Tulare County's property tax base and interest earnings.

Response: I agree with this finding.

Finding 10
The last time the BOS transferred general fund monies over the TCFCD for channel clearing was the winter of 1997-1998 in the amount of $350,000

Response: I agree with this finding.

Finding 11
The main focus of TCFCD is a channel maintenance spraying program. TCFCD pays for the chemicals and labor, and the Tulare County Agricultural Commission implements the program. This is for channel maintenance only and has no impact on the levees.

Response: I partially agree with this finding. In addition to the channel maintenance spraying program, the Tulare County Flood Control District also maintains pumps and ponding basins. The District also plans, designs, and maintains flood control projects within the County, such as the Kaweah Lake and Success Reservoir Enlargement Projects. Additionally, the District also administers the Federal Emergency Management Agency's National Flood Insurance Program, provides flood zone information, and performs flood control investigations.

Finding 12
Tulare County has no property rights to any levees except Sand Creek, which flows through some county land.

Response: I agree with this finding. The County does not own or have easements for any levees or waterways in the County with the exception of Sand Creek through the unincorporated communities of Cutler and Orosi.

Finding 13
In March 2005, renewal of the liability insurance policy held by District I was denied due to the age and condition of the levee.

Response: Based on information provided by Resource Management Agency, I agree with this finding.

Finding 14
There are no active programs for levee maintenance or channel inspections within Tulare County. Most citizen complaints to RMA are for construction encroachment on the levees and fallen trees in the channel.

Response: Based on information provided by Resource Management Agency, I agree with this finding.

Finding 15
The Tulare Irrigation District comprises 20% of the KDWCD area and maintains its channels, but no levees. Many irrigation districts do not maintain their channels.

Response: I partially agree with this finding. Some irrigation districts are more active at maintaining their channels then others.

Finding 16
Vegetation and trash clog many of the county's tributaries.

Response: Based on information provided by Resource Management Agency, I agree with this finding.

Finding 17
The California Department of Fish and Game requires a 1602 Stream Bed Alteration Agreement Permit for spraying vegetation inside the channel. No large clearing equipment is allowed in the channel. Workers can use only hand tools and then clear no more than half way up the bank on the water way.

Response: I agree with this finding. The California Department of Fish and Game regulates channel clearing and maintenance activities within natural channels. The Department enters into Section 1602 (formerly Section 1601) Fish and Game Code Stream Bed Alteration Agreements to regulate these activities.

Finding 18
The Federal Emergency Management Agency (FEMA) has stated that the land west and south of Terminus Dam is still within a flood plain, even with the increase in height of the dam spillway.

Response: Based on information provided by Resource Management Agency, I agree with this finding. The 21-foot increase in the height of the spillway at Lake Kaweah increased storage behind Terminus Dam from 143,000 acre-feet to 185,630 acre-feet. Flood protection for land below Terminus Dam was increased from a 46-year level of protection to a 70-year level of protection. Federal Emergency Management Agency (FEMA) special flood hazard areas are based on flows from a 100-year storm frequency.

Finding 19
The Army Corps of Engineers (COE) has jurisdiction over all county lakes and water ways.

Response: I partially agree with this finding. . The U.S. Army Corps of Engineers (Corps) claims jurisdiction, through the Federal Clean Water Act, over Lake Kaweah,

Success Reservoir, and over all tributaries and distributaries of the Kaweah and Tule Rivers. Channel clearing and maintenance activities within the Kaweah and Tule system are regulated by the Corps under Section 404 of the Clean Water Act.

Finding 20
The COE will not certify the levees within the two levee districts because they do not meet the COE certification standards. Some of the standards are:

a. *Type of materials used in construction.*
b. *Compaction.*
c. *Height of levee.*
d. *Continuous formation of levees*
e. *Non-rolling banks on the channel side of water ways. An active maintenance program in place.*

Response: I agree with this finding.

Finding 21
FEMA also recognizes that the levees are not up to standards.

Response: I partially agree with this finding. The levees are not constructed to FEMA standards.

Finding 22
The Santa Fe Railroad abandoned its right of way and filled up the trestle on the south side of the St. Johns River. In a high water situation, this could push water toward Visalia.

Response: I partially agree with this finding. I am not able to confirm that in a high water situation, that the conditions would push water toward Visalia.

Finding 23
RMA estimated that the cost to reconstruct the levees on the St. Johns River, within the Certification Standards of the COE, would be close to $17,000,000.

Response: I agree with this finding. Cost to reconstruct the levees to meet minimum standards developed by the U.S. Army Corps of Engineers, referred to as "project levees" or "certified levees", is estimated to be up to $20 million or roughly $1 million per mile.

Finding 24
The City of Visalia planted over 100 oak trees within the St. Johns channel. These trees have since been removed.

Response: This finding is in the purview of the City of Visalia.

Finding 25
In 2004, the City of Visalia entered into a cooperative technical partners agreement with FEMA to have the flood plain from Kaweah Lake west to Highway 99 remapped. This includes LIDAR (Light, Detection, And Ranging) topographical and aerial mapping. The proposed completion of this project is summer 2006.

Response: This finding is in the purview of the City of Visalia.

Finding 26
RMA indicated that Ventura County is a good example of a well-managed flood control model. It consists of both flood control and watershed protection elements including ground water recharge. The county is split into numerous "benefit assessment districts" which help fund the planning, construction and maintenance of projects.

Response: Based on information provided by Resource Management Agency, I agree with this finding. It should be noted that the benefit assessment districts in Ventura County are very active and the revenue is sufficient to cover the required expenses.

Finding 27
The Federal Government and the State of California may provide funding for joint use projects in flood control.

Response: I agree with this finding. Tulare County continues to actively seek State and Federal funding for flood protection and control. Water issues are part of the County's State and Federal Legislative Platforms.

RECOMMENDATIONS

Recommendation 1
The Board of Supervisors acting as the Tulare County Flood Control District should thoroughly examine the flood potential for the entire county.

Response: The recommendation has been implemented. The Tulare County Flood Control District "Flood Control Master Plan" examines flood prone areas in the County and identifies specific projects and measures to control flooding. Additionally, the Federal Emergency Management Agency has documented floodways adjacent to rivers and natural waterways and special flood hazard areas throughout the County. The State of California Reclamation Board acting through the State Department of Water Resources has also identified floodways and flood zones along rivers and natural waterways in the County.

Recommendation 2

The Board of Supervisors should adequately fund the Tulare County Flood Control District for regular inspection and maintenance for all tributaries and levees in Tulare County.

Response: The recommendation will not be implemented because it is not feasible under the County's current fiscal circumstances. The Flood Control District is distinct from the County. The Flood Control District revenue is drawn from property taxes, interest, State and Federal Aid. The property tax portion is based on factors set by Proposition 13. Tax increase or increased assessments would require voter approval. Any funding from the County would be drawn from the County's General Fund which would impact other County programs. As previously noted, in the past, under better fiscal circumstances General Fund dollars for channel clearing,

Recommendation 3

The Resource Management Agency should consider the possibility of obtaining State and Federal grants for matching fund proposals dealing with water issues

Response: The recommendation has been implemented. The Resource Management Agency tracks State and Federal funding for potential flood control projects. The Resource Management Agency has also included pursuing funding for this purpose through the County's Legislative Platform. In addition, the Flood Control District recently partnered with the Lower Tule River Irrigation District and Friant Water User Authority in submitting an AB 303 grant application to the State to pursue a joint use flood control, water quality, and ground water storage project in the Strathmore area.

Recommendation 4

Tulare County needs to take a more regional approach and enter into partnerships/JPAs with the irrigation districts, the Army Corps of Engineers, the City of Visalia and the Kaweah Delta Water Conservation District, in joint-use projects incorporating both flood control and groundwater recharge.

Response: The recommendation has been implemented. The Tulare County Flood Control District has partnered with the U.S. Army Corps of Engineers, State of California, Kaweah Delta Water Conservation District, City of Visalia, and Kings County to enlarge the capacity of Lake Kaweah to provide increased flood protection and water storage. The Tulare County Flood Control District is also partnering with the U.S. Army Corps of Engineers, State of California, Tule River Association, City of Porterville, and Kings County to increase storage at Success Reservoir.

Recommendation 5

The Board of Supervisors should look into the possibility of a new flood plan along the lines of the Ventura County plan.

Response: The recommendation has not yet been implemented, but may be implemented in the future. During the next fiscal year, the Resource Management

Agency will be looking into the possibility of updating portions of the Flood Control Plan. With the completion of the Kaweah Lake Reservoir Expansion, the District may have some budget available to address the portions of the flood plan. Once the possibilities are explored, options will be provided to the Board of Supervisors for consideration.

Recommendation 6

The Resource Management Agency's Code Enforcement Department needs to enforce county ordinances regarding weed abatement along the levees. This should be done through fire abatement regulations, which allows clearing on private property.

Response: The recommendation will not be implemented. Resource Management Agency does not have this authority. The County ordinance regarding abatement of weeds and rubbish is the responsibility of the County Fire Warden under section 4-11-1015 of the County ordinance code. The County fire Warden provides enforcement.

Recommendation 7

The owners of the properties along the levees should be held responsible for clearing their portions of the levee or be cited for non-compliance.

Response: The recommendation has been implemented. Section 4-15-1000 et. seq. of the Tulare County Ordinance Code pertaining to Watercourses, requires every owner of property within the unincorporated area of the County to keep a watercourse clear of vegetation, trash, and debris which creates or will create a flooding problem and which by virtue thereof constitute a danger to neighboring property or the health, safety, or welfare of residents in the vicinity. The California Department of Fish and Game regulates channel clearing and maintenance activities within natural channels. The Department enters into Section 1602 (formerly Section 1601) Fish and Game Code Stream Bed Alteration Agreements to regulate these activities. Property owners performing any channel clearing or maintenance activities within a natural channel would need to enter into an agreement with the State.

Recommendation 8

Intra-agency communication needs to be improved so that all agencies involved in any one situation will be informed and able to take action thereon in a timelier manner.

Response: The recommendation has been implemented. Intra-agency communication already exists in emergency and non-emergency situations.

Sincerely,

Steve Worthley, Chairman
Tulare County Board of Supervisors

Cc: Board of Supervisors
Bill Wittman, Sheriff
Grand Jury

FLOOD INSURANCE STUDY



TULARE COUNTY, CALIFORNIA
AND INCORPORATED AREAS



COMMUNITY NAME	COMMUNITY NUMBER
DINUBA, CITY OF	060403
EXETER, CITY OF[1]	060404
FARMERSVILLE, CITY OF	060405
LINDSAY, CITY OF	060406
PORTERVILLE, CITY OF	060407
TULARE, CITY OF	065065
TULARE COUNTY (UNINCORPORATED AREAS)	065056
VISALIA, CITY OF	060409
WOODLAKE, CITY OF	065071

[1]NON-FLOODPRONE

JUNE 16, 2009

Federal Emergency Management Agency

FLOOD INSURANCE STUDY NUMBER
06107CV000A

Attachment 6

NOTICE TO
FLOOD INSURANCE STUDY USERS

Communities participating in the National Flood Insurance Program have established repositories of flood hazard data for floodplain management and flood insurance purposes. This Flood Insurance Study (FIS) may not contain all data available within the repository. It is advisable to contact the community repository for any additional data.

Part or all of this FIS may be revised and republished at any time. In addition, part of this FIS may be revised by the Letter of Map Revision process, which does not involve republication or redistribution of the FIS. It is, therefore, the responsibility of the user to consult with community officials and to check the community repository to obtain the most current FIS components.

Selected Flood Insurance Rate Map panels for this community contain information that was previously shown separately on the corresponding Flood Boundary and Floodway Map panels (e.g., floodways and cross sections). In addition, former flood hazard zone designations have been changed as follows.

Old Zones	New Zone
A1 through A30	AE
V1 through V30	VE
B	X
C	X

Initial Countywide FIS Effective Date: June 16, 2009

Revised Countywide FIS Date:

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EXHIBITS

Exhibit 1 - Flood Profiles

Campbell Creek	Panels 01P-03P
Elk Bayou	Panels 04P-05P
Fountain Springs Gulch	Panels 06P-08P
Graham Creek	Panels 09P-10P
Kaweah River	Panels 11P-14P
Kings River	Panels 15P-18P
Lower Kaweah River	Panels 19P-22P
Lower Tule River	Panels 23P-30P
Middle Fork Kaweah River	Panels 31P-37P
North Fork Kaweah River	Panels 38P-40P
Orange Cove Drain	Panel 41P
South Fork Kaweah River	Panels 42P-45P
St. Johns River	Panels 46P-50P

EXHIBITS – continued

Exhibit 1 - Flood Profiles - continued
St. Johns River (Upstream of Southern Pacific Railroad) Panels 51P-54P
Upper Tule River Panels 55P-61P
Upper Tule River Northern Branch Panels 62P-63P
Wooten Creek Panel 64P

Exhibit 2 - Flood Insurance Rate Map Index
Flood Insurance Rate Map

TABLE 6 - SUMMARY OF DISCHARGES - continued

FLOODING SOURCE AND LOCATION	DRAINAGE AREA (sq. miles)	PEAK DISCHARGES (cfs) 10-PERCENT	2-PERCENT	1-PERCENT	0.2-PERCENT
UPPER TULE RIVER NORTHERN BRANCH					
At mouth	[1]	6,300	19,700	23,300	94,000
YOKOHL CREEK					
At Friant-Kern Canal	[2]	2,773	6,264	4,887	[3]

[1]Site affected by upstream diversions

[2]Drainage area cannot be calculated due to the flow split at McKay's Point

[3]Due to significant overland flow at the 0.2-percent annual chance discharge, a 0.2-percent annual chance peak discharge is not applicable

3.2 Hydraulic Analyses

Analyses of the hydraulic characteristics of flooding from the sources studied were carried out to provide estimates of the elevations of floods of the selected recurrence intervals. Users should be aware that flood elevations shown on the FIRM represent rounded whole-foot elevations and may not exactly reflect the elevations shown on the Flood Profiles or in the Floodway Data tables in the FIS report. For construction and/or floodplain management purposes, users are encouraged to use the flood elevation data presented in this FIS in conjunction with the data shown on the FIRM.

Cross sections were determined from topographic maps and field surveys. All bridges, dams, and culverts were field surveyed to obtain elevation data and structural geometry. All topographic mapping used to determine cross sections is referenced in Section 4.1.

Locations of selected cross sections used in the hydraulic analyses are shown on the Flood Profiles (Exhibit 1). For stream segments for which a floodway was computed (Section 4.2), selected cross section locations are also shown on the FIRM (Exhibit 2).

The hydraulic analyses for this FIS were based on unobstructed flow. The flood elevations shown on the profiles are thus considered valid only if hydraulic structures remain unobstructed, operate properly, and do not fail.

All elevations are referenced to the North American Vertical Datum of 1988 (NAVD 88). To obtain up-to-date elevation information on National Geodetic Survey (NGS) benchmarks shown on this map, please contact the Information Services Branch of the NGS at (301) 713-3242, or visit their website at

www.ngs.noaa.gov. Map users should seek verification of non-NGS benchmark monument elevations when using these elevations for construction or floodplain management purposes.

Precountywide Analyses

For each incorporated community that had a previously printed FIS report within Tulare County, the hydraulic analyses described in those reports have been compiled and are summarized below.

Cross sections for the backwater analysis of most of the detailed study streams were obtained from aerial photographs flown on March 6, 1979, at negative scales of approximately 1:4,800 and 1:12,500 (Aero-Graphics, 1979), and from field reconnaissance of the study area. Exceptions to this are the Kaweah River and its forks upstream of Terminus Dam, for which mapping was obtained from the USACE (USACE, 1967); Upper Tule River upstream of Success Dam, for which mapping was also obtained from the USACE (USACE, 1968); and Lower Tule River near Porterville, for which some cross sections were obtained from the USGS. All bridges, dams, and culverts were field checked to obtain elevation data and structural geometry.

The acceptability of assumed hydraulic factors, cross sections, and bridge-structure dimensions were checked by comparing calculated water-surface elevations with previous studies and historical information. Starting water-surface elevations for each downstream cross section were determined either by the slope/area method, critical depth, or known water surface.

Water-surface elevations of the 10-, 2-, 1-, and 0.2-percent annual chance floods for streams of detailed study were computed through use of the HEC-2 step-backwater computer program (USACE, 1976). Flood profiles were drawn for Tulare County streams showing computed water-surface elevations for floods of the selected recurrence intervals.

Several areas in Tulare County required special hydraulic analysis. Some of the streams in the Upper Kaweah River and Upper Tule River basins showed critical depths at many cross sections because of the steep channel slopes; South Fork Kaweah River was modeled as supercritical flow for the entire study reach. Some streams in this area also had divided 1-percent annual chance floodplains for several adjacent cross sections, requiring a detailed divided flow analysis. In particular, the Upper Tule River was divided into a Northern Branch and Main Branch due to a long island in the floodplain. It is recommended that development be limited on the islands shown in the Upper Kaweah and Upper Tule River 1-percent annual chance floodplains because of problems caused by shifting channels and inaccessibility during flood events.

Hydraulic analyses for several of the streams studied indicated that 1-percent annual chance flooding consisted of sheetflow or ponding with average depths of 3.0 feet or less. These streams were noted in Section 2.1. Depths or elevations of shallow flooding in these areas were computed using backwater analyses by HEC-2, normal-

depth calculations, topographic data, and historical information. Computed flow paths and flood depths were compared with accounts of historical flooding and the results of previous studies whenever possible.

Shallow flooding is often characterized by highly unpredictable flow directions, caused by low relief or shifting channels and high-debris loads. Where such conditions exist, the entire area susceptible to this unpredictable flow was delineated as a zone of equal risk. Small-scale topographic variations were averaged across inundated areas to determine flood depths.

Cross sections used in the analysis of the streams of approximate study were taken from USGS topographic maps at a scale of 1:24,000 and 1:62,500 (U.S. Department of the Interior, 1954, et cetera; U.S. Department of the Interior, 1951; U.S. Department of the Interior, 1956, et cetera; U.S. Department of the Interior, 1965, et cetera; U.S. Department of the Interior, 1952; U.S. Department of the Interior, 1966, et cetera; U.S. Department of the Interior, 1957) and from field measurements. Normal-depth calculations were used to determine flood depths and channel capacities.

Depths of shallow flooding throughout the City of Dinuba were computed using historical information, topographic data, and normal-depth calculations. Cross sections and spot elevations used in this analysis were obtained by photogrammetric techniques from aerial photographs taken in March 1979 (Aero-Graphics, 1979).

Due to the methods of analysis, historical information obtained from community officials and other persons was significant in determining flood-prone areas. The flood of January 1969 was adopted as an approximation of the 1-percent annual chance flood. Computed flow paths and flood depths were compared with historical flooding accounts whenever possible. In addition, the Flood Hazard Boundary Map (FHBM) for the City of Dinuba (U.S. Department of Housing and Urban Development, 1976) was used to identify potential flood-prone areas.

Roughness values were 0.015 for paved streets and 0.080 for residential areas in the City of Dinuba.

Water-surface profiles are not applicable to areas of shallow flooding.

It has been assumed that breakouts of Alta East Branch Canal will occur in the vicinity of past breakouts.

Elevations and depths of shallow flooding throughout the City of Farmersville were computed using HEC-2 backwater analyses (USACE, 1976) and normal depth calculations. The cross sections and spot elevations needed in this analysis were obtained by photogrammetric techniques from aerial photographs taken in February 1979 at a scale of approximately 1 inch equals 925 feet (Aero-Graphics, 1979) and from the most current USGS topographic mapping for the study areas (U.S. Department of the Interior, 1950).

Roughness values ranged from 0.045 for agricultural areas to 0.100 for developed areas to account for obstructions and buildings in the City of Farmersville.

Due to the characteristics of shallow flooding, significant weight was given to historical information gathered from community officials and local citizens in the City of Lindsay when determining the extent of flooding. Computed flow paths and flood depths were compared with historical flooding accounts whenever possible. In addition, the FHBM for the City of Lindsay (U.S. Department of Housing and Urban Development, 1978) was used to identify potential flood-prone areas.

Roughness values for the shallow flooding flood paths ranged from 0.038 to 0.065. The acceptability of assumed hydraulic factors, cross sections, and bridge structure dimensions was checked by comparing calculated water-surface elevations with previous studies and historical information.

Starting water-surface elevations were calculated using the slope/area method.

For Porter Slough, it was determined that the 1-percent annual chance flow is contained within the channel. Therefore, profiles are not presented for this stream.

Depths of shallow flooding in the City of Porterville were computed using normal-depth calculations, topographic data, and historical information.

It was assumed that the control structure diverting water into Porter Slough from Tule River would prevent releases into Porter Slough during floods with recurrence intervals of 1-percent annual chance or less.

Cross sections for the backwater analysis of Elk Bayou were obtained from aerial photographs flown on March 6, 1979, at a negative scale of approximately 1:12,000 (Aero-Graphics, 1979), and from field reconnaissance of the study area. All bridges, dams, and culverts were field checked to obtain elevation data and structural geometry.

It was necessary to perform the hydraulic calculations in two sections, one covering the area downstream of the Elk Bayou Ditch flow division and one covering the area upstream of it. Starting water-surface elevations for the downstream section were calculated using the slope/area method; starting water-surface elevations for the upstream section were based on the rating curves used to perform the flow division.

Certain overbank areas adjacent to Elk Bayou were found to be subject to shallow flooding resulting from Elk Bayou and Elk Bayou Ditch overflows which become independent of the respective channel flows. Depths of shallow flooding in these areas were computed using normal-depth calculations, topographic data, and historical information. Computed flow paths and flood depths were compared with accounts of historical flooding and the results of previous studies whenever possible.

Cross sections used in the approximate study of Tulare Main Canal were taken from field measurements and from the City of Tulare Master Plan of Drainage (Toups

Corporation, 1975). Normal depth calculations were used to determine flood depths and channel capacities.

Cross sections and spot elevations used in the analysis of the City of Visalia were obtained by photogrammetric techniques from aerial photographs flown in September 1983, at a scale of 1:2,400 (Harl Pugh and Associates, 1983), from aerial photographs flown in March 1979 at a scale of 1:12,000 (Aero-Graphics, 1979); and from USGS topographic maps (U.S. Department of the Interior, 1954, et cetera). Information derived from topographic maps provided by the City of Visalia were also used (City of Visalia, California, Topographic Map, 1976).

Cross sections for the backwater analyses of the St. Johns River were obtained from aerial photographs flown on March 6, 1979, at a negative scale of approximately 1:12,000 (Aero-Graphics, 1979) and from field reconnaissance of the study area. Cross sections used in the shallow flooding analysis were determined from aerial survey information that was similar to those mentioned above (Aero-Graphics, 1979) and from the most current topographic mapping for the study areas (U.S. Department of the Interior, 1952).

Starting water-surface elevations for Antelope Creek were calculated using the slope/area method. Starting water-surface elevations for the St. Johns River were determined using the slope/area method as described in the FIS for Tulare County (FEMA, Unpublished). For both East Overflow Antelope Creek and West Overflow Antelope Creek, the starting water-surface elevation was assumed to be critical depth at the pump station intake at Bravo Lake.

Flood profiles were drawn showing computed water-surface elevations for floods of the selected recurrence intervals.

Countywide Analyses

This countywide FIS includes a new study of flood hazards in a 66-square-mile area that includes the City of Farmersville, the City of Visalia, and the unincorporated areas of Tulare County. The hydraulic analyses were performed by Northwest Hydraulic Consultants Inc. Cross sections developed from field surveys were used to model one-dimensional flow in confined rivers and canals with significant hydraulic conveyance. A combination of Light Detection and Ranging (LiDAR) data, field surveys, and orthographic photography was used to derive the topography of the Kaweah River alluvial fan system. Merrick and Company was responsible for providing topography, LiDAR data, field surveys, and orthophotography for the project. Two-dimensional modeling of unconfined flow was performed using a Digital Elevation Map (DEM) developed from this data set.

Roughness coefficients (Manning's "n" values) along all stream and canal corridors as well as on the floodplain were defined to be 0.05. The Manning's "n" value was developed as a reasonable average coefficient based on field investigations, initial modeling and calibration, and photographs taken of the study area. A single average value for the roughness coefficient was used in both the confined and unconfined flow models due to the significance and uncertainty

associated with overland flooding in the study area and mixing of flows between channels.

Channel roughness factors (Manning's "n" values) were selected based on field reconnaissance, review of aerial photographs, engineering judgment, the manual entitled "Open-Channel Hydraulics" (Chow, Ven T., 1959), and USGS guidelines (U.S. Department of the Interior, 1987). Roughness values in the overflow area ranged from 0.030 to 0.045. In portions of the airport where flow blockages were caused by buildings, a composite value of 0.12 was estimated based on USGS criteria (U.S. Department of the Interior, 1977). Roughness factors for all streams studied by detailed methods are shown in Table 7, "Manning's "n" Values."

TABLE 7 - MANNING'S "n" VALUES

Stream	Channel "n" Values	Overbank "n" Values	Method of Computing Starting Water-Surface Elevations
Antelope Creek	0.038-0.065		
Campbell Creek	0.030-0.040	0.030-0.070	Slope Area
Deep Creek	0.037-0.050	0.045-0.050	Slope Area
East Overflow Antelope Creek	0.038-0.065		
Elk Bayou	0.030-0.045	0.030-0.100	Slope Area
Fountain Springs Gulch	0.030-0.035	0.030-0.039	Elevation of Deer Creek[1]
Graham Creek	0.055-0.070	0.050-0.055	Critical Depth
Kings River	0.028-0.055	0.035-0.070	Slope Area
Lower Kaweah River (Downstream of McKays Point)	0.033-0.045	0.035-0.070	Slope Area
Middle Fork Kaweah River	0.032-0.050	0.055-0.100	Slope Area
North Fork Kaweah River	0.040-0.055	0.055-0.110	Elevation of Middle Fork Kaweah River
Porter Slough	0.013-0.050	0.030-0.070	
South Fork Kaweah River	0.042-0.055	0.050-0.105	Critical Depth
St. Johns River	0.033-0.045	0.035-0.070	Slope Area
Tule River (Downstream of Success Dam)	0.030-0.047	0.040-0.070	Slope Area
Upper Tule River	0.040-0.070	0.035-0.090	Slope Area
Upper Tule River Northern Branch	0.040-0.050	0.035-0.065	Elevation of Upper Tule River
West Overflow Antelope Creek	0.038-0.065		

[1]Data taken from USACE Floodplain Information Report (USACE, 1971)

Hydraulic modeling was performed using MIKE11 for confined channel systems and MIKE21 for overland two-dimensional flows. These two models were dynamically linked using MIKE Flood, which allows flow to pass from one model domain to the other based on relative water-surface elevations and local topography. Water-surface profiles presented for the St. Johns River and Kaweah River, both downstream of the Southern Pacific Railroad at the eastern limits of the study, in this study were developed from MIKE11 assuming that all levees along the Saint Johns River remained intact. Overland flooding results were developed from five flood scenarios including three breach scenarios along the St. Johns River and failure scenario of the Southern Pacific Railroad berm upstream of the study area. Final flood depths were established using the highest water-surface elevations calculated by the five scenarios. Base Flood Elevations (BFEs) were developed for the Kaweah River and St. Johns River downstream of the Southern Pacific Railroad using the results of the one-dimensional model.

Floodplain boundaries for the 1-percent annual chance return interval flood were established from the maximum flood depth raster image of the study area exported from MIKE21. Polygons defining hazard zones were drawn based on the maximum flood depth raster, ground contours developed from LiDAR, and the influence of significant local structures observed on aerial photographs. BFEs were developed using these same data and depicted on the map; no flood profiles are available for this interior flooding modeling using MIKE21.

Behind-Levee Analyses

Some flood hazard information presented in prior FIRMs and in prior FIS reports for Tulare County and its incorporated communities was based on flood protection provided by levees. Based on the information available and the mapping standards of the National Flood Insurance Program (NFIP) at the time that the prior FISs and FIRMs were prepared, FEMA accredited the levees as providing protection from the flood that has a 1-percent annual chance of being equaled or exceeded in any given year. For FEMA to continue to accredit the identified levees with providing protection from the base flood, the levees must meet the criteria of the Code of Federal Regulations, Title 44, Section 65.10 (44 CFR 65.10), titled "Mapping of Areas Protected by Levee Systems."

On August 22, 2005, FEMA issued "Procedure Memorandum No. 34 – Interim Guidance for Studies Including Levees." The purpose of the memorandum was to help clarify the responsibility of community officials or other parties seeking recognition of a levee by providing information identified during a study/mapping project. Often, documentation regarding levee design, accreditation, and the impacts on flood hazard mapping is outdated or missing altogether. To remedy this, Procedure Memorandum No. 34 provides interim guidance on procedures to minimize delays in near-term studies/mapping projects, to help our mapping partners properly assess how to handle levee mapping issues.

While documentation related to 44 CFR 65.10 is being compiled, the release of a more up-to-date FIRM for other parts of a community or county may be delayed.

To minimize the impact of the levee recognition and certification process, FEMA issued "Procedure Memorandum No. 43 – Guidelines for Identifying Provisionally Accredited Levees" on March 16, 2007. These guidelines allow issuance of the FIS and FIRM while levee owners or communities compile full documentation required to show compliance with 44 CFR 65.10. The guidelines also explain that a FIRM can be issued while providing the communities and levee owners with a specified timeframe to correct any maintenance deficiencies associated with a levee and to show compliance with 44 CFR 65.10.

FEMA contacted the communities within Tulare County to obtain data required under 44 CFR 65.10 to continue to show the levees as providing protection from the flood that has a 1-percent annual chance of being equaled or exceeded in any given year.

FEMA understood that it may take time to acquire and/or assemble the documentation necessary to fully comply with 44 CFR 65.10. Therefore, FEMA put forth a process to provide the communities with additional time to submit all the necessary documentation. For a community to avail itself of the additional time, it had to sign an agreement with FEMA. Levees for which such agreements were signed are shown on the final effective FIRM as providing protection from the flood that has a 1-percent annual chance of being equaled or exceeded in any given year and labeled as a Provisionally Accredited Levee (PAL). Communities have two years from the date of FEMA's initial coordination to submit to FEMA final accreditation data for all PALs. Following receipt of final accreditation data, FEMA will revise the FIS and FIRM as warranted.

FEMA coordinated with the USACE, the local communities, and other organizations to compile a list of levees that exist within Tulare County. Table 8, "List of Levees," lists all levees shown on the FIRM for which corresponding flood hazard revisions were made.

TABLE 8 – LIST OF LEVEES

Community	Flood Source	Levee Inventory Identification Number	USACE Levee
City of Visalia, Tulare County (Unincorporated Areas)	St. Johns River	27, 28, 73, and 74	No

Approximate or other analyses of "behind levee" flooding were conducted for all the levees in Table 8 to indicate the extent of the "behind levee" floodplains. The methodology used in these analyses is discussed below.

Levees 27, 28, 73, and 74 are located along the St. Johns River. The flooding along the levee lying to the south of the St. Johns River and within the reach restudied for this countywide revision, being levee 27, is reflective of the Northwest Hydraulics Consultants Inc. flood study incorporated into this

countywide revision. The other three levees lie outside the study limits of the Northwest Hydraulics Consultants Inc. study. Flooding is based in part upon the flood elevation information presented in the same countywide revision Northwest Hydraulics Consultants Inc. study and topographic information from the U.S. Geological Survey. Using these data, approximate areas of flooding in the event of failure of the levees were determined based on engineering judgment. For all four levees, no accreditation data were submitted.

3.3 Vertical Datum

All FISs and FIRMs are referenced to a specific vertical datum. The vertical datum provides a starting point against which flood, ground, and structure elevations can be referenced and compared. Until recently, the standard vertical datum in use for newly created or revised FISs and FIRMs was the National Geodetic Vertical Datum of 1929 (NGVD 29). With the finalization of the North American Vertical Datum of 1988 (NAVD 88), many FIS reports and FIRMs are being prepared using NAVD 88 as the referenced vertical datum.

All flood elevations shown in this FIS report and on the FIRM are referenced to NAVD 88. Structure and ground elevations in the community must, therefore, be referenced to NAVD 88. It is important to note that adjacent communities may be referenced to NGVD 29. This may result in differences in base flood elevations across the corporate limits between the communities.

For more information on NAVD 88, see Converting the National Flood Insurance Program to the North American Vertical Datum of 1988, FEMA Publication FIA-20/June 1992, or contact the Vertical Network Branch, National Geodetic Survey, Coast and Geodetic Survey, National Oceanic and Atmospheric Administration, Rockville, Maryland 20910 (Internet address http://www.ngs.noaa.gov).

The riverine vertical datum conversion factors are shown in the tabulation below:

Stream	Conversion Factor (ft)
Campbell Creek	2.86
Elk Bayou	2.71
Fountain Springs Gulch	2.72
Graham Creek	2.91
Kaweah River	2.71
Kings River	2.66
Lower Kaweah River	2.72
Lower Tule River	2.74
Middle Fork Kaweah River	2.97
North Fork Kaweah River	2.96
Orange Cove Drain	2.67
South Fork Kaweah River	2.97
St. Johns River	2.72
St. Johns River (upstream of Southern Pacific Railroad)	
Upper Tule River	2.89

§ 19.545 Pre-employment inquiries.

(a) *Marital status.* A recipient shall not make pre-employment inquiry as to the marital status of an applicant for employment, including whether such applicant is "Miss" or "Mrs."

(b) *Sex.* A recipient may make pre-employment inquiry as to the sex of an applicant for employment, but only if such inquiry is made equally of such applicants of both sexes and if the results of such inquiry are not used in connection with discrimination prohibited by these Title IX regulations.

§ 19.550 Sex as a bona fide occupational qualification.

A recipient may take action otherwise prohibited by §§ 19.500 through 19.550 provided it is shown that sex is a bona fide occupational qualification for that action, such that consideration of sex with regard to such action is essential to successful operation of the employment function concerned. A recipient shall not take action pursuant to this section that is based upon alleged comparative employment characteristics or stereotyped characterizations of one or the other sex, or upon preference based on sex of the recipient, employees, students, or other persons, but nothing contained in this section shall prevent a recipient from considering an employee's sex in relation to employment in a locker room or toilet facility used only by members of one sex.

Subpart F—Procedures

§ 19.600 Notice of covered programs.

Within 60 days of September 29, 2000, each Federal agency that awards Federal financial assistance shall publish in the FEDERAL REGISTER a notice of the programs covered by these Title IX regulations. Each such Federal agency shall periodically republish the notice of covered programs to reflect changes in covered programs. Copies of this notice also shall be made available upon request to the Federal agency's office that enforces Title IX.

§ 19.605 Enforcement procedures.

The investigative, compliance, and enforcement procedural provisions of Title VI of the Civil Rights Act of 1964 (42 U.S.C. 2000d) ("Title VI") are hereby adopted and applied to these Title IX regulations. These procedures may be found at 32 CFR 195.7 through 195.12.

PARTS 20–24 [RESERVED]

PART 25—UNIFORM RELOCATION ASSISTANCE AND REAL PROPERTY ACQUISITION FOR FEDERAL AND FEDERALLY ASSISTED PROGRAMS

AUTHORITY: Sec. 213, Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, Pub. L. 91–646, 84 Stat. 1894 (42 U.S.C. 4601) as amended by the Surface Transportation and Uniform Relocation Assistance Act of 1987, title IV of Pub. L. 100–17, 101 Stat. 246–256 (42 U.S.C. 4601 note).

§ 25.1 Uniform relocation assistance and real property acquisition.

Regulations and procedures for complying with the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 (Pub. L. 91–646, 84 Stat. 1894, 42 U.S.C. 4601), as amended by the Surface Transportation and Uniform Relocation Assistance Act of 1987 (title IV of Pub. L. 100–17, 101 Stat. 246–256, 42 U.S.C. 4601 note) are set forth in 49 CFR part 24.

[52 FR 48026, Dec. 17, 1987 and 54 FR 8912, Mar. 2, 1989]

PARTS 26–49 [RESERVED]

SUBCHAPTER B—INSURANCE AND HAZARD MITIGATION

PARTS 50–54 [RESERVED]

NATIONAL INSURANCE DEVELOPMENT PROGRAM

PARTS 55–58 [RESERVED]

NATIONAL FLOOD INSURANCE PROGRAM

PART 59—GENERAL PROVISIONS

Subpart A—General

Sec.
59.1 Definitions.
59.2 Description of program.
59.3 Emergency program.
59.4 References.

Subpart B—Eligibility Requirements

59.21 Purpose of subpart.
59.22 Prerequisites for the sale of flood insurance.
59.23 Priorities for the sale of flood insurance under the regular program.
59.24 Suspension of community eligibility.

Subpart C—Pilot Inspection Program

59.30 A pilot inspection procedure.

AUTHORITY: 42 U.S.C. 4001 *et seq.*; Reorganization Plan No. 3 of 1978, 43 FR 41943, 3 CFR, 1978 Comp., p. 329; E.O. 12127 of Mar. 31, 1979, 44 FR 19367, 3 CFR, 1979 Comp., p. 376.

Subpart A—General

§ 59.1 Definitions.

As used in this subchapter—

Act means the statutes authorizing the National Flood Insurance Program that are incorporated in 42 U.S.C. 4001–4128.

Actuarial rates—see *risk premium rates.*

Administrator means the Administrator of the Federal Emergency Management Agency.

Agency means the Federal Emergency Management Agency, Washington DC.

Alluvial fan flooding means flooding occurring on the surface of an alluvial fan or similar landform which originates at the apex and is characterized by high-velocity flows; active processes of erosion, sediment transport, and deposition; and, unpredictable flow paths.

Apex means a point on an alluvial fan or similar landform below which the flow path of the major stream that formed the fan becomes unpredictable and alluvial fan flooding can occur.

Applicant means a community which indicates a desire to participate in the Program.

Appurtenant structure means a structure which is on the same parcel of property as the principal structure to be insured and the use of which is incidental to the use of the principal structure.

Area of future-conditions flood hazard means the land area that would be inundated by the 1-percent-annual-chance (100-year) flood based on future-conditions hydrology.

Area of shallow flooding means a designated AO, AH, AR/AO, AR/AH, or VO zone on a community's Flood Insurance Rate Map (FIRM) with a 1 percent or greater annual chance of flooding to an average depth of 1 to 3 feet where a clearly defined channel does not exist, where the path of flooding is unpredictable, and where velocity flow may be evident. Such flooding is characterized by ponding or sheet flow.

Area of special flood-related erosion hazard is the land within a community which is most likely to be subject to severe flood-related erosion losses. The area may be designated as Zone E on the Flood Hazard Boundary Map (FHBM). After the detailed evaluation of the special flood-related erosion hazard area in preparation for publication of the FIRM, Zone E may be further refined.

Area of special flood hazard is the land in the flood plain within a community subject to a 1 percent or greater chance of flooding in any given year. The area may be designated as Zone A on the FHBM. After detailed ratemaking has been completed in preparation for publication of the flood insurance rate map, Zone A usually is refined into Zones A, AO, AH, A1–30, AE, A99, AR, AR/A1–30, AR/AE, AR/AO, AR/AH, AR/A, VO, or V1–30, VE, or V. For purposes of these regulations, the term "special flood hazard area" is synonymous in

Attachment 7

meaning with the phrase "area of special flood hazard".

Area of special mudslide (i.e., mudflow) hazard is the land within a community most likely to be subject to severe mudslides (i.e., mudflows). The area may be designated as Zone M on the FHBM. After the detailed evaluation of the special mudslide (i.e., mudflow) hazard area in preparation for publication of the FIRM, Zone M may be further refined.

Base flood means the flood having a one percent chance of being equalled or exceeded in any given year.

Basement" means any area of the building having its floor subgrade (below ground level) on all sides.

Breakaway wall means a wall that is not part of the structural support of the building and is intended through its design and construction to collapse under specific lateral loading forces, without causing damage to the elevated portion of the building or supporting foundation system.

Building—see *structure.*

Chargeable rates mean the rates established by the Federal Insurance Administrator pursuant to section 1308 of the Act for first layer limits of flood insurance on existing structures.

Chief Executive Officer of the community (*CEO*) means the official of the community who is charged with the authority to implement and administer laws, ordinances and regulations for that community.

Coastal high hazard area means an area of special flood hazard extending from offshore to the inland limit of a primary frontal dune along an open coast and any other area subject to high velocity wave action from storms or seismic sources.

Community means any State or area or political subdivision thereof, or any Indian tribe or authorized tribal organization, or Alaska Native village or authorized native organization, which has authority to adopt and enforce flood plain management regulations for the areas within its jurisdiction.

Contents coverage is the insurance on personal property within an enclosed structure, including the cost of debris removal, and the reasonable cost of removal of contents to minimize damage. Personal property may be household goods usual or incidental to residential occupancy, or merchandise, furniture, fixtures, machinery, equipment and supplies usual to other than residential occupancies.

Criteria means the comprehensive criteria for land management and use for flood-prone areas developed under 42 U.S.C. 4102 for the purposes set forth in part 60 of this subchapter.

Critical feature means an integral and readily identifiable part of a flood protection system, without which the flood protection provided by the entire system would be compromised.

Curvilinear Line means the border on either a FHBM or FIRM that delineates the special flood, mudslide (i.e., mudflow) and/or flood-related erosion hazard areas and consists of a curved or contour line that follows the topography.

Deductible means the fixed amount or percentage of any loss covered by insurance which is borne by the insured prior to the insurer's liability.

Developed area means an area of a community that is:

(a) A primarily urbanized, built-up area that is a minimum of 20 contiguous acres, has basic urban infrastructure, including roads, utilities, communications, and public facilities, to sustain industrial, residential, and commercial activities, and

(1) Within which 75 percent or more of the parcels, tracts, or lots contain commercial, industrial, or residential structures or uses; or

(2) Is a single parcel, tract, or lot in which 75 percent of the area contains existing commercial or industrial structures or uses; or

(3) Is a subdivision developed at a density of at least two residential structures per acre within which 75 percent or more of the lots contain existing residential structures at the time the designation is adopted.

(b) Undeveloped parcels, tracts, or lots, the combination of which is less than 20 acres and contiguous on at least 3 sides to areas meeting the criteria of paragraph (a) at the time the designation is adopted.

(c) A subdivision that is a minimum of 20 contiguous acres that has obtained all necessary government approvals, provided that the actual

"start of construction" of structures has occurred on at least 10 percent of the lots or remaining lots of a subdivision or 10 percent of the maximum building coverage or remaining building coverage allowed for a single lot subdivision at the time the designation is adopted and construction of structures is underway. Residential subdivisions must meet the density criteria in paragraph (a)(3).

Development means any man-made change to improved or unimproved real estate, including but not limited to buildings or other structures, mining, dredging, filling, grading, paving, excavation or drilling operations or storage of equipment or materials.

Eligible community or *participating community* means a community for which the Federal Insurance Administrator has authorized the sale of flood insurance under the National Flood Insurance Program..

Elevated building means, for insurance purposes, a nonbasement building which has its lowest elevated floor raised above ground level by foundation walls, shear walls, posts, piers, pilings, or columns.

Emergency Flood Insurance Program or *emergency program* means the Program as implemented on an emergency basis in accordance with section 1336 of the Act. It is intended as a program to provide a first layer amount of insurance on all insurable structures before the effective date of the initial FIRM.

Erosion means the process of the gradual wearing away of land masses. This peril is not per se covered under the Program.

Exception means a waiver from the provisions of part 60 of this subchapter directed to a community which relieves it from the requirements of a rule, regulation, order or other determination made or issued pursuant to the Act.

Existing construction, means for the purposes of determining rates, structures for which the "start of construction" commenced before the effective date of the FIRM or before January 1, 1975, for FIRMs effective before that date. "Existing construction" may also be referred to as "existing structures."

Existing manufactured home park or subdivision means a manufactured home park or subdivision for which the construction of facilities for servicing the lots on which the manufactured homes are to be affixed (including, at a minimum, the installation of utilities, the construction of streets, and either final site grading or the pouring of concrete pads) is completed before the effective date of the floodplain management regulations adopted by a community.

Existing structures see *existing construction.*

Expansion to an existing manufactured home park or subdivision means the preparation of additional sites by the construction of facilities for servicing the lots on which the manufacturing homes are to be affixed (including the installation of utilities, the construction of streets, and either final site grading or the pouring of concrete pads).

Federal agency means any department, agency, corporation, or other entity or instrumentality of the executive branch of the Federal Government, and includes the Federal National Mortgage Association and the Federal Home Loan Mortgage Corporation.

Federal instrumentality responsible for the supervision, approval, regulation, or insuring of banks, savings and loan associations, or similar institutions means the Board of Governors of the Federal Reserve System, the Federal Deposit Insurance Corporation, the Comptroller of the Currency, the Federal Home Loan Bank Board, the Federal Savings and Loan Insurance Corporation, and the National Credit Union Administration.

Financial assistance means any form of loan, grant, guaranty, insurance, payment, rebate, subsidy, disaster assistance loan or grant, or any other form of direct or indirect Federal assistance, other than general or special revenue sharing or formula grants made to States.

Financial assistance for acquisition or construction purposes means any form of financial assistance which is intended in whole or in part for the acquisition, construction, reconstruction, repair, or improvement of any publicly or privately owned building or mobile home, and for any machinery, equipment, fixtures, and furnishings contained or to

be contained therein, and shall include the purchase or subsidization of mortgages or mortgage loans but shall exclude assistance pursuant to the Disaster Relief Act of 1974 other than assistance under such Act in connection with a flood. It includes only financial assistance insurable under the Standard Flood Insurance Policy.

First-layer coverage is the maximum amount of structural and contents insurance coverage available under the Emergency Program.

Flood or *Flooding* means:

(a) A general and temporary condition of partial or complete inundation of normally dry land areas from:

(1) The overflow of inland or tidal waters.

(2) The unusual and rapid accumulation or runoff of surface waters from any source.

(3) Mudslides (i.e., mudflows) which are proximately caused by flooding as defined in paragraph (a)(2) of this definition and are akin to a river of liquid and flowing mud on the surfaces of normally dry land areas, as when earth is carried by a current of water and deposited along the path of the current.

(b) The collapse or subsidence of land along the shore of a lake or other body of water as a result of erosion or undermining caused by waves or currents of water exceeding anticipated cyclical levels or suddenly caused by an unusually high water level in a natural body of water, accompanied by a severe storm, or by an unanticipated force of nature, such as flash flood or an abnormal tidal surge, or by some similarly unusual and unforeseeable event which results in flooding as defined in paragraph (a)(1) of this definition.

Flood elevation determination means a determination by the Federal Insurance Administrator of the water surface elevations of the base flood, that is, the flood level that has a one percent or greater chance of occurrence in any given year.

Flood elevation study means an examination, evaluation and determination of flood hazards and, if appropriate, corresponding water surface elevations, or an examination, evaluation and determination of mudslide (i.e., mudflow) and/or flood-related erosion hazards.

Flood Hazard Boundary Map means an official map of a community, issued by the Federal Insurance Administrator, where the boundaries of the flood, mudslide (i.e., mudflow) related erosion areas having special hazards have been designated as Zones A, M, and/or E.

Flood insurance means the insurance coverage provided under the Program.

Flood Insurance Rate Map (FIRM) means an official map of a community, on which the Federal Insurance Administrator has delineated both the special hazard areas and the risk premium zones applicable to the community. A FIRM that has been made available digitally is called a Digital Flood Insurance Rate Map (DFIRM).

Flood Insurance Study see *flood elevation study.*

Flood plain or *flood-prone area* means any land area susceptible to being inundated by water from any source (see definition of "flooding").

Flood plain management means the operation of an overall program of corrective and preventive measures for reducing flood damage, including but not limited to emergency preparedness plans, flood control works and flood plain management regulations.

Flood plain management regulations means zoning ordinances, subdivision regulations, building codes, health regulations, special purpose ordinances (such as a flood plain ordinance, grading ordinance and erosion control ordinance) and other applications of police power. The term describes such state or local regulations, in any combination thereof, which provide standards for the purpose of flood damage prevention and reduction.

Flood protection system means those physical structural works for which funds have been authorized, appropriated, and expended and which have been constructed specifically to modify flooding in order to reduce the extent of the area within a community subject to a "special flood hazard" and the extent of the depths of associated flooding. Such a system typically includes hurricane tidal barriers, dams, reservoirs, levees or dikes. These specialized flood modifying works are those constructed in conformance with sound engineering standards.

Flood proofing means any combination of structural and non-structural additions, changes, or adjustments to structures which reduce or eliminate flood damage to real estate or improved real property, water and sanitary facilities, structures and their contents.

Flood-related erosion means the collapse or subsidence of land along the shore of a lake or other body of water as a result of undermining caused by waves or currents of water exceeding anticipated cyclical levels or suddenly caused by an unusually high water level in a natural body of water, accompanied by a severe storm, or by an unanticipated force of nature, such as a flash flood or an abnormal tidal surge, or by some similarly unusual and unforeseeable event which results in flooding.

Flood-related erosion area or *flood-related erosion prone area* means a land area adjoining the shore of a lake or other body of water, which due to the composition of the shoreline or bank and high water levels or wind-driven currents, is likely to suffer flood-related erosion damage.

Flood-related erosion area management means the operation of an overall program of corrective and preventive measures for reducing flood-related erosion damage, including but not limited to emergency preparedness plans, flood-related erosion control works, and flood plain management regulations.

Floodway—see *regulatory floodway.*

Floodway encroachment lines mean the lines marking the limits of floodways on Federal, State and local flood plain maps.

Freeboard means a factor of safety usually expressed in feet above a flood level for purposes of flood plain management. "Freeboard" tends to compensate for the many unknown factors that could contribute to flood heights greater than the height calculated for a selected size flood and floodway conditions, such as wave action, bridge openings, and the hydrological effect of urbanization of the watershed.

Functionally dependent use means a use which cannot perform its intended purpose unless it is located or carried out in close proximity to water. The term includes only docking facilities, port facilities that are necessary for the loading and unloading of cargo or passengers, and ship building and ship repair facilities, but does not include long-term storage or related manufacturing facilities.

Future-conditions flood hazard area, or *future-conditions floodplain*—see *Area of future-conditions flood hazard.*

Future-conditions hydrology means the flood discharges associated with projected land-use conditions based on a community's zoning maps and/or comprehensive land-use plans and without consideration of projected future construction of flood detention structures or projected future hydraulic modifications within a stream or other waterway, such as bridge and culvert construction, fill, and excavation.

Highest adjacent grade means the highest natural elevation of the ground surface prior to construction next to the proposed walls of a structure.

Historic Structure means any structure that is:

(a) Listed individually in the National Register of Historic Places (a listing maintained by the Department of Interior) or preliminarily determined by the Secretary of the Interior as meeting the requirements for individual listing on the National Register;

(b) Certified or preliminarily determined by the Secretary of the Interior as contributing to the historical significance of a registered historic district or a district preliminarily determined by the Secretary to qualify as a registered historic district;

(c) Individually listed on a state inventory of historic places in states with historic preservation programs which have been approved by the Secretary of the Interior; or

(d) Individually listed on a local inventory of historic places in communities with historic preservation programs that have been certified either:

(1) By an approved state program as determined by the Secretary of the Interior or

(2) Directly by the Secretary of the Interior in states without approved programs.

Independent scientific body means a non-Federal technical or scientific organization involved in the study of

land use planning, flood plain management, hydrology, geology, geography, or any other related field of study concerned with flooding.

Insurance adjustment organization means any organization or person engaged in the business of adjusting loss claims arising under the Standard Flood Insurance Policy.

Insurance company or *insurer* means any person or organization authorized to engage in the insurance business under the laws of any State.

Levee means a man-made structure, usually an earthen embankment, designed and constructed in accordance with sound engineering practices to contain, control, or divert the flow of water so as to provide protection from temporary flooding.

Levee System means a flood protection system which consists of a levee, or levees, and associated structures, such as closure and drainage devices, which are constructed and operated in accordance with sound engineering practices.

Lowest Floor means the lowest floor of the lowest enclosed area (including basement). An unfinished or flood resistant enclosure, usable solely for parking of vehicles, building access or storage in an area other than a basement area is not considered a building's lowest floor; *Provided*, that such enclosure is not built so as to render the structure in violation of the applicable non-elevation design requirements of § 60.3.

Mangrove stand means an assemblage of mangrove trees which are mostly low trees noted for a copious development of interlacing adventitious roots above the ground and which contain one or more of the following species: Black mangrove (Avicennia Nitida); red mangrove (Rhizophora Mangle); white mangrove (Languncularia Racemosa); and buttonwood (Conocarpus Erecta).

Manufactured home means a structure, transportable in one or more sections, which is built on a permanent chassis and is designed for use with or without a permanent foundation when attached to the required utilities. The term "manufactured home" does not include a "recreational vehicle".

Manufactured home park or subdivision" means a parcel (or contiguous parcels) of land divided into two or more manufactured home lots for rent or sale.

Map means the Flood Hazard Boundary Map (FHBM) or the Flood Insurance Rate Map (FIRM) for a community issued by the Agency.

Mean sea level means, for purposes of the National Flood Insurance Program, the National Geodetic Vertical Datum (NGVD) of 1929 or other datum, to which base flood elevations shown on a community's Flood Insurance Rate Map are referenced.

Mudslide (i.e., mudflow) describes a condition where there is a river, flow or inundation of liquid mud down a hillside usually as a result of a dual condition of loss of brush cover, and the subsequent accumulation of water on the ground preceded by a period of unusually heavy or sustained rain. A mudslide (i.e., mudflow) may occur as a distinct phenomenon while a landslide is in progress, and will be recognized as such by the Administrator only if the mudflow, and not the landslide, is the proximate cause of damage that occurs.

Mudslide (i.e., mudflow) area management means the operation of an overall program of corrective and preventive measures for reducing mudslide (i.e., mudflow) damage, including but not limited to emergency preparedness plans, mudslide control works, and flood plain management regulations.

Mudslide (i.e., mudflow) prone area means an area with land surfaces and slopes of unconsolidated material where the history, geology and climate indicate a potential for mudflow.

New construction means, for the purposes of determining insurance rates, structures for which the "start of construction" commenced on or after the effective date of an initial FIRM or after December 31, 1974, whichever is later, and includes any subsequent improvements to such structures. For floodplain management purposes, *new construction* means structures for which the *start of construction* commenced on or after the effective date of a floodplain management regulation adopted by a community and includes any subsequent improvements to such structures.

New manufactured home park or subdivision means a manufactured home park or subdivision for which the construction of facilities for servicing the lots on which the manufactured homes are to be affixed (including at a minimum, the installation of utilities, the construction of streets, and either final site grading or the pouring of concrete pads) is completed on or after the effective date of floodplain management regulations adopted by a community.

100-year flood see *base flood.*

Participating community, also known as an *eligible community*, means a community in which the Administrator has authorized the sale of flood insurance.

Person includes any individual or group of individuals, corporation, partnership, association, or any other entity, including State and local governments and agencies.

Policy means the Standard Flood Insurance Policy.

Premium means the total premium payable by the insured for the coverage or coverages provided under the policy. The calculation of the premium may be based upon either chargeable rates or risk premium rates, or a combination of both.

Primary frontal dune means a continuous or nearly continuous mound or ridge of sand with relatively steep seaward and landward slopes immediately landward and adjacent to the beach and subject to erosion and overtopping from high tides and waves during major coastal storms. The inland limit of the primary frontal dune occurs at the point where there is a distinct change from a relatively steep slope to a relatively mild slope.

Principally above ground means that at least 51 percent of the actual cash value of the structure, less land value, is above ground.

Program means the National Flood Insurance Program authorized by 42 U.S.C. 4001 through 4128.

Program deficiency means a defect in a community's flood plain management regulations or administrative procedures that impairs effective implementation of those flood plain management regulations or of the standards in §§ 60.3, 60:4, 60.5, or 60.6.

Project cost means the total financial cost of a flood protection system (including design, land acquisition, construction, fees, overhead, and profits), unless the Federal Insurance Administrator determines a given "cost" not to be a part of such project cost.

Recreational vehicle means a vehicle which is:

(a) Built on a single chassis;

(b) 400 square feet or less when measured at the largest horizontal projection;

(c) Designed to be self-propelled or permanently towable by a light duty truck; and

(d) Designed primarily not for use as a permanent dwelling but as temporary living quarters for recreational, camping, travel, or seasonal use.

Reference feature is the receding edge of a bluff or eroding frontal dune, or if such a feature is not present, the normal high-water line or the seaward line of permanent vegetation if a high-water line cannot be identified.

Regular Program means the Program authorized by the Act under which risk premium rates are required for the first half of available coverage (also known as "first layer" coverage) for all new construction and substantial improvements started on or after the effective date of the FIRM, or after December 31, 1974, for FIRM's effective on or before that date. All buildings, the construction of which started before the effective date of the FIRM, or before January 1, 1975, for FIRMs effective before that date, are eligible for first layer coverage at either subsidized rates or risk premium rates, whichever are lower. Regardless of date of construction, risk premium rates are always required for the second layer coverage and such coverage is offered only after the Administrator has completed a risk study for the community.

Regulatory floodway means the channel of a river or other watercourse and the adjacent land areas that must be reserved in order to discharge the base flood without cumulatively increasing the water surface elevation more than a designated height.

Remedy a violation means to bring the structure or other development into compliance with State or local flood plain management regulations, or, if this is not possible, to reduce the impacts of its noncompliance. Ways that

impacts may be reduced include protecting the structure or other affected development from flood damages, implementing the enforcement provisions of the ordinance or otherwise deterring future similar violations, or reducing Federal financial exposure with regard to the structure or other development.

Risk premium rates means those rates established by the Federal Insurance Administrator pursuant to individual community studies and investigations which are undertaken to provide flood insurance in accordance with section 1307 of the Act and the accepted actuarial principles. "Risk premium rates" include provisions for operating costs and allowances.

Riverine means relating to, formed by, or resembling a river (including tributaries), stream, brook, etc.

Sand dunes mean naturally occurring accumulations of sand in ridges or mounds landward of the beach.

Scientifically incorrect. The methodology(ies) and/or assumptions which have been utilized are inappropriate for the physical processes being evaluated or are otherwise erroneous.

Second layer coverage means an additional limit of coverage equal to the amounts made available under the Emergency Program, and made available under the Regular Program.

Servicing company means a corporation, partnership, association, or any other organized entity which contracts with the Federal Insurance Administration to service insurance policies under the National Flood Insurance Program for a particular area.

Sheet flow area—see *area of shallow flooding.*

60-year setback means a distance equal to 60 times the average annual long term recession rate at a site, measured from the reference feature.

Special flood hazard area—see "area of special flood hazard".

Special hazard area means an area having special flood, mudslide (i.e., mudflow), or flood-related erosion hazards, and shown on an FHBM or FIRM as Zone A, AO, A1–30, AE, AR, AR/A1–30, AR/AE, AR/AO, AR/AH, AR/A, A99, AH, VO, V1–30, VE, V, M, or E.

Standard Flood Insurance Policy means the flood insurance policy issued by the Federal Insurance Administrator or an insurer pursuant to an arrangement with the Federal Insurance Administrator pursuant to Federal statutes and regulations.

Start of Construction (for other than new construction or substantial improvements under the Coastal Barrier Resources Act (Pub. L. 97–348)), includes substantial improvement, and means the date the building permit was issued, provided the actual start of construction, repair, reconstruction, rehabilitation, addition placement, or other improvement was within 180 days of the permit date. The actual start means either the first placement of permanent construction of a structure on a site, such as the pouring of slab or footings, the installation of piles, the construction of columns, or any work beyond the stage of excavation; or the placement of a manufactured home on a foundation. Permanent construction does not include land preparation, such as clearing, grading and filling; nor does it include the installation of streets and/or walkways; nor does it include excavation for a basement, footings, piers, or foundations or the erection of temporary forms; nor does it include the installation on the property of accessory buildings, such as garages or sheds not occupied as dwelling units or not part of the main structure. For a substantial improvement, the actual start of construction means the first alteration of any wall, ceiling, floor, or other structural part of a building, whether or not that alteration affects the external dimensions of the building.

State means any State of the United States, the District of Columbia, Puerto Rico, the Virgin Islands, Guam, American Samoa, and the Commonwealth of the Northern Mariana Islands.

State Coordinating Agency means the agency of the state government (or other office designated by the Governor of the state or by state statute) that, at the request of the Federal Insurance Administrator, assists in the implementation of the National Flood Insurance Program in that state.

Storm cellar means a space below grade used to accommodate occupants of the structure and emergency supplies as a means of temporary shelter against severe tornado or similar wind storm activity.

Structure means, for floodplain management purposes, a walled and roofed building, including a gas or liquid storage tank, that is principally above ground, as well as a manufactured home. *Structure,* for insurance purposes, means:

(1) A building with two or more outside rigid walls and a fully secured roof, that is affixed to a permanent site;

(2) A manufactured home ("a manufactured home," also known as a mobile home, is a structure: built on a permanent chassis, transported to its site in one or more sections, and affixed to a permanent foundation); or

(3) A travel trailer without wheels, built on a chassis and affixed to a permanent foundation, that is regulated under the community's floodplain management and building ordinances or laws.

For the latter purpose, "structure" does not mean a recreational vehicle or a park trailer or other similar vehicle, except as described in paragraph (3) of this definition, or a gas or liquid storage tank.

Subsidized rates mean the rates established by the Federal Insurance Administrator involving in the aggregate a subsidization by the Federal Government.

Substantial damage means damage of any origin sustained by a structure whereby the cost of restoring the structure to its before damaged condition would equal or exceed 50 percent of the market value of the structure before the damage occurred.

Substantial improvement means any reconstruction, rehabilitation, addition, or other improvement of a structure, the cost of which equals or exceeds 50 percent of the market value of the structure before the "start of construction" of the improvement. This term includes structures which have incurred "substantial damage", regardless of the actual repair work performed. The term does not, however, include either:

(1) Any project for improvement of a structure to correct existing violations of state or local health, sanitary, or safety code specifications which have been identified by the local code enforcement official and which are the minimum necessary to assure safe living conditions or

(2) Any alteration of a "historic structure", provided that the alteration will not preclude the structure's continued designation as a "historic structure".

30-year setback means a distance equal to 30 times the average annual long term recession rate at a site, measured from the reference feature.

Technically incorrect. The methodology(ies) utilized has been erroneously applied due to mathematical or measurement error, changed physical conditions, or insufficient quantity or quality of input data.

V Zone—see "coastal high hazard area."

Variance means a grant of relief by a community from the terms of a flood plain management regulation.

Violation means the failure of a structure or other development to be fully compliant with the community's flood plain management regulations. A structure or other development without the elevation certificate, other certifications, or other evidence of compliance required in §60.3(b)(5), (c)(4), (c)(10), (d)(3), (e)(2), (e)(4), or (e)(5) is presumed to be in violation until such time as that documentation is provided.

Water surface elevation means the height, in relation to the National Geodetic Vertical Datum (NGVD) of 1929, (or other datum, where specified) of floods of various magnitudes and frequencies in the flood plains of coastal or riverine areas.

Zone of imminent collapse means an area subject to erosion adjacent to the shoreline of an ocean, bay, or lake and within a distance equal to 10 feet plus 5 times the average annual long-term erosion rate for the site, measured from the reference feature.

[41 FR 46968, Oct. 26, 1976]

EDITORIAL NOTE: For FEDERAL REGISTER citations affecting §59.1, see the List of CFR Sections Affected, which appears in the Finding Aids section of the printed volume and on GPO access.

recommendation of the Regional Administrator. The Regional Administrator will consult with the community. An extension will be granted based on good cause.

(3) *Notices.* Before the starting date of the inspection procedure, each community must publish a notice in a prominent local newspaper and publish other notices as appropriate. The Federal Insurance Administrator will publish a notice in the FEDERAL REGISTER that the community will undertake an inspection procedure. Published notices will include the purpose for implementing the inspection procedure and the effective period of time that the inspection procedure will cover.

(4) *Community reviews.* The communities participating in the pilot inspection procedure must review a list of all pre-FIRM and post-FIRM flood insurance policies in SFHAs to confirm that the start of construction or substantial improvement of insured pre-FIRM buildings occurred on or before December 31, 1974, and to identify possible violations of insured post-FIRM buildings. The community will provide to FEMA a list of insured buildings incorrectly rated as pre-FIRM and a list of insured post-FIRM buildings that the community identifies as possible violations.

(5) *SFIP endorsement.* In the communities that undertake the pilot inspection procedure, all new and renewed flood insurance policies that become effective on and after the date that we and the community establish for the start of the inspection procedure will contain an endorsement to the Standard Flood Insurance Policy that an inspection may be necessary before a subsequent policy renewal [see Part 61, Appendices A(4), (5), and (6)].

(6) *Notice from insurer.* For a building identified as a possible violation under paragraph (c)(4) of this section, the insurer will send a notice to the policyholder that an inspection is necessary in order to renew the policy and that the policyholder must submit a community inspection report as part of the policy renewal process, which includes the payment of the premium. The insurer will send this notice about 6 months before the Standard Flood Insurance Policy expires.

(7) *Conditions for renewal.* If a policyholder receives a notice under paragraph (c)(6) of this section that an inspection is necessary in order to renew the Standard Flood Insurance Policy the following conditions apply:

(i) If the policyholder obtains an inspection from the community and the policyholder sends the community inspection report to the insurer as part of the renewal process, which includes the payment of the premium, the insurer will renew the policy and will verify the flood insurance rate, or

(ii) If the policyholder does not obtain and submit a community inspection report the insurer will not renew the policy.

(8) *Community responsibilities.* For insured post-FIRM buildings that the community inspects and determines to violate the community's floodplain management regulations, the community must demonstrate to FEMA that the community is undertaking measures to remedy the violation to the maximum extent possible. Nothing in this section modifies the community's responsibility under the NFIP to enforce floodplain management regulations adequately that meet the minimum requirements in § 60.3 for all new construction and substantial improvements within the community's SFHAs. The community's responsibility also includes the insured buildings where the policyholder did not obtain an inspection report, and non-insured buildings that this procedure does not cover.

(d) *Restoration of flood insurance coverage.* Insurers will not provide new flood insurance on any building if a property owner does not obtain a community inspection report or if the property owner obtains a community inspection report but does not submit the report with the renewal premium payment. Flood insurance policies sold on a building ineligible in accordance with paragraph (c)(6)(ii) of this section are void under the Standard Flood Insurance Policy inspection endorsements [44 CFR part 61, Appendices (A)(4), (A)(5), and (A)(6)]. When the property owner applies for a flood insurance policy and submits a completed community inspection report by the community with an application

Attachment 7

and renewal premium payment, the insurer will issue a flood insurance policy.

[65 FR 39748, June 27, 2000, as amended at 67 FR 10633, Mar. 8, 2002; 74 FR 15339, Apr. 3, 2009]

PART 60—CRITERIA FOR LAND MANAGEMENT AND USE

Subpart A—Requirements for Flood Plain Management Regulations

Sec.
60.1 Purpose of subpart.
60.2 Minimum compliance with flood plain management criteria.
60.3 Flood plain management criteria for flood-prone areas.
60.4 Flood plain management criteria for mudslide (i.e., mudflow)-prone areas.
60.5 Flood plain management criteria for flood-related erosion-prone areas.
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60.8 Definitions.

Subpart B—Requirements for State Flood Plain Management Regulations

60.11 Purpose of this subpart.
60.12 Flood plain management criteria for State-owned properties in special hazard areas.
60.13 Noncompliance.

Subpart C—Additional Considerations in Managing Flood-Prone, Mudslide (i.e., Mudflow)-Prone, and Flood-Related Erosion-Prone Areas

60.21 Purpose of this subpart.
60.22 Planning considerations for flood-prone areas.
60.23 Planning considerations for mudslide (i.e., mudflow)-prone areas.
60.24 Planning considerations for flood-related erosion-prone areas.
60.25 Designation, duties, and responsibilities of State Coordinating Agencies.
60.26 Local coordination.

AUTHORITY: 42 U.S.C. 4001 *et seq.*; Reorganization Plan No. 3 of 1978, 43 FR 41943, 3 CFR, 1978 Comp., p. 329; E.O. 12127 of Mar. 31, 1979, 44 FR 19367, 3 CFR, 1979 Comp., p. 376.

SOURCE: 41 FR 46975, Oct. 26, 1976, unless otherwise noted. Redesignated at 44 FR 31177, May 31, 1979.

Subpart A—Requirements for Flood Plain Management Regulations

§ 60.1 Purpose of subpart.

(a) The Act provides that flood insurance shall not be sold or renewed under the program within a community, unless the community has adopted adequate flood plain management regulations consistent with Federal criteria. Responsibility for establishing such criteria is delegated to the Federal Insurance Administrator.

(b) This subpart sets forth the criteria developed in accordance with the Act by which the Federal Insurance Administrator will determine the adequacy of a community's flood plain management regulations. These regulations must be legally-enforceable, applied uniformly throughout the community to all privately and publicly owned land within flood-prone, mudslide (i.e., mudflow) or flood-related erosion areas, and the community must provide that the regulations take precedence over any less restrictive conflicting local laws, ordinances or codes. Except as otherwise provided in § 60.6, the adequacy of such regulations shall be determined on the basis of the standards set forth in § 60.3 for flood-prone areas, § 60.4 for mudslide areas and § 60.5 for flood-related erosion areas.

(c) Nothing in this subpart shall be construed as modifying or replacing the general requirement that all eligible communities must take into account flood, mudslide (i.e., mudflow) and flood-related erosion hazards, to the extent that they are known, in all official actions relating to land management and use.

(d) The criteria set forth in this subpart are minimum standards for the adoption of flood plain management regulations by flood-prone, mudslide (i.e., mudflow)-prone and flood-related erosion-prone communities. Any community may exceed the minimum criteria under this part by adopting more comprehensive flood plain management regulations utilizing the standards such as contained in subpart C of this part. In some instances, community officials may have access to information

or knowledge of conditions that require, particularly for human safety, higher standards than the minimum criteria set forth in subpart A of this part. Therefore, any flood plain management regulations adopted by a State or a community which are more restrictive than the criteria set forth in this part are encouraged and shall take precedence.

[41 FR 46975, Oct. 26, 1976. Redesignated at 44 FR 31177, May 31, 1979, as amended at 48 FR 44552, Sept. 29, 1983; 49 FR 4751, Feb. 8, 1984]

§ 60.2 Minimum compliance with flood plain management criteria.

(a) A flood-prone community applying for flood insurance eligibility shall meet the standards of § 60.3(a) in order to become eligible if a FHBM has not been issued for the community at the time of application. Thereafter, the community will be given a period of six months from the date the Federal Insurance Administrator provides the data set forth in § 60.3 (b), (c), (d), (e) or (f), in which to meet the requirements of the applicable paragraph. If a community has received a FHBM, but has not yet applied for Program eligibility, the community shall apply for eligibility directly under the standards set forth in § 60.3(b). Thereafter, the community will be given a period of six months from the date the Federal Insurance Administrator provides the data set forth in § 60.3 (c), (d), (e) or (f) in which to meet the requirements of the applicable paragraph.

(b) A mudslide (i.e., mudflow)-prone community applying for flood insurance eligibility shall meet the standards of § 60.4(a) to become eligible. Thereafter, the community will be given a period of six months from the date the mudslide (i.e., mudflow) areas having special mudslide hazards are delineated in which to meet the requirements of § 60.4(b).

(c) A flood-related erosion-prone community applying for flood insurance eligibility shall meet the standards of § 60.5(a) to become eligible. Thereafter, the community will be given a period of six months from the date the flood-related erosion areas having special erosion hazards are delineated in which to meet the requirements of § 60.5(b).

(d) Communities identified in part 65 of this subchapter as containing more than one type of hazard (e.g., any combination of special flood, mudslide (i.e., mudflow), and flood-related erosion hazard areas) shall adopt flood plain management regulations for each type of hazard consistent with the requirements of §§ 60.3, 60.4 and 60.5.

(e) Local flood plain management regulations may be submitted to the State Coordinating Agency designated pursuant to § 60.25 for its advice and concurrence. The submission to the State shall clearly describe proposed enforcement procedures.

(f) The community official responsible for submitting annual or biennial reports to the Federal Insurance Administrator pursuant to § 59.22(b)(2) of this subchapter shall also submit copies of each annual or biennial report to any State Coordinating Agency.

(g) A community shall assure that its comprehensive plan is consistent with the flood plain management objectives of this part.

(h) The community shall adopt and enforce flood plain management regulations based on data provided by the Federal Insurance Administrator. Without prior approval of the Federal Insurance Administrator, the community shall not adopt and enforce flood plain management regulations based upon modified data reflecting natural or man-made physical changes.

[41 FR 46975, Oct. 26, 1976. Redesignated at 44 FR 31177, May 31, 1979, as amended at 48 FR 29318, June 24, 1983; 48 FR 44552, Sept. 29, 1983; 49 FR 4751, Feb. 8, 1984; 50 FR 36024, Sept. 4, 1985; 59 FR 53598, Oct. 25, 1994; 62 FR 55716, Oct. 27, 1997]

§ 60.3 Flood plain management criteria for flood-prone areas.

The Federal Insurance Administrator will provide the data upon which flood plain management regulations shall be based. If the Federal Insurance Administrator has not provided sufficient data to furnish a basis for these regulations in a particular community, the community shall obtain, review and reasonably utilize data available from other Federal, State or other sources pending receipt of data from the Federal Insurance Administrator. However, when special flood hazard area

designations and water surface elevations have been furnished by the Federal Insurance Administrator, they shall apply. The symbols defining such special flood hazard designations are set forth in § 64.3 of this subchapter. In all cases the minimum requirements governing the adequacy of the flood plain management regulations for flood-prone areas adopted by a particular community depend on the amount of technical data formally provided to the community by the Federal Insurance Administrator. Minimum standards for communities are as follows:

(a) When the Federal Insurance Administrator has not defined the special flood hazard areas within a community, has not provided water surface elevation data, and has not provided sufficient data to identify the floodway or coastal high hazard area, but the community has indicated the presence of such hazards by submitting an application to participate in the Program, the community shall:

(1) Require permits for all proposed construction or other development in the community, including the placement of manufactured homes, so that it may determine whether such construction or other development is proposed within flood-prone areas;

(2) Review proposed development to assure that all necessary permits have been received from those governmental agencies from which approval is required by Federal or State law, including section 404 of the Federal Water Pollution Control Act Amendments of 1972, 33 U.S.C. 1334;

(3) Review all permit applications to determine whether proposed building sites will be reasonably safe from flooding. If a proposed building site is in a flood-prone area, all new construction and substantial improvements shall (i) be designed (or modified) and adequately anchored to prevent flotation, collapse, or lateral movement of the structure resulting from hydrodynamic and hydrostatic loads, including the effects of buoyancy, (ii) be constructed with materials resistant to flood damage, (iii) be constructed by methods and practices that minimize flood damages, and (iv) be constructed with electrical, heating, ventilation, plumbing, and air conditioning equipment and other service facilities that are designed and/or located so as to prevent water from entering or accumulating within the components during conditions of flooding.

(4) Review subdivision proposals and other proposed new development, including manufactured home parks or subdivisions, to determine whether such proposals will be reasonably safe from flooding. If a subdivision proposal or other proposed new development is in a flood-prone area, any such proposals shall be reviewed to assure that (i) all such proposals are consistent with the need to minimize flood damage within the flood-prone area, (ii) all public utilities and facilities, such as sewer, gas, electrical, and water systems are located and constructed to minimize or eliminate flood damage, and (iii) adequate drainage is provided to reduce exposure to flood hazards;

(5) Require within flood-prone areas new and replacement water supply systems to be designed to minimize or eliminate infiltration of flood waters into the systems; and

(6) Require within flood-prone areas (i) new and replacement sanitary sewage systems to be designed to minimize or eliminate infiltration of flood waters into the systems and discharges from the systems into flood waters and (ii) onsite waste disposal systems to be located to avoid impairment to them or contamination from them during flooding.

(b) When the Federal Insurance Administrator has designated areas of special flood hazards (A zones) by the publication of a community's FHBM or FIRM, but has neither produced water surface elevation data nor identified a floodway or coastal high hazard area, the community shall:

(1) Require permits for all proposed construction and other developments, including the placement of manufactured homes, within Zone A on the community's FHBM or FIRM;

(2) Require the application of the standards in paragraphs (a) (2), (3), (4), (5) and (6) of this section to development within Zone A on the community's FHBM or FIRM;

(3) Require that all new subdivision proposals and other proposed developments (including proposals for manufactured home parks and subdivisions) greater than 50 lots or 5 acres, whichever is the lesser, include within such proposals base flood elevation data;

(4) Obtain, review and reasonably utilize any base flood elevation and floodway data available from a Federal, State, or other source, including data developed pursuant to paragraph (b)(3) of this section, as criteria for requiring that new construction, substantial improvements, or other development in Zone A on the community's FHBM or FIRM meet the standards in paragraphs (c)(2), (c)(3), (c)(5), (c)(6), (c)(12), (c)(14), (d)(2) and (d)(3) of this section;

(5) Where base flood elevation data are utilized, within Zone A on the community's FHBM or FIRM:

(i) Obtain the elevation (in relation to mean sea level) of the lowest floor (including basement) of all new and substantially improved structures, and

(ii) Obtain, if the structure has been floodproofed in accordance with paragraph (c)(3)(ii) of this section, the elevation (in relation to mean sea level) to which the structure was floodproofed, and

(iii) Maintain a record of all such information with the official designated by the community under §59.22 (a)(9)(iii);

(6) Notify, in riverine situations, adjacent communities and the State Coordinating Office prior to any alteration or relocation of a watercourse, and submit copies of such notifications to the Federal Insurance Administrator;

(7) Assure that the flood carrying capacity within the altered or relocated portion of any watercourse is maintained;

(8) Require that all manufactured homes to be placed within Zone A on a community's FHBM or FIRM shall be installed using methods and practices which minimize flood damage. For the purposes of this requirement, manufactured homes must be elevated and anchored to resist flotation, collapse, or lateral movement. Methods of anchoring may include, but are not to be limited to, use of over-the-top or frame ties to ground anchors. This requirement is in addition to applicable State and local anchoring requirements for resisting wind forces.

(c) When the Federal Insurance Administrator has provided a notice of final flood elevations for one or more special flood hazard areas on the community's FIRM and, if appropriate, has designated other special flood hazard areas without base flood elevations on the community's FIRM, but has not identified a regulatory floodway or coastal high hazard area, the community shall:

(1) Require the standards of paragraph (b) of this section within all A1–30 zones, AE zones, A zones, AH zones, and AO zones, on the community's FIRM;

(2) Require that all new construction and substantial improvements of residential structures within Zones A1–30, AE and AH zones on the community's FIRM have the lowest floor (including basement) elevated to or above the base flood level, unless the community is granted an exception by the Federal Insurance Administrator for the allowance of basements in accordance with §60.6 (b) or (c);

(3) Require that all new construction and substantial improvements of nonresidential structures within Zones A1–30, AE and AH zones on the community's firm (i) have the lowest floor (including basement) elevated to or above the base flood level or, (ii) together with attendant utility and sanitary facilities, be designed so that below the base flood level the structure is watertight with walls substantially impermeable to the passage of water and with structural components having the capability of resisting hydrostatic and hydrodynamic loads and effects of buoyancy;

(4) Provide that where a non-residential structure is intended to be made watertight below the base flood level, (i) a registered professional engineer or architect shall develop and/or review structural design, specifications, and plans for the construction, and shall certify that the design and methods of

construction are in accordance with accepted standards of practice for meeting the applicable provisions of paragraph (c)(3)(ii) or (c)(8)(ii) of this section, and (ii) a record of such certificates which includes the specific elevation (in relation to mean sea level) to which such structures are floodproofed shall be maintained with the official designated by the community under §59.22(a)(9)(iii);

(5) Require, for all new construction and substantial improvements, that fully enclosed areas below the lowest floor that are usable solely for parking of vehicles, building access or storage in an area other than a basement and which are subject to flooding shall be designed to automatically equalize hydrostatic flood forces on exterior walls by allowing for the entry and exit of floodwaters. Designs for meeting this requirement must either be certified by a registered professional engineer or architect or meet or exceed the following minimum criteria: A minimum of two openings having a total net area of not less than one square inch for every square foot of enclosed area subject to flooding shall be provided. The bottom of all openings shall be no higher than one foot above grade. Openings may be equipped with screens, louvers, valves, or other coverings or devices provided that they permit the automatic entry and exit of floodwaters.

(6) Require that manufactured homes that are placed or substantially improved within Zones A1–30, AH, and AE on the community's FIRM on sites

(i) Outside of a manufactured home park or subdivision,

(ii) In a new manufactured home park or subdivision,

(iii) In an expansion to an existing manufactured home park or subdivision, or

(iv) In an existing manufactured home park or subdivision on which a manufactured home has incurred "substantial damage" as the result of a flood, be elevated on a permanent foundation such that the lowest floor of the manufactured home is elevated to or above the base flood elevation and be securely anchored to an adequately anchored foundation system to resist flotation collapse and lateral movement.

(7) Require within any [illegible] the community's FIRM [illegible] construction and substantial improvements of residential structures have the lowest floor (including basement) elevated above the highest grade at least as high as [illegible] number specified in feet on the community's FIRM (at least two feet if no depth number is specified);

(8) Require within any [illegible] the community's FIRM that [illegible] construction and substantial improvements of nonresidential structures have the lowest floor (including basement) elevated above the highest adjacent grade at least as high as [illegible] number specified in feet on the community's FIRM (at least two feet if no depth number is specified), or together with attendant utility and sanitary facilities be designed so that below the specified depth number the structure is floodproofed to that level to meet the floodproofing standard specified in §60.3(c)(3)(ii);

(9) Require within any A99 zone on the community's FIRM the standards of paragraphs (a)(1) through (a)(4) and (b)(5) through (b)(9) of this section;

(10) Require until a regulatory floodway is designated, that no new construction, substantial improvements, or other development (including fill) shall be permitted within Zones A1–30 and AE on the community's FIRM, unless it is demonstrated that the cumulative effect of the proposed development, when combined with all other existing and anticipated development, will not increase the water surface elevation of the base flood more than one foot at any point within the community.

(11) Require within Zones AH and AO, adequate drainage paths around structures on slopes, to guide floodwaters around and away from proposed structures.

(12) Require that manufactured homes to be placed or substantially improved on sites in an existing manufactured home park or subdivision within Zones A–1–30, AH, and AE on the community's FIRM that are not subject to the provisions of paragraph (c)(6) of this section be elevated so that either

(i) The lowest floor of the manufactured home is at or above the base flood elevation, or

(ii) The manufactured home chassis is supported by reinforced piers or other foundation elements of at least equivalent strength that are no less than 36 inches in height above grade and be securely anchored to an adequately anchored foundation system to resist floatation, collapse, and lateral movement.

(13) Notwithstanding any other provisions of §60.3, a community may approve certain development in Zones A1–30, AE, and AH, on the community's FIRM which increase the water surface elevation of the base flood by more than one foot, provided that the community first applies for a conditional FIRM revision, fulfills the requirements for such a revision as established under the provisions of §65.12, and receives the approval of the Federal Insurance Administrator.

(14) Require that recreational vehicles placed on sites within Zones A1–30, AH, and AE on the community's FIRM either

(i) Be on the site for fewer than 180 consecutive days,

(ii) Be fully licensed and ready for highway use, or

(iii) Meet the permit requirements of paragraph (b)(1) of this section and the elevation and anchoring requirements for "manufactured homes" in paragraph (c)(6) of this section.

A recreational vehicle is ready for highway use if it is on its wheels or jacking system, is attached to the site only by quick disconnect type utilities and security devices, and has no permanently attached additions.

(d) When the Federal Insurance Administrator has provided a notice of final base flood elevations within Zones A1–30 and/or AE on the community's FIRM and, if appropriate, has designated AO zones, AH zones, A99 zones, and A zones on the community's FIRM, and has provided data from which the community shall designate its regulatory floodway, the community shall:

(1) Meet the requirements of paragraphs (c) (i) through (14) of this section;

(2) Select and adopt a regulatory floodway based on the principle that the area chosen for the regulatory floodway must be designed to carry the waters of the base flood, without increasing the water surface elevation of that flood more than one foot at any point;

(3) Prohibit encroachments, including fill, new construction, substantial improvements, and other development within the adopted regulatory floodway unless it has been demonstrated through hydrologic and hydraulic analyses performed in accordance with standard engineering practice that the proposed encroachment would not result in any increase in flood levels within the community during the occurrence of the base flood discharge;

(4) Notwithstanding any other provisions of §60.3, a community may permit encroachments within the adopted regulatory floodway that would result in an increase in base flood elevations, provided that the community first applies for a conditional FIRM and floodway revision, fulfills the requirements for such revisions as established under the provisions of §65.12, and receives the approval of the Federal Insurance Administrator.

(e) When the Federal Insurance Administrator has provided a notice of final base flood elevations within Zones A1–30 and/or AE on the community's FIRM and, if appropriate, has designated AH zones, AO zones, A99 zones, and A zones on the community's FIRM, and has identified on the community's FIRM coastal high hazard areas by designating Zones V1–30, VE, and/or V, the community shall:

(1) Meet the requirements of paragraphs (c)(1) through (14) of this section;

(2) Within Zones V1–30, VE, and V on a community's FIRM, (i) obtain the elevation (in relation to mean sea level) of the bottom of the lowest structural member of the lowest floor (excluding pilings and columns) of all new and substantially improved structures, and whether or not such structures contain a basement, and (ii) maintain a record of all such information with the official designated by the community under §59.22(a)(9)(iii);

(3) Provide that all new construction within Zones V1–30, VE, and V on the community's FIRM is located landward of the reach of mean high tide;

(4) Provide that all new construction and substantial improvements in Zones V1–30 and VE, and also Zone V if base flood elevation data is available, on the community's FIRM, are elevated on pilings and columns so that (i) the bottom of the lowest horizontal structural member of the lowest floor (excluding the pilings or columns) is elevated to or above the base flood level; and (ii) the pile or column foundation and structure attached thereto is anchored to resist flotation, collapse and lateral movement due to the effects of wind and water loads acting simultaneously on all building components. Water loading values used shall be those associated with the base flood. Wind loading values used shall be those required by applicable State or local building standards. A registered professional engineer or architect shall develop or review the structural design, specifications and plans for the construction, and shall certify that the design and methods of construction to be used are in accordance with accepted standards of practice for meeting the provisions of paragraphs (e)(4) (i) and (ii) of this section.

(5) Provide that all new construction and substantial improvements within Zones V1–30, VE, and V on the community's FIRM have the space below the lowest floor either free of obstruction or constructed with non-supporting breakaway walls, open wood latticework, or insect screening intended to collapse under wind and water loads without causing collapse, displacement, or other structural damage to the elevated portion of the building or supporting foundation system. For the purposes of this section, a breakaway wall shall have a design safe loading resistance of not less than 10 and no more than 20 pounds per square foot. Use of breakway walls which exceed a design safe loading resistance of 20 pounds per square foot (either by design or when so required by local or State codes) may be permitted only if a registered professional engineer or architect certifies that the designs proposed meet the following conditions:

(i) Breakaway wall collapse shall result from a water load less than that which would occur during the base flood; and,

(ii) The [illegible] piling and [illegible] foundation shall not [illegible] to cause placement [illegible] structure due to the [illegible] of wind loads acting [illegible] building [illegible] (structural non-structural) [illegible] used shall be those associated with the base flood. Wind loading values shall be those required by State or local building standards. Such enclosed [illegible] shall be used solely for [illegible] vehicle access, or storage.

(6) Prohibit the use of [illegible] tural support [illegible] pilings [illegible] V1–30, VE, [illegible] the community's FIRM;

(7) Prohibit [illegible] man-made alterations of sand dunes [illegible] mangrove stands in Zones V1–30, VE, and V on the community's FIRM which would increase potential flood damage.

(8) Require that manufactured homes placed or substantially improved within Zones V1–30, VE, and VE on the community's FIRM on sites

(i) Outside of a manufactured home park or subdivision,

(ii) In a new manufactured home park or subdivision,

(iii) In an expansion to an existing manufactured home park or subdivision, or

(iv) In an existing manufactured home park or subdivision on which a manufactured home has incurred substantial damage as the result of a flood, meet the standards of paragraphs (e)(2) through (7) of this section and that manufactured homes placed or substantially improved on other sites in an existing manufactured home park or subdivision within Zones V1–30, VE, and VE on the community's FIRM meet the requirements of paragraph (c)(12) of this section;

(9) Require that recreational vehicles placed on sites within Zones V1–30, VE, and VE on the community's FIRM either

(i) Be on the site for fewer than 180 consecutive days,

(ii) Be fully licensed and ready for highway use, or

(iii) Meet the requirements in paragraphs (b)(1) and (e) (2) through (7) of this section.

A recreational vehicle is ready for highway use if it is on its wheels or jacking system, is attached to the site only by quick disconnect type utilities and security devices, and has no permanently attached additions.

(f) When the Federal Insurance Administrator has provided a notice of final base flood elevations within Zones A1–30 or AE on the community's FIRM, and, if appropriate, has designated AH zones, AO zones, A99 zones, and A zones on the community's FIRM, and has identified flood protection restoration areas by designating Zones AR, AR/A1–30, AR/AE, AR/AH, AR/AO, or AR/A, the community shall:

(1) Meet the requirements of paragraphs (c)(1) through (14) and (d)(1) through (4) of this section.

(2) Adopt the official map or legal description of those areas within Zones AR, AR/A1–30, AR/AE, AR/AH, AR/A, or AR/AO that are designated developed areas as defined in §59.1 in accordance with the eligibility procedures under §65.14.

(3) For all new construction of structures in areas within Zone AR that are designated as developed areas and in other areas within Zone AR where the AR flood depth is 5 feet or less:

(i) Determine the lower of either the AR base flood elevation or the elevation that is 3 feet above highest adjacent grade; and

(ii) Using this elevation, require the standards of paragraphs (c)(1) through (14) of this section.

(4) For all new construction of structures in those areas within Zone AR that are not designated as developed areas where the AR flood depth is greater than 5 feet:

(i) Determine the AR base flood elevation; and

(ii) Using that elevation require the standards of paragraphs (c)(1) through (14) of this section.

(5) For all new construction of structures in areas within Zone AR/A1–30, AR/AE, AR/AH, AR/AO, and AR/A:

(i) Determine the applicable elevation for Zone AR from paragraphs (a)(3) and (4) of this section;

(ii) Determine the base flood elevation or flood depth for the underlying A1–30, AE, AH, AO and A Zone; and

(iii) Using the higher elevation from paragraphs (a)(5)(i) and (ii) of this section require the standards of paragraphs (c)(1) through (14) of this section.

(6) For all substantial improvements to existing construction within Zones AR/A1–30, AR/AE, AR/AH, AR/AO, and AR/A:

(i) Determine the A1–30 or AE, AH, AO, or A Zone base flood elevation; and

(ii) Using this elevation apply the requirements of paragraphs (c)(1) through (14) of this section.

(7) Notify the permit applicant that the area has been designated as an AR, AR/A1–30, AR/AE, AR/AH, AR/AO, or AR/A Zone and whether the structure will be elevated or protected to or above the AR base flood elevation.

[41 FR 46975, Oct. 26, 1976]

EDITORIAL NOTE: For FEDERAL REGISTER citations affecting §60.3, see the List of CFR Sections Affected, which appears in the Finding Aids section of the printed volume and on GPO Access.

§60.4 Flood plain management criteria for mudslide (i.e., mudflow)-prone areas.

The Federal Insurance Administrator will provide the data upon which flood plain management regulations shall be based. If the Federal Insurance Administrator has not provided sufficient data to furnish a basis for these regulations in a particular community, the community shall obtain, review, and reasonably utilize data available from other Federal, State or other sources pending receipt of data from the Federal Insurance Administrator. However, when special mudslide (i.e., mudflow) hazard area designations have been furnished by the Federal Insurance Administrator, they shall apply. The symbols defining such special mudslide (i.e., mudflow) hazard designations are set forth in §64.3 of this subchapter. In all cases, the minimum requirements for mudslide (i.e., mudflow)-prone areas adopted by a particular community depend on the amount of technical data provided to the community by the Federal Insurance Administrator. Minimum standards for communities are as follows:

(a) When the Federal Insurance Administrator has not yet identified any

area within the community as an area having special mudslide (i.e., mudflow) hazards, but the community has indicated the presence of such hazards by submitting an application to participate in the Program, the community shall

(1) Require permits for all proposed construction or other development in the community so that it may determine whether development is proposed within mudslide (i.e., mudflow)-prone areas;

(2) Require review of each permit application to determine whether the proposed site and improvements will be reasonably safe from mudslides (i.e., mudflows). Factors to be considered in making such a determination should include but not be limited to (i) the type and quality of soils, (ii) any evidence of ground water or surface water problems, (iii) the depth and quality of any fill, (iv) the overall slope of the site, and (v) the weight that any proposed structure will impose on the slope;

(3) Require, if a proposed site and improvements are in a location that may have mudslide (i.e., mudflow) hazards, that (i) a site investigation and further review be made by persons qualified in geology and soils engineering, (ii) the proposed grading, excavations, new construction, and substantial improvements are adequately designed and protected against mudslide (i.e., mudflow) damages, (iii) the proposed grading, excavations, new construction and substantial improvements do not aggravate the existing hazard by creating either on-site or off-site disturbances, and (iv) drainage, planting, watering, and maintenance be such as not to endanger slope stability.

(b) When the Federal Insurance Administrator has delineated Zone M on the community's FIRM, the community shall:

(1) Meet the requirements of paragraph (a) of this section; and

(2) Adopt and enforce a grading ordinance or regulation in accordance with data supplied by the Federal Insurance Administrator which (i) regulates the location of foundation systems and utility systems of new construction and substantial improvements, (ii) regulates the location, drainage and maintenance of all excavations, fills and planted slopes, (iii) provides special requirements for protective measures including but not necessarily limited to retaining walls, buttress fills, sub-drains, diverter terraces, benchings, etc., and (iv) requires engineering drawings and specifications to be submitted for all corrective measures, accompanied by supporting soil engineering and geology reports. Guidance may be obtained from the provisions of the 1973 edition and any subsequent edition of the Uniform Building Code, sections 7001 through 7006, and 7008 through 7015. The Uniform Building Code is published by the International Conference of Building Officials, 50 South Los Robles, Pasadena, California 91101.

[41 FR 46975, Oct. 26, 1976. Redesignated at 42 FR 31177, May 31, 1977, as amended at 45 FR 44552, Sept. 29, 1980; 49 FR 4751, Feb. 8, 1984]

§60.5 Flood plain management criteria for flood-related erosion-prone areas.

The Federal Insurance Administrator will provide the data upon which flood plain management regulations for flood-related erosion-prone areas shall be based. If the Federal Insurance Administrator has not provided sufficient data to furnish a basis for these regulations in a particular community, the community shall obtain, review, and reasonably utilize data available from other Federal, State or other sources, pending receipt of data from the Federal Insurance Administrator. However, when special flood-related erosion hazard area designations have been furnished by the Federal Insurance Administrator they shall apply. The symbols defining such special flood-related erosion hazard designations are set forth in §64.3 of this subchapter. In all cases the minimum requirements governing the adequacy of the flood plain management regulations for flood-related erosion-prone areas adopted by a particular community depend on the amount of technical data provided to the community by the Federal Insurance Administrator. Minimum standards for communities are as follows:

(a) When the Federal Insurance Administrator has not yet identified any area within the community as having

(d) Where any community or any area within a community had in effect a FHBM or FIRM, but all or a portion of that community has been acquired by another community, or becomes autonomous, that map shall remain in effect until it is superseded by the Federal Insurance Administrator, whether by republication as part of the map of the acquiring community, or otherwise.

(e) When a community described in paragraph (a), (b), (c), or (d) of this section has flood elevations in effect, no new appeal period under parts 66, 67, and 68 of this subchapter will begin except as new scientific and technical data are available.

[41 FR 46986, Oct. 26, 1976. Redesignated at 44 FR 31177, May 31, 1979, as amended at 48 FR 44552, Sept. 29, 1983; 49 FR 4751, Feb. 8, 1984]

§ 64.5 Relationship of rates to zone designations.

(a) In order to expedite a community's qualification for flood insurance under the emergency program, the Administrator may authorize the sale of such insurance without designating any Zones A, M, or E within a community, provided the community has previously adopted flood plain management regulations meeting the requirements of § 60.3(a), § 60.4(a) or § 60.5(a) of this subchapter. When the Administrator has obtained sufficient technical information to delineate Zones A, M, or E, he/she shall delineate the tentative boundaries on a FHBM.

(b) Upon the effective date of the FIRM, flood insurance will continue to be available throughout the entire community at chargeable rates (i.e., subsidized) for first layer coverage of existing structures, but will be only available at risk premium rates for all new construction and substantial improvements. Upon the effective date of a FIRM, second layer coverage is available only at risk premium rates for all structures.

(c) Detailed insurance information may be obtained from the servicing companies. See part 62 of this subchapter.

[41 FR 46986, Oct. 26, 1976. Redesignated at 44 FR 31177, May 31, 1979, as amended at 48 FR 44552, Sept. 29, 1983; 49 FR 4751, Feb. 8, 1984]

§ 64.6 List of eligible communities.

The sale of flood insurance pursuant to the National Flood Insurance Program (42 U.S.C. 4001–4128) is authorized for the communities set forth under this section. Previous listings under this part continue in effect until revised.

[41 FR 46986, Oct. 25, 1976]

EDITORIAL NOTE: For references to FR pages showing lists of eligible communities, see the List of CFR Sections Affected, which appears in the Finding Aids section of the printed volume and on GPO Access.

PART 65—IDENTIFICATION AND MAPPING OF SPECIAL HAZARD AREAS

Sec.

65.1 Purpose of part.
65.2 Definitions.
65.3 Requirement to submit new technical data.
65.4 Right to submit new technical data.
65.5 Revision to special hazard area boundaries with no change to base flood elevation determinations.
65.6 Revision of base flood elevation determinations.
65.7 Floodway revisions.
65.8 Review of proposed projects.
65.9 Review and response by the Administrator.
65.10 Mapping of areas protected by levee systems.
65.11 Evaluation of sand dunes in mapping coastal flood hazard areas.
65.12 Revision of flood insurance rate maps to reflect base flood elevations caused by proposed encroachments.
65.13 Mapping and map revisions for areas subject to alluvial fan flooding.
65.14 Remapping of areas for which local flood protection systems no longer provide base flood protection.
65.15 List of communities submitting new technical data.
65.16 Standard Flood Hazard Determination Form and Instructions.
65.17 Review of determinations.

AUTHORITY: 42 U.S.C. 4001 *et seq.*; Reorganization Plan No. 3 of 1978, 43 FR 41943, 3 CFR, 1978 Comp., p. 329; E.O. 12127 of Mar. 31, 1979, 44 FR 19367, 3 CFR, 1979 Comp., p. 376.

§ 65.1 Purpose of part.

42 U.S.C. 4104 authorizes the Administrator to identify and publish information with respect to all areas within the United States having special flood,

mudslide (i.e., mudflow) and flood-related erosion hazards. The purpose of this part is to outline the steps a community needs to take in order to assist the Agency's effort in providing up-to-date identification and publication, in the form of the maps described in part 64, on special flood, mudslide (i.e., mudflow) and flood-related erosion hazards.

[48 FR 28278, June 21, 1983]

§ 65.2 Definitions.

(a) Except as otherwise provided in this part, the definitions set forth in part 59 of this subchapter are applicable to this part.

(b) For the purpose of this part, a certification by a registered professional engineer or other party does not constitute a warranty or guarantee of performance, expressed or implied. Certification of data is a statement that the data is accurate to the best of the certifier's knowledge. Certification of analyses is a statement that the analyses have been performed correctly and in accordance with sound engineering practices. Certification of structural works is a statement that the works are designed in accordance with sound engineering practices to provide protection from the base flood. Certification of "as built" conditions is a statement that the structure(s) has been built according to the plans being certified, is in place, and is fully functioning.

(c) For the purposes of this part, "reasonably safe from flooding" means base flood waters will not inundate the land or damage structures to be removed from the SFHA and that any subsurface waters related to the base flood will not damage existing or proposed buildings.

[51 FR 30313, Aug. 25, 1986, as amended at 66 FR 22442, May 4, 2001]

§ 65.3 Requirement to submit new technical data.

A community's base flood elevations may increase or decrease resulting from physical changes affecting flooding conditions. As soon as practicable, but not later than six months after the date such information becomes available, a community shall notify the Administrator of the changes by submitting technical or scientific data in accordance with this part. Such a submission is necessary so that upon confirmation of those physical changes affecting flooding conditions, risk premium rates and flood plain management requirements will be based upon current data.

[51 FR 30313, Aug. 25, 1986]

§ 65.4 Right to submit new technical data.

(a) A community has a right to request changes to any of the information shown on an effective map that does not impact flood plain or floodway delineations or base flood elevations, such as community boundary changes, labeling, or planimetric details. Such a submission shall include appropriate supporting documentation in accordance with this part and may be submitted at any time.

(b) All requests for changes to effective maps, other than those initiated by FEMA, must be made in writing by the Chief Executive Officer of the community (CEO) or an official designated by the CEO. Should the CEO refuse to submit such a request on behalf of another party, FEMA will agree to review it only if written evidence is provided indicating the CEO or designee has been requested to do so.

(c) Requests for changes to effective Flood Insurance Rate Maps (FIRM(s) and Flood Boundary and Floodway Maps (FBFMs) are subject to the cost recovery procedures described in 44 CFR part 72. As indicated in part 72, revisions requested to correct mapping errors or errors in the Flood Insurance Study analysis are not to be subject to the cost-recovery procedures.

[51 FR 30313, Aug. 25, 1986, as amended at 57 FR 29038, June 30, 1992; 61 FR 46331, Aug. 30, 1996; 62 FR 5736, Feb. 6, 1997]

EDITORIAL NOTE: For references to FR pages showing lists of eligible communities, see the List of CFR Sections Affected, which appears in the Finding Aids section of the printed volume and on GPO Access.

§ 65.5 Revision to special hazard area boundaries with no change to base flood elevation determinations.

(a) *Data requirements for topographic changes.* In many areas of special flood

CALIFORNIA

MODEL

FLOODPLAIN MANAGEMENT

ORDINANCE

FOR
NONCOASTAL COMMUNITIES

December 2006

This California Model Floodplain Management Ordinance has been developed as a tool to help communities meet the minimum requirements of the National Flood Insurance Program (NFIP). Communities choosing not to use this model ordinance must ensure their ordinance meets the minimum requirements of the NFIP.

Department of Water Resources
The Resources Agency, State of California

Attachment 8

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Instructions for Creating Your Community's Ordinance

1) **PROVIDE COMMUNITY SPECIFIC INFORMATION AS REQUESTED IN BRACKETS.**
This model ordinance contains **{brackets}** that must be replaced with community specific information such as your community's name, address, or name of the responsible party.

2) **ACCESSORY STRUCTURES.**
This model ordinance contains the definition for accessory structures and construction requirements in Section 5.1.C.5 to allow for the permitting of an "**Accessory structure**" within special flood hazard areas **without a variance**.

3) **UPDATE CROSS REFERENCES.**
Cross references and bracketed items throughout this document are underlined in red and bolded only to facilitate locating to ensure changes are made and to match actual numbering used by your community and not intended to reflect a suggested final format.

4) **DETERMINE IF YOUR COMMUNITY WANTS TO ADOPT HIGHER STANDARDS RECOMMENDED BY THE STATE OF CALIFORNIA.**
This model ordinance meets the minimum standards required to participate in the National Flood Insurance Program. Community adoption of higher standards can be applied towards credit under the Community Rating System (CRS) program and result in reduced premiums for the entire community. The State of California recommends:

- **Freeboard.** See Appendix 2.0.A, page 22.
- **Determining BFE's in Unnumbered A Zones.** See Appendix 2.0.B, page 22.
- **Determining Market Value of Existing Structures.** See Appendix 2.0.C, page 22.
- **Increased Cost of Compliance (ICC) Coverage—Repetitive Loss Provisions.** See Appendix 2.0.D, page 23.
- **Non-conversion of Enclosed Areas Below the Lowest Floor.** See Appendix 2.0.E, page 23.

5) **DETERMINE IF YOUR COMMUNITY HAS SPECIAL REQUIREMENTS**

- **Alluvial Fan Advisory.**
  See Appendix 1.0, page 21.
- **Crawlspace Construction.**
  See Appendix 3.0.A, page 24.
- **Mudslide (i.e., mudflow) Prone Areas.** (Zone M)
  See Appendix 3.0.B, page 25.
- **Erosion Prone Areas.** (Zone E)
  See Appendix 3.0.C, page 26.

6) **PRIOR TO ADOPTION, SUBMIT DRAFT TO:**

- Other community departments, including Attorney's office.
- Department of Water Resources or FEMA Region IX for review and approval.

7) **AFTER ADOPTION, SEND A COPY OF THE ADOPTED ORDINANCE CERTIFIED BY THE CITY/COUNTY CLERK TO FEMA REGION IX AND A COPY TO DWR.**

SECTION 1.0
STATUTORY AUTHORIZATION, FINDINGS OF FACT, PURPOSE AND METHODS

1.1 STATUTORY AUTHORIZATION.

The Legislature of the State of California has in Government Code Sections 65302, 65560, and 65800 conferred upon local governments the authority to adopt regulations designed to promote the public health, safety, and general welfare of its citizenry. Therefore, the **{community governing body}** of **{name of county or municipality}** does hereby adopt the following floodplain management regulations.

1.2 FINDINGS OF FACT.

A. The flood hazard areas of **{name of county or municipality}** are subject to periodic inundation which results in loss of life and property, health and safety hazards, disruption of commerce and governmental services, extraordinary public expenditures for flood protection and relief, and impairment of the tax base, all of which adversely affect the public health, safety, and general welfare.

B. These flood losses are caused by uses that are inadequately elevated, floodproofed, or protected from flood damage. The cumulative effect of obstructions in areas of special flood hazards which increase flood heights and velocities also contributes to flood losses.

1.3 STATEMENT OF PURPOSE.

It is the purpose of this ordinance to promote the public health, safety, and general welfare, and to minimize public and private losses due to flood conditions in specific areas by legally enforceable regulations applied uniformly throughout the community to all publicly and privately owned land within flood prone, mudslide [i.e. mudflow] or flood related erosion areas. These regulations are designed to:

A. Protect human life and health;

B. Minimize expenditure of public money for costly flood control projects;

C. Minimize the need for rescue and relief efforts associated with flooding and generally undertaken at the expense of the general public;

D. Minimize prolonged business interruptions;

E. Minimize damage to public facilities and utilities such as water and gas mains; electric, telephone and sewer lines; and streets and bridges located in areas of special flood hazard;

F. Help maintain a stable tax base by providing for the sound use and development of areas of special flood hazard so as to minimize future blighted areas caused by flood damage;

G. Ensure that potential buyers are notified that property is in an area of special flood hazard; and

H. Ensure that those who occupy the areas of special flood hazard assume responsibility for their actions.

1.4 METHODS OF REDUCING FLOOD LOSSES.

In order to accomplish its purposes, this ordinance includes regulations to:

A. Restrict or prohibit uses which are dangerous to health, safety, and property due to water or erosion hazards, or which result in damaging increases in erosion or flood heights or velocities;

B. Require that uses vulnerable to floods, including facilities which serve such uses, be protected against flood damage at the time of initial construction;

C. Control the alteration of natural floodplains, stream channels, and natural protective barriers, which help accommodate or channel floodwaters;

D. Control filling, grading, dredging, and other development which may increase flood damage;

E. Prevent or regulate the construction of flood barriers which will unnaturally divert floodwaters or which may increase flood hazards in other areas; and

SECTION 2.0
DEFINITIONS

Unless specifically defined below, words or phrases used in this ordinance shall be interpreted so as to give them the meaning they have in common usage and to give this ordinance its most reasonable application.

"**A zone**" - see "**Special flood hazard area**".

"**Accessory structure**" means a structure that is either:

1. Solely for the parking of no more than 2 cars; or

2. A small, low cost shed for limited storage, less than 150 square feet and $1,500 in value.

"**Accessory use**" means a use which is incidental and subordinate to the principal use of the parcel of land on which it is located.

"**Alluvial fan**" means a geomorphologic feature characterized by a cone or fan-shaped deposit of boulders, gravel, and fine sediments that have been eroded from mountain slopes, transported by flood flows, and then deposited on the valley floors, and which is subject to flash flooding, high velocity flows, debris flows, erosion, sediment movement and deposition, and channel migration.

"**Apex**" means a point on an alluvial fan or similar landform below which the flow path of the major stream that formed the fan becomes unpredictable and alluvial fan flooding can occur.

"**Appeal**" means a request for a review of the Floodplain Administrator's interpretation of any provision of this ordinance.

"**Area of shallow flooding**" means a designated AO or AH Zone on the Flood Insurance Rate Map (FIRM). The base flood depths range from one to three feet; a clearly defined channel does not exist; the path of flooding is unpredictable and indeterminate; and velocity flow may be evident. Such flooding is characterized by ponding or sheet flow.

"**Area of special flood hazard**" - See "Special flood hazard area."

"**Base flood**" means a flood which has a one percent chance of being equaled or exceeded in any given year (also called the "100-year flood"). Base flood is the term used throughout this ordinance.

"**Base flood elevation**" (BFE) means the elevation shown on the Flood Insurance Rate Map for Zones AE, AH, A1-30, VE and V1-V30 that indicates the water surface elevation resulting from a flood that has a 1-percent or greater chance of being equaled or exceeded in any given year.

"**Basement**" means any area of the building having its floor subgrade - i.e., below ground level - on all sides.

"**Building**" - see "**Structure**".

"**Development**" means any man-made change to improved or unimproved real estate, including but not limited to buildings or other structures, mining, dredging, filling, grading, paving, excavation or drilling operations or storage of equipment or materials.

"**Encroachment**" means the advance or infringement of uses, plant growth, fill, excavation, buildings, permanent structures or development into a floodplain which may impede or alter the flow capacity of a floodplain.

"**Existing manufactured home park or subdivision**" means a manufactured home park or subdivision for which the construction of facilities for servicing the lots on which the manufactured homes are to be affixed (including, at a minimum, the installation of utilities, the construction of streets, and either final site grading or the pouring of concrete pads) is completed before **{insert date your first floodplain management ordinance was adopted}**.

"**Expansion to an existing manufactured home park or subdivision**" means the preparation of additional sites by the construction of facilities for servicing the lots on which the manufactured homes are to be affixed (including the installation of utilities, the construction of streets, and either final site grading or the pouring of concrete pads).

"**Flood, flooding, or flood water**" means:

1. A general and temporary condition of partial or complete inundation of normally dry land areas from the overflow of inland or tidal waters; the unusual and rapid accumulation or runoff of surface waters from any source; and/or mudslides (i.e., mudflows); and

2. The condition resulting from flood-related erosion.

"**Flood Boundary and Floodway Map (FBFM)**" means the official map on which the Federal Emergency Management Agency or Federal Insurance Administration has delineated both the areas of special flood hazards and the floodway.

"**Flood Insurance Rate Map (FIRM)**" means the official map on which the Federal Emergency Management Agency or Federal Insurance Administration has delineated both the areas of special flood hazards and the risk premium zones applicable to the community.

"**Flood Insurance Study**" means the official report provided by the Federal Insurance Administration that includes flood profiles, the Flood Insurance Rate Map, the Flood Boundary and Floodway Map, and the water surface elevation of the base flood.

"**Floodplain or flood-prone area**" means any land area susceptible to being inundated by water from any source - see "**Flooding**."

"**Floodplain Administrator**" is the community official designated by title to administer and enforce the floodplain management regulations.

"**Floodplain management**" means the operation of an overall program of corrective and preventive measures for reducing flood damage and preserving and enhancing, where possible, natural resources in the floodplain, including but not limited to emergency preparedness plans, flood control works, floodplain management regulations, and open space plans.

"**Floodplain management regulations**" means this ordinance and other zoning ordinances, subdivision regulations, building codes, health regulations, special purpose ordinances (such as grading and erosion control) and other application of police power which control development in flood-prone areas. This term describes federal, state or local regulations in any combination thereof which provide standards for preventing and reducing flood loss and damage.

"**Floodproofing**" means any combination of structural and nonstructural additions, changes, or adjustments to structures which reduce or eliminate flood damage to real estate or improved real property, water and sanitary facilities, structures, and their contents. For guidelines on dry and wet floodproofing, see FEMA Technical Bulletins TB 1-93, TB 3-93, and TB 7-93.

"**Floodway**" means the channel of a river or other watercourse and the adjacent land areas that must be reserved in order to discharge the base flood without cumulatively increasing the water surface elevation more than one foot. Also referred to as "Regulatory Floodway."

"**Floodway fringe**" is that area of the floodplain on either side of the "Regulatory Floodway" where encroachment may be permitted.

"**Fraud and victimization**" as related to Section 6.0 of this ordinance, means that the variance granted must not cause fraud on or victimization of the public. In examining this requirement, the **{community governing body}** will consider the fact that every newly constructed building adds to government responsibilities and remains a part of the community for fifty to one-hundred years. Buildings that are permitted to be constructed below the base flood elevation are subject during all those years to increased risk of damage from floods, while future owners of the property and the community as a whole are subject to all the costs, inconvenience, danger, and suffering that those increased flood damages bring. In addition, future owners may purchase the property, unaware that it is subject to potential flood damage, and can be insured only at very high flood insurance rates.

"**Functionally dependent use**" means a use which cannot perform its intended purpose unless it is located or carried out in close proximity to water. The term includes only docking facilities, port facilities that are necessary for the loading and unloading of cargo or passengers, and ship building and ship repair facilities, and does not include long-term storage or related manufacturing facilities.

"**Governing body**" is the local governing unit, i.e. county or municipality, that is empowered to adopt and implement regulations to provide for the public health, safety and general welfare of its citizenry.

"**Hardship**" as related to Section 6 of this ordinance means the exceptional hardship that would result from a failure to grant the requested variance. The **{community governing body}** requires that the variance be exceptional, unusual, and peculiar to the property involved. Mere economic or financial hardship alone is not exceptional. Inconvenience, aesthetic considerations, physical handicaps, personal preferences, or the disapproval of one's neighbors likewise cannot, as a rule, qualify as an exceptional hardship. All of these problems can be resolved through other means without granting a variance, even if the alternative is more expensive, or requires the property owner to build elsewhere or put the parcel to a different use than originally intended.

"**Highest adjacent grade**" means the highest natural elevation of the ground surface prior to construction next to the proposed walls of a structure.

"**Historic structure**" means any structure that is:

1. Listed individually in the National Register of Historic Places (a listing maintained by the Department of Interior) or preliminarily determined by the Secretary of the Interior as meeting the requirements for individual listing on the National Register;

2. Certified or preliminarily determined by the Secretary of the Interior as contributing to the historical significance of a registered historic district or a district preliminarily determined by the Secretary to qualify as a registered historic district;

3. Individually listed on a state inventory of historic places in states with historic preservation programs which have been approved by the Secretary of Interior; or

4. Individually listed on a local inventory of historic places in communities with historic preservation programs that have been certified either by an approved state program as determined by the Secretary of the Interior or directly by the Secretary of the Interior in states without approved programs.

"**Levee**" means a man-made structure, usually an earthen embankment, designed and constructed in accordance with sound engineering practices to contain, control or divert the flow of water so as to provide protection from temporary flooding.

"**Levee system**" means a flood protection system which consists of a levee, or levees, and associated structures, such as closure and drainage devices, which are constructed and operated in accord with sound engineering practices.

"**Lowest floor**" means the lowest floor of the lowest enclosed area, including basement (see **"Basement"** definition).

1. An unfinished or flood resistant enclosure below the lowest floor that is usable solely for parking of vehicles, building access or storage in an area other than a basement area, is not considered a building's lowest floor provided it conforms to applicable non-elevation design requirements, including, but not limited to:

   a. The flood openings standard in Section 5.1.C.3;

   b. The anchoring standards in Section 5.1.A;

   c. The construction materials and methods standards in Section 5.1.B; and

   d. The standards for utilities in Section 5.2.

2. For residential structures, all subgrade enclosed areas are prohibited as they are considered to be basements (see **"Basement"** definition). This prohibition includes below-grade garages and storage areas.

"**Manufactured home**" means a structure, transportable in one or more sections, which is built on a permanent chassis and is designed for use with or without a permanent foundation when attached to the required utilities. The term "manufactured home" does not include a "recreational vehicle".

"**Manufactured home park or subdivision**" means a parcel (or contiguous parcels) of land divided into two or more manufactured home lots for rent or sale.

"**Market value**" is defined in the **{name of county or municipality}** substantial damage/improvement procedures. See Section 4.2.B.1.

"**Mean sea level**" means, for purposes of the National Flood Insurance Program, the National Geodetic Vertical Datum (NGVD) of 1929, North American Vertical Datum (NAVD) of 1988, or other datum, to which base flood elevations shown on a community's Flood Insurance Rate Map are referenced.

"**New construction**", for floodplain management purposes, means structures for which the "start of construction" commenced on or after **{insert date your first floodplain management ordinance was adopted}**, and includes any subsequent improvements to such structures.

"**New manufactured home park or subdivision**" means a manufactured home park or subdivision for which the construction of facilities for servicing the lots on which the manufactured homes are to be affixed (including at a minimum, the installation of utilities, the construction of streets, and either final site grading or the pouring of concrete pads) is completed on or after **{insert date your first floodplain management ordinance was adopted}**.

"**Obstruction**" includes, but is not limited to, any dam, wall, wharf, embankment, levee, dike, pile, abutment, protection, excavation, channelization, bridge, conduit, culvert, building, wire, fence, rock, gravel, refuse, fill, structure, vegetation or other material in, along, across or projecting into any watercourse which may alter, impede, retard or change the direction and/or velocity of the flow of water, or due to its location, its propensity to snare or collect debris carried by the flow of water, or its likelihood of being carried downstream.

"**One-hundred-year flood**" or "100-year flood" - see "**Base flood**."

"**Program deficiency**" means a defect in a community's floodplain management regulations or administrative procedures that impairs effective implementation of those floodplain management regulations.

"**Public safety and nuisance**" as related to Section 6 of this ordinance, means that the granting of a variance must not result in anything which is injurious to safety or health of an entire community or neighborhood, or any considerable number of persons, or unlawfully obstructs the free passage or use, in the customary manner, of any navigable lake, or river, bay, stream, canal, or basin.

"**Recreational vehicle**" means a vehicle which is:

1. Built on a single chassis;

2. 400 square feet or less when measured at the largest horizontal projection;

3. Designed to be self-propelled or permanently towable by a light-duty truck; and

4. Designed primarily not for use as a permanent dwelling but as temporary living quarters for recreational, camping, travel, or seasonal use.

"**Regulatory floodway**" means the channel of a river or other watercourse and the adjacent land areas that must be reserved in order to discharge the base flood without cumulatively increasing the water surface elevation more than one foot.

"**Remedy a violation**" means to bring the structure or other development into compliance with State or local floodplain management regulations, or if this is not possible, to reduce the impacts of its noncompliance. Ways that impacts may be reduced include protecting the structure or other affected development from flood damages, implementing the enforcement provisions of the ordinance or otherwise deterring future similar violations, or reducing State or Federal financial exposure with regard to the structure or other development.

"**Riverine**" means relating to, formed by, or resembling a river (including tributaries), stream, brook, etc.

"**Sheet flow area**" - see "**Area of shallow flooding**."

"**Special flood hazard area (SFHA)**" means an area in the floodplain subject to a 1 percent or greater chance of flooding in any given year. It is shown on an FHBM or FIRM as Zone A, AO, A1-A30, AE, A99, or, AH.

"**Start of construction**" includes substantial improvement and other proposed new development and means the date the building permit was issued, provided the actual start of construction, repair, reconstruction, rehabilitation, addition, placement, or other improvement was within 180 days from the date of the permit. The actual start means either the first placement of permanent construction of a structure on a site, such as the pouring of slab or footings, the installation of piles, the construction of columns, or any work beyond the stage of excavation; or the placement of a manufacture home on a foundation. Permanent construction does not include land preparation, such as clearing, grading, and filling; nor does it include the installation of streets and/or walkways; nor does it include excavation for a basement, footings, piers, or foundations or the erection of temporary forms; nor does it include the installation on the property of accessory buildings, such as garages or sheds not occupied as dwelling units or not part of the main structure. For a substantial improvement, the actual start of construction means the first alteration of any wall, ceiling, floor, or other structural part of a building, whether or not that alteration affects the external dimensions of the building.

"**Structure**" means a walled and roofed building that is principally above ground; this includes a gas or liquid storage tank or a manufactured home.

"**Substantial damage**" means damage of any origin sustained by a structure whereby the cost of restoring the structure to its before damaged condition would equal or exceed 50 percent of the market value of the structure before the damage occurred.

"**Substantial improvement**" means any reconstruction, rehabilitation, addition, or other improvement of a structure, the cost of which equals or exceeds 50 percent of the market value of the structure before the "start of construction" of the improvement. This term includes structures which have incurred "substantial damage", regardless of the actual repair work performed. The term does not, however, include either:

1. Any project for improvement of a structure to correct existing violations or state or local health, sanitary, or safety code specifications which have been identified by the local code enforcement official and which are the minimum necessary to assure safe living conditions; or

2. Any alteration of a "historic structure," provided that the alteration will not preclude the structure's continued designation as a "historic structure."

"**Variance**" means a grant of relief from the requirements of this ordinance which permits construction in a manner that would otherwise be prohibited by this ordinance.

"**Violation**" means the failure of a structure or other development to be fully compliant with this ordinance. A structure or other development without the elevation certificate, other certifications, or other evidence of compliance required in this ordinance is presumed to be in violation until such time as that documentation is provided.

"**Water surface elevation**" means the height, in relation to the National Geodetic Vertical Datum (NGVD) of 1929, North American Vertical Datum (NAVD) of 1988, or other datum, of floods of various magnitudes and frequencies in the floodplains of coastal or riverine areas.

"**Watercourse**" means a lake, river, creek, stream, wash, arroyo, channel or other topographic feature on or over which waters flow at least periodically. Watercourse includes specifically designated areas in which substantial flood damage may occur.

SECTION 3.0
GENERAL PROVISIONS

3.1 LANDS TO WHICH THIS ORDINANCE APPLIES.

This ordinance shall apply to all areas of special flood hazards within the jurisdiction of **{name of county or municipality}**.

3.2 BASIS FOR ESTABLISHING THE AREAS OF SPECIAL FLOOD HAZARD.

The areas of special flood hazard identified by the Federal Emergency Management Agency (FEMA) in the "Flood Insurance Study (FIS) for **{name of county or municipality (exact title of study)}**" dated **{date}**, with accompanying Flood Insurance Rate Maps (FIRM's) and Flood Boundary and Floodway Maps (FBFM's), dated **{date}**, and all subsequent amendments and/or revisions, are hereby adopted by reference and declared to be a part of this ordinance. This FIS and attendant mapping is the minimum area of applicability of this ordinance and may be supplemented by studies for other areas which allow implementation of this ordinance and which are recommended to the **{community governing body}** by the Floodplain Administrator. The study, FIRM's and FBFM's are on file at **{department, address}**.

3.3 COMPLIANCE.

No structure or land shall hereafter be constructed, located, extended, converted, or altered without full compliance with the terms of this ordinance and other applicable regulations. Violation of the requirements (including violations of conditions and safeguards) shall constitute a misdemeanor. Nothing herein shall prevent the **{community governing body}** from taking such lawful action as is necessary to prevent or remedy any violation.

3.4 ABROGATION AND GREATER RESTRICTIONS.

This ordinance is not intended to repeal, abrogate, or impair any existing easements, covenants, or deed restrictions. However, where this ordinance and another ordinance, easement, covenant, or deed restriction conflict or overlap, whichever imposes the more stringent restrictions shall prevail.

3.5 INTERPRETATION.

In the interpretation and application of this ordinance, all provisions shall be:

A. Considered as minimum requirements;

B. Liberally construed in favor of the governing body; and

C. Deemed neither to limit nor repeal any other powers granted under state statutes.

3.6 WARNING AND DISCLAIMER OF LIABILITY.

The degree of flood protection required by this ordinance is considered reasonable for regulatory purposes and is based on scientific and engineering considerations. Larger floods can and will occur on rare occasions. Flood heights may be increased by man-made or natural causes. This ordinance does not imply that land outside the areas of special flood hazards or uses permitted within such areas will be free from flooding or flood damages. This ordinance shall not create liability on the part of **{community governing body}**, any officer or employee thereof, the State of California, or the Federal Emergency Management Agency, for any flood damages that result from reliance on this ordinance or any administrative decision lawfully made hereunder.

3.7 SEVERABILITY.

This ordinance and the various parts thereof are hereby declared to be severable. Should any section of this ordinance be declared by the courts to be unconstitutional or invalid, such decision shall not affect the validity of the ordinance as a whole, or any portion thereof other than the section so declared to be unconstitutional or invalid.

SECTION 4.0
ADMINISTRATION

4.1 DESIGNATION OF THE FLOODPLAIN ADMINISTRATOR.

The {e.g., City Manager, Director of Planning, Public Works, or Building Official, etc.} is hereby appointed to administer, implement, and enforce this ordinance by granting or denying development permits in accord with its provisions.

4.2 DUTIES AND RESPONSIBILITIES OF THE FLOODPLAIN ADMINISTRATOR.

The duties and responsibilities of the Floodplain Administrator shall include, but not be limited to the following:

A. Permit Review.

Review all development permits to determine:

1. Permit requirements of this ordinance have been satisfied, including determination of substantial improvement and substantial damage of existing structures;

2. All other required state and federal permits have been obtained;

3. The site is reasonably safe from flooding;

4. The proposed development does not adversely affect the carrying capacity of areas where base flood elevations have been determined but a floodway has not been designated. This means that the cumulative effect of the proposed development when combined with all other existing and anticipated development will not increase the water surface elevation of the base flood more than 1 foot at any point within the **{name of county or municipality}**; and

5. All Letters of Map Revision (LOMR's) for flood control projects are approved prior to the issuance of building permits. Building Permits must not be issued based on Conditional Letters of Map Revision (CLOMR's). Approved CLOMR's allow construction of the proposed flood control project and land preparation as specified in the "start of construction" definition.

B. Development of Substantial Improvement and Substantial Damage Procedures.

1. Using FEMA publication FEMA 213, "Answers to Questions About Substantially Damaged Buildings," develop detailed procedures for identifying and administering requirements for substantial improvement and substantial damage, to include defining "Market Value."

2. Assure procedures are coordinated with other departments/divisions and implemented by community staff.

C. Review, Use and Development of Other Base Flood Data.

When base flood elevation data has not been provided in accordance with **Section 3.2**, the Floodplain Administrator shall obtain, review, and reasonably utilize any base flood elevation and floodway data available from a federal or state agency, or other source, in order to administer **Section 5**.

NOTE: A base flood elevation may be obtained using one of two methods from the FEMA publication, FEMA 265, "Managing Floodplain Development in Approximate Zone A Areas – A Guide for Obtaining and Developing Base (100-year) Flood Elevations" dated July 1995.

D. **Notification of Other Agencies.**

1. Alteration or relocation of a watercourse:

   a. Notify adjacent communities and the California Department of Water Resources prior to alteration or relocation;

   b. Submit evidence of such notification to the Federal Emergency Management Agency; and

   c. Assure that the flood carrying capacity within the altered or relocated portion of said watercourse is maintained.

2. Base Flood Elevation changes due to physical alterations:

   a. Within 6 months of information becoming available or project completion, whichever comes first, the floodplain administrator shall submit or assure that the permit applicant submits technical or scientific data to FEMA for a Letter of Map Revision (LOMR).

   b. All LOMR's for flood control projects are approved prior to the issuance of building permits. Building Permits must not be issued based on Conditional Letters of Map Revision (CLOMR's). Approved CLOMR's allow construction of the proposed flood control project and land preparation as specified in the "start of construction" definition.

   Such submissions are necessary so that upon confirmation of those physical changes affecting flooding conditions, risk premium rates and floodplain management requirements are based on current data.

3. Changes in corporate boundaries:

   Notify FEMA in writing whenever the corporate boundaries have been modified by annexation or other means and include a copy of a map of the community clearly delineating the new corporate limits.

E. **Documentation of Floodplain Development.**

Obtain and maintain for public inspection and make available as needed the following:

1. Certification required by Section 5.1.C.1 and Section 5.4 (lowest floor elevations);

2. Certification required by Section 5.1.C.2 (elevation or floodproofing of nonresidential structures);

3. Certification required by Sections 5.1.C.3 (wet floodproofing standard);

4. Certification of elevation required by Section 5.3.A.3 (subdivisions and other proposed development standards);

5. Certification required by Section 5.6.B (floodway encroachments); and

6. Maintain a record of all variance actions, including justification for their issuance, and report such variances issued in its biennial report submitted to the Federal Emergency Management Agency.

F. **Map Determination.**

Make interpretations where needed, as to the exact location of the boundaries of the areas of special flood hazard, where there appears to be a conflict between a mapped boundary and actual field conditions. The person contesting the location of the boundary shall be given a reasonable

opportunity to appeal the interpretation as provided in Section 4.4.

F. **Remedial Action.**

Take action to remedy violations of this ordinance as specified in Section 3.3.

G. **Biennial Report.**

Complete and submit Biennial Report to FEMA.

H. **Planning.**

Assure community's General Plan is consistent with floodplain management objectives herein.

4.3 DEVELOPMENT PERMIT.

A development permit shall be obtained before any construction or other development, including manufactured homes, within any area of special flood hazard established in Section 3.2. Application for a development permit shall be made on forms furnished by the {name of community}. The applicant shall provide the following minimum information:

A. Plans in duplicate, drawn to scale, showing:

1. Location, dimensions, and elevation of the area in question, existing or proposed structures, storage of materials and equipment and their location;
2. Proposed locations of water supply, sanitary sewer, and other utilities;
3. Grading information showing existing and proposed contours, any proposed fill, and drainage facilities;
4. Location of the regulatory floodway when applicable;
5. Base flood elevation information as specified in Section 3.2 or Section 4.2.C;
6. Proposed elevation in relation to mean sea level, of the lowest floor (including basement) of all structures; and
7. Proposed elevation in relation to mean sea level to which any nonresidential structure will be floodproofed, as required in Section 5.1.C.2 of this ordinance and detailed in FEMA Technical Bulletin TB 3-93.

B. Certification from a registered civil engineer or architect that the nonresidential floodproofed building meets the floodproofing criteria in Section 5.1.C.2.

C. For a crawl-space foundation, location and total net area of foundation openings as required in Section 5.1.C.3 of this ordinance and detailed in FEMA Technical Bulletins 1-93 and 7-93.

D. Description of the extent to which any watercourse will be altered or relocated as a result of proposed development.

E. All appropriate certifications listed in Section 4.2.E of this ordinance.

4.4 APPEALS.

The {community governing body} of {name of county or municipality} shall hear and decide appeals when it is alleged there is an error in any requirement, decision, or determination made by the Floodplain Administrator in the enforcement or administration of this ordinance.

SECTION 5.0
PROVISIONS FOR FLOOD HAZARD REDUCTION

5.1 STANDARDS OF CONSTRUCTION.

In all areas of special flood hazards the following standards are required:

A. Anchoring.

All new construction and substantial improvements of structures, including manufactured homes, shall be adequately anchored to prevent flotation, collapse or lateral movement of the structure resulting from hydrodynamic and hydrostatic loads, including the effects of buoyancy.

B. Construction Materials and Methods.

All new construction and substantial improvements of structures, including manufactured homes, shall be constructed:

1. With flood resistant materials, and utility equipment resistant to flood damage for areas below the base flood elevation;

2. Using methods and practices that minimize flood damage;

3. With electrical, heating, ventilation, plumbing and air conditioning equipment and other service facilities that are designed and/or located so as to prevent water from entering or accumulating within the components during conditions of flooding; and

4. Within Zones AH or AO, so that there are adequate drainage paths around structures on slopes to guide flood waters around and away from proposed structures.

C. Elevation and Floodproofing.

1. **Residential construction.**

All new construction or substantial improvements of residential structures shall have the lowest floor, including basement:

a. In AE, AH, A1-30 Zones, elevated to or above the base flood elevation.

b. In an AO zone, elevated above the highest adjacent grade to a height equal to or exceeding the depth number specified in feet on the FIRM, or elevated at least 2 feet above the highest adjacent grade if no depth number is specified.

c. In an A zone, without BFE's specified on the FIRM [unnumbered A zone], elevated to or above the base flood elevation; as determined under Section 4.2.C.

Upon the completion of the structure, the elevation of the lowest floor, including basement, shall be certified by a registered civil engineer or licensed land surveyor, and verified by the community building inspector to be properly elevated. Such certification and verification shall be provided to the Floodplain Administrator.

2. **Nonresidential construction.**

All new construction or substantial improvements of nonresidential structures shall either be elevated to conform with Section 5.1.C.1 or:

a. Be floodproofed, together with attendant utility and sanitary facilities, below the elevation recommended under Section 5.1.C.1, so that the structure is watertight with walls substantially impermeable to the passage of water;

b. Have structural components capable of resisting hydrostatic and hydrodynamic loads and effects of buoyancy; and

c. Be certified by a registered civil engineer or architect that the standards of Section 5.1 C.2.a & b are satisfied. Such certification shall be provided to the Floodplain Administrator.

3. **Flood openings.**

All new construction and substantial improvements of structures with fully enclosed areas below the lowest floor (excluding basements) that are usable solely for parking of vehicles, building access or storage, and which are subject to flooding, shall be designed to automatically equalize hydrostatic flood forces on exterior walls by allowing for the entry and exit of floodwater. Designs for meeting this requirement must meet the following minimum criteria:

a. For non-engineered openings:

1. Have a minimum of two openings on different sides having a total net area of not less than one square inch for every square foot of enclosed area subject to flooding;

2. The bottom of all openings shall be no higher than one foot above grade;

3. Openings may be equipped with screens, louvers, valves or other coverings or devices provided that they permit the automatic entry and exit of floodwater; and

4. Buildings with more than one enclosed area must have openings on exterior walls for each area to allow flood water to directly enter; or

b. Be certified by a registered civil engineer or architect.

4. **Manufactured homes**.

a. See Section 5.4.

5. **Garages and low cost accessory structures.**

a. Attached garages.

1. A garage attached to a residential structure, constructed with the garage floor slab below the BFE, must be designed to allow for the automatic entry of flood waters. See Section 5.1.C.3. Areas of the garage below the BFE must be constructed with flood resistant materials. See Section 5.1.B.

2. A garage attached to a nonresidential structure must meet the above requirements or be dry floodproofed. For guidance on below grade parking areas, see FEMA Technical Bulletin TB-6.

b. Detached garages and accessory structures.

1. "Accessory structures" used solely for parking (2 car detached garages or smaller) or limited storage (small, low-cost sheds), as defined in Section 2, may be constructed such that its floor is below the base flood elevation (BFE), provided the structure is designed and constructed in accordance with the following requirements:

a) Use of the accessory structure must be limited to parking or limited storage;

b) The portions of the accessory structure located below the BFE must be built using flood-resistant materials;

c) The accessory structure must be adequately anchored to prevent flotation, collapse and lateral movement;

d) Any mechanical and utility equipment in the accessory structure must be elevated or floodproofed to or above the BFE;

e) The accessory structure must comply with floodplain encroachment provisions in Section 5.6; and

f) The accessory structure must be designed to allow for the automatic entry of flood waters in accordance with Section 5.1.C.3.

2. Detached garages and accessory structures not meeting the above standards must be constructed in accordance with all applicable standards in Section 5.1.

5.2 STANDARDS FOR UTILITIES.

A. All new and replacement water supply and sanitary sewage systems shall be designed to minimize or eliminate:

1. Infiltration of flood waters into the systems; and

2. Discharge from the systems into flood waters.

B. On-site waste disposal systems shall be located to avoid impairment to them, or contamination from them during flooding.

5.3 STANDARDS FOR SUBDIVISIONS AND OTHER PROPOSED DEVELOPMENT.

A. All new subdivisions proposals and other proposed development, including proposals for manufactured home parks and subdivisions, greater than 50 lots or 5 acres, whichever is the lesser, shall:

1. Identify the Special Flood Hazard Areas (SFHA) and Base Flood Elevations (BFE).

2. Identify the elevations of lowest floors of all proposed structures and pads on the final plans.

3. If the site is filled above the base flood elevation, the following as-built information for each structure shall be certified by a registered civil engineer or licensed land surveyor and provided as part of an application for a Letter of Map Revision based on Fill (LOMR-F) to the Floodplain Administrator:

   a. Lowest floor elevation.

   b. Pad elevation.

   c. Lowest adjacent grade.

B. All subdivision proposals and other proposed development shall be consistent with the need to minimize flood damage.

C. All subdivision proposals and other proposed development shall have public utilities and facilities such as sewer, gas, electrical and water systems located and constructed to minimize flood damage.

D. All subdivisions and other proposed development shall provide adequate drainage to reduce exposure to flood hazards.

5.4 STANDARDS FOR MANUFACTURED HOMES.

A. All manufactured homes that are placed or substantially improved, on sites located: (1) outside of a manufactured home park or subdivision; (2) in a new manufactured home park or subdivision; (3) in an expansion to an existing manufactured home park or subdivision; or (4) in an existing manufactured home park or subdivision upon which a manufactured home has incurred "substantial damage" as the result of a flood, shall:

1. Within Zones A1-30, AH, and AE on the community's Flood Insurance Rate Map, be elevated on a permanent foundation such that the lowest floor of the manufactured home is elevated to or above the base flood elevation and be securely fastened to an adequately anchored foundation system to resist flotation, collapse, and lateral movement.

B. All manufactured homes to be placed or substantially improved on sites in an existing manufactured home park or subdivision within Zones A1-30, AH, and AE on the community's Flood Insurance Rate Map that are not subject to the provisions of Section 5.4.A will be securely fastened to an adequately anchored foundation system to resist flotation, collapse, and lateral movement, and be elevated so that either the:

1. Lowest floor of the manufactured home is at or above the base flood elevation; or

2. Manufactured home chassis is supported by reinforced piers or other foundation elements of at least equivalent strength that are no less than 36 inches in height above grade.

Upon the completion of the structure, the elevation of the lowest floor including basement shall be certified by a registered civil engineer or licensed land surveyor, and verified by the community building inspector to be properly elevated. Such certification and verification shall be provided to the Floodplain Administrator.

5.5 STANDARDS FOR RECREATIONAL VEHICLES.

A. All recreational vehicles placed in Zones A1-30, AH, and AE will either:

1. Be on the site for fewer than 180 consecutive days; or

2. Be fully licensed and ready for highway use. A recreational vehicle is ready for highway use if it is on its wheels or jacking system, is attached to the site only by quick disconnect type utilities and security devices, and has no permanently attached additions; or

3. Meet the permit requirements of Section 4.3 of this ordinance and the elevation and anchoring requirements for manufactured homes in Section 5.4.A.

5.6 FLOODWAYS.

Since floodways are an extremely hazardous area due to the velocity of flood waters which carry debris, potential projectiles, and erosion potential, the following provisions apply:

A. Until a regulatory floodway is adopted, no new construction, substantial development, or other development (including fill) shall be permitted within Zones A1-30 and AE, unless it is demonstrated that the cumulative effect of the proposed development, when combined with all other development, will not increase the water surface elevation of the base flood more than 1 foot at any point within the **{name of county or municipality}**.

B. Within an adopted regulatory floodway, the **{name of county or municipality}** shall prohibit encroachments, including fill, new construction, substantial improvements, and other development, unless certification by a registered civil engineer is provided demonstrating that the proposed encroachment shall not result in any increase in flood levels during the occurrence of the base flood discharge.

C. If Sections 5.6.A & B are satisfied, all new construction, substantial improvement, and other proposed new development shall comply with all other applicable flood hazard reduction provisions of Section 5.

SECTION 6.0
VARIANCE PROCEDURE

6.1 NATURE OF VARIANCES.

The issuance of a variance is for floodplain management purposes only. Insurance premium rates are determined by statute according to actuarial risk and will not be modified by the granting of a variance.

The variance criteria set forth in this section of the ordinance are based on the general principle of zoning law that variances pertain to a piece of property and are not personal in nature. A variance may be granted for a parcel of property with physical characteristics so unusual that complying with the requirements of this ordinance would create an exceptional hardship to the applicant or the surrounding property owners. The characteristics must be unique to the property and not be shared by adjacent parcels. The unique characteristic must pertain to the land itself, not to the structure, its inhabitants, or the property owners.

It is the duty of the **{community governing body}** to help protect its citizens from flooding. This need is so compelling and the implications of the cost of insuring a structure built below flood level are so serious that variances from the flood elevation or from other requirements in the flood ordinance are quite rare. The long term goal of preventing and reducing flood loss and damage can only be met if variances are strictly limited. Therefore, the variance guidelines provided in this ordinance are more detailed and contain multiple provisions that must be met before a variance can be properly granted. The criteria are designed to screen out those situations in which alternatives other than a variance are more appropriate.

6.2 CONDITIONS FOR VARIANCES.

A. Generally, variances may be issued for new construction, substantial improvement, and other proposed new development to be erected on a lot of one-half acre or less in size contiguous to and surrounded by lots with existing structures constructed below the base flood level, providing that the procedures of Sections 4 and 5 of this ordinance have been fully considered. As the lot size increases beyond one-half acre, the technical justification required for issuing the variance increases.

B. Variances may be issued for the repair or rehabilitation of "**historic structures**" (as defined in Section 2 of this ordinance) upon a determination that the proposed repair or rehabilitation will not preclude the structure's continued designation as an historic structure and the variance is the minimum necessary to preserve the historic character and design of the structure.

C. Variances shall not be issued within any mapped regulatory floodway if any increase in flood levels during the base flood discharge would result.

D. Variances shall only be issued upon a determination that the variance is the "minimum necessary" considering the flood hazard, to afford relief. "Minimum necessary" means to afford relief with a minimum of deviation from the requirements of this ordinance. For example, in the case of variances to an elevation requirement, this means the **{community governing body}** need not grant permission for the applicant to build at grade, or even to whatever elevation the applicant proposes, but only to that elevation which the **{community governing body}** believes will both provide relief and preserve the integrity of the local ordinance.

E. Any applicant to whom a variance is granted shall be given written notice over the signature of a community official that:

1. The issuance of a variance to construct a structure below the base flood level will result in increased premium rates for flood insurance up to amounts as high as $25 for $100 of insurance coverage, and

2. Such construction below the base flood level increases risks to life and property. It is recommended that a copy of the notice shall be recorded by the Floodplain Administrator in the Office of the **{name of county}** Recorder and shall be recorded in a manner so that it appears in the chain of title of the affected parcel of land.

F. The Floodplain Administrator will maintain a record of all variance actions, including justification for their issuance, and report such variances issued in its biennial report submitted to the Federal Emergency Management Agency.

6.3 APPEAL BOARD.

A. In passing upon requests for variances, the **{community governing body}** shall consider all technical evaluations, all relevant factors, standards specified in other sections of this ordinance, and the:

1. Danger that materials may be swept onto other lands to the injury of others;

2. Danger of life and property due to flooding or erosion damage;

3. Susceptibility of the proposed facility and its contents to flood damage and the effect of such damage on the existing individual owner and future owners of the property;

4. Importance of the services provided by the proposed facility to the community;

5. Necessity to the facility of a waterfront location, where applicable;

6. Availability of alternative locations for the proposed use which are not subject to flooding or erosion damage;

7. Compatibility of the proposed use with existing and anticipated development;

8. Relationship of the proposed use to the comprehensive plan and floodplain management program for that area;

9. Safety of access to the property in time of flood for ordinary and emergency vehicles;

10. Expected heights, velocity, duration, rate of rise, and sediment transport of the flood waters expected at the site; and

11. Costs of providing governmental services during and after flood conditions, including maintenance and repair of public utilities and facilities such as sewer, gas, electrical, and water system, and streets and bridges.

B. Variances shall only be issued upon a:

1. Showing of good and sufficient cause;

2. Determination that failure to grant the variance would result in exceptional **"hardship"** to the applicant; and

3. Determination that the granting of a variance will not result in increased flood heights, additional threats to public safety, or extraordinary public expense, create a nuisance (see **"Public safety and nuisance"**), cause **"fraud and victimization"** of the public, or conflict with existing local laws or ordinances.

C. Variances may be issued for new construction, substantial improvement, and other proposed new development necessary for the conduct of a functionally dependent use provided that the provisions of Sections 6.3.A through 6.3.D are satisfied and that the structure or other development is protected by methods that minimize flood damages during the base flood and does not result in additional threats to public safety and does not create a public nuisance.

D. Upon consideration of the factors of Section 6.2.A and the purposes of this ordinance, the **{community governing body}** may attach such conditions to the granting of variances as it deems necessary to further the purposes of this ordinance.

APPENDIX

Appendices

1.0 ALLUVIAL FAN ADVISORY

Hazards of Alluvial Fan Development

Alluvial fans present a unique flood hazard environment where the combination of sediment, slope, and topography create an ultra hazardous condition for which elevation on fill will not provide reliable protection. Active alluvial fan flooding is characterized by flow path uncertainty combined with abrupt deposition and erosion. As a result, any area of an alluvial fan may be subject to intense flood hazards.

The technology of mathematically modeling the hydrodynamics of water and debris flows for alluvial fans is still in the early development stage. The Federal Emergency Management Agency (FEMA) has formulated a mapping procedure for the purpose of defining the likelihood of flood hazards on inundated alluvial fan zones to be used for flood insurance purposes and general floodplain regulation, referred to as the FEMA alluvial fan methodology.

An active alluvial fan flooding hazard is indicated by three related criteria:

a. Flow path uncertainty below the hydrographic apex;

b. Abrupt deposition and ensuing erosion of sediment as a stream or debris flow loses its competence to carry material eroded from a steeper, upstream source area; and

c. An environment where the combination of sediment availability, slope, and topography creates an ultra hazardous condition for which elevation on fill will not reliably mitigate the risk.

Inactive alluvial fan flooding is similar to traditional riverine flood hazards, but occurs only on alluvial fans. It is characterized by flow paths with a higher degree of certainty in realistic assessments of flood risk or in the reliable mitigation of the hazard. Counter to active alluvial fan flooding hazards, an inactive alluvial fan flooding hazard is characterized by relatively stable flow paths. However, areas of inactive alluvial fan flooding, as with active alluvial fan flooding, may be subject to sediment deposition and erosion, but to a degree that does not cause flow path instability and uncertainty.

An alluvial fan may exhibit both active alluvial fan flooding and inactive alluvial fan flooding hazards. The hazards may vary spatially or vary at the same location, contingent on the level of flow discharge. Spatially, for example, upstream inactive portions of the alluvial fan may distribute flood flow to active areas at the distal part of the alluvial fan. Hazards may vary at the same location, for example, with a flow path that may be stable for lower flows, but become unstable at higher flows.

More detailed information can be found at FEMA's website: "Guidelines for Determining Flood Hazards on Alluvial Fans" at http://www.fema.gov/fhm/ft_afgd2.shtm#1.

Alluvial Fans and LOMR's

The NFIP does not allow for the removal of land from the floodplain based on the placement of fill (LOMR-F) in alluvial fan flood hazard areas. The NFIP will credit a major structural flood control project, through the LOMR process, that will effectively eliminate alluvial fan flood hazards from the protected area. Details about map revisions for alluvial fan areas can be found in the Code of Federal Regulations at Title 44, Part 65.13.

Alluvial Fan Task Force

As stated in AB 2141 (Longville, Chapter 878, Statutes of 2004), the State of California Department of Water Resources will convene an Alluvial Fan Task Force (AFTF). The AFTF will produce an alluvial fan model ordinance for local communities and a recommendations report to the legislature. As of March 2006, the model ordinance and report are projected to be completed by 2007.

2.0 HIGHER STANDARDS RECOMMENDED BY THE STATE OF CALIFORNIA

This model ordinance meets the minimum standards required to participate in the National Flood Insurance Program. Community adoption of higher standards can be applied towards credit under the Community Rating System (CRS) program and result in reduced premiums for all flood insurance policy holders within the entire community. The State of California recommends:

A. Freeboard.

- To elevate at least 2 feet above the minimum required base flood elevation, make the following changes:

  1. Modify Sections 5.1.C.1.a, 5.1.C.1.c, and 5.4.A.1 by replacing "elevated to or above" with "elevated 2 feet above."

  2. Modify Section 5.4.B.1 by replacing "at or above" with "at least 2 feet above."

  3. Replace Section 5.1.C.1.b with:

     In an AO zone, elevated above the highest adjacent grade to a height 2 feet above the depth number specified in feet on the FIRM, or elevated at least 4 feet above the highest adjacent grade if no depth number is specified.

B. Determining BFE's in Unnumbered A Zones.

- Replace "may" with "shall" in the second paragraph of Section 4.2.C to read:

  "NOTE: A base flood elevation shall...."

C. Determining Market Value of Existing Structures.

- Replace the "Market value" definition in Section 2 with:

  "**Market value**" shall be determined by estimating the cost to replace the structure in new condition and adjusting that cost figure by the amount of depreciation which has accrued since the structure was constructed.

  1. The cost of replacement of the structure shall be based on a square foot cost factor determined by reference to a building cost estimating guide recognized by the building construction industry.

  2. The amount of depreciation shall be determined by taking into account the age and physical deterioration of the structure and functional obsolescence as approved by the floodplain administrator, but shall not include economic or other forms of external obsolescence.

  Use of replacement costs or accrued depreciation factors different from those contained in recognized building cost estimating guides may be considered only if such factors are included in a report prepared by an independent professional appraiser and supported by a written explanation of the differences.

D. **Increased Cost of Compliance (ICC) Coverage—Repetitive Loss Provisions.**

This provision allows communities the opportunity for flood insurance policy holders to have ICC coverage made available in repetitive loss situations.

- Modify the definition of "Substantial damage" as follows:

  "**Substantial damage**" means:

  1. Damage of any origin sustained by a structure whereby the cost of restoring the structure to its before damaged condition would equal or exceed 50 percent of the market value of the structure before the damage occurred; or

  2. Flood-related damages sustained by a structure on two separate occasions during a 10-year period for which the cost of repairs at the time of each such event, on the average, equals or exceeds 25 percent of the market value of the structure before the damage occurred. This is also known as "repetitive loss."

E. **Non-conversion of Enclosed Areas Below the Lowest Floor.**

- Insert/add the following section as Section 4.2.J.

  A. Non-conversion of Enclosed Areas Below the Lowest Floor.

  To ensure that the areas below the BFE shall be used solely for parking vehicles, limited storage, or access to the building and not be finished for use as human habitation without first becoming fully compliant with the floodplain management ordinance in effect at the time of conversion, the Floodplain Administrator shall:

  1. Determine which applicants for new construction and/or substantial improvements have fully enclosed areas below the lowest floor that are 5 feet or higher;

  2. Enter into a "NON-CONVERSION AGREEMENT FOR CONSTRUCTION WITHIN FLOOD HAZARD AREAS" or equivalent with the **{name of county or municipality}.** The agreement shall be recorded with the **{name of county}** County Recorder as a deed restriction. The non-conversion agreement shall be in a form acceptable to the Floodplain Administrator and County Counsel; and

  3. Have the authority to inspect any area of a structure below the base flood elevation to ensure compliance upon prior notice of at least 72 hours.

3.0 SPECIAL REQUIREMENTS

A. Crawlspace Construction.

Communities with construction practices that result in crawl spaces with interior floors up to 2 feet below grade have historically been in violation of the NFIP requirements. FEMA Technical Bulletin 11-01 now provides accommodation for these practices.

- Remove the following from "Lowest floor" definition in Section 2:

  2. For residential structures, all subgrade enclosed areas are prohibited as they are considered to be basements (see **"Basement"** definition). This prohibition includes below-grade garages and storage areas.

- Add the following section into your ordinance at Section 5.1.C:

5.1.C.{X} Crawlspace Construction.

This sub-section applies to buildings with crawl spaces up to 2 feet below grade. Below-grade crawl space construction in accordance with the requirements listed below will not be considered basements.

a. The building must be designed and adequately anchored to resist flotation, collapse, and lateral movement of the structure resulting from hydrodynamic and hydrostatic loads, including the effects of buoyancy. Crawl space construction is not allowed in areas with flood velocities greater than 5 feet per second unless the design is reviewed by a qualified design professional, such as a registered architect or professional engineer;

b. The crawl space is an enclosed area below the BFE and, as such, must have openings that equalize hydrostatic pressures by allowing for the automatic entry and exit of floodwaters. For guidance on flood openings, see FEMA Technical Bulletin 1-93;

c. Crawl space construction is not permitted in V zones. Open pile or column foundations that withstand storm surge and wave forces are required in V zones;

d. Portions of the building below the BFE must be constructed with materials resistant to flood damage. This includes not only the foundation walls of the crawl space used to elevate the building, but also any joists, insulation, or other materials that extend below the BFE; and

e. Any building utility systems within the crawl space must be elevated above BFE or designed so that floodwaters cannot enter or accumulate within the system components during flood conditions.

f. Requirements for all below-grade crawl space construction, in addition to the above requirements, to include the following:

   1. The interior grade of a crawl space below the BFE must not be more than 2 feet below the lowest adjacent exterior grade (LAG), shown as D in figure 3 of Technical Bulletin 11-01;

   2. The height of the below-grade crawl space, measured from the interior grade of the crawl space to the top of the crawl space foundation wall must not exceed 4

feet (shown as L in figure 3 of Technical Bulletin 11-01) at any point;

3. There must be an adequate drainage system that removes floodwaters from the interior area of the crawl space within a reasonable period of time after a flood event, not to exceed 72 hours; and

4. The velocity of floodwaters at the site should not exceed 5 feet per second for any crawl space. For velocities in excess of 5 feet per second, other foundation types should be used.

B. Mudslide (i.e., Mudflow) Prone Areas. (Zone M)

- Communities with mudslide prone areas shall insert the following:

1. Definitions to Section 2:

"**Area of special mudslide (i.e., mudflow) hazard**" is the area subject to severe mudslides (i.e., mudflows). The area is designated as Zone M on the Flood Insurance Rate Map (FIRM).

"**Mudslide**" describes a condition where there is a river, flow or inundation of liquid mud down a hillside, usually as a result of a dual condition of loss of brush cover and the subsequent accumulation of water on the ground, preceded by a period of unusually heavy or sustained rain.

"**Mudslide** (i.e., mudflow) **prone area**" means an area with land surfaces and slopes of unconsolidated material where the history, geology, and climate indicate a potential for mudflow.

2. Section "**5.{X} Mudslide (i.e., Mudflow) Prone Areas**":

5.{X} Mudslide (i.e., Mudflow) Prone Areas.

A. The Floodplain Administrator shall review permits for proposed construction of other development to determine if it is proposed within a mudslide area.

B. Permits shall be reviewed to determine that the proposed site and improvement will be reasonably safe from mudslide hazards. Factors to be considered in making this determination include, but are not limited to:

1. The type and quality of soils;

2. Evidence of ground water or surface water problems;

3. Depth and quality of any fill;

4. Overall slope of the site; and

5. Weight that any proposed development will impose on the slope.

C. Within areas which may have mudslide hazards, the Floodplain Administrator shall require:

1. A site investigation and further review by persons qualified in geology and soils engineering;

2. The proposed grading, excavation, new construction, and substantial improvement be adequately designed and protected against mudslide damages;

3. The proposed grading, excavations, new construction, and substantial improvement not aggravate the existing hazard by creating either on-site or off-site disturbances; and

4. Drainage, planting, watering, and maintenance not endanger slope stability.

C. **Erosion-prone areas.** (Zone E)

- Communities with erosion prone areas shall insert the following:

1. Definitions into Section 2:

"**Area of special flood-related erosion hazard**" is the land within a community which is most likely to be subject to severe flood-related erosion losses. The area may be designated as Zone E on the Flood Insurance Rate Map (FIRM).

"**Flood-related erosion**" means the collapse or subsidence of land along the shore of a lake or other body of water as a result of undermining caused by waves or currents of water exceeding anticipated cyclical level or suddenly caused by an unusually high water level in a natural body of water, accompanied by a severe storm, or by an unanticipated force of nature, such as a flash flood or an abnormal tidal surge, or by some similarly unusually and unforeseeable event which results in flooding.

"**Flood-related erosion area**" or "**Flood-related erosion prone area**" means a land area adjoining the shore of a lake or other body of water, which due to the composition of the shoreline or bank and high water levels or wind-driven currents, is likely to suffer flood-related erosion damage.

"**Flood-related erosion area management**" means the operation of an overall program of corrective and preventive measures for reducing flood-related erosion damage, including but not limited to emergency preparedness plans, flood-related erosion control works, and floodplain management regulations.

2. Section "**5.{X} FLOOD-RELATED EROSION-PRONE AREA**" into Section 5:

5.{X} FLOOD-RELATED EROSION-PRONE AREA

A. The Floodplain Administrator shall require permits for proposed construction and other development within all flood-related erosion-prone areas known to the community.

B. Permit applications shall be reviewed to determine whether the proposed site alterations and improvements will be reasonably safe from flood-related erosion, and will not cause flood-related erosion hazards or otherwise aggravate the existing hazard.

C. If a proposed improvement is found to be in the path of flood-related erosion or would increase the erosion hazard, such improvement shall be relocated or adequate protective measures shall be taken to avoid aggravating the existing erosion hazard.

D. Within Zone E on the Flood Insurance Rate Map, a setback is required for all new development from the ocean, lake, bay, riverfront or other body of water to create a safety buffer consisting of a natural vegetative or contour strip. This buffer shall be designated according to the flood-related erosion hazard and erosion rate, in relation to the anticipated "useful life" of structures, and depending upon the geologic, hydrologic, topographic, and climatic characteristics of the land. The buffer may be used for suitable open space purposes, such as for agricultural, forestry, outdoor recreation and wildlife habitat areas, and for other activities using temporary and portable structures only.

BOARD OF SUPERVISORS

ALLEN ISHIDA
District One

PETE VANDER POEL
District Two

PHILLIP A. COX
District Three

J. STEVEN WORTHLEY
District Four

MIKE ENNIS
District Five

RESOURCE MANAGEMENT AGENCY
COUNTY OF TULARE
AGENDA ITEM

AGENDA DATE: February 7, 2012

Public Hearing Required	Yes ☐	N/A ☒
Scheduled Public Hearing w/Clerk	Yes ☐	N/A ☒
Published Notice Required	Yes ☐	N/A ☒
Advertised Published Notice	Yes ☐	N/A ☒
Meet & Confer Required	Yes ☐	N/A ☒
Electronic file(s) has been sent	Yes ☒	N/A ☐
Budget Transfer (Aud 308) attached	Yes ☐	N/A ☒
Personnel Resolution attached	Yes ☐	N/A ☒
Agreements are attached and signature line for Chairman is marked with tab(s)/flag(s)	Yes ☒	N/A ☐

CONTACT PERSON: Celeste Perez PHONE: (559) 624-7010

SUBJECT: Ordinance Amending Certain Sections of the Tulare County Ordinance Code Pertaining to Flood Damage Prevention

REQUEST(S):

That the Board of Supervisors:

February 7, 2012

1. Introduce and waive the first reading of an Ordinance amending Sections 7-27-1010, 7-27-1100 and 7-27-1180 of Chapter 27 of Part VII of the Tulare County Ordinance Code pertaining to flood damage prevention;

2. Set the second reading for February 28, 2012;

3. Direct the Clerk to the Board to publish a summary of the ordinance before the second reading as required by law.

February 28, 2012

1. Waive the second reading and adopt the Ordinance amending Sections 7-27-1010, 7-27-1100 and 7-27-1180 of Chapter 27 of Part VII of the Tulare County Ordinance Code pertaining to flood damage prevention; and

2. Direct the Clerk to the Board to publish a summary of the Ordinance and post a full copy of the ordinance after adoption as required by law.

SUMMARY:

The County participates in the Federal Emergency Management Agency (FEMA) National Flood Insurance Program (NFIP). FEMA periodically audits counties and municipalities to assure their local programs that implement the NFIP conform to

Attachment 9

national requirements in terms of supporting ordinances, record keeping, and implementing policies and procedures. Tulare County recently underwent such an audit on August 10, 2010 and was found in conformance in all aspects except our ordinance and some procedures. Ordinance amendments were adopted to bring our ordinance code in conformance with FEMA requirements and those of the California Ordinance Review Checklist (Ordinance Number 3425). Unfortunately, this did not completely satisfy the deficiencies that were identified. In November 2011, the Resource Management Agency received a letter from FEMA (see Attachment A) identifying additional changes that need to be made to the County's Flood Damage Prevention Ordinance (Tulare County Ordinance Code Part VII, Chapter 27) to bring it into full compliance. If we do not provide a conforming ordinance code, FEMA may place Tulare County on probation and no flood insurance will be available to County residents, Federally backed loans will not be available, and the ability to secure Federal Grant funding will be lost.

The following Sections have changed: 7-27-1010 Definitions, 7-27-1100 Joint Duties and Responsibilities, and 7-27-1180 Elevation and Floodproofing. Section 7-27-1010, Definitions are amended to correct the reference to the Building Permit provision of the Ordinance Code; re-state the definition of Substantial Improvement to be consistent with the California Model Floodplain Management Ordinance; and correct misspelled words and incorrect grammar. Section 7-27-1100, Joint Duties and Responsibilities, is amended to include the appropriate language regarding notification of other agencies. Section 7-27-1180, Elevation and Floodproofing, is amended to recognize that the establishment of the base flood elevation shall be determined first by procedures identified in the Ordinance Code with the option for the Planning and Development Director and Public Works Director to use a defined alternative procedure should it be determined unreasonable to use the provisions of the Ordinance Code. In addition, this section is amended to remove incorrect and redundant text.

These changes are identified by underlined and strikethrough text in the proposed ordinance submitted for introduction and first reading.

FISCAL IMPACT/FINANCING:

There will be no net cost to the County General Fund. Failure to adopt the Ordinance changes could result in probation status in the NFIP program with severe financial consequences to flood insurance policy holders within the County.

LINKAGE TO THE COUNTY OF TULARE STRATEGIC BUSINESS PLAN:

Strategic Initiative 1: Safety and Security includes the goals of plan and provide coordinated emergency preparedness, response, recovery, and mitigation for both natural and manmade disasters, along with providing adequate facilities for protection of the public. This action will codify expectations of property development to assure those protections are achieved.

SUBJECT: Ordinance Amending Certain Sections of the Tulare County Ordinance Code Pertaining to Flood Damage Prevention

DATE: February 7, 2012

ADMINISTRATIVE SIGN-OFF:

Roger Hunt for 1/25/12

Britt L. Fussel, P.E. Date
Assistant Director---Public Works
County Surveyor

BLF:

Cc: Auditor-Controller
County Counsel
County Administrative Office (2)

Attachment(s) Attachment A – Hopkins Letter
Attachment B -

[First Publication]

ORDINANCE NO.

Pursuant to Government Code Section 25124, the following is a summary of an ordinance amending Sections 7-27-1010, 7-27-1100 and 7-27-1180, to Articles 1, 3, and 5, Chapter 27 of Part VII of the Tulare Ordinance Code, pertaining to flood damage prevention.

Summary of the Proposed Ordinance

The proposed ordinance corrects spelling and grammar, corrects the reference to "Building Permit" and clarifies the definition of "Substantial Improvement" in Section 7-27-1010 Definitions of Article 1 GENERAL PROVISIONS.

The proposed ordinance will add new responsibility for local implementation and notifications to other agencies to Section 7-27-1100 Joint Duties and Responsibilities of Article 3 ADMINISTRATION.

The proposed ordinance will clarify the flood proofing requirement in Section 7-27-1180 of Article 5 PROVISIONS FOR FLOOD HAZARD REDUCTION.

The effective date of these changes shall be 30 days after adoption by the Board of Supervisors.

The ordinance herein summarized will be considered for second reading and adoption by the Tulare County Board of Supervisors on February 28, 2012 at a regular meeting of said Board. At least five (5) days prior to that date, a certified copy of the full text of the proposed ordinance shall be posted in the office of the Clerk to the Board of Supervisors and shall be available for public inspection at that location.

COUNTY OF TULARE

By _____
Chairman, Board of Supervisors

ATTEST: Jean M. Rousseau
County Administrative Officer/
Clerk to the Board of Supervisors

By _____
Deputy

ORDINANCE NO.

AN ORDINANCE AMENDING SECTIONS 7-27-1010, 7-27-1100 AND 7-27-1180 OF CHAPTER 27 OF PART VII OF THE ORDINANCE CODE OF TULARE COUNTY PERTAINING TO FLOOD DAMAGE PREVENTION

THE BOARD OF SUPERVISORS OF THE COUNTY OF TULARE ORDAINS AS FOLLOWS:

Section 1. Section 7-27-1010 is hereby amended as follows:

7-27-1010 DEFINITIONS:

Unless specifically defined below, words or phrases used in this Chapter shall be interpreted so as to give them the meaning they have in common usage and to give this Chapter its most reasonable application.

"ACCESSORY USE" means a use which is incidental and subordinate to the principal use of the parcel of land on which it is located.

"ALLUVIAL FAN" is an area subject to flooding when the flood plain is comprised of low flow channels where sediment accompanies the shallow flooding and the unstable soils scour and erode during a flooding event.

"APPEAL" means a request for a review of the Floodplain Administrator's interpretation of any provision of this Chapter.

"AREA OF SHALLOW FLOODING" is a designated ~~AO or VO Zone~~ Zones A, AO, A1-A30, AE, A99, or AH on the Flood Insurance Rate Map. In these zones, the base flood depths range from one to three feet; a clearly defined ~~channels dose~~ channel does not exist; the noticeable path of flooding is unpredictable and indeterminate; and, noticeable velocity flow may be evident.

"AREA OF SPECIAL FLOOD HAZARD" has the same meaning as "SPECIAL FLOOD HAZARD AREA"

"BASE FLOOD" is the flood having a one percent chance of being equaled or exceeded any given year.

"BASEMENT" means any area of the building having its floor sub grade (below ground level on all sides).

"BREAKAWAY WALLS" are any types of walls, whether solid or lattice, and whether constructed of concrete, masonry, wood, metal, plastic or any other

suitable building material which is not part of the structural support of the building and which is so designed as to breakaway under abnormal flood conditions without damage to the structural integrity of the building on which they are used or any building to which they might be carried by flood waters.

"BUILDING" has the same meaning as "Structure".

"BUILDING PERMIT" means a permit issued pursuant to ~~Chapter 4~~ Chapter 15 of Part VII of the Ordinance Code, including a mobile home installation permit.

"DEVELOPMENT" is any man-made change to improved or unimproved real estate (including filling, grading, paving, excavation, mining, dredging, storage of equipment or materials, or drilling operations) located within the area of special flood hazard.

"ENCROACHMENT" means the advance of infringement of uses, plant growth, fill, excavation, building, permanent structures or development into a floodplain which may impede or alter the flow capacity of a floodplain.

"EXISTING MANUFACTURED HOME PARK OR SUBDIVISION" means a manufactured home park or subdivision for which the construction of facilities for servicing the lots on which the manufactured homes are to be affixed (including, at a minimum, the installation of utilities, the construction of streets, and either final site grading or the pouring of concrete pads) is completed before the effective date of the floodplain management regulations adopted by the County.

"EXPANSION TO AN EXISTING MANUFACTURED HOME PARK OR SUBDIVISION" means the preparation or additional sites by the construction of facilities for servicing the lots on which the manufactured homes are to be affixed (including the installation of utilities, the construction of streets, and either final site grading or the pouring of concrete pads).

"FLOOD" OR "FLOODING" is a general and temporary condition of a partial or complete inundation of normally dry land areas from:

(a) The overflow of inland waters and/or

(b) The unusual and rapid accumulation of runoff of surface waters forms any source.

"FLOOD BOUNDARY FLOODWAY MAP" is the official map on which the Federal Emergency Management Agency had delineated both the areas of flood hazards and the floodways.

"FLOOD HAZARD BOUNDARY MAP" means the official map on which the Federal Emergency Management Agency or Federal Insurance Administration has delineated the areas of flood hazards.

"FLOOD INSURANCE RATE MAP" or "FIRM" is the official map on which the Federal Emergency Management Agency has delineated both the areas of special flood hazards and the risk premium zones applicable to the community.

"FLOOD INSURANCE STUDY" is the official report provided by the Federal Emergency Management Agency that includes flood profiles, the Flood Insurance Rate Map (FIRM), the Flood Boundary Floodway Map, and the water surface elevation of the base flood.

"FLOODPLAIN OR "FLOOD-PRONE AREA" means any land area susceptible to being inundated by water from any source. Also see "Flood" or "Flooding"

"FLOODPLAIN ADMINISTRATOR" is the individual or individuals appointed to administer and/or enforce the floodplain management regulations. See Section 7-27-1095.

"FLOODPLAIN MANAGEMENT" means the operation of an overall program of the corrective and preventive measures for reducing flood damage and preserving and enhancing, where possible, natural resources in the floodplain, including but not limited to emergency preparedness plans, flood control works, floodplain management regulations, and open space plans.

"FLOODPLAIN MANAGEMENT REGULATIONS" means this chapter and other zoning ordinances, subdivision regulations, building codes, health regulations, special purpose ordinances (such as grading and erosion control) and other application of police power which control development in flood-prone areas. This term describes federal, state or local regulations in any combination thereof which provide standards for preventing and reducing flood loss and damage.

"FLOODPROOFING" means any combination of structural and non-structural additions, changes or adjustments to non-residential structures which reduce or eliminate flood damage to real estate or improved real property, water and sanitary facilities, structures, and their contents (Refer to FEMA Technical Bulletins TB 1-93, TB 3-93 and TB 7-93 for guidelines on dry and wet flood proofing).

"FLOOD-RELATED EROSION" is a condition that exists in conjunction with a flooding event that alters the composition of the bank of a watercourse and increases the possibility of loss due to the erosion of the land area adjacent to the watercourse.

"FLOODWAY" means the channel of a river or other watercourse and the adjacent land area that must be reserved in order to discharge the base flood without cumulatively increasing the water surface elevation more than one (1) foot. The floodway is delineated on the Flood Boundary Floodway Map, on maps adopted by the State Reclamation Board when acting within its jurisdiction, and/or on the County Zoning Map (signified by the F-1, Primary Flood Plain Zone).

"FLOODWAY FRINGE" is that area of the floodplain on either side of the "regulatory floodway" where encroachment may be permitted.

"FRAUD AND VICTIMIZATION", as related to Section 7-27-1265 of this Chapter pertaining to variances, means that the variance grated must not cause fraud on or victimization of the public. In examining this requirements, the Governing Body will consider the fact that every newly constructed building adds to government responsibilities and remains a part of the community for fifty to one hundred years; that building that are permitted to be constructed below the base flood elevation are subject during all those years to increased risk of damage from floods, while future owners of the property and the community as a whole are subject to all the costs, inconvenience, damage and suffering that those increase flood damages bring; and that, in addition, future owners may purchase the property, unaware that it is subject to potential flood damage, and can be insured only at a very high flood insurance rates.

"GOVERNING BODY" means the Board of Supervisors of the County of Tulare which is empowered to adopt and implement regulations to provide for the public health, safety and general welfare of its citizenry.

"HARDSHIP" as related to Section 7-27-1265 of this Chapter pertaining to variances means the exceptional hardship that would result from a failure to grant the requested variance. The hardship justifying a variance must be exceptional, unusual, and peculiar to the property involved. Mere economic or financial hardship alone is not exceptional. Inconvenience, aesthetic considerations, physical handicaps, personal preferences, or the disapproval of one's neighbors likewise cannot as a rule qualify as an exceptional hardship. All of these problems can be resolved through other means without granting a variance, even if the alternative is more expensive, or requires the property owner to build elsewhere or put the parcel to a different use than originally intended.

"HABITABLE FLOOR" means any floor usable for living purposes, which includes working, sleeping, eating or recreation, or a combination thereof. For flood insurance purposes, "Habitable floor" and "Lowest floor" will share the same definition.

"HIGHEST ADJACENT GRADE" means the highest natural elevation of the ground surface prior to construction next to the proposed walls of a structure.

"HISTORIC STRUCTURE" means any structure that is:

(a) Listed individually in the National Register of Historic Places (a listing maintained by the Department of Interior) or preliminarily determined by the Secretary of the Interior as meeting the requirements for individual listing on the National Register;

(b) Certified or preliminarily determined by the Secretary of the Interior as

contributing to the historical significance of a registered historic district or a district preliminarily determined by the Secretary to qualify as a registered historic district;

(c) Individually listed on a state inventory of historic places in states with historic preservation programs which have been approved by the Secretary of Interior; or

(d) Individually listed on a local inventory of historic places in communities with historic preservation programs that have been certified either by an approved state program as determined by the Secretary of the interior or directly by the Secretary of the Interior in states without approved programs

"LEVEE" means a man-made structure, usually an earthen embankment, designed and constructed in accordance with sound engineering practices to contain, control, or divert the flow of water so as to provide protection from temporary flooding.

"LEVEE SYSTEM" means a flood protection system which consists of a levee, or levees, and associated structures, such as closure and drainage devices, which are constructed and operated in accordance with sound engineering practices.

"LOWEST FLOOR" means the lowest floor of the lowest enclosed area, including basement (see definition of "Basement"), as follows:

(a) An unfinished or flood resistant enclosure below the lowest floor this is useable for parking of vehicles, building access or storage in an area other than a basement area, is not considered a buildings lowest floor provided it conforms to applicable non-elevation design requirements including but not limited to :

(1) the wet floodproofing standard in Section 7-27-1180,

(2) the anchoring standards in Section 7-27-1170,

(3) the construction materials and methods standards in Section 7-27-1175,

(4) The standards for utilities in Section 7-27-1200.

(b) For residential structured, all the subgrade enclosed areas are prohibited as they are considered to be basements (see "Basement" definition). This prohibition includes below-grade garages and storage areas.

"MANUFACTURED HOME" means a structure, transportable in one or more sections, which is built on a permanent chassis and is designed for the use with

or without a permanent foundation when attached to the required utilities~~,~~. The term "manufactured home" ~~dose~~ does not include a "recreational vehicle".

"MANUFACTURED HOME PARK OR SUBDIVISION" means a parcel (or contiguous parcels) of land divided into two or more manufactured home lots for rent or sale.

"MARKET VALUE" shall be determined by estimating the cost to replace the structure in new condition and adjusting that cost figure by the amount of depreciation which has accrued since the structure was constructed. The cost of replacement of the structure shall be based on a square foot cost factor determined by reference to a building cost estimating guide recognized by the building construction industry. The amount of depreciation shall be determined by taking into account the age and physical deterioration of the structure and functional obsolescence as approved by the floodplain administrator, but shall not include economic or other forms of eternal obsolescence, Use of replacement costs or accrued depreciation factors different from those contained in recognized building cost estimating guides may be considered only if such factors are included in a report prepared by an independent professional appraiser and supported by a written explanation of the differences.

"MEAN SEA LEVEL" means, for purposes of the National Flood Insurance Program, the National Geodetic Vertical Datum (NGVD) of 1929 of other datum, to which base flood elevations show on a community's Flood Insurance Rate Map are referenced.

"MOBILE HOME" is a structure, including a manufactured home certified under the National Mobile home Construction and Safety Standards Act of 1974, that is transportable in one or more sections, built on a permanent chassis, and designed to be used with or without a permanent foundation when connected to the requited utilities. It ~~dose~~ does not include recreational vehicles or travel trailers placed on a site for less than 180 consecutive days, or factory–built housing on permanent slab foundation.

"NEW CONSTRUCTION" means structures for which the "start of construction" commenced on or after the effective date of this Chapter, and includes any subsequent improvements to such structures.

"NEW MANUFACTURED HOME PARK OR SUBDIVISION" means a manufactured home park or subdivision for which the construction of facilities for servicing the lots on which the manufactured homes are to be affixed (including at a minimum, the installation of utilities, the construction of streets, and either final site grading or the pouring of concrete pads) is completed on or after the effective date of this Chapter.

"OBSTRUCTION" includes, but not limited to, any dam, wall, wharf, embankment, levee, dike, pile, abutment, protection, excavation, channelization,

bridge, conduit, building, wire, fence, rock, gravel, refuse, fill, structure, vegetation or other material in, along, across or projecting into any watercourse which may alter, impede, retard or change the direction and/or velocity of the flow of water, snare or collect debris carried by the flow of water, or is likely to be carried downstream.

"ONE-HUNDRED-YEAR FLOOD" or "100 YEAR FLOOD" has the same meaning as "BASE FLOOD".

"PUBLIC SAFETY AND NUISANCE" as related to Section 7-27-1265 of this Chapter pertaining to variances means that the granting of a variance must not result in anything which is injurious to safety or health of an entire community, neighborhood, or any considerable number of persons, or unlawfully obstructs the free passage or use, in the customary manner, of any navigable lake, river, bay, stream, canal, or basin.

"RECREATIONAL VEHICLE" means a vehicle which is:

(a) Built on a single chassis,

(b) Four hundred (400) square feet or less when measured at the largest horizontal projection,

(c) Designed to be self-propelled or permanently towable by a light-duty truck, and

(d) Designed primarily not for use as a permanent dwelling but as temporary living quarters for recreational, camping, travel, or seasonal use.

"REGULATORY FLOODWAY" means the channel of a river or other watercourse and the adjacent land areas that must be reserved in order to discharge the base flood without cumulatively increasing the water surface elevation more ~~that~~ than one foot.

"REMEDY A VIOLATION" means to bring the structure or other development into compliance with State or local floodplain management regulations, or, if this is not possible, to reduce the impacts of its noncompliance,, Ways that impacts may be reduced include protecting the structure or other affected development from flood damages, implementing the enforcement provisions of the Chapter or otherwise deterring future similar violations, ore reducing State or Federal financial exposure with regard to the structure or other development.

"RIVERINE" means relating to, formed by, ore resembling a river (including tributaries), stream, brook, creek, or other similar watercourses.

"SHEET FLOW AREA" has the same meaning as "Area of shallow flooding".

"SPECIAL FLOOD HAZARD AREA" is the land in the flood plain subject to a one percent or greater chance of flooding in any given year. The area is designated as Zones A, AO, A1-A30 , AE, A99, or AH on the FIRM.

"START OF CONSTRUCTION" included substantial improvement and other proposed new development and means the date the building permit was issued, provided the actual start of construction, repair, reconstruction, rehabilitation, addition, placement, or other improvement was within 180 days from the date of the permit. The actual start means either the first placement of permanent construction of a structure on a site such as the pouring of slab or footings, the installation of piles, the construction of columns, or any work beyond the stage of excavation; or the installation of a mobile home to its permanent site. Permanent construction ~~dose~~ does not include land preparation, such as clearing, grading and filling; not does it include the installation of streets and/or walkways; nor ~~dose~~ does it include excavation for a basement, footings. piers, or foundations or the erection of temporary forms; nor does it include the installation on the property of accessory building, such as garages or sheds not occupied as dwelling units or not part of the main structure. Far a substantial improvement, the actual start of construction means the first alteration of any wall, ceiling, floor, or other structural part of a building, whether or not that alteration affects the external dimensions of the building.

"STRUCTURE" is a walled and roofed building or mobilehome that is principally above ground~~.~~; this includes a gas or liquid storage tank or a manufactured home.

"SUBSTANTIAL DAMAGE" means damage of any origin sustained by a structure whereby the cost of restoring the structure to its before-damaged condition would equal or exceed 50 percent of the market value of the structure before the damage occurred.

~~"SUBSTANTIAL IMPROVEMENT" means any reconstruction, rehabilitation, addition, or other proposed new development of a structure, the cost of which equals or exceeds 50 percent of the market value of the structure either:~~

~~(a) Before the improvement or repair is started, or~~

~~(b) If the structure has been damaged, substantial damage, and is being restored, before the damage occurred. For the purpose of this definition, "substantial improvement" is considered to occur when the first alteration of any wall, ceiling, floor, or other structural part of the building commenced, whether or not that alteration affects the external dimensions of the structure.~~

~~This item dose not, however, include either:~~

~~(a) Any project for improvements of a structure to comply with existing state or County health, sanitary , or safety code specifications which are solely necessarily to assure safe living conditions, or~~

~~(b) Any alteration of a structure listed on the National Register of Historic Places or the State Inventory of Historic Places.~~

"SUBSTANTIAL IMPROVEMENT" means any reconstruction, rehabilitation, addition, or other improvement of a structure, the cost of which equals or exceeds 50 percent of the market value of the structure before the "start of construction" of the improvement. This term includes structures which have incurred "substantial damage", regardless of the actual repair work performed. The term does not, however, include either:

(a) Any project for improvement of a structure to correct existing violations or state or local health, sanitary, or safety code specifications which have been identified by the local code enforcement official and which are the minimum necessary to assure safe living conditions; or

(b) Any alteration of a "historic structure," provided that the alteration will not preclude the structure's continued designation as a "historic structure."

"VARIANCE" means a grant of relief from the requirements of this Chapter which permits construction in a manner that would otherwise be prohibited by this Chapter.

"VIOLATION" means the failure of a structure or other development to be fully compliant with this Chapter. A structure or other development without the elevation certificate, other certifications, or other evidence of compliance required in this Chapter is presumed to be in violation until such time as the documentation is provided.

"WATER SURFACE ELEVATION" means the height, in relation to the National Geodetic Vertical Datum (NGVD) of 1929 (or other datum where specified), of floods of various magnitudes and frequencies in the floodplains of the coastal or riverine areas.

"WATERCOURSE" means a lake, river, creek, stream, wash, arroyo, channel or other topographic feature on or over which waters flow at least periodically. Watercourse included specifically designated areas in which substantial flood damage may occur.

Section 2. Section 7-27-1100 is hereby amended as follows:

7-27-1100 JOINT DUTIES AND RESPONSIBILITES:

The joint duties and responsibilities of the Planning and Development Director and Public Works Director shall include, but not be limited to:

(a) Development Review:

(1) Review of all building permits to determine that the permit requirements of this Chapter have been satisfied.

(2) Review of all other required state and federal permits have been obtained.

(3) Review of all permits to determine that the site is reasonably safe from flooding.

(4) Review of all building permits to determine if the proposed development adversely affects the flood carrying capacity of the area of special flood hazard. For purposes of this Chapter, "adversely affected" means that the cumulative effect of the proposed development, when combined with all other existing and anticipated development, will not increase the water surface elevation of the base flood more than one (1) foot at any point.

(5) Review of all proposals for the development of five (5) or more lots or dwelling units to assure that the flood discharge exiting the development after construction is equal to or less than the flood discharge at the location prior to development.

(b) Review Use and Develop Other Base Flood Data:

(1) When the base flood elevation data has not been provided in accordance with section 7-27-1020 (special flood hazard areas designated as Zone A on the FIRM), the Planning and Development Director and Public Works Director shall obtain, review, and reasonably utilize the best base flood data available from any source (federal, state, or other) such as: high water mark(s), floods of record, or private engineering reports, in order to administer Article 5 of this Chapter and provide the developer with an estimated base flood elevation.

(2) If no base flood elevation data is available from a federal or state or other source, then a base flood elevation shall be obtained using one of two methods from the FEMA publication "Managing Floodplain Development in Approximate Zone A Areas—A Guide

for obtaining and developing Base (100 year) Flood Elevations" dated July 1995 in order to administer Article 5:

(A) Simplified method.

(i) 100 year or base flood discharge shall be obtained using the appropriate regression equation found in a U.S. Geological Survey publication, or the discharge-drainage area method; and

(ii) Base flood elevation shall be obtained using the Quick-2 computer program developed by FEMA; or

(B) Detailed method. The 100 year or base flood discharge and the base flood elevation shall be obtained using detailed methods identified in FEMA Publication 265, published in July 1995 and titled: "Managing Floodplain Development in Approximate Zone A Areas—A Guide for obtaining and developing Base (100 year) Flood Elevation".

(C) Documentation of Floodplain Development. Obtain and maintain for public inspection and make available as needed the following:

(i) Certification required by Section 7-27-1180 and Section 7-27-1210 (lowest floor elevations).

(D) Map Determinations. Make interpretations where needed, as to the exact location of the boundaries of the special flood hazard. Where there appears to be a conflict between a mapped boundary and actual field conditions, grade and base flood elevations shall be used to determine the boundaries of the special flood hazard area. The person contesting the location of the boundary shall be given a reasonable opportunity to appeal the interpretation as provided in Section 7-27-1315.

(E) Remedial Action. Take action to remedy violation of this Chapter as specified in Section 7-27-1025.

(c) Notification of other agencies:

(1) Alteration or relocation of a watercourse:

(A) Notify adjacent communities and the California Department of Water Resources prior to alteration or relocation;

(B) Submit evidence of such notification to the Federal Emergency

Management Agency; and

(C) Assure that the flood carrying capacity within the altered or relocated portion of said watercourse is maintained.

(~~1~~2) Base Flood Elevation changes due to physical alterations:

(A) Within 6 months of information becoming available or project completion, whichever comes first, the floodplain administrator shall submit or assure that the permit applicant submits technical or scientific data to FEMA for a Letter of Map Revision (LOMR).

(B) All LOMR's for flood control projects are approved prior to the issuance of building permits. Building Permits must not be issued based on Conditional Letters of Map Revision (CLOMR's). Approved CLOMR's allow construction of the proposed flood control project and land preparation as specified in the "start of construction" definition.

Such submissions are necessary so that upon confirmation of those physical changes affecting flooding conditions, risk premium rates and floodplain management requirements are based on current data.

(~~2~~3) Changes in corporate boundaries:

Notify FEMA in writing whenever the corporate boundaries have been modified by annexation or other means and include a copy of a map of the community clearly delineating the new corporate limits.

Section 3. Section 7-27-1180 is hereby amended as follows:

7-27-1180 ELEVATION AND FLOODPROOFING:

(a) New construction and substantial improvement of any structure shall have the bottom of the lowest floor, including basement, elevated to or above the base flood elevation. Nonresidential structures may meet the optional standards in paragraph (d) of this Section. Prior to issuance of the occupancy permit or certificate, the elevation of the lowest floor, including the basement, shall be certified by a registered civil engineer or land surveyor that the elevation requirements have been met and verified by the County Surveyor. Notification of compliance shall be recorded as set forth in Section 7-27-1105 (b).

(b) New construction and substantial improvement of any structure in Zone AO shall have the bottom of the lowest floor, including basement, elevated to or above the depth number specified on the Flood Insurance Rate Map (FIRM) as measured from the highest adjacent grade. Nonresidential structures may meet the optional standards in paragraph (d) of this Section. Prior to issuing the occupancy permit, compliance with the elevation requirement shall be certified by a registered civil engineer or land surveyor and verified by the County Surveyor. Notification of compliance shall be recorded as set forth in Section 7-27-1105 (b).

(c) If no base flood elevation or depth number is provided on the FIRM (Zone A), any new construction or substantial improvement of any structure shall have the bottom of the lowest floor, including basement, elevated to:

~~(1) a height of at least two feet above the highest adjacent grade, or~~

~~(2) Eighteen (18) inches above the top of the curb across the front of the lot, or~~

(~~3~~1) Said base flood elevation shall be determined by one of the methods in Section 7-27-1100 (b); or

(2) If the Planning and Development Director and Public Works Director determine that it is unreasonable to determine the base flood elevation pursuant to Section 7-27-1100 (b) then the Planning and Development Director and Public Works Director may require that any new construction or substantial improvement of any structure shall have the bottom of the lowest floor, including basement, elevated to:

(A) A height of at least two feet above the highest adjacent grade, or

(B) Eighteen (18) inches above the top of the curb across the front of the lot.

Nonresidential structures may meet the optional standards set forth in paragraph (d) of ~~the~~ this section. Prior to issuing the occupancy permit, compliance with the elevation requirement shall be certified by a registered civil engineer or land surveyor, and verified by the County Surveyor. Notification of compliance shall be recorded as set forth in Section 7-27-1105 (b).

(d) Nonresidential construction shall either be elevated in conformance with paragraphs (a), (b) or (c) of this section or together with attendant utility

and sanitary facilities, be floodproofed to the base flood elevation by one or more of the following:

(1) Installation of watertight doors, bulkheads, and shutters.

(2) Reinforcement of walls to resist water pressure.

(3) Use of paints, membrane, or mortars to reduce seepage through walls.

(4) Addition of mass or weight to structure to resist flotation.

(5) Armour protection of all fill materials from scour and/or erosion.

Certification by a registered civil engineer or architect that the standards of this paragraph are satisfied shall be provided to the Planning and Development Director as set forth in section 7-27-1105 (b).

~~(e) All new construction and substantial improvement with fully enclosed areas below the lowest floor (excluding basements) that are usable solely for parking of vehicles, building access or storage, and which are subject to flooding shall be designed to automatically equalize hydrostatic forces on exterior walls by allowing for the entry and exit of floodwater. Designs for meeting this requirement shall follow the guidelines in FEMA Technical Bulletins TB 1-93 and TB 7-93, and must exceed the following minimum criteria:~~

~~(1) Have a minimum of two openings having a total net area of not less than one square inch for every square foot of enclosed area subject to flooding. The bottom of all openings shall be no higher than one foot above grade. Openings may be equipped with screens, louvers, valves or other coverings or devices provided that they permit the automatic entry and exit of flood water; or~~

~~(2) Be certified by a registered professional engineer or architect.~~

(fe) Flood openings.

All new construction and substantial improvements of structures with fully enclosed areas below the lowest floor (excluding basements) that are usable solely for parking of vehicles, building access or storage, and which are subject to flooding, shall be designed to automatically equalize hydrostatic flood forces on exterior walls by allowing for the entry and exit of floodwater. Designs for meeting this requirement shall follow the guidelines in FEMA Technical Bulletins TB 1-93 and TB 7-93, and must meet the following minimum criteria:

(1) For non-engineered openings:

(A) Have a minimum of two openings on different sides having a total net area of not less than one square inch for every square foot of enclosed area subject to flooding;

(B) The bottom of all openings shall be no higher than one foot above grade;

(C) Openings may be equipped with screens, louvers, valves or other coverings or devices provided that they permit the automatic entry and exit of floodwater; and

(D) Buildings with more than one enclosed area must have openings on exterior walls for each area to allow flood water to directly enter; or

(2) Be certified by a registered civil engineer or architect.

Section 4. The foregoing ordinance shall take effect thirty (30) days from the date of the passage hereof, and prior to the expiration of fifteen (15) days from the passage hereof a summary shall be published once in the *Visalia Times-Delta*, a newspaper printed and published in the County of Tulare, State of California, together with the names of the Board of Supervisors voting for and against the same.

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THE FORGOING ORDINANCE was passed and adopted by the Board of Supervisors of the county of Tulare, state of California, on the _____ day of _____ 2012 at a regular meeting of said Board duly and regularly convened on said day by the following vote:

AYES:

NOES:

ABSENT:

_____
Chairman, Board of Supervisors

ATTEST: Jean M. Rousseau
County Administrative Officer
Clerk, Board of Supervisors

By: _____
Deputy Clerk

PRA Request
December 27, 2011

From: Carole A. Chinn and J. Peter Chinn
45635 S. Fork Drive
Three Rivers, CA 93271
(559) 561-4661



To: David Bryant, Special Projects Manager
Tulare County Resource Management Agency
Government Plaza
5961 South Mooney Boulevard
Visalia, CA 93277

Subject: California Public Records Act Request to Examine the Public Records Listed in Paragraphs 1 and 2

1. Tulare County records since 1986 of notification of other agencies of base flood elevation changes due to physical alterations: within six months of information becoming available or project completion, whichever comes first, the floodplain administrator shall submit or assure that the permit applicant submits technical or scientific data to the Federal Emergency Management Agency for a Letter of Map Revision.

2. Tulare County records since 1986 of alteration of watercourses: notification to adjacent cities and counties and the California Department of Water Resources prior to any alteration and relocation of a watercourse, and County records documenting the submission of evidence of such notification to the Federal

Attachment 10

Emergency Management Agency.

3. Thank you for your anticipated cooperation. Please contact us if you have any questions.

Sincerely,

Carole A. Chum

Copy to: Tulare County Counsel
Roger Hunt, Administration/Community Development, RMA
Chris Zimmerman, CPRA Officer, RMA
Tamara S. Galanter, Shute, Mihaly and Weinberger

Read 1/10/12

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☒ 2900 W. Burrel, County Civic Center, Visalia, CA 93291 Telephone: (559) 636-4950 Fax: (559) 737-4319
☐ 11200 Avenue 368, Room 102, Visalia CA 93291 Telephone: (559) 735-1505 Fax: (559) 713-3240

January 6, 2012

Mr. & Ms. Clum
45638 South Fork Road
Three Rivers, CA 93271

Re: PRA: Clum-Flood Control Plan and Flood Elevation and Alteration of Watercourses
Our File Nos. 20111989 & 20112023

Dear Mr. and Ms. Clum:

This letter is to confirm the conversation between Mr. Clum and Dave Bryant this date. It was agreed that Dave Bryant or a member of his staff would contact you on or by January 20, 2012 for an update on these projects and again on January 31, 2012 if necessary. If any of the materials are ready for review before these dates, a staff member will contact you and arrange for you to review the materials.

If I may be of further assistance, please do not hesitate to contact me.

Very truly yours,
KATHLEEN BALES-LANGE
County Counsel

By _____
Tammy Wightman
Paralegal

TJW/1/6/2012/20112023/433159

January 12, 2012

From: Carole A. Clum and J. Peter Clum
45638 South Fork Drive
Three Rivers, CA 93271
(559) 561-4661

RECEIVED
JAN 12 2012
County Counsel
County of Tulare

To: Tulare County Counsel
2900 West Burrel
County Civic Center
Visalia, CA 93291

Subj: PRA: Clum - Flood Control Plan and Flood Elevation and Alteration of Watercourses County File Nos. 20111989 and 20112023

1. Your letter of January 6, 2012, to us suggests that during the conversation of the same date between Dave Bryant and Peter Clum that Peter Clum agreed to extensions of any applicable time limits for County compliance with the two California Public Records Act requests listed in the subject line. Please be advised that during the conversation Peter Clum did not agree to any extensions of any applicable time limits nor did he believe he was being asked to agree to any extensions. During the phone conversation, Dave Bryant advised Peter Clum the County was still in the process of locating the information and that he or one of his staff would be contacting us with updates.

2. We note that Dave Bryant has been very prompt in contacting us in response to our inquiries through out the general plan process. We hope the County is successful in locating the requested records so that we may examine them.

Sincerely,

Carole A. Clem

Copy to: David Bryant, Special Projects Manager, RMA
Roger Hunt, Administration/Community Development, RMA
Chris Zimmerman, CPRA Officer, RMA

Rec'd 14 Jan 12

TULARE COUNTY COUNSEL

County Counsel
Kathleen Bales-Lange

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☐ 11200 Avenue 368, Room 102, Visalia CA 93291 Telephone: (559) 735-1505 Fax: (559) 713-3240

January 13, 2012

Mr. & Ms. Clum
45638 South Fork Road
Three Rivers, CA 93271

Re: PRA: Clum-Reclamation Board
2012133

Dear Mr. and Ms. Clum:

Our office represents the Resource Management Agency (Department). We are in receipt of your January 4, 2012 correspondence to the Department. Please be advised nothing in this response should be considered as a waiver of the right of the County to assert any and all claims of exemptions or privileges to inspection of the whole or any part of the records.

You have requested the following:

"We desire to examine the inspection reports referenced above prepared by the Reclamation Board and its successor, the Central Valley Flood Protection Board."

We note that the "reports referenced above" refer to Paragraph 9 in "An agreement between the Reclamation Board of the State of California and the County of Tulare Dated November 28, 1989."

We have reviewed your request for records and the (Department) is in the process of attempting to secure the documents that you have requested. Due to the volume of documents, we will need an extension of time on the initial ten days, to and including January 31, 2012, to prepare a response to this request. Additionally, as communicated to you by Dave Bryant of the Department, he or a member of his staff will contact you on or by January 20, 2012 for an update on this and other projects and again on January 31, 2012, if necessary.

Please be advised that the County charges $0.10 per page for copying of records.

You should further be aware that the County is not obligated to create records which do not exist under the Public Records Act. The California Public Records Act only requires that the public agency respond to requests for those specific records existing within its files. (California Government Code 6252(e), 6253(b); *Rosenthal v. Hansen* (1973) 34 Cal.App.3d 754.)

If you have any questions or concerns, please contact me.

Very truly yours,
KATHLEEN BALES-LANGE
County Counsel

By _____
Diana L. Perez
Deputy County Counsel

DLP/1/13/2012/434800

Rec'd 20 Jan 12

TULARE COUNTY COUNSEL

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Carole A. Clum and J. Peter Clum
45638 South Fork Road
Three Rivers, CA 93271

January 18, 2012

Re: PRA: Clum – Master Flood Control Plan (20111989)
PRA: Clum – Flood Elevation and Alteration of Watercourses (20112023)
PRA: Clum – Reclamation Board (2012133)
PRA: Clum – Copy of Contract between County and Spink (2012154)

Dear Mr. and Mrs. Clum:

We are in receipt of your letter dated January 12, 2012.

In response to your objection to the use of the word "agree", we amend our January 6, 2012 letter to state:

"Dave Bryant *communicated* to Mr. Clum that he or a member of his staff will contact you on or by January 20, 2012 for an update on these projects and again on January 31, 2012 if necessary. If any of the materials are ready for your review before these dates, a staff member will contact you and arrange for you to review the materials."

Mr. Bryant will contact you regarding the above-referenced Public Records Act requests under this time schedule. If you have any questions, please do not hesitate to contact our office.

Very truly yours,
KATHLEEN BALES-LANGE
County Counsel

By _____
Diana L. Perez
Deputy County Counsel

cc: David Bryant, Resource Management Agency
DLP/1/18/2012/20112023/435346

Rec'd 21 Jan 12

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January 20, 2012

Mr. & Mrs. Clum
45638 South Fork Road
Three Rivers, CA 93271

Re: PRA: Clum – Reclamation Board (2012133)
PRA: Clum – Copy of Contract between Tulare County and Spink (2012154)
PRA: Clum – Flood Elevation (20112023)
PRA: Clum – Master Flood Control Plan (20111989)

Dear Mr. and Mrs. Clum:

Our office represents the Resource Management Agency (Department) in this matter. We are in receipt of your correspondence to the Department regarding the above referenced requests. Please be advised that nothing in this response should be considered as a waiver of the right of the Department to assert any and all claims of exemptions or privileges to inspection of the whole or any part of the records.

Due to the volume of documents to be reviewed in order to locate the documents requested, the Department continues their process of attempting to secure the documents. As communicated to you by Dave Bryant of the Department, he or a member of his staff will contact you on or by January 31, 2012 for an update these projects. We will provide an updated response by or on this date.

The following information is an update regarding your requests:

1. "Request for the Copy of the 1995 Jurisdictional Agreement Between Tulare County and the Bureau of Reclamation."

Response: As communicated to you on January 6, 2012, Department staff has a copy of "An agreement between the Reclamation Board of the State of California and the County of Tulare Dated November 28, 1989." Our search continues regarding a 1995 Jurisdictional Agreement Between Tulare County and the Bureau of Reclamation.

2. "Request for viewing of Documents in Selected Bibliography of Tulare County Flood Control Master Plan"

Response: Our search continues for these documents.

3. "Tulare County Records since 1986 of Notification of other agencies of base flood elevation changes due to physical alterations."

Response: This information, in the form of letters of map change issued by FEMA, is contained in the RMA files and is available for review. Any changes to the base flood elevations are undertaken by individual persons and not necessarily by the county. Please contact Jim May or Craig Anderson of the Department to arrange a time to review this material.

4. "Tulare County records since 1986 of Alteration of Watercourses."

Response: Tulare County has not initiated any alteration of watercourses. Any alteration of watercourses would be undertaken by individuals or other jurisdictions.

5. "We desire to examine the inspection reports referenced above prepared by the Reclamation Board and its successor, the Central Valley Flood Protection Board." We note that the "reports referenced above" refer to Paragraph 9 in "An agreement between the Reclamation Board of the State of California and the County of Tulare Dated November 28, 1989."

Response: Our search continues for these documents.

6. "Request for copies of (1) the contract between Tulare County and the Spink Corporation for the preparation of Scope for the Tulare County Flood Control Master Plan Update dated February 2001, and (2) the Tulare County solicitation for or request for proposals which led to the study"

Response: Our search continues for these documents.

As indicated earlier in this letter, Dave Bryant or a member of his staff will contact you on or by January 31, 2012 for an update on the projects where the search continues for the requested materials.

Please be advised that the County charges $0.10 per page for copying of records.

You should further be aware that the County is not obligated to create records which do not exist under the Public Records Act. The California Public Records Act only requires that the public agency respond to requests for those specific records existing within its files. (California Government Code 6252(e), 6253(b); *Rosenthal v. Hansen* (1973) 34 Cal.App.3d 754.) If you have any questions or concerns, please contact me.

Very truly yours,
KATHLEEN BALES-LANGE
County Counsel

By _____
Diana L. Perez
Deputy County Counsel

DLP/1/20/2012/2012133/436002

January 27, 2012

From: Carole A. Clum and J. Peter Clum
45638 South Fork Drive
Three Rivers, CA 93271
(559) 561-4661

JAN 27 2012

To: Tulare County Counsel
2900 West Burrel
County Civic Center
Visalia, CA 93291

Subj: PRA: Clum Flood Elevation and Alteration of Watercourses (20112023)

Encl (1) Your letter of January 20, 2012, Re: PRA: Clum – Reclamation Board (2012133); PRA: Clum – Copy of Contract between Tulare County and Spink (2012154); PRA: Clum - Flood Elevation (20112023); PRA: Clum - Master Flood Control Plan (20111989)

Encl (2) Our California Public Record Act request assigned file number 20112023, of December 27, 2011

1. Review of Paragraphs 3 and 4 of enclosure (1) suggests the County may have misconstrued our request to examine certain records. See enclosure (2). We want to look at all records whether resulting from development initiated by the

County or a person or other entity. As a participant in the National Flood Insurance Program administered by FEMA, the County, in order to comply with flood plain management criteria for flood-prone areas, is obliged to report (or ensure the reporting in some cases) of certain information to FEMA. Hence, it follows that if the County has been complying with flood plain management criteria, there should be records of the County's compliance. Please see: 44 CFR Ch. I (10-1-10 Edition) Sections 59.1, 60.3(b)(1), 60.3(b)(6), 65.1, and 65.3; California Model Floodplain Management Ordinance Sections 2.0, 4.2.D.1 and 2; and Ordinance Code of Tulare County, Part VII, Chapter 27, Articles 7-27-1010, 7-27-1090, 7-27-1100, and 7-27-1110.

2. In view of the regulatory framework in the cited materials in paragraph 1, we renew our request contained in enclosure (2).

3. The following quotation from page 48 of the now out of date 1971 Tulare County Flood Control Master Plan is still pertinent although referring to waterways vice watercourses.

> Related to the concept of flood plain management is the concept of protecting or maintaining adequate waterways for smaller collecting drainage areas and for distributary channels. Obliteration of collecting or distributory

waterways can result in flooding just as damaging as overflow from a major stream.

Many of Tulare County's flood problems are the result of the obliteration of collecting or distributary channels during land development. An essential concept to be included in an overall Tulare County flood program is the protection or maintenance of adequate waterways as land development takes place.

Sincerely,

Carole A. Olsen

Peter Olsen

Copy to: Britt Fussel, Public Works, RMA
Dave Bryant, Special Projects Manager, RMA
Roger Hunt, Administration/Community Development, RMA
Tamara S. Galanter, Shute, Mihaly and Weinberger

File Copy Rec'd 2/2/12

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February 1, 2012

Carole A. Clum and J. Peter Clum
45638 South Fork Road
Three Rivers, CA 93271

Re: PRA: Clum - Reclamation Board (2012133)
PRA: Clum - Copy of Contract between Tulare County and Spink (2012154)
PRA: Clum - Flood Elevation (20112023)
PRA: Clum - Master Flood Control Plan (20111989)

Dear Mr. and Mrs. Clum:

Our office represents the Resource Management Agency (Department) in this matter. We are in receipt of your correspondence to the Department regarding the above referenced requests. Please be advised that nothing in this response should be considered as a waiver of the right of the Department to assert any and all claims of exemptions or privileges to inspection of the whole or any part of the records.

Due to the volume of documents to be reviewed in order to locate the documents requested, the Department continues their process of attempting to secure the documents. As communicated to you by Dave Bryant of the Department, he or a member of his staff will contact you on or by February 15, 2012 for an update these projects. We will provide an updated response by or on this date.

The following information is an update regarding your requests:

1. "Request for the Copy of the 1995 Jurisdictional Agreement Between Tulare County and the Bureau of Reclamation."

Response: As communicated to you on January 6, 2012, Department staff has a copy of "An agreement between the Reclamation Board of the State of California and the County of Tulare Dated November 28, 1989." It is our understanding, based on previous verbal communications between you and Mr. Bryant that you have possession of the 1989 agreement as referenced in this paragraph. We have been unable to locate a 1995 Jurisdictional Agreement between Tulare

County and the Bureau of Reclamation. A reference to the 1995 agreement in the Recirculated Draft Environmental Impact Report on the proposed Tulare County General Plan 2030 update amendment is a clerical error and will be corrected to reference the 1989 agreement.

2. "Request for viewing of Documents in Selected Bibliography of Tulare County Flood Control Master Plan"

Response: Our search continues for these documents. We anticipate completion of our search for this material on or before February 15, 2012. You will be contacted on or before February 15, 2012, by Mr. Bryant or a member of the RMA staff with an update regarding the search for these materials.

3. "Tulare County Records since 1986 of Notification of other agencies of base flood elevation changes due to physical alterations."

Response: This information, in the form of letters of map change issued by FEMA, is contained in the RMA files and is available for review. Any changes to the base flood elevations are undertaken by individual persons and not necessarily by the county. Craig Anderson of the Department has arranged a time with you to review this material.

The County does not possess any records of notifications due to physical alterations to land that would change the base flood elevations since such changes are undertaken by individual persons directly with FEMA and not the County.

4. "Tulare County records since 1986 of Alteration of Watercourses."

Response: Tulare County has not initiated any alteration of watercourses. Any alteration of watercourses would be undertaken by individuals or other jurisdictions. The County does not possess records regarding alteration of watercourses since 1986. The alteration of watercourses is a process administrated by the State of California.

5. "We desire to examine the inspection reports referenced above prepared by the Reclamation Board and its successor, the Central Valley Flood Protection Board." We note that the "reports referenced above" refer to Paragraph 9 in "An agreement between the Reclamation Board of the State of California and the County of Tulare Dated November 28, 1989."

Response: Our search continues for these documents. You will be contacted on or before February 15, 2012 by Mr. Bryant or a member of the RMA staff with an update regarding the search for these materials.

6. "Request for copies of (1) the contract between Tulare County and the Spink Corporation for the preparation of Scope for the Tulare County Flood Control Master Plan Update dated February 2001, and (2) the Tulare County solicitation for or request for proposals which led to the study"

Response: No records exist for a contract between Tulare County and the Spink Corporation for the preparation of Scope for a Tulare County Flood Control Master Plan Update dated February 2001. The County did not pursue an actual agreement for a Tulare County Flood Control Master Plan Update project as funds were redirected to the Lake Success enlargement project. Our search continues regarding any Tulare County solicitation for or request for proposals for such an agreement. You will be contacted on or before February 15, 2012 by Mr. Bryant or a member of the RMA staff with an update regarding the search for these materials.

As indicated earlier in this letter, Dave Bryant or a member of his staff will contact you on or by February 15, 2012, for an update on the projects where the search continues for the requested materials.

Please be advised that the County charges $0.10 per page for copying of records.

You should further be aware that under the Public Records Act, the County is not obligated to create records which do not exist. The California Public Records Act only requires that the public agency respond to requests for those specific records existing within its files. (California Government Code 6252(e), 6253(b); *Rosenthal* v. *Hansen* (1973) 34 Cal.App.3d 754.) If you have any questions or concerns, please contact me.

Very truly yours,
KATHLEEN BALES-LANGE
County Counsel

By _____
Diana L. Perez
Deputy County Counsel

DLP/1/31/2012/20112023/438910

Peter Clum's Public Comments to Tulare County Board of Supervisors, February 7, 2012

The RDEIR page 3.6-29 provides "The Tulare County Flood Control District, a countywide district governed by the County Board of Supervisors, is the local flood management agency. Tulare County participates in the National Flood Insurance Program Communiting Rating System, uses FEMA insurance rate maps, and enforces Ordinance Code of Tulare County, Part VII Chapter 27, Flood Damage Prevention."

I find it ironic and troubling that at the same time the County seems to finally have assigned some urgency to bringing its Flood Damage Prevention Ordinance into compliance with FEMA NFIP requirements, County Counsel in a letter dated February 1, 2012, to Carole and myself seems to

state the County has no role to play in the notification of other agencies of (1) alteration or relocation of a watercourse or (2) base flood elevation changes due to physical alteration resulting from development in the special flood hazard area unless the County is the entity initiating the development. Such a position is directly at odds with the Code of Federal Regulations, the California Model Floodplain Management Ordinance, and the very section of the ordinance before you for action today, i.e., Section 7-27-1100(c). County Counsel's language in paragraphs numbered "3" and "4" on page 2 of the letter suggests a profound lack of understanding of FEMA requirements, a lack of commitment to ensure the integrity of the Tulare County Flood Damage Prevention Ordinance, and a lack of commitment to ensure regulatory compliance.

Prior to taking any action on the proposed amendments, I believe it is appropriate the Board compare items "3" and "4" on page 2 of the letter with Section 7-27-1100(c) (pages 11 of 16 and 11 of 15 respectively of the agenda items) and ask County Counsel to reconsider what the County's responsibilities are under the Flood Damage Prevention Ordinance.

Attachment A

U.S. Department of Homeland Security
1111 Broadway, Suite 1200
Oakland, CA 94607-4052

FEMA

November 25, 2011

Mr. Jack Raper
Resource Management Agency Director
Government Plaza- (RMA Headquarters)
5961 South Mooney Boulevard
Visalia, CA 93277

Dear Mr. Raper:

The U.S. Department of Homeland Security's Federal Emergency Management Agency (FEMA) wishes to thank you for the courtesy extended by Tulare County staff during the Community Assistance Visit on August 11, 2010. The purpose of the meeting was to provide your staff with the most current information on the National Flood Insurance Program (NFIP), give them an opportunity to discuss concerns they might have had, and assess the County's enforcement of the local floodplain management ordinance that was adopted to meet requirements of the NFIP. There were several follow-up items for the community to complete, and nearly all of these were completed. Some of these tasks were difficult, while others were recommendations. It is very much appreciated that Tulare County went above and beyond the minimum requirements of the NFIP to address several of these issues, particularly increasing the involvement of the Building Department, developing procedures, actively seeking and taking advantage of floodplain management training opportunities (including the Emergency Management Institute in Emmitsburg, MD), community coordination during times of boundary changes, and hiring additional floodplain management staff.

FEMA's evaluation of Tulare County's floodplain management ordinance indicates that the County has not completely and effectively revised its floodplain management regulations. Although several edits were made and subsequently adopted on June 9, 2011, the County is currently not in compliance with NFIP regulations. These regulations are specified in the attached memo. The failure to have a compliant community ordinance is a serious violation of the NFIP and could be grounds for probation.

As yet, there has been no discussion about when these revisions will be adopted. The omission of some of these requirements has been especially concerning in view of several calls made to FEMA by concerned Tulare County citizens regarding the proposed Yokohl Ranch project.

Tulare County is required to complete the following: 1) develop draft language for the remaining required ordinance revisions itemized in the attached memo; and 2) inform FEMA of the anticipated date of adoption of the updated ordinance. The draft of the revised ordinance is due to this office by December 30, 2011. A copy of the CA State Model Ordinance has been attached for language reference and for reference to corresponding NFIP regulations.

If you have any questions, or if I can be of any assistance, please call me at (510) 627-7183 or e-mail me

Attachment 11

at jane.hopkins@fema.dhs.gov.

Sincerely,

Jane Hopkins
Community Compliance
National Flood Insurance Program

Enc: Ordinance Review Memo
California State Model Ordinance

Cc: Mr. James May, Surveyors/Flood Control/Subdivision Engineer, Tulare County
Mr. Edward Perez, Water Resources Engineer, California Department of Water Resources

Regarding the ordinance review, several of the memo items were addressed. However, there are still some omissions:

1) After the changes below have been adopted, a copy of the revised ordinance, including signature(s) of appropriate official(s); certification (*e.g.*, seal/stamp); and date of ordinance adoption.
2) In the "Notification of Other Agencies" section, there are still some omissions. The first refers to the requirement to notify DWR and other adjacent communities about "alteration and relocation of a watercourse". This requirement corresponds to section 4.2.D.1.a of the California State Model Ordinance, which has been attached for convenient referral.
3) The second omission from the "Notification of Other Agencies" section is the requirement to maintain the carrying capacity of an altered or relocated watercourse. This requirement corresponds to section 4.2.D.1.c of the California State Model Ordinance.
4) In section 17-27-1180-e, it would make sense to revise "and must exceed the following minimum criteria" to state "and must meet the following minimum criteria ".
5) Section 17-27-1180-e.1 must have language specifying that the flood openings have to be placed "on different sides" of a structure.
6) Section 17-27-1180-e.1 must be revised to correspond to California State Model Ordinance sections 5.1.C.3.a.3 **and** 5.1.C.3.a.4 **or** 5.1.C.3.b
7) Regarding 7-27-1180-c, the language must be revised such that 7-27-1180-c-3 is the mandatory first step, and preferably, the only step. If The County chooses to retain the options of 7-27-1180-c-1 and 7-27-1180-c-2, FEMA strongly recommends consulting with the County attorney in order to address the potential liability of flood level exceeding either of these two default limits. This is not to say that these two alternate limits could not be used in the absence of any data to support 7-27-1180-c-3; one of those alternatives might be what is decided without any data to support a locally developed BFE. This edit might prove useful in a situation with flooding exceeding either of these limits, and a judge asking why a certain elevation limit was selected that resulted in damages.
   Another perspective about elevation can be found in the FEMA Flood Insurance Manual, in which increased elevation corresponds to less expensive flood insurance. Below is an example excerpted from the manual. The link to this document is included here:
   http://www.fema.gov/pdf/nfip/manual200910/cover.pdf

TABLE 3C. REGULAR PROGRAM -- POST-FIRM CONSTRUCTION RATES
ANNUAL RATES PER $100 OF COVERAGE
(Basic/Additional)

UNNUMBERED ZONE A --WITHOUT
BASEMENT/ENCLOSURE/CRAWLSPACE1,6

Elevation
Difference to nearest foot BUILDING RATES CONTENTS RATES TYPE OF ELEVATION

CERTIFICATE
Occupancy Occupancy
1-4 Family Other & Non-
Residential
Residential2 Non-
Residential2
+5 or more .35 / .10 .47 / .15 .61 / .12 .64 / .12
NO ESTIMATED
BASE FLOOD ELEVATION3
+2 to +4 1.08 / .13 .99 / .20 .86 / .17 .97 / .23
+1 2.07 / .63 2.23 / .74 1.52 / .56 1.45 / .71
0 or below *** *** *** ***
+2 or more .40 / .08 .33 / .09 .50 / .12 .48 / .12
WITH THE ESTIMATED
BASE FLOOD ELEVATION4
0 to +1 1.05 / .12 .90 / .18 .84 / .16 .83 / .21
-1 3.45 / 1.29 4.37 / 1.01 2.68 / .69 2.18 / 1.01
-2 or below *** *** *** ***
No Elevation
Certificate5 4.02 / 1.41 5.45 / 1.68 3.33 / .99 3.21 / 1.34 No Elevation
Certificate

California Ordinance Review Checklist

March 25, 2007

Community: Tulare County, CA

Level of Regulations: a b c √d e
(If a community has both floodways & coastal high hazard areas, circle d & e.) (circle one)

Ordinance Numbers: Chapter 27 part VII(09/29/86); 3212, (1998); & 3287 (2003)
Adopted on: 05/20 2003 **Effective date:** 06/19/03

Date of Review: 09/13/2010 **Reviewer:** J. Hopkins **FEMA STATE- CA**

NOTE: The "Item Description" is a synopsis of the regulatory requirement and should **not** be construed as a complete description. Refer to the actual language contained in the National Flood Insurance Program Rules and Regulations for complete descriptions of the required standards.

Item Description (Section reference of NFIP Regulations follows)	CA State Model Ordinance Section	Applicable Ordinance Section
Required provisions for all ordinances		
1. Citation of Statutory Authorization. **[59.22(a)(2)]**	1.1	17-27-1001
2. Purpose section citing health, safety, and welfare reasons for adoption. **[59.22(1)]**	1.2 & 1.3	17-27-1002
. Adopt definitions of: ☑ Base Flood ☑ Basement ☐ Development ☑ Existing Manufactured Home Park or Subdivision ☑ Expansion to an Existing Manufactured Home Park or Subdivision ☑ Flood Insurance Rate Map ☑ Flood Insurance Study ☑ Floodproofing ☑ Floodway ☑ Highest Adjacent Grade ☐ Historic Structure ☑ Lowest Floor ☑ Manufactured Home ☑ Manufactured Home Park or Subdivision ☐ New Construction ☐ New Manufactured Home Park or Subdivision ☐ Recreational Vehicle ☐ Special Flood Hazard Area ☑ Start of Construction ☐ Structure ☑ Substantial Damage ☑ Substantial Improvement ☑ Violation and other definitions as appropriate. **[59.1]**	NOTE: Definitions for Existing, Expansion to An Existing or New Manufactured Home Park are not required if community requires elevation of all manufactured homes to the BFE (1986 regulations). 2.0	17-27-1010 **Refer to enclosed ordinance review memo for file: items # 1. a-g.**
4. Adopt or reference correct Flood Insurance Rate Map (and where applicable, Flood Boundary Floodway Map) and date.[1] **[60.2(h)]**	3.2	17-27-1020
5. Adopt or reference correct Flood Insurance Study and date.[1] **[60.2(h)]**	3.2	17-27-1020
Include a reference to all subsequent revisions and amendments to above-referenced flood maps and Flood Insurance Study.	3.2	17-27-1020

Community: Tulare County — Level of Regulations: a b c √d e

7. Adequate enforcement provisions including a violations/penalty section specifying community actions to assure compliance. [60.2(e)]	3.3	17-27-1025
8. Abrogation and Greater Restriction section. [60.1(b)]	3.4	17-27-1030

1 If a community has annexed territory (e.g. county land) not covered on its flood maps or FIS, the FIS and appropriate FIRM panels (usually County) must be adopted.

Item Description (Section reference of NFIP Regulations follows)	State Model Ordinance Section	Applicable Ordinance Section
Required provisions for all ordinances (continued)		
9. Disclaimer of Liability (Degree of flood protection required by the ordinance is considered reasonable but does not imply total flood protection.)	3.6	17-27-1040
10. Severability section. (If any section, provision or portion of the ordinance is deemed unconstitutional or invalid by a court, the remainder of the ordinance shall be effective.)	3.7	17-27-1041
11. Framework for administering the ordinance (permit system, establish office for administering the ordinance, etc.) [59.22(b)(1)]	4.0	17-27-1095 & 17-27-1100
12. Designate title of community Floodplain Administrator [59.22 (b)]	4.1	17-27-1095
13. Requirement to submit new technical data: within 6 months, notify FEMA of changes in the base flood elevation by submitting technical or scientific data so insurance & floodplain management can be based on current data. [65.3]	4.2.D.2	Missing Refer to enclosed ordinance review memo for file: item # 2.
14. Variance section with evaluation criteria & insurance notice. [60.6(a)]	6.0	17-27-1080-a & 17-27-1080-b-1
15. For adopted ordinance: Signature of Appropriate Official & Certification. Date ordinance adopted: _____	N/A	Missing Refer to enclosed ordinance review memo for file: item # 3.
60.3 (a) When no SFHA's have been identified, no water surface elevation data has been provided, and floodways and coastal high hazards areas have not been identified and the community applies for participation in the NFIP, the following are required:		
16. Require permits for all proposed construction or other development including placement of manufactured homes. [60.3(a)(1)]	N/A for 60.3(b)-(e) communities	N/A
17. Assure that all other State and Federal permits are obtained. [60.3(a)(2)]	4.2.A.2	Missing Refer to enclosed ordinance review memo for file: item # 4.
18. Review permits to assure sites are reasonably safe from flooding and require for new construction and substantial improvements in flood-prone areas: [60.3(a)(3)]	4.2.A.3	17-27-1170-a-2
(a) Anchoring (including manufactured homes) to prevent floatation, collapse, or lateral movement. [60.3(a)(3)(i)]	5.1.A	17-27-1170
(b) Use of flood-resistant materials. [60.3(a)(3)(ii)]	5.1.B.1	17-27-1175-a
(c) Construction methods/practices that minimize flood damage. [60.3(a)(3)(iii)]	5.1.B.2	17-27-1175-b

Community: Tulare County Level of Regulations: a b c √d e

(d) Electrical, heating, ventilation, plumbing, air conditioning equipment, and other service facilities designed and/or located to prevent water entry or accumulation. **[60.3(a)(3)(iv)]**	5.1.B.3	17-27-1175-c
19. Review subdivision proposals to assure that: (a) Such proposals minimize flood damage. **[60.3(a)(4)(i)]**	5.3.B	**Missing** **Refer to enclosed ordinance review memo for file: item # 5.**
(b) Public utilities and facilities are located & constructed so as to minimize flood damage. **[60.3(a)(4)(ii)]**	5.3.C	**Missing** **Refer to enclosed ordinance review memo for file: item # 6.**
(c) Adequate drainage is provided. **[60.3(a)(4)(iii)]**	5.3.D	**Missing** **Refer to enclosed ordinance review memo for file: item # 7.**
20. Require new and replacement water supply and sanitary sewer systems to be designed to minimize or eliminate infiltration. **[60.3(a)(5) & (6)]**	5.2 A.1 & 2	**17-27-1200-a**
21. Require on-site waste disposal systems be located to avoid impairment or contamination. **[60.3(a)(6)(ii)]**	5.2.B	**17-27-1200-b**

Community: Tulare County Level of Regulations: a b c √d e

Item Description (Section reference of NFIP Regulations follows)	State Model Ordinance Section	Applicable Ordinance Section
60.3(b) When SFHA's are identified by the publication of a community's FHBM or FIRM, but water surface elevation data have not been provided or a floodway or coastal high hazard area has not been identified, then all the above ordinance provisions for 60.3(a) and the following are required:		
22. Require permits for all proposed construction and other development within SFHAs on the FIRM. **[60.3(b)(1)]**	4.3	**17-27-1090**
23. Require base flood elevation data for subdivision proposals or other developments greater than 50 lots or 5 acres. **[60.3(b)(3)]**	5.3.A	**Missing Refer to enclosed ordinance review memo for file: item # 8.**
24. In A Zones, in the absence of FEMA BFE data and floodway data, consider other available data as basis for elevating residential structures to or above base flood level, and for floodproofing or elevating nonresidential structures to or above base flood level. **[60.3(b)(4)]**	4.2.C	**17-27-1100-b**
25. Where BFE data are utilized, obtain and maintain records of lowest floor and floodproofing elevations for new construction and substantial improvements. **[60.3(b)(5)]**	4.2.E.1 & 2	**17-27-1100-b-4 & 17-27-1100-c**
26. Notify neighboring communities of watercourse alterations or relocations. **[60.3(b)(6)]**	4.2.D.1.a	**17-27-1100-b Incomplete Refer to enclosed ordinance review memo for file: item # 9.**
27. Maintain carrying capacity of altered or relocated watercourse. **[60.3(b)(7)]**	4.2.D.1.c	**Missing Refer to enclosed ordinance review memo for file: item # 10.**
28. Require all manufactured homes to be elevated and anchored to resist flotation, collapse, or lateral movement. **[60.3(b)(8)]**	5.1.A, 5.1.C.4, & 5.4	**17-27-1210 & 17-27-1170**
60.3(c) When final flood elevations, but no floodways or coastal high hazard areas have been provided on a community's FIRM, then all the above ordinance provisions for 60.3(a) & 60.3(b) and the following are required:		
29. Require all new and substantially improved residential structures within A1-30, AE, and AH Zones have their lowest floor (including basement) elevated to or above the BFE. **[60.3(c)(2)]**	5.1.C.1.a	**17-27-1180-a**
30. In AO Zones, require that new and substantially improved residential structures have their lowest floor (including basement) at or above the highest adjacent grade at least as high as the FIRM's depth number. **[60.3(c)(7)]**	NOTE: Item 29 is not required if community has no AO zones.	
	5.1.C.1.b	**17-27-1180-b & 17-27-1180-c**

Community: Tulare County — Level of Regulations: a b c √d e

31. Require that new and substantially improved nonresidential structures within A1-30, AE, and AH Zones have their lowest floor elevated or floodproofed to or above the base flood elevation. **[60.3(c)(3)]**	5.1.C.2	17-27-1180-d
32. In AO Zones, require new and substantially improved nonresidential structures have their lowest floor elevated or completely floodproofed above the highest adjacent grade to at least as high as the depth number on the FIRM. **[60.3(c)(8)]**	NOTE: Item 31 is not required if community has no AO zones.	
	5.1.C.2	17-27-1180-d
33. Require that, for floodproofed non-residential structures, a registered professional/architect certify that the design and methods of construction meet requirements at (c) (3) (ii). **[60.3(c)(4)]**	5.1.C.2.c	17-27-1180-d

Community: Tulare County — Level of Regulations: a b c √d e

Item Description (Section reference of NFIP Regulations follows)	State Model Ordinance Section	Applicable Ordinance Section
60.3(c) (continued)		
34. Require, for all new construction and substantial improvements, that fully enclosed areas below the lowest floor that are usable solely for parking of vehicles, building access or storage have permanent openings designed to allow the entry and exit of flood waters in accordance with specifications of **60.3(c)(5).**	5.1.C.3	**17-27-1180-e Incomplete Refer to enclosed ordinance review memo for file: item # 11.**
35. Within Zones A1-30 and AE without a designated floodway, new development shall not be permitted unless it is demonstrated that the cumulative effect of all past and projected development will not increase the BFE by more than 1 foot. **[60.3(c)(10)]**	NOTE: Item 34 is not required if *all* streams have floodways designated.	
	4.2.A.4 & 5.6.A	**17-27-1180-a-3 & 17-27-1215-b Unclear &/or missing Refer to enclosed ordinance review memo for file: item # 12.**
36. In Zones AO and AH, require drainage paths around structures on slopes to guide water away from structures. **[60.3(c)(11)]**	NOTE: Item 35 is not required if community has neither AO nor AH zones.	
	5.1.B.4	**17-27-1175-d**
37. Require that manufactured homes placed or substantially improved within A1-30, AH, and AE Zones, which meet one of the following location criteria, to be elevated such that the lowest floor is at or above the BFE and be securely anchored: i. outside a manufactured home park or subdivision; ii. in a new manufactured home park or subdivision; iii. in an expansion to an existing manufactured home park or subdivision; iv. on a site in an existing park which a manufactured home has incurred substantial damage as a result of flood. **[60.3(c)(6)]**	NOTE: Item 36 is not required if community requires elevation of all manufactured homes to the BFE (1986 regulations).	
	5.1.A, 5.4.A.1 (non-coastal) & 5.4.A.2 (coastal)	**17-27-1210**
38. In A1-30, AH, and AE Zones, require that manufactured homes to be placed or substantially improved in an existing manufactured home park to be elevated so that: i. the lowest floor is at or above the BFE ***or*** ii. the chassis is supported by reinforced piers no less than 36 inches above grade and securely anchored. **[60.3(c)(12)]**	NOTE: Item 37 is not required if community requires elevation of all manufactured homes to the BFE (1986 regulations).	
	5.4.B	N/A
39. In A1-30, AH, and AE Zones, all recreational vehicles to be placed on a site must be elevated and anchored ***or*** be on the site for less than 180 consecutive days ***or*** be fully licensed and highway ready. **[60.3(c)(14)]**	5.5	**17-27-1211**
60.3(d) When final flood elevations and floodway delineations have been provided on a community's FIRM, then all the above ordinance provisions for 60.3(a), 60.3(b) & 60.3(c) and the following are required:		
40. In a regulatory floodway, prohibit any encroachment which would cause any increase in the base flood level unless hydrologic and hydraulic analyses prove that the proposed encroachment would not increase flood levels during the base flood discharge. **[60.3(d)(3)]**	5.6.B	**17-27-1215-a**

Community: Tulare County | Level of Regulations: a b c √d e

Item Description (Section reference of NFIP Regulations follows)	State Model Ordinance Section	Applicable Ordinance Section
60.3(e) When final flood elevations and coastal high hazard areas have been provided on a community's FIRM, then all the above ordinance provisions for 60.3(a), 60.3(b) & 60.3(c) and the following are required: **NOTE: If a community has both floodways and coastal high hazard areas, it must meet the requirements of both 60.3(d) and 60.3(e).**		
41. In V1-30, VE, and V Zones, obtain and maintain the elevation of the bottom of the lowest structural member of the lowest floor of all new and substantially improved structures. **[60.3(e)(2)]**	4.2.E.6 & 5.7.F.2	
42. In V1-30, VE, and V Zones, require that all new construction and substantial improvements: (a) Are elevated and secured to anchored pilings or columns so that the lowest portion of the lowest horizontal structural member is at or above the BFE. **[60.3(e)(4)]**	5.7.A	
(b) A registered professional engineer/architect certify that the design and methods of construction meet elevation and anchoring requirements at (e)(4)(i) and (ii). **[60.3(e)(4)]**	5.7.F.1	
(c) Have the space below the lowest floor constructed with breakaway walls or left open. **[60.3(e)(5)]**	5.7.C	
(d) All new construction is landward of the reach of mean high tide. **[60.3(e)(3)]**	5.7.B	
(e) Prohibit use of fill for structural support. **[60.3(e)(6)]**	5.7.D	
(f) Prohibit alteration of sand dunes and mangrove stands which would increase potential flood damage. **[60.3(e)(7)]**	5.7.E	
43. Require that manufactured homes placed or substantially improved within V1-30, VE, and V Zones, which meet one of the following location criteria, meet the V Zone standards in 60.3(e)(2) through (e)(7): i. outside a manufactured home park or subdivision; ii. in a new manufactured home park or subdivision; iii. in an expansion to an existing manufactured home park or subdivision; iv. on a site in an existing park which a manufactured home has incurred substantial damage as a result of flood. **[60.3(e)(8)]**	NOTE: Item 43 is not required if community requires all manufactured homes meet the V Zone standards (1986 regulations). 5.4.A.2	
44. In V1-30, VE and V Zones, require that manufactured homes to be placed or substantially improved in an existing manufactured home park to be elevated so that: i. the lowest floor is at or above the BFE, ***or*** ii. the chassis is supported by reinforced piers no less than 36 inches above grade and securely anchored. **[60.3(e)(8)(iv); 60.3(c)(12)]**	NOTE: Item 44 is not required if community requires all manufactured homes meet the V Zone standards (1986 regulations). 5.4.B	
45. In V1-30, VE, and V Zones, all recreational vehicles to be placed on a site must be elevated and anchored or be on the site for less than 180 consecutive days or be fully licensed and highway ready. **[60.3(e)(9)]**	5.5.B	

Read 10/12/11

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October 10, 2011

J. Peter Clum
45638 South Fork Drive
Three Rivers, CA 93271-9610

Re: PRA: Peter Clum-Flood Control/FEMA
Our File Number: 2011440

Dear Mr. Clum:

Our office represents the Tulare County Resource Management Agency (Agency) in this matter. This letter is in response to your letter dated September 26, 2011. (Copy enclosed.) Please be advised that nothing in this response should be considered as a waiver of the right of the Department to assert any and all claims of exemptions or privileges to the inspection of the whole or any part of the record.

You requested in your letter for "documentary evidence" if "the Flood Control Master Plan (Tulare County Ordinance, Part VII, Chapter 27), has been approved by FEMA." The Flood Control Master Plan and the Tulare County Ordinance, Part VII, Chapter 27 (Flood Damage Prevention Ordinance) are separate individual documents. Your letter indicates that the General Plan 2030 Update RDEIR makes reference to FEMA approval of the Tulare County Ordinance, Part VII, Chapter 27 (Flood Damage Prevention Ordinance) on page 3.6-53. You request documentation of this Ordinance approval referenced in the RDEIR. There is no record of FEMA approval for the Flood Damage Prevention Ordinance. Please see the attached Agenda Item for the latest Ordinance amendment and correspondence with FEMA.

Attachment 12

If you have any questions, please call me at (559) 636-4950.

Very truly yours,
KATHLEEN BALES-LANGE
County Counsel

By _____
Tammy Wightman
Paralegal

Copy enclosed

TJW/20111440/10/10/11/412199

TULARE COUNTY WATER COMMISSION
MEETING MINUTES
March 28, 2011

Members Present:

Dale Brogan, District 2 Appointee
Paul Boyer, District 1 Appointee
Laurel Firestone, At-Large Appointee
Bruce George, District 3 Appointee
Allen Ishida, Board Representative and Chairman
Keith Watkins, At-Large Appointee

Members Absent:

Chris Kapheim, District 4 Appointee
Dennis Keller, At-Large Appointee
Richard L. Schafer, District 5 Appointee
Mike Ennis, Board Alternate Representative
Rudy Mendoza, TCAG Representative

Staff Present:

Denise Akins, Tulare County Board of Supervisors Office
Jim May, Tulare County Resource Management Agency
Mike Bairstow, Tulare County Environmental Health
Arlene Silva, Tulare County Counsel

Members of the Public who voluntarily provided their names on the attendance sheet:

Carole Clum
Richard Garcia
Matt Hurley
Shane Smith
Mark Larson
Michael Tharp

1. CALL TO ORDER

2. PUBLIC COMMENT PERIOD

Carole Clum of Three Rivers stated that the heavy rains in December 2010 and March 2011 caused damage to roads, shoulders, and slopes in the foothill area. Ms. Clum indicated that Tulare County's Foothill Growth Management Plan does not require Low Impact Development as recommended by the Regional Water Quality Control Board. Ms. Clum believes that this omission will result in costly road damage, water quality degradation and increase flood risk in the foothills and valley.

Ms. Clum distributed a handout that reported the warming effect of melting ice fields.

Attachment 13

3. APPROVAL OF MINUTES FROM MARCH 7, 2011 MEETING

A quorum was not present; therefore this item is continued to the May 9, 2011 meeting.

4. ADOPT AMENDED BY-LAWS TO REFLECT NEW MEETING TIME.

A quorum was not present; therefore this item is continued to the May 9, 2011 meeting.

5. PRESENTATION FROM TULARE COUNTY FLOOD CONTROL COMMISSION

Jim May of Tulare County Resource Management Agency gave a presentation on the recently re-convened Tulare County Flood Control Commission. Mr. May reported the Flood Control Commission met on March 23, 2011. He stated that Bruce George is Chair of the Commission and Dale West is Vice Chair. Mark Larson has been nominated to fill the seat that was previously occupied by George Serpa.

Mr. May reported that Flood Control projects are under the management of the US Army Corps of Engineers on Deer Creek, White River, and Frazier Creek as well as the Success Dam. The Flood Control Commission discussed possible future projects at their meeting. That discussion centered around development of detention basins throughout the County. Additionally the Commission determined there was a need for a database that recorded flow volumes throughout the County so that they could more accurately address problems and assign areas for detention ponds.

Mr. May stated that the next Flood Control Commission meeting will be April 29, 2011 at 10:00 am.

Chairman Ishida added that there are numerous Flood Control projects that need to move forward but lack funding. He indicated that there is significant money in reserve for the Success Dam remediation project. However, the Success Dam project has been delayed several times and there is no start date set for that project and may not start for twenty years or more. Chairman Ishida requested those reserves be put to better use by funding other projects and attaining other flood control objectives.

Commissioner Boyer asked about the basin near Seville in the Stone Coral Irrigation District. He questioned whether or not water had been diverted to that basin during the recent flood events. Mr. May responded that the basin was not specifically addressed during the Flood Control Commission meeting, but when he last traveled to the basin there was no water in it. The Commission did discuss maintaining conveyances during flood events.

Chairman Ishida requested the Flood Control Commission consider ways to remove silt from the storm runoff before depositing the water in irrigation district basins. The silt prevents the basins from percolating correctly and costly work has to be done to rehabilitate the basins.

Commissioner Firestone asked if the Flood Control objectives were part of the Master Plan. Mr. May indicated that the Flood Control Commission had a Master Flood Control Plan for Tulare County that dated back to 1971. Mr. May reported that there had been plans to update the Flood Control Master Plan, but the update has not occurred. He indicated a priority is to get the Flood Control Master Plan updated and the topic will be discussed at the next Flood Control Commission

meeting.

6. SUBCOMMITTEE REPORT

Commissioner Firestone reported that the State is finalizing the Disadvantaged Community Study Agreement with the DWR.

Commissioner Boyer reported that the Upper Kings Basin Integrated Water Management Authority is performing a Disadvantaged Community Study as well. Their study is more focused and detailed than the Tulare Lake Basin Study. They are still in the planning stages for that study.

Chairman Ishida commented that Tulare County will work with other counties to share information to make sure stakeholders are reached. He stated that there is a Pacific Institute Study that has been done and some of the work detailed in the Tulare Lake Basin Disadvantaged Community Study could be gleaned from the Pacific Institute data.

Commissioner Firestone reported that the Interagency Task Force will hold a meeting May 3, 2011 at UC Davis from 10:00 am- 3:00 pm that will include preliminary results from the Nitrate Study. Commissioner Firestone will be attending the meeting and will provide a brief report back to the Tulare County Water Commission.

Mike Bairstow, Tulare County Environmental Health, provided a handout on the upcoming EPA Nitrate and groundwater webcast scheduled for March 29, 2011.

7. COMMISSIONERS COMMENTS

Commissioner Firestone commented that package of bills, six different bills, has been introduced in the state legislature on the Human Right to Water. There are six different bills in the Assembly and Senate. One of the bills restates that everyone is entitled to a basic amount of affordable and safe drinking water. The other five bills are focused on implementing that concept at a practical level.

Chairman Ishida commented that the grant application process is too expensive and the state must be made aware of the problem.

Commissioner Boyer commented that the State Regional Water Quality Control Board is reviewing their final use plan for Waste Water Treatment funding. The deadline for comments will be in April.

8. NEXT MEETING – MONDAY, MAY 9, 2011 3:00 P.M. – BOARD OF SUPERVISORS CHAMBERS

9. ADJOURN

Respectfully submitted,

Richard L. Schafer, Secretary
Tulare County Water Commission

MINUTES OF THE
TULARE COUNTY FLOOD CONTROL COMMISSIONERS MEETING
July 19, 2011

Commissioners present: Dale Brogan, Bruce George, Steve Martin, Dale West, Dan Vink

Commissioners Absent: Walter Bricker

County Representation: Arlene Silva-County Counsel, James May –Flood Control District Engineer

Visitors: Mark Larsen – KDWCD, Shane Smith - KDWCD

Meeting called to order at 3:02 PM

Change in the 6/24/11 Minutes requested by Arlene Silva, on the first page, fourth paragraph from the bottom, following the word "provided", add "consistent of Section 111-7 of the Water Code". Approval of April 29, 2011 Minutes moved by Commissioner Vink, second by Commissioner West. Unanimous approval of the action.

There were no public comments.

Continuing discussion on Commissioners residency requirements, Arlene noted the prior waivers of incorporated Cities, recommendation to revert to State Law requirements and state that the TCAG submittal of candidates be removed. Allow the removal of other restrictions but continue with Maddy Act.
Commissioner Brogan brought up Commissioners compensation Commissioner Vink agreed that requiring compensation should be removed from the new Resolution or made voluntary upon request. Commissioner George thought mileage should be included. Commissioner Brogan thought discretionary should be the language. County is to supply forms for mileage reimbursement if discretionary. Approval of the altered Resolution was moved by Commissioner Vink, Commissioner George's recollection was that a new member estimated miles from home, and that Mike Whitlock would provide a form to each for signature accepting reimbursement for mileage and perhaps meeting attendance also. Request must be submitted for reimbursements. Mileage reimbursement is optional also meeting if permissible by statute. Commissioner West seconded on Commissioner Vink's motion. In discussion -Deletion of TCAG provision of candidates and deletion of each Supervisor submittal of two candidates. Unanimous approval of the action.

Regarding the Flood Control District staffing changes, it was noted the potential hire of the Engineer III position to work 50% on Flood Control project development.

Attachment 14

For District funding, the Commission requested cash flow summary and stream for the last two years, to provide an indication of funding for potential projects, where the funds have been programmed in the past and present, by Agency or Department. It should also note how the prior reserves for Success Dam project may be utilized for other works.

The need for a Flood Control Master Plan was discussed and its connection for development of future projects concern for update similar to Spinks Corp Study in 2001 to identify Hot Spots and what we could do, without spending the major portion of project dollars on a study. Provide a broader look at the County as a whole. The new Engineer should review the Murray, Burns Plan to determine what is feasible within 20 years. Commissioner West noted that the area identified in the Study was constructed and is functioning. Chairman George requested an evaluation of an overlay of the past winter flood areas on the existing Master Planning.
A projects list will be sent to all of the Commissioners for consideration.

There was no other business.

The regular meeting was confirmed for August 26, 2011 at 8:00 AM, with the exception that if there is no meaningful progress on project development by the new Engineer or staff that the meeting be postponed until the fourth Friday of September at 8:00 AM.

Meeting was adjourned by Chairman George at 4:06 PM.

MINUTES OF THE
TULARE COUNTY FLOOD CONTROL COMMISSIONERS MEETING
September 23, 2011

Commissioners present: Walter Bricker, Dale Brogan, Mark Larsen, Dale West, Dan Vink

Commissioners Absent: Steve Martin

County Representation: Nina Dong-County Counsel, James May –Flood Control District Engineer

Visitors: Carol Clum, Peter Clum, Shane Smith – KDWCD, Denise Akins - CAO

Meeting called to order at 8:22 AM

Approval of July 19, 2011 Minutes moved by Commissioner Brogan, second by Commissioner Larsen. Unanimous approval of the action.

Public comments announced the Board of Supervisors appointment of Mark Larsen to the vacant seat on the Flood Control Commission.

Election of Officers: Dan Vink was nominated for Commission Chairman, with a second by Dale Brogan and unanimous approval. Dale Brogan nominated Dale West as Vice Chairman and was seconded by Walter Bricker and confirmed by a unanimous vote.

Staff report on the Flood Control District distributed recently approved formation Documents constituting the Flood Control Commission. It was pointed out the policy on reimbursement rate and quarterly submission of request for reimbursement for Commissioners. Commissioner Larsen was appreciative of the organization explanation of why the Commissioners are appointed to the Commission and not the Flood Control District, and that the District was formed under provisions on the California Water Code in the Flood Control District Act. Wherein the County Board of Supervisors governs the Flood Control District and is allowed to appoint administrators as noted in the Act, to perform administration on their behalf. The Flood Control Commission is their appointed administrative function. Commissioner Larsen did recall that the Board of Supervisors often did switch from the County Board to the Board of the Flood Control District when dealing with flood control matters, and then back to the County Board of Supervisors for other County matters.

Report on staff changes that the earlier recruitment process was unsuccessful, however a current recruitment produced candidates that were scheduled to interview September 27th and that the hiring process should complete within six weeks. Staff

Attachment 15

reiterated that the new Engineer III will work 50% of the time on flood control work and 50% of the time on the Yokohl Ranch project processing.

The report on fiscal matters of the District was discussed and determined that the format of the information given was much broader than was expected, and needs to be reduced. Denise Akins suggested that the County's AFIN report might be more understandable, and that she will provide assistance to develop the data.

It was reported that no progress has been made on the Flood Control Master Plan Update.

There was no other business.

The regular meeting was confirmed for October 28, 2011 at 8:00 AM, with the provision that if there is no meaningful subject matter for discussion the meeting will be postponed.

Meeting was adjourned by Chairman Vink at 9:40 AM.

MINUTES OF THE
TULARE COUNTY FLOOD CONTROL COMMISSIONERS MEETING
October 28, 2011

Due to a procedural error, the audio recording of the October 28, 2011 Flood Control Commission meeting was lost before the minutes could be transcribed. The following were developed from brief notes taken during that meeting.

Commissioners present: Walter Bricker, Mark Larsen, Steve Martin, Dale West, Dan Vink

Commissioners absent: Dale Brogan

County Representation: Denise Akins- CAO, Clint Sims-County Counsel, James May –Flood Control District Engineer

Visitors: Peter & Carol Clum, Shane Smith – KDWCD

Meeting called to order at 8:04 AM

Approval of September 23, 2011 Minutes moved by Mark Larsen, second by Walter Bricker. Unanimous vote.

Public comments were offered by Carol Clum regarding locations of storm water ponding basins on or in close proximity to closed landfills. The potential for leaching nitrates from landfills into the ground water was the concern.

During staff report, the Commissioners requested direction on the use of current Success Dam reserve funds. The Commissioners also identified that they would like to be involved in the budget preparation process for the Tulare County RMA 2012/2013 Flood Control District budget.

Landowner maintenance issues of water courses throughout the County were recognized as potential threat to flood management objectives. Staff explained that nearly all watercourses in the County were held in private ownership, with resultant limitation or blockage of maintenance efforts.

The expected addition of an Engineer to the RMA Flood Control Division was reported to have been unsuccessful again.

No progress was noted on a Tulare County Flood Control Master Plan Update.

Concern was expressed for the County/USGS real time Deer Creek stream flow gage. Snow avalanche at Farewell Gap threatened the tower at that location.

Attachment 16

A request for preparation of individual Flood Control Commissioner binders was made and agreed. Denise Akins will supply a prototype, and RMA Clerical will be assigned the task of preparing the 7 binders. The binders will remain on site for updates after each meeting.

Having established the fourth Friday of the month at 8:00 AM for the regular meeting, it was recognized that the Thanksgiving holiday will prevent attendance by most Commissioners during the later part of November. The next meeting was scheduled for Friday December 16 at 8:00 AM, was approved by unanimous vote.

Meeting was adjourned by Chairman Vink at 9:35 AM.

MINUTES OF THE
TULARE COUNTY FLOOD CONTROL COMMISSIONERS MEETING
February 3, 2012

Commissioners present: Walter Bricker, Mark Larsen, Dale West, Dan Vink

Commissioners absent: Dale Brogan, Steve Martin

County Representation: Denise Akins- CAO, Clint Sims-County Counsel, Kuna Muthusamy, Alfredo Reynoso-Haro, and James May-Tulare County RMA

Visitors: Ana Rubio & Mario Torres-Tulare County Grand Jury, Shane Smith – KDWCD

1. Meeting called to order at 8:04 AM

2. Approval of September 23, 2011 Minutes moved by Dale West, second by Walter Bricker. Unanimous vote.

3. Public comments: self introductions

4. During staff report, the Chairman deferred item A awaiting the arrival of Denise Akins, item B, Staff Changes, was considered during the self introductions with Alfredo Reynoso-Haro giving his background, and the Commissions responded with their backgrounds. Alfredo then presented Item C giving a status report on 5 of the previously identified priority projects. Preliminary estimates so far are: Strathmore $1.4M, Yettum $140K, Seville $191K, Ave 360 on Cottonwood Creek no cost yet, Allensworth cost has not yet been determined as methodology is more complicated. Commissioner Larsen requested analysis of impacts, a cost/benefit. When completed for all projects, the Commissioners will then prioritize based upon acres impacted. Next meeting to determine top 5 projects. Item A was then presented by Denise Akins with a 771 Fund breakdown spreadsheet based upon AFIN, Commissioner Larsen requested expenses breakdown "year to date", and Commissioner Bricker asked for Cash position. Denise explained that it is all shown in the reserves item, $164,856. The $370,312 Feasibility is for the Army Corps(ACOE) Deer Creek White River Frazier Creek projects Feasibility Cost Share Agreement. $3,185,263 is being held in reserve for the Success dam project and based on a seismic remediation. Chairman Vink explained the status of the Success Dam projects, and potential expenditure of those reserves for that purpose. The reserves might be expeditiously applied to alternative projects if determined necessary. With the Redevelopment agencies program dissolution Statewide, this may result in an increase in revenue in the Flood Control budget. Commissioner Bricker questioned the display of Britt Fussel's salary portion in the budget, Denise explained that is the way this share is identified. Commissioner Bricker questioned the $29,000 for Quad Knopf for the Storm Water Management Plan update. Chairman Vink related an analogy questioning why each of the line items are there, and asked for an explanation of what and why they are

included. Particularly expenses for permits and contracts should be explained. Denise explained that some items are Interfund with other Departments beyond our control and others may not be actual definable expense until year end. Commissioner Bricker questioned the inclusion of the reserves when they, in all likelihood, will not be expended in the budget year. Denise Akins responded that in an effort to transparency in the Countywide budget process they were included.

No progress was noted on a Tulare County Flood Control Master Plan Update.

5. During consideration of other business, Chairman Vink noted that appointment to the seventh seat on the Commission needs to be considered. Try to find someone in the northwest County, freeholder in that area, such as Tevelde, Kevin McAlister and Chris Kapheim were considered, Jim may will contact Chris for suggestions that will be vetted through the Commission, and then forwarded to Clerk of The Board of Supervisors.

The Commission requested continued project analysis, with rational for determination and scoring template for next meeting. Following this consideration, the County will assign scoring points.

SDSRP meeting with ACOE on February 16 in Sacramento. City of Visalia seeking Eminent Domain from Levee District 1 for trail on St. Johns, Commission desires support from County for this endeavor.

6. Having established the fourth Friday of the month at 8:00 AM for the regular meeting, and that this meeting accounted for a February meeting, the next meeting was scheduled for Friday March 23 at 8:00 AM, was approved by unanimous vote.

7. Meeting was adjourned by Chairman Vink at 8:59 AM.

TULARE COUNTY WATER COMMISSION
MEETING MINUTES
March 7, 2011

Members Present:

Dale Brogan, District 2 Appointee
Laurel Firestone, At-Large Appointee
Bruce George, District 3 Appointee
Chris Kapheim, District 4 Appointee
Dennis Keller, At-Large Appointee
Rudy Mendoza, TCAG Representative
Richard L. Schafer, District 5 Appointee
Mike Ennis, Board Alternate Representative
Allen Ishida, Board Representative and Chairman

Members Absent:

Paul Boyer, District 1 Appointee
Keith Watkins, At-Large Appointee

Staff Present:

Jeff Forbes, Tulare County Board of Supervisors Office
Jim May, Tulare County Resource Management Agency
Larry Dwoskin, Tulare County Environmental Health
Mike Bairstow, Tulare County Environmental Health
Denise Akins, Tulare County Resource Management Agency
Debbie Vaughn, Tulare County Administrative Office
Arlene Silva, Tulare County Counsel

Members of the Public who voluntarily provided their names on the attendance sheet:

Pat Pinkham
Carole Clum
Richard Garcia
Aaron Fukuda
Rebecca Quintana
Kim Loeb
Matt Hurley
Shane Smith

1. CALL TO ORDER

2. PUBLIC COMMENT PERIOD

Carole Clum of Three Rivers stated that while at the annual Planning and Conservation League conference in January, she attended the Sacramento- San Joaquin Bay Delta Stewardship workshop. She reported that a draft Delta Stewardship Plan will come out in March and be available on the Delta Stewardship Council website.

Attachment 18

Ms. Clum also stated that at the January 24, 2011 Tulare County Water Commission meeting there was much discussion about re-initiating the Flood Control Commission which has not met for three or four years. Ms. Clum advised the Commission that according to AB 162 the local agency's Planning Department is responsible for taking the lead on flood control. She indicated that the Department of Water Resources published a handbook in October 2010 for implementing California flood legislation into local land use plans and believes the publication would be useful to the Tulare County Resource Management Agency. Ms. Clum indicated that ESA, the consultant hired by Tulare County to write the re-circulated draft Environmental Impact Report, noted the County had not complied with AB 162 in several instances.

The first of three handouts Ms. Clum distributed addressed climate change and Australia's evolving policy to address the issue. The second detailed the Delta levee's quake risk. The final handout described unreasonable water use in the State.

Rebecca Quintana of the Stone Coral School District requested information regarding the Tulare County Flood Control Commission. Ms. Quintana was directed to contact Jim May of the Tulare County Resource Management Agency.

3. APPROVAL OF MINUTES FROM JANUARY 24, 2011 MEETING

Commissioner Brogan motioned to approve the minutes as submitted, with Commissioner Schafer seconding and the motion was unanimously passed.

4. DISCUSSION REGARDING CHANGING THE DATES FOR REGULAR MEETINGS OF THE TULARE COUNTY WATER COMMISSION. DIRECT STAFF TO PREPARE BOARD OF SUPERVISORS AGENDA ITEM TO APPROVE AMENDING THE WATER COMMISION BY-LAWS TO REFLECT THE NEW MEETING TIME

Supervisor Ishida opened discussion to change the date of the Tulare County Water Commission meetings. He indicated that TCAG is on the third Monday, so that date wouldn't work. He stated the first and second Monday at 3:00 pm or keeping the fourth Monday, but moving the time to 3:00 pm were viable options.

Commissioner Firestone voiced concern that moving the meetings to 3:00 pm would prevent some members of the public from participating in the meetings.

The Commissioners agreed to change the Tulare County Water Commission meetings to the second Monday of every month at 3:00 pm. Staff was directed to prepare a Board of Supervisors agenda item to approve the amendment to the Water Commission by-laws to reflect the new meeting time.

5. PRESENTATION FROM TULARE COUNTY RESOURCE MANAGEMENT AGENCY ON THE DECEMBER 2010 FLOOD CONTROL RESPONSES

Jim May of Tulare County Resource Management Agency gave a presentation and provided a handout of his PowerPoint presentation on the December 2010 flood control responses. Mr. May reported that the County's flood management systems performed as they should during the flood event. Flood waters were most evident in the designated flood zones. Mr. May indicated that the duration and intensity of rainfall varied across the County and consequently flooding was more

pronounced in some areas than in others. The non-uniform distribution of rainfall limits the bracketing or classification of the storm to any historic level, other than between a 25 and a 50 year storm. The flood level considering both the mid and late December storms could be classified between a 50 and 100 year flood.

Mr. May stated that flooding conditions in the County have been exacerbated by the practices of agricultural land leveling, natural watercourse realignment, and constriction of the waterways. This is exemplified by the problems in Cottonwood Creek and its impacts in the area of Avenue 360. Mr. May included pictures of flooding in various regions of the County.

Mr. May pointed out that historic reliance on railroad track berms for flood controls has been impacted by the abandonment and removal of those lines. The existing railroad berm and tracks also served to protect communities by diverting storm flows to established watercourses.

Mr. May discussed the flooding in the community of Seville and the Stone Corral Elementary School. Both suffered damage when the Sontag Ditch at Road 156 was blocked by debris from the irrigation ditch. He said that in many cases pre-storm preparations could not anticipate the amount of material washed down channels.

Mr. May reported that the Tulare County Resource Management Agency is anticipating recommendations and development of priority projects in the Flood Control Commission meeting the week of March 14, 2011. Staff is considering low impact projects to retain peak flows on Cottonwood Creek, developing a standard cattle fence for attachment on County bridges to prevent hang up of debris that blocks channels, and researching a mechanism for channel maintenance to provide channel capacity in the County's watercourses.

Commissioner Mendoza asked if there was a need to review the Sontag bridge to prevent debris from causing backup. Mr. May responded that the grate used at that bridge was a protective measure used by the irrigation district to prevent the debris from continuing down the channel and clogging up the works. Mr. May indicated that there is a need for pre-season maintenance and cleaning of the channel to prevent this type of backup during the wet season.

Commissioner Kapheim responded that the irrigation districts clean debris out of their conveyances when they are transporting the districts' water. He stated that it is not irrigation districts' responsibility to clean the channels when they are carrying storm water.

Commissioner Firestone asked who is responsible for maintaining canals during the wet season. Mr. Kapheim replied that there are circumstances where people wanting to protect their facilities clean the length of channel running through or adjacent to their property. Supervisor Ishida clarified that the County Roads Department has authority to clean only 200 feet upstream or downstream from a County crossing and then it becomes private property.

Commissioner Kapheim indicated that the irrigation channels running through the County are intended to carry irrigation water, not to provide flood control. When flood water enters these channels they are often flowing above their designed capacity.

Commissioner George stated that there are numerous natural waterways throughout the County that have historically carried flood waters and continue to carry flood waters and no one is responsible

for cleaning or maintaining these channels. Commissioner Firestone asked if there could be a mandate on property owners to maintain the waterways on their property similar to the fire control mandates. Supervisor Ishida responded that irrigation districts do a good job maintaining their conveyances, but when flood waters rise transient debris is washed into the channels and little can be done to control nature.

Commissioner George clarified that the Flood Control District was formed out of the 1969 flood. The District covers the entire County. A study was conducted of all waterways to develop a master plan. When Proposition 13 was passed and limited a special District's capability to tax, funding was exhausted and the master plan development came to a standstill. Limited funding has created limited ability to find solutions.

6. SUBCOMMITTEE REPORT

Commissioner Schafer reported that the Nitrate Subcommittee communicates monthly with Dr. Harter in regards to nitrates in the Tulare Lake Basin. He stated that Dr. Harter is working on drafting backgrounds and methods of the various subgroup chapters in the region. Additionally, they are preparing results for bi-monthly meetings with the State and Regional Boards. Commissioner Schafer announced that the Interagency Task Force will hold a meeting May 3, 2011 at UC Davis from 10:00 am- 3:00 pm that will include preliminary results.

Debbie Vaughn of the Tulare County Administrative Office reported that the County will be finalizing the Disadvantaged Community Study Agreement with the DWR this week. Ms. Vaughn also advised the Commission of the significant expenses incurred by the County to complete the application process for various IRWM grants. Supervisor Ishida stated that the complexity of the DWR grant process is costly and needs to be streamlined. He requested that this be made known to the DWR.

7. COMMISSIONERS COMMENTS

Supervisor Ishida announced that the County has hired the new Administrative Analyst- Water Resources and she will be start Monday, March 14, 2011. He indicated that she will be staffing the Water Commission meetings.

8. NEXT MEETING – MONDAY, MARCH 28, 2011 4:00 P.M. – BOARD OF SUPERVISORS CHAMBERS

9. ADJOURN

Respectfully submitted,

Richard L. Schafer, Secretary
Tulare County Water Commission

JANUARY 1991

FLOOD PLAIN DETERMINATION FOR THE KAWEAH RIVER BASIN INVESTIGATION, CALIFORNIA

US Army Corps
of Engineers
Sacramento District
South Pacific Division

Attachment 19

FLOOD PLAIN DETERMINATION
FOR THE
KAWEAH RIVER BASIN INVESTIGATION, CALIFORNIA

INTRODUCTION

The purpose of this office report is to discuss the methodology used to generate preproject flood plain boundaries and flood depths for the Kaweah River Basin Investigation for the Visalia Region only. This area includes the communities of Visalia, Farmersville, Exeter, and Goshen (See appendix – Plate 1).

Below Terminus Dam, the Kaweah River becomes a distributary system with flows diverted from the main stem to smaller stream courses. This distributary system terminates approximately 30 miles southwest of Visalia at the Tulare Lakebed. Numerous elevated structures traverse the Kaweah River System causing flood waters to pond and to be diverted and redistributed among the distributary streams.

The streams investigated include the Kaweah River System and Mehrten and Yokohl Creeks. The Kaweah River System, which includes the Lower Kaweah River, St. Johns River, and ten other distributary streams, was studied from State Highway 216 downstream to State Highway 99 on the west and Sierra Avenue on the south. However, for the St. Johns River downstream of the Southern Pacific Railroad (SPRR), only the potential overflow to the south of the river, which remains in the study area, was included. Mehrten and Yokohl Creeks were studied from the vicinity of State Highway 198 downstream to their confluence with the Kaweah River System.

PAST FLOOD PLAIN STUDIES

Three major types of flood plain studies have been conducted in the past for this area. Each study has been reviewed in detail to determine the applicability of any of these studies for current flood plain delineations. These studies were conducted for different purposes and the methodologies used and area studied for each varies accordingly. The flood plain studies referenced are the Flood Plain Information (FPI), the Flood Insurance Study (FIS), and California Department of Water Resources Designated Floodway Study.

The Visalia FPI was completed by the Corps of Engineers in 1972. The study topography was based on United States Geological Survey (USGS) 7.5 minute quadrangles, then existing bridge data, and extensive field observations. The hydrology used for the FPI included 5 different storm centerings and included the Kaweah River System, Antelope, Cottonwood, Cross, Elbow, Mehrten, Sand, and Yokohl Creeks. The purpose of the study was to identify all areas of potential flooding for use by the community as a planning tool.

The FIS for Tulare County was conducted by a private engineering firm for the Federal Emergency Management Agency and was initially completed in 1982. This initial study for Tulare County included the city of Visalia. The study for the city of Visalia was revised in 1984. Initially the topographic data were based on spot elevation data and some surveyed cross–sections upstream of the SPRR. The revision to the FIS for the city of Visalia included 2 foot contour mapping in and around the city.

The California Department of Water Resources (DWR), for the State Reclamation Board, developed the State Designated Floodway for the St. Johns River downstream of the SPRR. This study was completed in 1986 and was based on cross–sections surveyed by DWR. Only the St. Johns River downstream of the SPRR was studied and the flows entering this reach of the river were based on flow distributions generated for the FIS. Our work

RECONNAISSANCE REPORT

The reconnaissance report for the Kaweah River Basin was completed in July 1987. The FPI was used to identify flooded areas for use in the economic analysis for that report. Depths of flooding were established in the economics analyses to provide empirical flood damage data. No hydraulic analyses were carried out for the reconnaissance report. A review of the flood depths used for the reconnaissance report was made and they were found to be generally greater than what would be expected for a singular event.

FEASIBILITY REPORT

After reviewing the flood plain data used for the reconnaissance report, it was determined that a more detailed analysis would be required for the feasibility study. The needed flood plain information and the data required to perform the hydraulic analysis were identified. A complete time and cost estimate was then prepared.

Based on the standards established by previous feasibility studies, an extremely detailed hydraulic analysis would be needed for the upper study area. This is because of the sensitivity of the distributary nature of the river system. It is critical to provide proper flow distributions and to determine flows and depths of flooding at the downstream damage centers used to calculate specific damages for specific reaches.

Depths of flooding to an accuracy of 1 foot are usually required for feasibility studies. To provide this level of depth accuracy and proper delineation of flood plain boundaries, 2 foot contour mapping or an extensive network of surveyed cross–sections are needed. Also, because so much of the area is flooded by out of channel flow, extensive field work is required to accurately define overland flow distributions. The estimated time and costs required for this level of analysis for surveys and hydraulic analyses are presented in Table 1.

TABLE 1

TIME AND COST ESTIMATE

STUDY TASKS	TOTAL COSTS(a) (Dollars)	COMPLETION TIME (Years)
Survey Data – 2 ft. contour mapping	1,400,000	1.5
Detailed Hydraulic Analyses	700,000	2.5
Total Study Cost and Effort	2,100,000	4.0

(a) Costs are based on 1989 dollars.

As evident from Table 1, the hydraulic study outlined above is prohibitive both from the perspective of cost and time involved. Again, none of the previous studies are considered accurate or detailed enough to provide the required depth and flood boundary information.

LIMITED TECHNICAL ANALYSIS

This is why we need floodways preserved

The results of the evaluation in the Technical Appendix for Flood Plain Determination may be used to generate the flood damages data base for the Visalia region. Flood plain overflow patterns are a dynamic problem constantly changing with time because of ongoing urban and agricultural developments. However, this analysis provides the flood plain data necessary for the feasibility study using an approach that is close to satisfying the standards needed and yet practical in its application of engineering expertise and effort. This limited analysis was based on available backup data from the above mentioned flood plain studies and on the determination of flood boundaries and depths made in the field. No new survey data were obtained and no new hydraulic models were created. The analysis used feasibility level hydrology and routed the flows through the system based on the best available information for any given point. See the Technical Appendix for a detailed discussion of this analysis.

TECHNICAL APPENDIX

FLOOD PLAIN DETERMINATION FOR THE KAWEAH RIVER BASIN INVESTIGATION, CALIFORNIA

INTRODUCTION

A limited study was conducted to develop 100–year flood boundaries and depths of flooding for the Visalia area. This analysis was based on available backup data from past hydraulic studies and used feasibility level hydrology data generated for the basin investigation. No new survey data were obtained and no new hydraulic models were created. The flood boundaries were delineated on 7.5 minute USGS quadrangles with the average depth of flooding for areas within the study area annotated on the maps. The average flood depths were estimated to the nearest whole foot.

THE KAWEAH RIVER SYSTEM AND ITS FLOOD PATTERNS

The Kaweah River System flows westerly into the Tulare Lakebed from the eastern foothills. Upstream of the foothills, the Kaweah River System is a conventional tributary stream; however, downstream of Terminus Dam the Kaweah River System becomes distributary with flows diverted from the main stem to numerous smaller streams all of which have diminishing channel capacities as they flow toward the Tulare Lakebed, approximately 30 miles to the southwest. This distributary system is traversed by numerous structures that have a major influence on the distribution and redistribution of flows during large flood events. The most notable obstructions to flow below Terminus Dam for the Kaweah River System are the Friant–Kern Canal; the Atchison, Topeka, & Santa Fe Railroad (AT&SFRR); the Southern Pacific Railroad (SPRR); and State Highway 198 (See Plate 1).

At McKays Point large floodflows split between the St. Johns and Lower Kaweah Rivers. These flows fan out, pond behind, and are redirected by the Friant–Kern Canal. Flooding from Mehrten Creek also pond behind the Friant–Kern Canal and combine with the Kaweah River System. Yokohl Creek flooding is split at State Highway 198. For large events, a majority of the flow is caught behind the highway embankment and is diverted southwest flooding Exeter and agricultural land to the south and west. The remaining flow continues northwest to combine with the Lower Kaweah River upstream of the AT&SFRR.

Between the Friant–Kern Canal and the AT&SFRR, large flows from the left overbank of the St. Johns River flow southwest toward the Lower Kaweah River. Floodwaters from the Lower Kaweah River pond behind the AT&SFRR and then continue down to the SPRR where they pond and comingle with flows from the St. Johns River.

Just downstream of the SPRR, large floodflows along the St. Johns River are well above channel capacity. Major failure of the south levee just downstream of the SPRR would occur with overflow combining with floodflows from the Lower Kaweah River. The overflow north of the St. Johns River and the remaining river flow leaves the study area. Any subsequent downstream levee failures direct floodwaters north away from the city of Visalia.

Below the SPRR, the Lower Kaweah River splits into several distributaries. Overall channel capacities have greatly diminished at this point with most of the floodwaters flowing out of channel. State Highway 198 east of Visalia, as constructed in the late 1960's, is elevated on fill and diverts large overflows west toward Visalia that otherwise would have continued to the southwest. Seven openings under the highway allow substantial flows to continue south and southwest flooding the town of Farmersville and a southern portion of Visalia.

Floodwater north of State Highway 198 flows west and floods a large portion of Visalia north of the highway. Approximately a 2 1/2 mile reach of State Highway 198 within the city limits of Visalia is entrenched well below grade and can be a major means of conveyance for floodwaters flowing into the entrenched highway. These flows begin to leave the highway system near State Highway 63 (Mooney Boulevard) and would flow southwest flooding developed areas and the Visalia Airport complex. Although this reach of State Highway 198 can carry substantial flows, a majority of the flow north of State Highway 198 will remain to the north and continue west to flood the community of Goshen.

HISTORIC FLOODS

The Kaweah River Basin is known to have a long history of flooding and many large rainflood and snowmelt floods have been documented. The largest and most destructive rainflood to occur since the turn of the century and prior to the completion of Terminus Dam occurred in December 1955. A peak flow of 87,000 cfs was estimated at McKays Point. The flood hydrograph at McKays Point was characterized as having a large peak flow, but was relatively short in duration. This is the largest historic flood for which we have flood plain delineations. The flooded area for the 1955 flood is presented on Plate 2. It should be noted that a number of land changes have occurred since 1955 that would impact the flood plain delineation presented on Plate 2. These include modifications to levee systems and the elevation of State Highway 198.

Intense rainfall occurred over the Kaweah River Basin during January 1969 and without Terminus Dam the peak flow at McKays Point would have reached 40,000 cfs. However, Terminus Dam reduced Lake Kaweah outflow to nearly zero, thus preventing major damages in the study area. A flow of only 6,800 cfs was recorded at McKays Point in January 1969. This flood is important, however, because it illustrates the potential flooding from Mehrten and Yokohl Creeks (Plate 3). The flow for Yokohl Creek is estimated to be approximately 2300 cfs and is about a 10–year event.

PROBLEMS IDENTIFIED WITH PAST STUDIES

An indepth review of the past flood plain studies for the area was conducted. It was clear that none of these past studies without revision would be adequate for use in the economic analysis of flood damages for the feasibility report. These deficiencies have been identified for each study. A discussion of the major problems for each study is contained in the following paragraphs.

Flood Plain Information Report

The flood plains presented in the Visalia Flood Plain Information Report (FPI) represents the composite of 5 different storm centerings and included the Kaweah River System, Antelope, Cottonwood, Cross, Elbow, Mehrten, Sand, and Yokohl Creeks. The purpose of the study was to identify all areas of potential flood hazard for use by the community as a planning tool. By its nature, the total flooded area presented in the FPI is conservative – accounting for all flooding scenarios. The portion of the FPI flood plain that covers the study area is presented on Plate 4.

The only topographic data available at the time this study was conducted were USGS 7.5 minute quadrangles with a 5 foot contour interval. Better topographic data would impact on the overflow distributions used and the flood plain boundaries delineated for the FPI. There have been some significant changes to topographic features since the FPI was completed in 1972 which also could impact the flow distribution used for the study.

For the FPI, no specific flow depths were determined for areas of overland flooding. Flood profiles were only developed for major stream systems where backwater analyses were completed and would only apply to areas between the channel banks. Some areas subject to sheet flow type flooding were identified, but the depths of flooding were not given.

Flood Insurance Studies

The flood insurance studies for the city of Visalia and Tulare County were completed in 1982 creating community–wide flood plain mapping for the enforcement of the flood insurance program. After review by the local officals, it was agreed that this study lacked sufficient detail for comprehensive administration of flood plain regulations and development. The study also had obvious errors in flow distributions and flood plain boundary delineations.

This study was revised in 1984 for the city of Visalia to incorporate better topographic data developed for areas within the city limits. This resulted in substantial changes in flooded area and in detailed information concerning the depth of flooding. However, the overland flows entering the city were not reevaluated. Because they weren't reevaluated, a reanalysis of the flows reaching the city would be required to accurately depict the flood potential for the city of Visalia.

A detailed review was made of the current Flood Insurance Study (FIS) for the city of Visalia and for areas impacted by the Lower Kaweah River System. Errors in hydraulic modeling and determining flow distribution were identified throughout the study area. There were also numerous errors found in the delineation of flood plains. Some flood boundaries would radically change directions and cut across contours for no apparent reason.

It appears that the FIS flood plain was concerned with flooding from the Kaweah River System only. Concurrent flows from Mehrten & Yokohl Creeks were not included. This would understate the total flow reaching the SPRR.

The analysis of leveed streams was not properly evaluated. Levee systems were not failed at freeboard or at overtopping. Instead, levees were assumed to remain in place as flood waters overtopped the levees. This is not consistent with the methodology required by the Federal Emergency Management Agency (FEMA) for these studies, and is unrealistic for this area. Once these levees would overtop, they could easily wash out.

California Department of Water Resources Designated Floodway

The California Department of Water Resources (DWR) developed the State Designated Floodway for the St. Johns River downstream of the SPRR. The flow entering this study reach was based on the FIS. Questions regarding the FIS analysis could impact the floodway boundary delineated by DWR; however, the rating of the river channel is considered valid for present conditions.

Reliability of Past Studies

Because of the problems identified with the existing flood plain studies and the prohibitive cost of a full scale, detailed hydraulic analysis, a limited technical study was conducted to develop the 100–year flood boundaries and depths of flooding. This analysis was based on feasibility level hydrology and on available data from the existing flood plain studies. A discussion of the methodologies used is provided below.

ENGINEERING METHODS

Flood Flow Routings for the Kaweah River System

To account for the effect of storage behind the major obstructions to flow from McKays Point down to the SPRR, a Modified Puls routings of the specific 100–year flood hydrograph was performed. This flood routing was based on approximate storage relationships and included the concurrent inflows from Mehrten and Yokohl Creeks. The resulting peak flows at the major obstructions were compared to the flow values from previous independent studies and the reduction in peak flow for this study appears reasonable. The comparison of peak flows is tabulated in Table 1.

TABLE 1

LOCATION	TOTAL PEAK FLOWS (a) FPI (cfs)	FIS (cfs)	BASIN INV. (b) (cfs)
McKays Point	43,000	46,000	40,300
Friant–Kern Canal	43,000 (c)	45,000	40,600 (c)
A.T.& S.F. Railroad	41,500 (c)	43,300	40,000 (c)
S.P. Railroad	41,000 (c)	42,400	39,500 (c)

how much is in expected prob.?

(a) Initial Flows are based on hydrology developed at the time the studies were conducted.
(b) Flow is in accordance with current operating procedures for Terminus Dam using expected probability applied to 2050 conditions.
(c) Includes concurrent inflows from Mehrten & Yokohl Creeks.

Flood Flow Routings for Mehrten and Yokohl Creeks

The flows used to delineate the flood plains for Mehrten and Yokohl Creeks are summarized in Table 2. Also provided are the flows through the Friant–Kern Canal inverted siphon opening for the Visalia Electric Railroad east of Exeter. Yokohl Creek has a relatively low flow capacity at State Highway 198 resulting in large overflow losses. The concurrent flows that stay with the stream courses were included in Table 1 as part of the major system flows.

TABLE 2

LOCATION	TOTAL PEAK FLOWS FPI (cfs)	FIS (cfs)	BASIN INV. (cfs)
Mehrten Creek Upstream of State Highway 198	2,100	–	1,400
Yokohl Creek Upstream of State Highway 198	10,200	–	6,800
Friant–Kern Canal Opening for the Visalia Electric RR	5,000	–	3,000

The flow through the Friant–Kern Canal opening will not reach the Visalia area. The shallow overland flows continue south and southwest with some flow entering Outside Creek

before crossing over Sierra Avenue (Study Limit). The final flow distributions fit well within available historical data.

Major Flow Distributions Downstream of SPRR

A comparison of the major flow distributions used in the FIS and FPI was made and significant differences were apparent. The available supporting data for all the studies completed for the area were reviewed and conditions in the field were evaluated to better understand the basis of each study.

Three major flow paths downstream of the SPRR have been identified. The flows developed for each path were the result of routing and balancing the outflow from the SPRR using the backwater ratings for the major streams and on–site evaluations of the potential flow loss or gain in the overbank areas based on physical constrains and flow capacities. A comparison of these flow distributions downstream of the SPRR is made in Table 3. The flow values represent the total peak flow past the location indicated.

TABLE 3

LOCATION	TOTAL PEAK FLOWS		
	FPI (cfs)	FIS (cfs)	BASIN INV. (cfs)
St. Johns River and northern overflow about 1 mile downstream of the SPRR	10,300	17,000	15,000
Total flows north of Highway 198 crossing Lovers Lane	12,000	13,800	11,000
Total flows crossing Hwy 198 east of Lovers Lane	20,000	11,600	13,500

Flows in the St. Johns River and accompanying overflow to the north leave the study area about 1 mile downstream of the SPRR. Any subsequent downstream failures of the St. Johns River levee would flow north away from the city of Visalia. The total peak flow developed for the project investigation at this location was based primarily on the detailed backwater analysis used for the DWR designated floodway study. Since the FPI, upgrades to the St. Johns River levee were completed which accounts for the larger values for the other studies shown in Table 3. A smaller peak flow at McKays Point and better channel ratings would explain the difference between peak flows for the flood insurance study and the project investigation at this location.

State Highway 198 is the principle obstacle to flood flows south of the St. Johns River. East of Visalia the highway is elevated on fill 3 to 4 feet and is not expected to be overtopped during a 100–year flood. Openings under the highway allow floodwaters to flow to the south and southwest. These include bridge structures at Outside, Deep, and Packwood Creeks; a county road undercrossing; and 3 canal siphons. For this investigation, the estimated flows continuing south of the highway were based in part on calculations used for the FPI. Some adjustments to these calculations were made in the field to obtain the values presented in Table 3. No data to support the FIS flow distribution at State Highway 198 was available.

Delineation of Flood Plains and Determination of Flood Depths

The major flow distributions in Table 3 were broken down into greater detail with smaller flow patterns determined and evaluated in the field to provide reasonably accurate flood plain delineations. These flood plain delineations are based on the available topographic data from the past studies and on detailed channel ratings from the FPI. The topographic data included spot elevation data to the nearest tenth of a foot upstream of the SPRR; some 2 foot contour mapping in and around the city of Visalia; and USGS 7.5 minute quadrangles with a 5 foot contour interval. Future channel degradation was not considered in the analyses.

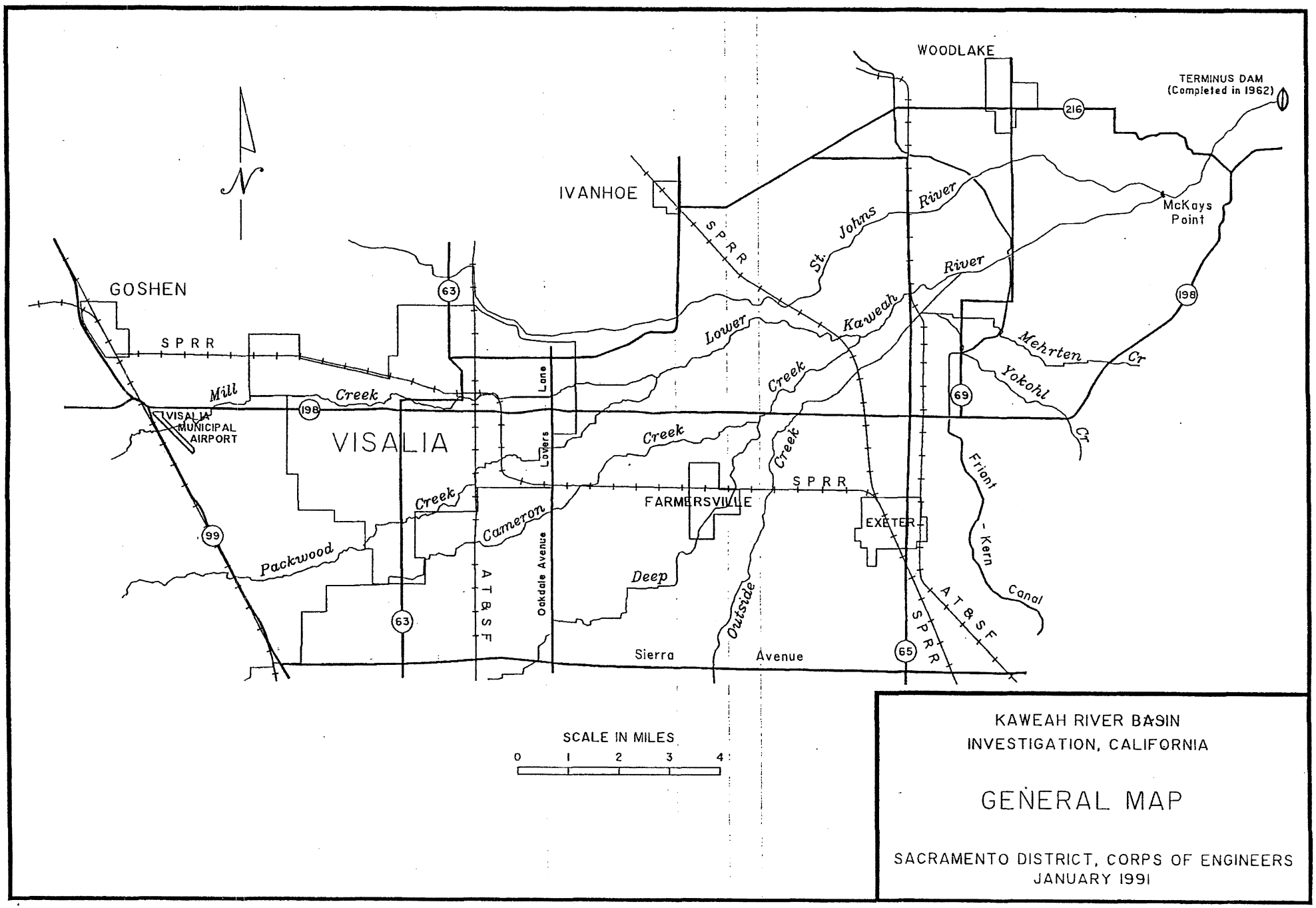
The 100–year flood plain delineation for this investigation is presented on Plate 5. The areas flooded by the Kaweah River System are consistent with the 1955 flood (Plate 2) after considering the impact of State Highway 198 and other changes in the field. The flooded areas attributed to Mehrten and Yokohl Creeks on Plate 5 are consistent with the 1969 flood (Plate 3) which illustrates the impact of State Highway 198 on flood flows from Yokohl Creek.

For the purpose of economic analysis, depths of flooding in the study area were estimated to the nearest whole foot. For the overland flow areas (where the damage assessments are made), the sensitivity of depth vs. flow is such that large variations in flow would not yield great variations in estimated depth. Given the physical characteristics of the overland flow area and a depth of flooding of 2 feet, a variation in depth of 1/2 foot would translate to a change of flow of 38%. At a depth of flooding of 1 foot, a variation in depth of 1/2 foot would translate to a change in flow of 69%. In ponding areas behind embankments, where overtopping occurs, a variation in depth of flooding of 1/2 foot could result in even larger changes in the total flow.

No new HEC–2 backwater runs were developed for this study. Flood depths were calculated in the field and in the office using nomographs and hand calculations to perform normal depth analyses and to determine weir and pressure flows. Depths of flooding behind obstructions to flow were largely set in the field recognizing existing features.

CONCLUSIONS

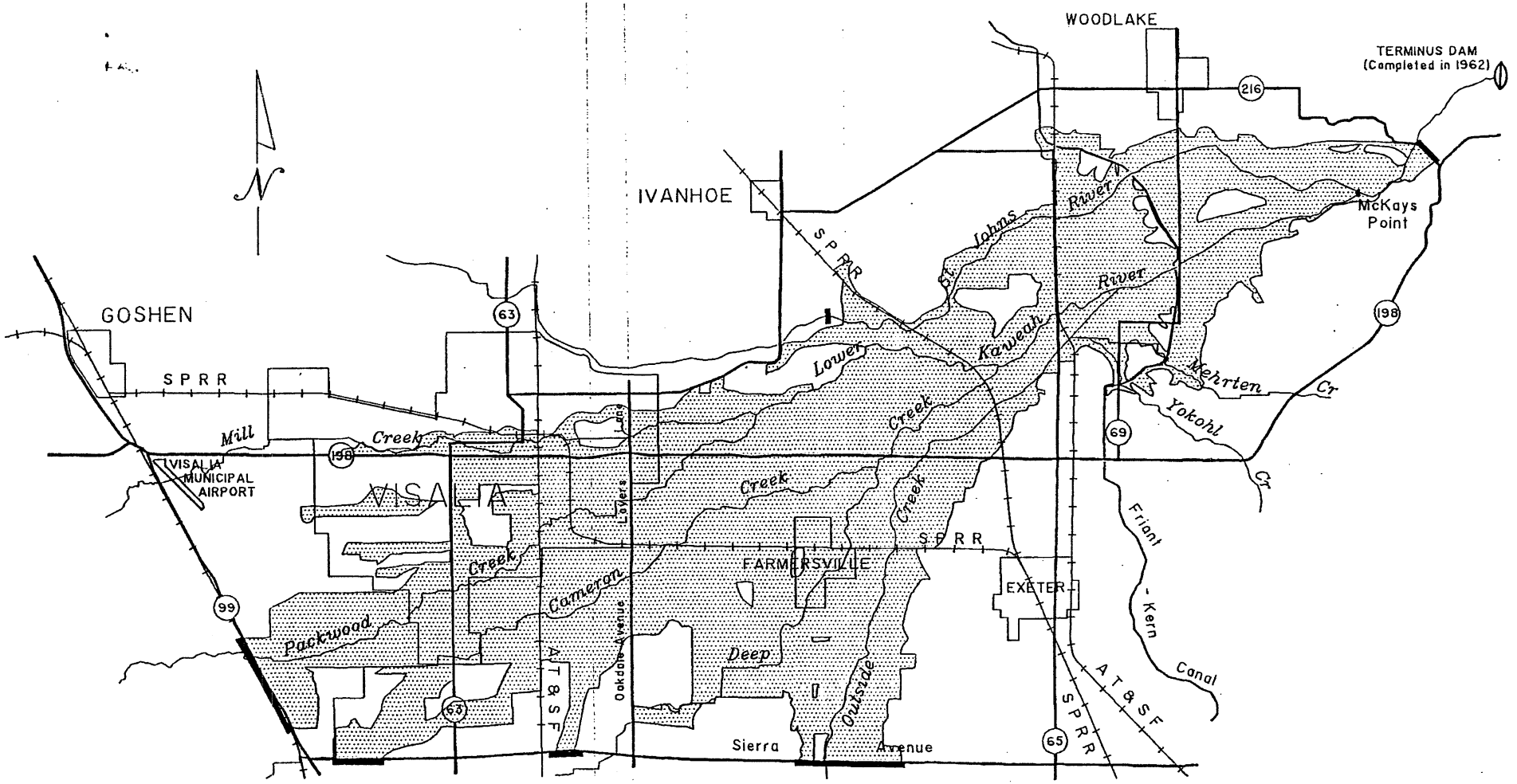
After extensive field observations, comparing the results of this analysis with past studies and historic floods, and considering the sensitivity of flood depths vs. flow, it appears that the flood boundaries and depths developed for this investigation are quite reasonable. It is not likely that there would be significant changes in total areas flooded, depth of flooding, or in total flood damages if a more detailed and very expensive hydraulic analysis were performed. It is recommended that the results of this study be used in evaluating the flood damages for the project investigation.



KAWEAH RIVER BASIN
INVESTIGATION, CALIFORNIA

GENERAL MAP

SACRAMENTO DISTRICT, CORPS OF ENGINEERS
JANUARY 1991

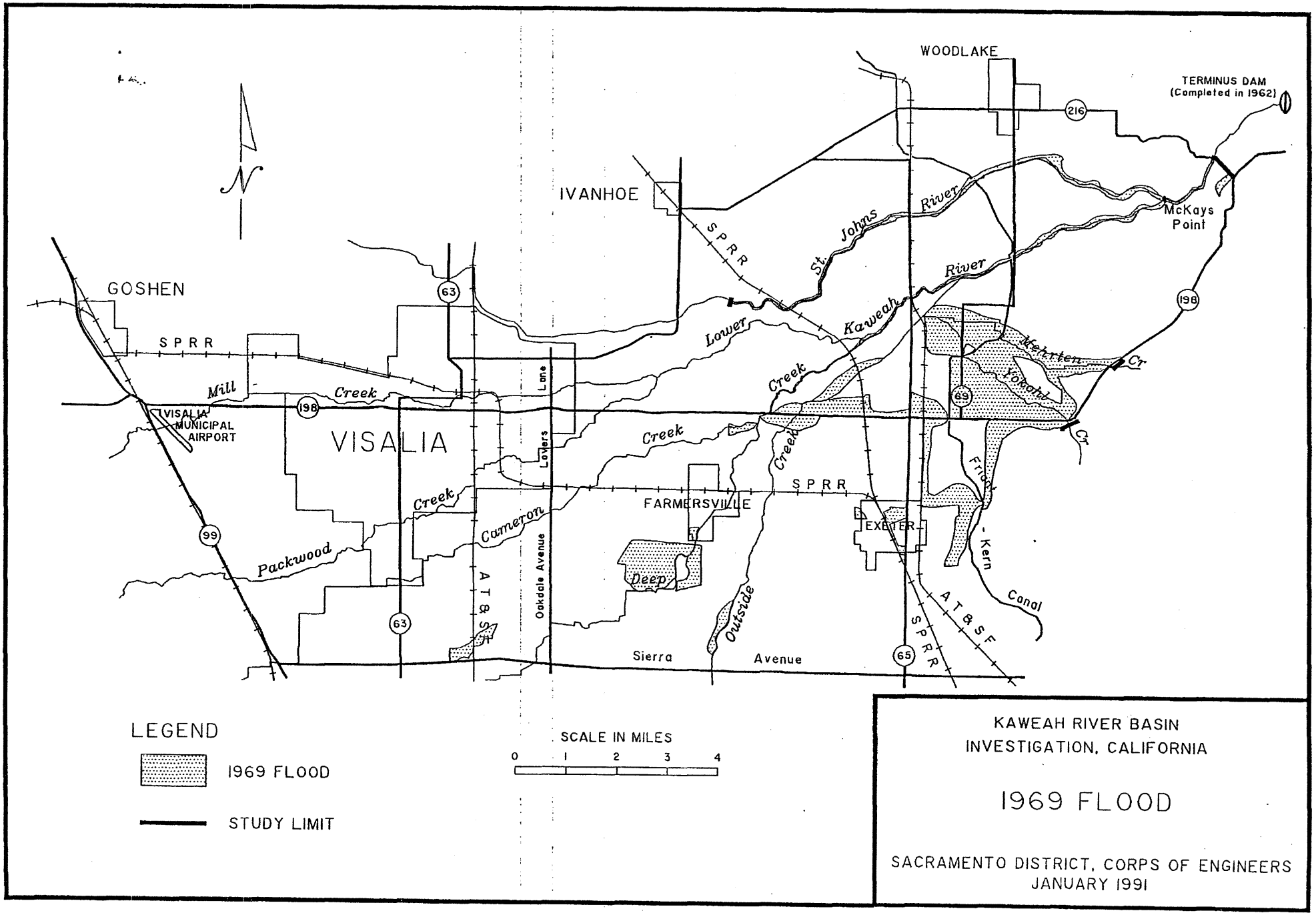


KAWEAH RIVER BASIN
INVESTIGATION, CALIFORNIA

1955 FLOOD

SACRAMENTO DISTRICT, CORPS OF ENGINEERS
JANUARY 1991

PLATE 2

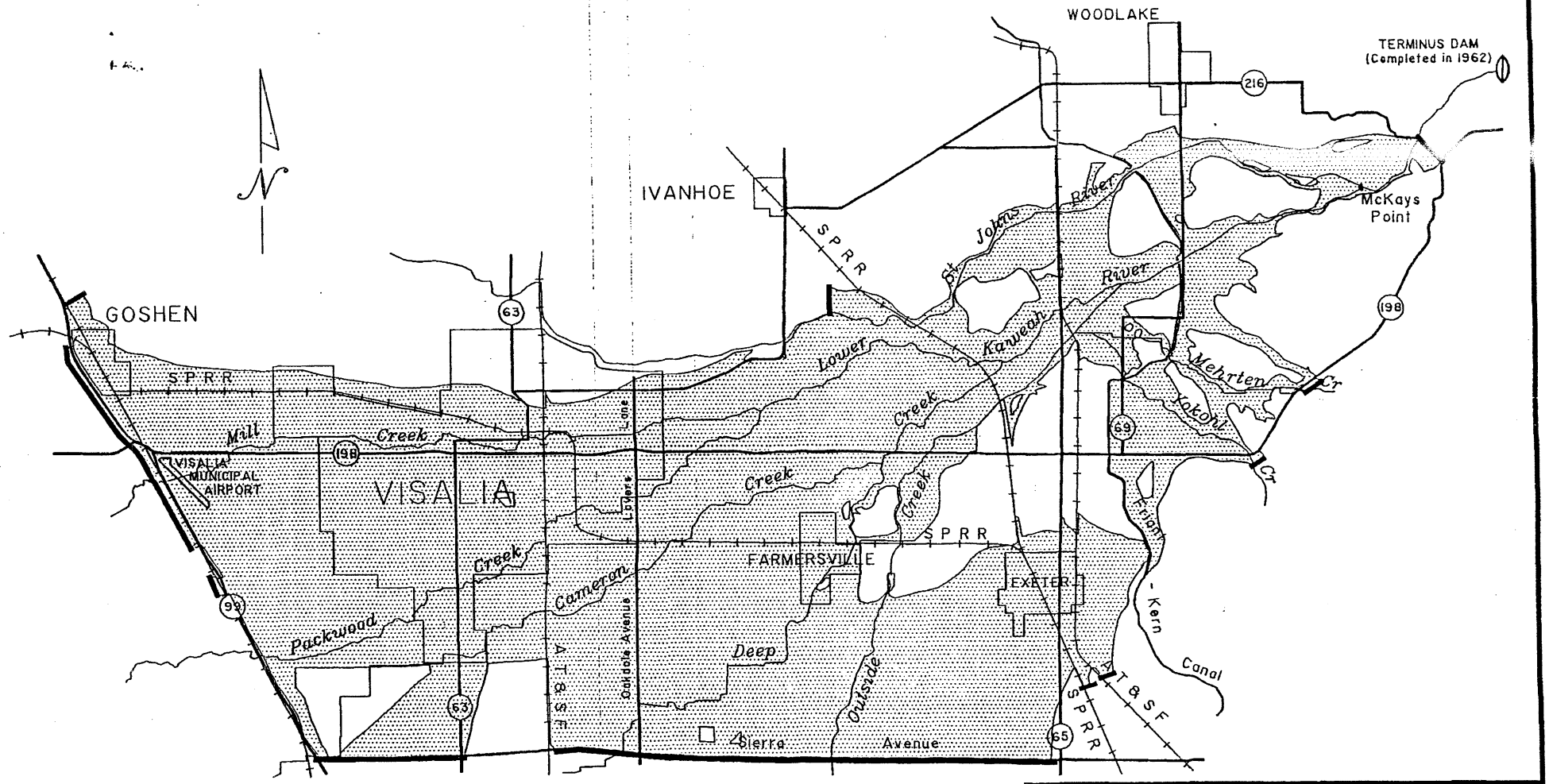


KAWEAH RIVER BASIN
INVESTIGATION, CALIFORNIA

1969 FLOOD

SACRAMENTO DISTRICT, CORPS OF ENGINEERS
JANUARY 1991

PLATE 3



LEGEND

100 YEAR FLOOD

STUDY LIMIT

SCALE IN MILES

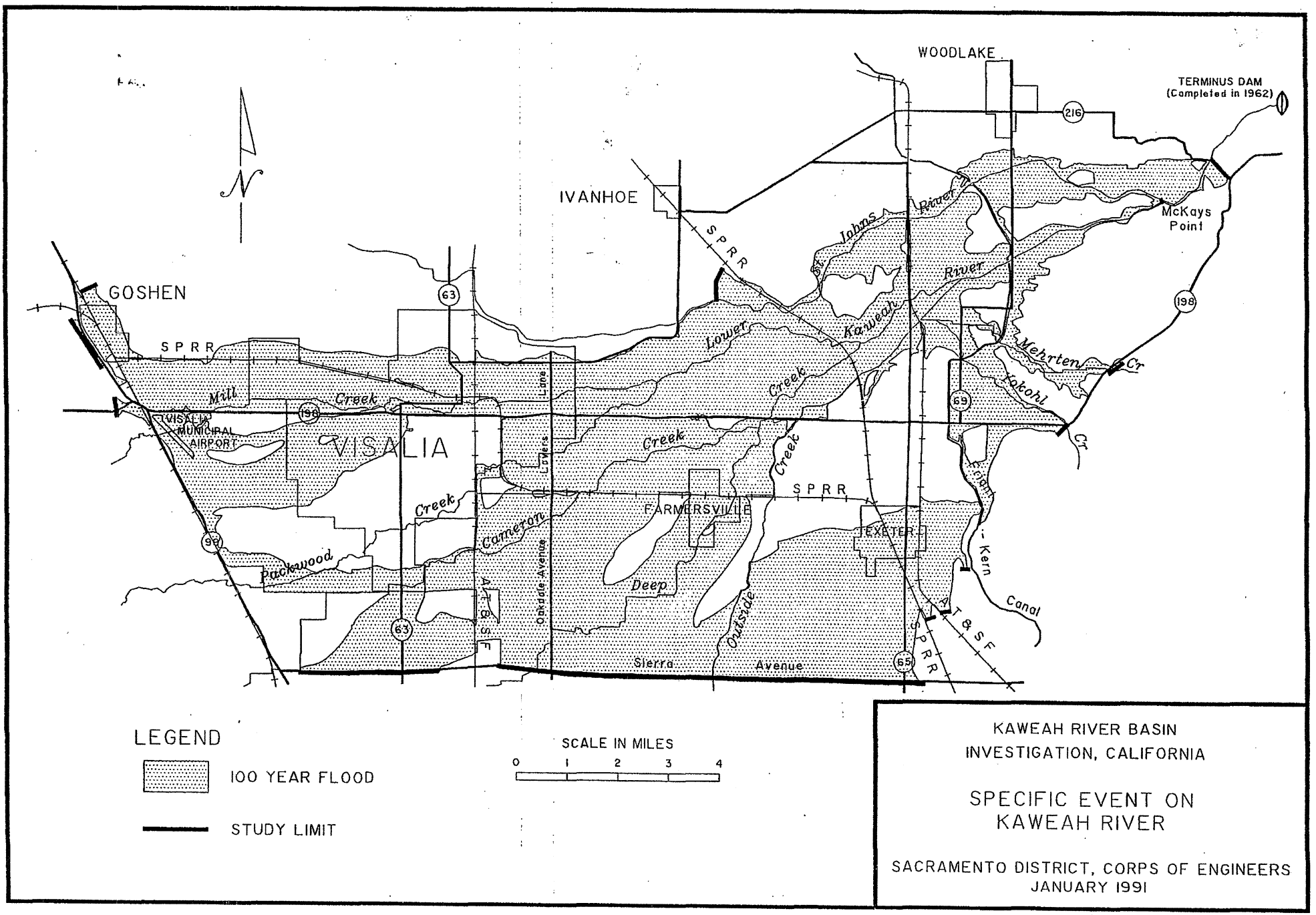
0 1 2 3 4

KAWEAH RIVER BASIN
INVESTIGATION, CALIFORNIA

1972 FLOOD PLAIN INFORMATION REPORT

SACRAMENTO DISTRICT, CORPS OF ENGINEERS
JANUARY 1991

PLATE 4



KAWEAH RIVER BASIN
INVESTIGATION, CALIFORNIA

SPECIFIC EVENT ON
KAWEAH RIVER

SACRAMENTO DISTRICT, CORPS OF ENGINEERS
JANUARY 1991

PLATE 5

MINUTES OF THE
TULARE COUNTY FLOOD CONTROL COMMISSIONERS MEETING
March 23, 2011

Commissioners present:
Dale Brogan, Bruce George, Steve Martin, Dan Vink, Dale West

Commissioners Absent:
Walter Bricker

County Representation:
Alan Ishida-Supervisor District #1, Denise Akins-County Administrative Office, Arlene Silva-County Counsel, James May –Flood Control District Engineer

Meeting called to order at 10:10AM

Introductions of Supervisor Alan Ishida and new CAO Water Representative-Denise Akins.

There were no public comments.

Nomination of Bruce George for Chairman was moved by Dale West and second by Dan Vink, unanimous vote to continue his Chairmanship as long as he can serve. Vice-Chair nomination of Dale West by Dan Vink with second by Bruce George, unanimous vote.

Discussion of Commission Member residency qualifications to fill the #3 seat vacated by the retirement of George Serpa. Suprvs Ishida noted the general advertising requirement of the open seat, Dan Vink added the need for knowledge of the flood field and issues in the County.

The Flood Control District is still monitoring the Deer Creek/White River/Frazier Creek Army Corps projects. The flood prone nature in Strathmore community from the Friant-Kern Canal requires a more immediate response than can be expected from Army Corps. Some alternatives were described along with the existing area system. Need to provide MOUs with Irrigation Districts for wet weather use of irrigation districts ditches to clean out and carry flood flows.
It was presented that the County in the past has cut Road 88 when flood flows. Increased participation in IRWMPs for flood issues expected in the future.

This discussion flowed into the following Agenda Item on specific flood control projects that could be recommended to the Board of Supervisors. Preliminary vision and reconnaissance level is needed to identify the projects. Discussion centered on development of detention ponds for recharge and to reduce peak flood flows in conjunction with Irrigation Districts. A request for development of flow rates throughout the County, and an update on the current revenue stream for flood control

Attachment 20

was made by the Chair. The Army Corps Dam and Storm Flow projects were discussed and the delays presented by Congress/Corps blame strategies. The Chairman suggested that to function the Commission needs to have staff to focus research and time to support all issues in the County in order to develop projects and procedures to properly manage.

Next meeting date will be the 29th of April, at 10:00 AM.

Meeting adjourned at 11:50 AM

Jim May's presentation to the Tulare County Water Commission on stormwater, April 26, 2010.

Storm drain disconnects from irrigation district facilities:

Lower Tule River Irrigation District recently acknowledged that they will be disconnecting all storm runoff connections to their ditches and canals, in response to the State's Irrigated Lands Program (ILP). This appeared to place the County's ability to mitigate or minimize flood impacts to County Roads, Communities, and other facilities in jeopardy.

The ILP was intended to eliminate return flows from agricultural water users, from re-entering the supply to downstream users. In some cases the return waters could carry pesticides or other constituents that might impact downstream crops. Presently the California Regional Water Quality Control Board testing of canal flows has been identified as rigorous. This testing will audit the District's enforcement of identifying unnatural constituents entering the flow. Positive results will require the Irrigation Districts to identify the source and remedy the problem. This could be potentially an expensive mandate.

The problem in Tulare County is primarily that Irrigation District's distribution facilities typically will occupy, use, or block the natural surface water flow patterns, preventing storm water from moving in a natural manner. The consequence is ponding of water or flooding areas that historically had not experienced this impact, with damaging results to public and private property.

Attachment 21

Secondarily the County and the people of Tulare County have come to rely on and have developed lands in accordance with the certain expectations that the drainage patterns by which runoff has been handled in the past would continue in perpetuity.

To determine the scope of impact to the County, the Region, and the State. We have checked with other agencies that might similarly be impacted by this program.

-Caltrans has responded to a requirement from Madera Irrigation District and will implement localized ponding basins or other types of piped, pumped technologies to offset their lost flood water capabilities. These will be used only on future projects as a best management practice. Caltrans does not plan to retrofit their existing facilities.

-The City of Visalia has established volume controlled connection agreements to prevent overcapacity flows during non-emergency situations. Water quality restrictions are not addressed in these agreements.

-The City of Porterville has not been subjected to restriction of their storm runoff connections to irrigation facilities.

-The City of Tulare has long standing agreements with TID regarding only new City storm drain connections to TIDs irrigation facilities.

-In other adjacent Counties: Fresno County has only experienced problems with private property owners, no Water or Irrigation District problems have surfaced at

this time. Kern County has not received any impacts or were they aware of the potential of the ILP.

Checking with California Regional Water Quality Control Board, which is the State Agency implementing this aspect of the Federal Clean Water Act. They were surprised to find that the Districts interpretation had been taken so far a field. Quoting the Fresno branch office following their call to Sacramento on this issue, "There is nothing in the regulation calling for the disconnection of storm drainage facilities."

Lower Tule River Irrigation District is the only District in Tulare County that has implemented a disconnection program on County facilities. Other Districts have indicated consideration of the process; however, they have not acted on it.

These connections have not been inventoried in the county, but a safe assumption would be in the hundreds occurring at most irrigation / road crossings. One of our municipal piped storm drains was disconnected over a year ago and the County has incurred significant cost, pumping storm water until the remedy can be constructed by Caltrans this summer. A roadside piped storm drain was recently disconnected on Road 128 north of Ave 188, in which the County had made significant improvements. Additionally we were informed that a large diameter municipal storm drain serving the community of Strathmore and carrying the South Branch of Frazier Creek, for which a 1980s era agreement is

Attachment 21

in place, is subject to LTRID disconnection which would leave the community at the mercy of flood flows. We are checking for this agreements cancellation requirements.

Research by Counsel has shown that the County is protected by Case Law. Litigation for similar issues of flood impacts has shown that ultimate responsibility for damages will fall upon the entity that eliminates the drainage flow, in this case the Irrigation District. The implied / parol license on which the County has relied and built structure has made the license irrevocable.

Any connection with the requirements of the National Pollution Discharge Elimination System (NPDES) is lost in the extent to which the ILP goes beyond the NPDES intent of environmental cleanup by development restrictions, to the more aggressive environmental restoration by elimination of historic land use.

How the County wishes to handle this problem will have to be decided by the Board of Supervisors. We are hopeful that your Commission will advise the Board of this problem and support their resolution as the Board sees fit.

Attachment 21

MINUTES OF THE
TULARE COUNTY FLOOD CONTROL COMMISSIONERS MEETING
April 29, 2011

Commissioners present: Bruce George, Steve Martin, Walter Bricker, Dale West

Commissioners Absent: Dale Brogan, Dan Vink

County Representation:
Arlene Silva-County Counsel, James May –Flood Control District Engineer

Visitors: Mark Larsen - KDWCD

Meeting called to order at 10:02 AM

Approval of March 23, 2011 Minutes moved by Steve Martin, second by Dale West. Unanimous vote.

There were no public comments.

Discussion of removing Commission Member residency qualifications. Alene noted the general advertising requirement to recruit for the open seat, she will bring the necessary language back to the Commission to propose to the Board of Supervisors a general alteration of the qualifications.

The Army Corps Success Dam Remediation project has suffered prioritization funding delays that would postpone the project beyond reasonable funding expectations. A proposed temporary incremental pool elevation raise to 640 was also placed on hold due to risk. This could result in diversion of the local dam project co-sponsorship funds to develop more immediate and feasibly constructed projects.

Repair of County wide flood damages from the Winter 2010 storms, is now being hampered by environmental agency restrictions. It was suggested that these restrictions be agendized to the Commission for discussion for the foreseeable future.

We have not begun the development of MOUs with most if not all of the Tulare County Irrigation Districts to allow wet weather maintenance of irrigation district's facilities by County forces to pass flood flows.

Chairman George requested sufficient staff with RMA to meet the needs of an active Flood Control District. He asked that reports continue on the status of this position.

A request was also made for mapping of frequently occurring or potential flood prone areas that might offer viable projects so that the Commission could ascertain and support projects to the Board of Supervisors. The identification of problem areas should not be limited to road impacted areas.

Attachment 22

Commissioner West identified an area near the Cottonwood Creek / Stone Corral Canyon area on Paramount Orchards property that could be a location for flood controls.

Chairman George recommended development of a project list of areas that are impacted. This list could be extended and refined resulting in stand alone projects as well as potential participation in IRWMPs for flood components. We could start the list with this Stone Corral Canyon area, the Sand Creek watershed (including confluence with Cottonwood Creek and the Dam outlet structure), Cottonwood Creek, Dry Creek, Mehrten Creek, Yokohl Creek, Frazier Creek, Deer Creek, White River, and Poso Creek.

Commissioners Bricker and Martin provided some insight to the Poso Creek issues. They noted that the Wildlife Refuge dammed Poso Creek, thus created flooding issues for properties nearby the canal that drains to the Homeland Canal. Jack Mitchells concern over pipes that are placed on the canal, one was placed to feed the canal from Homeland Canal.

There was no "other business".

The Fourth Friday of the month is recommended for consideration by the Commissioners for the regular meeting date.
The next meeting date will be the 23rd of May, at 10:00 AM. Same location.

Meeting adjourned at 11:32 AM

JAMES MAY'S REPORT ON RISK OF FLOODING AND LEVEE FAILURE

James May, civil engineer and the Tulare County Flood Control Officer, gave a presentation on July 27, 2009 to the Tulare County Water Commission concerning the risk of flooding on all Tulare County rivers and streams and the risk of levee failure in the county. Flood potential in Tulare County occurs on all rivers and streams (St. John's River, Pozo Creek, Cross Creek, Deer Creek, Cottonwood Creek, White River, Yokohl Creek, Sand Creek, Frazier Creek, Strathmore Creek, Tule River.) Flooding has reached Highway 43 in the past, gone through culverts, and flooded the town of Allensworth. Floodwaters reached Highway 99 and flooded part of the city of Earlimart. Some culverts are too small to accommodate floodwaters, which will cause backflows. The problems with Tulare County's rivers and streams are constricted channels, channels choked with vegetation and trash, unpredictable flows, and bridge piers undermined by previous floods. The County does not maintain the channels because of inadequate funds.

All levees in Tulare County are primitive. They do not meet FEMA or Army Corps of Engineers standards. The levees were not constructed of the proper materials, not compacted enough, not built high enough, are not continuous (breached), and are too close to channels to accommodate floodwaters. They have been breached by property owners. An abandoned raised railroad right-of-way that served as a levee has been breached.

Laser leveling of agricultural land will transform traditional flood patterns to sheet flooding. There have been significant changes to county topography since a flood study was conducted in the 1980s. Many property owners have graded their land since then. Therefore, floodwater flows are unpredictable. Groundwater overdrafting and subsequent land subsidence will increase flood depths in some areas.

Attachment 23

[illegible] To [illegible] by Carole on 12/16/11

PRA # 2011 1989

Carole Clum 559 561-4661 Request for viewing of documents in selected bibliography of Tulare County Flood Control Master Plan

Floods of January and February 1969 in Central and Southern California 1969

Report on Floods, Central Valley of California, 1966-67 Flood Season, Dec. 1967

Report on Floods, Central Valley of California, 1968-69 Flood Season Aug 1970

Flood Control Master Plan: Hydrology Appendix, Tulare County Flood Control District, April 1971

Flood Plain Management Study, Tulare County, California, March 1970, Tulare County Planning Department

A Comprehensive Master Plan for the Development of the Soil and Water Resources of the Upper Kaweah River Watershed: A Report for the Three Rivers Soil Conservation District 1962

Review Report for Flood Control on Poso Creek Stream Group, California, November 1967

Report and General Soil Map, Tulare County, California, Unpublished report, Oct 1967

Attachment 24

TULARE COUNTY COUNSEL

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Gary de Malignon, Esq.

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December 21, 2011

Mr. and Mrs. Clum
45638 South Fork
Three Rivers, CA 93271

Re: PRA: Clum-Master Flood Control Plan
20111989

Dear Mr. and Mrs. Clum:

Our office represents the Resource Management Agency (Department). We are in receipt of your December 16, 2011 correspondence to the Department. Please be advised nothing in this response should be considered as a waiver of the right of the County to assert any and all claims of exemptions or privileges to inspection of the whole or any part of the records.

You have requested the following documents:

1. "Floods of January and February 1969 in Central and Southern California

2. Report on Floods, Central Valley of California, 1968-69 Flood Season Aug 1970

3. Flood Control Master Plan: Hydrology Appendix, Tulare County Flood Control District, April 1971

4. Flood Plan Management Study, Tulare County, California, March 1970, Tulare County Planning Department

5. A Comprehensive Master Plan for the Development of the Soil and Waters Resources of the Upper Kaweah River Watershed: A Report for the Three Rivers Soil Conservation District 1962

6. Review Report for Flood Control on Poso Creek Stream Group, California, November 1967

7. Report and General Soil Map, Tulare County, California, Unpublished Report, Oct 1967"

We have reviewed your request for records and the (Department) is in the process of attempting to secure the documents that you have requested. Due to the volume of documents, we will need an extension of time on the initial ten days, to and including January 6, 2012, to prepare a response to this request.

Please be advised that the County charges $0.10 per page for copying of records.

You should further be aware that the County is not obligated to create records which do not exist under the Public Records Act. The California Public Records Act only requires that the public agency respond to requests for those specific records existing within its files. (California Government Code 6252(e), 6253(b); *Rosenthal v. Hansen* (1973) 34 Cal.App.3d 754.)

If you have any questions or comments, please contact me.

Very truly yours,
KATHLEEN BALES-LANGE
County Counsel

By Tammy Wightman
Tammy Wightman
Paralegal

TJW/12/20/2011/20111989/429778

12/15 Carole hands note to [illegible] asking to [illegible] documents
Vote 636-4987
12/20 - left mss with Tammy that wanted to examine before copied
12/[illegible] - [illegible] called and talked to Tammy, and said wanted to view them & not pay for copies if not wrong
12/[illegible] - Pete left mss for Tammy that wanted to examine [illegible] copies and [illegible] problem please let me know. left phone #

December 27, 2011

From: Carole Clum
45638 South Fork Drive
Three Rivers, CA 93271
(559) 561-4661

RECEIVED
DEC 27 2011
County Counsel
County of Tulare

To: Kathleen Bales-Lange
Tulare County Counsel
2900 West Burrel
County Civic Center
Visalia, CA 93291

Subject: PRA: Clum-Master Flood Plan 20111989

I received your December 21, 2011, letter pertaining to the subject. Your list of documents I asked to review does not include "Report on Floods, Central Valley of California, 1966-67 Flood Season December 1967". I neglected to include it. Please add it to the list. I do not yet want hard copies of the eight reports. I just want to look at them at this time. All eight of these reports are contained in the Selected Bibliography of the Tulare County Flood Control Master Plan, 1971. Page 4 of Attachment 3A Public Policy Matrix dated November 21, 2011, and page 9 of Attachment 3C General Plan 2030 Update Correctory Table Version Date 11-10-11 (both distributed to the public on December 7, 2011) direct the reader to the Flood Control Master Plan Selected Bibliography to supply "information about flood hazards, available from the Army Corps of Engineers."

While at the Resource Management Agency on December 16, 2011, I informed David Bryant I wanted to examine the listed documents. I had hoped they would be available for inspection since the County, as noted above, had cited them as compliance with A.B. 162. One would assume that if in fact they had been used by the County in complying with A.B. 162, they would be available at the office of the lead agency.

Because you have stated a need for an extension of time to secure the documents, I can only assume they are not readily available and were not used to satisfy information required in the Safety Element by 2007 Flood Legislation A.B. 162. I searched the internet for the documents without success. They were not available at the Three Rivers Public Library. How can the public and the decision makers know if development is planned for 100-Year Flood Risk zones?

Sincerely,

Carole A. Cleum

Copy to:

David Bryant, Project Manager
Tamara Gallanter, Shute, Mihaly & Weinberger

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January 6, 2012

Mr. & Ms. Clum
45638 South Fork Road
Three Rivers, CA 93271

Re: PRA: Clum-Flood Control Plan and Flood Elevation and Alteration of Watercourses
Our File Nos. 20111989 & 20112023

Dear Mr. and Ms. Clum:

This letter is to confirm the conversation between Mr. Clum and Dave Bryant this date. It was agreed that Dave Bryant or a member of his staff would contact you on or by January 20, 2012 for an update on these projects and again on January 31, 2012 if necessary. If any of the materials are ready for review before these dates, a staff member will contact you and arrange for you to review the materials.

If I may be of further assistance, please do not hesitate to contact me.

Very truly yours,
KATHLEEN BALES-LANGE
County Counsel

By _____
Tammy Wightman
Paralegal

TJW/1/6/2012/20112023/433159

January 12, 2012

From: Carole A. Clum and J. Peter Clum
45638 South Fork Drive
Three Rivers, CA 93271
(559) 561-4661

RECEIVED
JAN 12 2012
County Counsel
County of Tulare

To: Tulare County Counsel
2900 West Burrel
County Civic Center
Visalia, CA 93291

Subj: PRA: Clum - Flood Control Plan and Flood Elevation and Alteration of Watercourses County File Nos. 20111989 and 20112023

1. Your letter of January 6, 2012, to us suggests that during the conversation of the same date between Dave Bryant and Peter Clum that Peter Clum agreed to extensions of any applicable time limits for County compliance with the two California Public Records Act requests listed in the subject line. Please be advised that during the conversation Peter Clum did not agree to any extensions of any applicable time limits nor did he believe he was being asked to agree to any extensions. During the phone conversation, Dave Bryant advised Peter Clum the County was still in the process of locating the information and that he or one of his staff would be contacting us with updates.

2. We note that Dave Bryant has been very prompt in contacting us in response to our inquiries through out the general plan process. We hope the County is successful in locating the requested records so that we may examine them.

Sincerely,

Carole A. Clum

Copy to: David Bryant, Special Projects Manager, RMA
Roger Hunt, Administration/Community Development, RMA
Chris Zimmerman, CPRA Officer, RMA

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January 13, 2012

Mr. & Ms. Clum
45638 South Fork Road
Three Rivers, CA 93271

Re: PRA: Clum-Reclamation Board
2012133

Dear Mr. and Ms. Clum:

Our office represents the Resource Management Agency (Department). We are in receipt of your January 4, 2012 correspondence to the Department. Please be advised nothing in this response should be considered as a waiver of the right of the County to assert any and all claims of exemptions or privileges to inspection of the whole or any part of the records.

You have requested the following:

"We desire to examine the inspection reports referenced above prepared by the Reclamation Board and its successor, the Central Valley Flood Protection Board."

We note that the "reports referenced above" refer to Paragraph 9 in "An agreement between the Reclamation Board of the State of California and the County of Tulare Dated November 28, 1989."

We have reviewed your request for records and the (Department) is in the process of attempting to secure the documents that you have requested. Due to the volume of documents, we will need an extension of time on the initial ten days, to and including January 31, 2012, to prepare a response to this request. Additionally, as communicated to you by Dave Bryant of the Department, he or a member of his staff will contact you on or by January 20, 2012 for an update on this and other projects and again on January 31, 2012, if necessary.

Please be advised that the County charges $0.10 per page for copying of records.

You should further be aware that the County is not obligated to create records which do not exist under the Public Records Act. The California Public Records Act only requires that the public agency respond to requests for those specific records existing within its files. (California Government Code 6252(e), 6253(b); *Rosenthal v. Hansen* (1973) 34 Cal.App.3d 754.)

If you have any questions or concerns, please contact me.

Very truly yours,
KATHLEEN BALES-LANGE
County Counsel

By _____
Diana L. Perez
Deputy County Counsel

DLP/1/13/2012/434800

TULARE COUNTY COUNSEL

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Carole A. Clum and J. Peter Clum
45638 South Fork Road
Three Rivers, CA 93271

January 18, 2012

Re: PRA: Clum – Master Flood Control Plan (20111989)
PRA: Clum – Flood Elevation and Alteration of Watercourses (20112023)
PRA: Clum – Reclamation Board (2012133)
PRA: Clum – Copy of Contract between County and Spink (2012154)

Dear Mr. and Mrs. Clum:

We are in receipt of your letter dated January 12, 2012.

In response to your objection to the use of the word "agree", we amend our January 6, 2012 letter to state:

"Dave Bryant *communicated* to Mr. Clum that he or a member of his staff will contact you on or by January 20, 2012 for an update on these projects and again on January 31, 2012 if necessary. If any of the materials are ready for your review before these dates, a staff member will contact you and arrange for you to review the materials."

Mr. Bryant will contact you regarding the above-referenced Public Records Act requests under this time schedule. If you have any questions, please do not hesitate to contact our office.

Very truly yours,
KATHLEEN BALES-LANGE
County Counsel

By _____
Diana L. Perez
Deputy County Counsel

cc: David Bryant, Resource Management Agency
DLP/1/18/2012/20112023/435346

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January 20, 2012

Mr. & Mrs. Clum
45638 South Fork Road
Three Rivers, CA 93271

Re: PRA: Clum – Reclamation Board (2012133)
PRA: Clum – Copy of Contract between Tulare County and Spink (2012154)
PRA: Clum – Flood Elevation (20112023)
PRA: Clum – Master Flood Control Plan (20111989)

Dear Mr. and Mrs. Clum:

Our office represents the Resource Management Agency (Department) in this matter. We are in receipt of your correspondence to the Department regarding the above referenced requests. Please be advised that nothing in this response should be considered as a waiver of the right of the Department to assert any and all claims of exemptions or privileges to inspection of the whole or any part of the records.

Due to the volume of documents to be reviewed in order to locate the documents requested, the Department continues their process of attempting to secure the documents. As communicated to you by Dave Bryant of the Department, he or a member of his staff will contact you on or by January 31, 2012 for an update these projects. We will provide an updated response by or on this date.

The following information is an update regarding your requests:

1. "Request for the Copy of the 1995 Jurisdictional Agreement Between Tulare County and the Bureau of Reclamation."

Response: As communicated to you on January 6, 2012, Department staff has a copy of "An agreement between the Reclamation Board of the State of California and the County of Tulare Dated November 28, 1989." Our search continues regarding a 1995 Jurisdictional Agreement Between Tulare County and the Bureau of Reclamation.

2. "Request for viewing of Documents in Selected Bibliography of Tulare County Flood Control Master Plan"

Response: Our search continues for these documents.

3. "Tulare County Records since 1986 of Notification of other agencies of base flood elevation changes due to physical alterations."

Response: This information, in the form of letters of map change issued by FEMA, is contained in the RMA files and is available for review. Any changes to the base flood elevations are undertaken by individual persons and not necessarily by the county. Please contact Jim May or Craig Anderson of the Department to arrange a time to review this material.

4. "Tulare County records since 1986 of Alteration of Watercourses."

Response: Tulare County has not initiated any alteration of watercourses. Any alteration of watercourses would be undertaken by individuals or other jurisdictions.

5. "We desire to examine the inspection reports referenced above prepared by the Reclamation Board and its successor, the Central Valley Flood Protection Board." We note that the "reports referenced above" refer to Paragraph 9 in "An agreement between the Reclamation Board of the State of California and the County of Tulare Dated November 28, 1989."

Response: Our search continues for these documents.

6. "Request for copies of (1) the contract between Tulare County and the Spink Corporation for the preparation of Scope for the Tulare County Flood Control Master Plan Update dated February 2001, and (2) the Tulare County solicitation for or request for proposals which led to the study"

Response: Our search continues for these documents.

As indicated earlier in this letter, Dave Bryant or a member of his staff will contact you on or by January 31, 2012 for an update on the projects where the search continues for the requested materials.

Please be advised that the County charges $0.10 per page for copying of records.

You should further be aware that the County is not obligated to create records which do not exist under the Public Records Act. The California Public Records Act only requires that the public agency respond to requests for those specific records existing within its files. (California Government Code 6252(e), 6253(b); *Rosenthal v. Hansen* (1973) 34 Cal.App.3d 754.) If you have any questions or concerns, please contact me.

Very truly yours,
KATHLEEN BALES-LANGE
County Counsel

By _____
Diana L. Perez
Deputy County Counsel

DLP/1/20/2012/2012133/436002

Filed Rec'd 2/2/12

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February 1, 2012

Carole A. Clum and J. Peter Clum
45638 South Fork Road
Three Rivers, CA 93271

Re: PRA: Clum - Reclamation Board (2012133)
PRA: Clum - Copy of Contract between Tulare County and Spink (2012154)
PRA: Clum - Flood Elevation (20112023)
PRA: Clum - Master Flood Control Plan (20111989)

Dear Mr. and Mrs. Clum:

Our office represents the Resource Management Agency (Department) in this matter. We are in receipt of your correspondence to the Department regarding the above referenced requests. Please be advised that nothing in this response should be considered as a waiver of the right of the Department to assert any and all claims of exemptions or privileges to inspection of the whole or any part of the records.

Due to the volume of documents to be reviewed in order to locate the documents requested, the Department continues their process of attempting to secure the documents. As communicated to you by Dave Bryant of the Department, he or a member of his staff will contact you on or by February 15, 2012 for an update these projects. We will provide an updated response by or on this date.

The following information is an update regarding your requests:

1. "Request for the Copy of the 1995 Jurisdictional Agreement Between Tulare County and the Bureau of Reclamation."

Response: As communicated to you on January 6, 2012, Department staff has a copy of "An agreement between the Reclamation Board of the State of California and the County of Tulare Dated November 28, 1989." It is our understanding, based on previous verbal communications between you and Mr. Bryant that you have possession of the 1989 agreement as referenced in this paragraph. We have been unable to locate a 1995 Jurisdictional Agreement between Tulare

County and the Bureau of Reclamation. A reference to the 1995 agreement in the Recirculated Draft Environmental Impact Report on the proposed Tulare County General Plan 2030 update amendment is a clerical error and will be corrected to reference the 1989 agreement.

2. "Request for viewing of Documents in Selected Bibliography of Tulare County Flood Control Master Plan"

Response: Our search continues for these documents. We anticipate completion of our search for this material on or before February 15, 2012. You will be contacted on or before February 15, 2012, by Mr. Bryant or a member of the RMA staff with an update regarding the search for these materials.

3. "Tulare County Records since 1986 of Notification of other agencies of base flood elevation changes due to physical alterations."

Response: This information, in the form of letters of map change issued by FEMA, is contained in the RMA files and is available for review. Any changes to the base flood elevations are undertaken by individual persons and not necessarily by the county. Craig Anderson of the Department has arranged a time with you to review this material.

The County does not possess any records of notifications due to physical alterations to land that would change the base flood elevations since such changes are undertaken by individual persons directly with FEMA and not the County.

4. "Tulare County records since 1986 of Alteration of Watercourses."

Response: Tulare County has not initiated any alteration of watercourses. Any alteration of watercourses would be undertaken by individuals or other jurisdictions. The County does not possess records regarding alteration of watercourses since 1986. The alteration of watercourses is a process administrated by the State of California.

5. "We desire to examine the inspection reports referenced above prepared by the Reclamation Board and its successor, the Central Valley Flood Protection Board." We note that the "reports referenced above" refer to Paragraph 9 in "An agreement between the Reclamation Board of the State of California and the County of Tulare Dated November 28, 1989."

Response: Our search continues for these documents. You will be contacted on or before February 15, 2012 by Mr. Bryant or a member of the RMA staff with an update regarding the search for these materials.

6. "Request for copies of (1) the contract between Tulare County and the Spink Corporation for the preparation of Scope for the Tulare County Flood Control Master Plan Update dated February 2001, and (2) the Tulare County solicitation for or request for proposals which led to the study"

Response: No records exist for a contract between Tulare County and the Spink Corporation for the preparation of Scope for a Tulare County Flood Control Master Plan Update dated February 2001. The County did not pursue an actual agreement for a Tulare County Flood Control Master Plan Update project as funds were redirected to the Lake Success enlargement project. Our search continues regarding any Tulare County solicitation for or request for proposals for such an agreement. You will be contacted on or before February 15, 2012 by Mr. Bryant or a member of the RMA staff with an update regarding the search for these materials.

As indicated earlier in this letter, Dave Bryant or a member of his staff will contact you on or by February 15, 2012, for an update on the projects where the search continues for the requested materials.

Please be advised that the County charges $0.10 per page for copying of records.

You should further be aware that under the Public Records Act, the County is not obligated to create records which do not exist. The California Public Records Act only requires that the public agency respond to requests for those specific records existing within its files. (California Government Code 6252(e), 6253(b); *Rosenthal* v. *Hansen* (1973) 34 Cal.App.3d 754.) If you have any questions or concerns, please contact me.

Very truly yours,
KATHLEEN BALES-LANGE
County Counsel

By _____
Diana L. Perez
Deputy County Counsel

DLP/1/31/2012/20112023/438910

File Copy Rec'd 2/17/12

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Carole A. Clum and J. Peter Clum
45638 South Fork Road
Three Rivers, CA 93271

February 15, 2012

Re: PRA: Clum - Master Flood Control Plan (20111989)
PRA: Clum - Reclamation Board (2012133)
PRA: Clum - Copy of Contract between Tulare County and Spink (2012154)

Dear Mr. and Mrs. Clum:

Our office represents the Resource Management Agency (Department) in this matter. We are in receipt of your correspondence to the Department regarding the above referenced requests. Please be advised that nothing in this response should be considered as a waiver of the right of the Department to assert any and all claims of exemptions or privileges to inspection of the whole or any part of the records.

Due to the volume of documents to be reviewed in order to locate documents requested, the Department continues their process of attempting to secure documents. As communicated to you by Dave Bryant of the Department, he or a member of his staff will contact you on or by February 29, 2012 for an update these projects. We will provide an updated response by or on this date.

The following information is an update regarding your requests:

1. "Request for viewing of Documents in Selected Bibliography of Tulare County Flood Control Master Plan" dated December 16, 2011, wherein you request to view eight (8) documents listed in the bibliography.

Response: The report under Flood Plain Management: "Flood Plain Management Study, Tulare County, California, March 1970, Tulare County Planning Department" has been located. It is our understanding that you have made arrangements with Dave Bryant to examine this report at the RMA office on February 15, 2012. The search continues for the remainder of these documents. We anticipate completion of the search for this material on or before February 29, 2012. You will be contacted on or before February 29, 2012, by Mr. Bryant or a member of the Department staff with an update regarding the search for the remainder of these materials.

2. January 4, 2012 request: "We desire to examine the inspection reports referenced above prepared by the Reclamation Board and its successor, the Central Valley Flood Protection Board." We note that the "reports referenced above" refer to Paragraph 9 in "An agreement between the Reclamation Board of the State of California and the County of Tulare Dated November 28, 1989."

Response: After an exhaustive search of current and past records, the Department is unable to locate any files that contain notice of routine or special project inspection or inspection reports thereof prepared by the Reclamation Board or its successor the Central Valley Flood Protection Board.

3. "Request for copies of (1) the contract between Tulare County and the Spink Corporation for the preparation of Scope for the Tulare County Flood Control Master Plan Update dated February 2001, and (2) the Tulare County solicitation for or request for proposals which led to the study" dated January 9, 2012.

Response: In our letter of February 1, 2012, we informed you that no record for the "the contract between Tulare County and the Spink Corporation for the preparation of Scope for the Tulare County Flood Control Master Plan Update dated February 2001" existed because the search up to that date had not revealed such a document and the County did not pursue an actual agreement for a Tulare County Flood Control Master Plan Update project. However, during the search for the request for proposals which led to the study, the Department has located a document for the preparation of Scope for the Tulare County Flood Control Master Plan Update dated February 2001. In addition, the Department has located documents for the "Tulare County solicitation for or request for proposals which led to the study." It is our understanding that you have made arrangements with Dave Bryant to examine these records at the RMA office on February 15, 2012.

As indicated earlier in this letter, Dave Bryant or a member of Department staff will contact you on or by February 29, 2012, for an update on the projects where the search continues for the requested materials.

Please be advised that the County charges $0.10 per page for copying of records.

You should further be aware that under the Public Records Act, the County is not obligated to create records which do not exist. The California Public Records Act only requires that the public agency respond to requests for those specific records existing within its files. (California Government Code 6252(e), 6253(b); *Rosenthal* v. *Hansen* (1973) 34 Cal.App.3d 754.) If you have any questions or concerns, please contact me.

Very truly yours,
KATHLEEN BALES-LANGE
County Counsel

By _____
Diana L. Perez
Deputy County Counsel

cc: David Bryant, RMA
DLP/2/15/2012/2012154/443430

March 27, 2012

From: Carole A. and J. Peter Clum
45638 South Fork Drive
Three Rivers, CA 93271-9610
(559) 561-4661



To: Dave Bryant, Special Projects Manager
Tulare County Resource Management Agency
Government Plaza
5961 South Mooney Boulevard
Visalia, CA 93277

Subj: Record of Proceedings of Tulare County General Plan 2030 Update

Encl: (1) Pages 8, 9, and 10 General Plan 2030 Update Corrective Table Version Date 11-10-11 (made available to the public December 7, 2011, as Attachment 3C of Agenda Item 6A for Tulare County Planning Commission same date)
(2) Flood Control Master Plan (adopted 1972) page 58, selected bibliography
(3) Public Record Act Request by Carole Clum dated December 16, 2011 (assigned PRA number 20111989 by County)
(4) Tulare County Counsel letter to Clums dated February 29, 2012, re PRA number 20111989

Dear Mr. Bryant,

Government Code §65302(g)(2)(A)(iii) requires "The safety

element, upon the next revision of the housing element on or after January 1, 2009, shall also do the following: Identify information regarding flood hazards, including, but not limited to, the following:... information about flood hazards that is available from the United States Army Corps of Engineers." The County has stated in enclosure (1) that "Information about Flood hazards available from the United States Army Corps of Engineers is identified in the Flood Control Master Plan [approved 1972] selected bibliography on page 58." See enclosure (2).

Enclosure (2) lists five reports prepared by the Army Corps of Engineers. Two of these reports were obtained from the County by Carole Clum prior to her Public Records Act request of December 16, 2011. By enclosure (3), she requested to examine eight other documents listed in the Flood Control Master Plan selected bibliography. See enclosure (2). Three of these eight reports are Army Corps of Engineer reports. By letter dated February 29, 2012, the County stated it was not able to locate six of the eight requested documents, including the three Army Corps of Engineers reports.

Public Resources Code §21081.6(a)(2) states that when making findings required by §21081(a)(1), "The lead agency should specify the location and custodian of the documents or other material which constitute the record of the proceedings upon which the decision is based." The County has stated in enclosure (1)

that the requirements of Government Code §65302(g)(A)(iii) are satisfied by Reports of the Army Corps of Engineers identified in enclosure (2). Yet upon request, the County has been unable to produce three of the five Army Corps of Engineers reports contained in enclosure (2) and has stated in enclosure (4) that it is unable to locate the reports. We ask what steps are being taken to compile the record of proceedings of the Tulare County General Plan 2030 Update? Who is the custodian of the documents or other material and where are they located? We note that at present, prior to action by the Tulare County Board of Supervisors, there are at least 10 findings or environmental impacts of the General Plan which fall in the category of findings specified in Public Resources Code §21081(a)(1). (See Impacts 3.2-2, 3.7-2, 3.8-1, 3.8-3, 3.9-5, 3.9-6, 3.9-7, 3.9-8, 3.9-9, and 3.12-2.) Public Resources Code §21081.6(a)(2) requires the record of proceedings upon which the decision of the Board of Supervisors is based be in existence at the time of their findings as they must when making findings "specify the location and custodian of documents or other material which constitute the record of proceedings upon which the decision is based."

Please advise.

Sincerely,

Carole A. Clum

Attachment 3 C
General Plan 2030 Update Corrector Table
Version Date 11-10-11

Enclosure (1)

	Page #	February 2010 Revised Draft General Plan 2030 Update	October 2011 Staff Recommended Changes General Plan 2030 Update	Comment/ Recommendation	Planning Commission Recommendation	Board Direction
	ntation Measure #29					
31.	Part I, 9-12 Section 9.5 AQ Implementation Measure #10	...evaluate and implement flexline...	...evaluate and implement ~~flexline~~ flextime...	Typographical error correction.		
32.	Part I, 9-12 Section 9.5 AQ Implementation Measure #10	AQ-2.4, AQ-2.2	~~AQ-2.4, AQ-2.2~~ AQ-2.2, AQ-2.4	Corrected to reflect numerical order.		
33.	Part I, 10-3 Health and Safety Element Existing Conditions Overview	[insert above "10.1 General"]	Assembly Bill 162 (AB 162) was signed into law in October 2007 and requires cities and counties to increase their attention to flood-related matters in the land use, conservation, safety, and housing elements of their general plans. To accomplish this, AB 162 recommends the identification and mapping of available information regarding flood hazards from the following sources: i. **Flood hazard zones as published by an official flood insurance rate maps issued by the Federal Emergency**	Compliance with AB 162 [2007] land use, conservation, safety, and housing elements. This added language demonstrates existing compliance with AB 1358.		

Attachment 3 C
General Plan 2030 Update Corrector Table
Version Date 11-10-11

	Page #	February 2010 Revised Draft General Plan 2030 Update	October 2011 Staff Recommended Changes General Plan 2030 Update	Comment/ Recommendation	Planning Commission Recommendation	Board Direction
			Management Agency (FEMA). The FEMA flood hazard zones are shown in Figure 10.1A, discussed on page 3.6-29, and shown in Figure 3.6-5 in the RDEIR. The FEMA flood hazard zones are also discussed on page 8-14 and shown in Figure 8-1 of the Background Report. **ii. National Flood Insurance Program maps published by FEMA.** Maps showing the FEMA flood hazard zones from the National Flood Insurance Rate maps published by FEMA are shown in Figure 10.1A, Figure 3.6-5 of the RDEIR, and Figure 8-1 of the Background Report. **iii. Information about flood hazards, available from the United States Army Corps of Engineers.** Information about flood hazards available from the United States Army Corps of Engineers is identified in the Flood Control Master Plan selected bibliography			

	Page #	February 2010 Revised Draft General Plan 2030 Update	October 2011 Staff Recommended Changes General Plan 2030 Update	Comment/ Recommendation	Planning Commission Recommendation	Board Direction
			on page 58. **iv. Designated floodway maps available from the Central Valley Flood Protection Board.** The designated floodway maps from the Central Valley Flood Protection Board are described and established through the Tulare County Flood Prevention Ordinance Flood Plain zones. The definition of floodway from the Ordinance is shown below. "FLOODWAY" means the channel of a river or other watercourse and the adjacent land area that must be reserved in order to discharge the base flood without cumulatively increasing the water surface elevation more than one (1) foot. The floodway is delineated on the Flood Boundary Floodway Map, on maps adopted by the State Reclamation Board when acting within its jurisdiction, and/or on			

(2) Enclosure 3

SELECTED BIBLIOGRAPHY

FLOODS

California High Water, 1966-1967, Bulletin No. 69-67, June 1968
California High Water, 1968-1969, Bulletin No. 66-69, June 1970
—Department of Water Resources, The Resources Agency, State of California

Floods of January and February 1969 in Central and Southern California, Open-file report, 1969
—Geological Survey, U.S. Department of the Interior

Report on Floods, Central Valley of California, 1966-67 Flood Season, December 1967
Report on Floods, Central Valley of California, 1968-69 Flood Season, August 1970
—Sacramento District, Corps of Engineers, Department of the Army

FLOOD HYDROLOGY

Flood Control Master Plan: Hydrology Appendix, Tulare County Flood Control District, April 1971
—Murray, Burns and Kienlen, Consulting Civil Engineers and The Spink Corporation, Sacramento, California

FLOOD PLAIN MANAGEMENT

Flood Plain Management Study, Tulare County, California, March 1970
—Tulare County Planning Department

Flood Plain Information, Kaweah River, Three Rivers, California, October 1967
Flood Plain Information, Tule River, Springville, California, July 1968
—Sacramento District, Corps of Engineers, Department of the Army

GENERAL PLANNING

An Area General Plan, Tulare County, California, Report No. 1: Basic Determinates for Plan Preparation, April 1962
Report No. 2: Proposals and Tools for Achievement, April 1963.
—Robert Grunwald and Associates, City and Regional Planning Consultants, Hanford, Calif.

General Plan, City of Porterville, California: Public Services and Facilities, October 1965
—Koebig and Koebig, Inc., Hahn, Wise and Associates, Inc., Los Angeles and San Carlos, Calif.

A Comprehensive Master Plan for the Development of the Soil and Water Resources of the Upper Kaweah River Watershed: A Report for the Three Rivers Soil Conservation District, c. 1962
—Blair-Westfall Associates, Consulting Engineers, San Jose-Fresno, California

PROJECT PLANNING AND OPERATION

Preliminary Report and Plans and Specifications, Curtis Mountain Drain, Navelencia Soil Conservation District, Tulare County, April 1970
—Soil Conservation Service, U.S. Department of Agriculture

Stone Corral Watershed Work Plan, May 1970;
Hydrologic Appendix, May 1968
—Stone Corral Soil Conservation District, Stone Corral Irrigation District and Tulare County Board of Supervisors with Division of Soil Conservation, State of California and Soil Conservation Service, U.S. Department of Agriculture

Review Report for Flood Control on Poso Creek Stream Group, California, November 1967
—Sacramento District, Corps of Engineers, Department of the Army

East Side Division, Initial Phase, Central Valley Project: A Report on the Feasibility of Water Supply Development, December 1965, rev. June 1966
—Region 2, Bureau of Reclamation, U.S. Department of the Interior

East Side Division, Initial Phase: Proposed Report of the Secretary of the Interior, September 1968
Comments of the State of California, August 1970

Conceptual Study for the Long Range Development of the Water Resources of the Kaweah River and Adjacent Streams, for the Southern San Joaquin Valley Flood Control and Water Conservation Association, June 1970
—Amalio Gomez, Consulting Civil Engineer

Success Project, Tule River, Reservoir Regulation Manual, June 1961, rev. August 1966
Terminus Project, Kaweah River, Reservoir Regulation Manual, June 1962, rev. February 1963
—Sacramento District, Corps of Engineers, Department of the Army

OTHER

Handbook of Federal and State Programs of Financial Assistance for Water Development, 1969
—California Legislature, Assembly Committee on Water, Carley V. Porter, Chairman

Report and General Soil Map, Tulare County, California, Unpublished report, October 1967
—Soil Conservation Service, U.S. Department of Agriculture

The Possibilities of the Permanent Reclamation of Tulare Lake Basin, California, January 10, 1907
—Engineering-News Record

File Copy

Carole Clum 559 561-4661 Request for viewing of documents in selected bibliography of Tulare County Flood Control Master Plan

Floods of January and February 1969 in Central and Southern California 1969

Report on Floods, Central Valley of California, 1966-67 Flood Season, Dec. 1967

Report on Floods, Central Valley of California, 1968-69 Flood Season Aug 1970

Flood Control Master Plan: Hydrology Appendix, Tulare County Flood Control District, April 1971

Flood Plain Management Study, Tulare County, California, March 1970, Tulare County Planning Department

A Comprehensive Master Plan for the Development of the Soil and Water Resources of the Upper Kaweah River Watershed: A Report for the Three Rivers Soil Conservation District 1962

Review Report for Flood Control on Poso Creek Stream Group, California, November 1967

Report and General Soil Maps, Tulare County, California, Unpublished report, Oct 1967

Enclosure (3)

File copy Rec'd 7/1/12

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Carole A. Clum and J. Peter Clum
45638 South Fork Road
Three Rivers, CA 93271

February 29, 2012

Re: PRA: Clum-Master Flood Control Plan (20111989)
Request for viewing of documents in selected bibliography of Tulare County Flood Control Master Plan

Dear Mr. and Mrs. Clum:

Our office represents the Resource Management Agency (Department) in this matter. We are in receipt of your correspondence to the Department regarding the above referenced request. Please be advised that nothing in this response should be considered as a waiver of the right of the Department to assert any and all claims of exemptions or privileges to inspection of the whole or any part of the records.

On December 16, 2011, you requested to view the following documents:

1. "Floods of January and February 1969 in Central and Southern California 1969
2. Report on Floods, Central Valley of California, 1966-67 Flood Season, Dec. 1967
3. Report on Floods, Central Valley of California, 1968-69 Flood Season Aug 1970
4. Flood Control Master Plan: Hydrology Appendix, Tulare County Flood Control District, April 1971
5. Flood Plain Management Study, Tulare County, California, March 1970, Tulare County Planning Department

Enclosure (4)

6. A Comprehensive Master Plan for the Development of the Soil and Waters Resources of the Upper Kaweah River Watershed: A Report for the Three Rivers Soil Conservation District 1962

7. Review Report for Flood Control on Poso Creek Stream Group, California, November 1967

8. Report and General Soil Map, Tulare County, California, Unpublished Report, Oct 1967"

It is our understanding that the Department located, and you have already examined documents: 4. "Flood Control Master Plan: Hydrology Appendix, Tulare County Flood Control District, April 1971" and 5. "Flood Plain Management Study, Tulare County, California, March 1970, Tulare County Planning Department".

The Department has been searching for the documents on your list since your request was received. After an exhaustive search of records, the Department is unable to locate the remaining documents listed in your request.

If you have any questions, or if we can be of further assistance, please contact me.

Very truly yours,
KATHLEEN BALES-LANGE
County Counsel

By _____
Diana L. Perez
Deputy County Counsel

CC: Dave Bryant, Resource Management Agency

DLP/2/29/2012/20111989/446947

April 9, 2012

From: Carole A. and J. Peter Clum
45638 South Fork Drive
Three Rivers, CA 93271-9610



To: Dave Bryant, Special Projects Manager
Tulare County Resource Management Agency
Government Plaza
5961 South Mooney Boulevard
Visalia, CA 93271

Subj: Record of Proceedings of Tulare County General Plan 2030 Update

Ref: (a) Our letter to you dated March 27, 2012

1. In the third paragraph of reference (a), we misquoted Public Resources Code §21081.6(a)(2). Please make the following correction: Change the first word, line 3, third paragraph from "should" to "shall".

Sincerely,

Carole A. Clum
J. Peter Clum

June 14, 2012

FROM: Carole A. Clum and J. Peter Clum
45638 South Fork Drive
Three Rivers, CA 93271-9610
(559) 561-4661



TO: Dave Bryant, Special Projects Officer
Tulare County Resource Management Agency
5961 South Mooney Boulevard
Visalia, CA 93277

Subj: Omission of Sierra Club Kern-Kaweah Chapter Additional Comments of February 24, 2012, on the FEIR Tulare County General Plan 2030 Update

Dear Dave Bryant,

On February 24, 2012, we delivered the above described comments to the Resource Management Agency. Yesterday while reviewing the Tulare County General Plan website, we were unable to locate these comments. We request these comments be placed on the Tulare County website. As you are aware, the public comment period on the FEIR/General Plan Update remains open until the Board of Supervisors has closed the public hearing on the General Plan project before the issuance of the notice of determination. Please see Public Resources Code § 21177; Government Code § 65355; Galante Vineyards v. Monterey Peninsula Water Management District (6th District 1977) Cal. App. 4th 1109,

1117-1121; and Bakersfield Citizens for Local Control v. City of Bakersfield (5th Dist. 2004) 124 Cal. App. 4th 1184, 1200-1201.

If the Sierra Club Kern-Kaweah Chapter comments of February 24, 2012, are on the Tulare County website, please advise us how to find them.

Please notify us of your action on this matter. Thank you for your cooperation.

Sincerely,

Carole A. Clem

Walter Clem

From: David Bryant
To: Norris, Julie
Date: 08/17/2012 9:34 AM
Subject: RE: Draft Tulare County General Plan 2030 Update Safety Element

Julie, Thank you for sending the information regarding Local Hazard Mitigation Planning to enable the county to receive increased Public Assistance funding opportunities following a disaster. We also appreciate your effort to place us in contact with Dennis Castrillo from your office. Thanks, DB

Dave Bryant
Special Projects Manager
County of Tulare Resource Management Agency
5961 S. Mooney Blvd, Visalia, CA 93277
Direct Phone (559) 624-7130
Agency Phone (559) 624-7000
Fax (559) 730-2653
dpbryant@co.tulare.ca.us

>>> Julie Norris <Julie.Norris@calema.ca.gov> 06/04/2012 10:24 AM >>>
Hello Dave and Andrew-

Dave, it was good to touch base with you this morning regarding the timeframe for submitting Cal EMA comments related to the Tulare General Plan Update. As I mentioned, Andrew is currently out of the office until June 11th, but will be able to complete the review as soon as possible so you may continue with the approval process for you GP Update. If Cal EMA has no additional comment, he will advise you of that as well.

Additionally, I am attaching the Letter regarding AB2140 compliance I mentioned that provides information regarding adopting the County of Tulare Local Hazard Mitigation Plan into the General Plan Safety Element to enable the county to receive increased Public Assistance funding opportunities following a disaster. Please see the website link within the letter for more information related to AB 2140 compliance.

Thank you for following up with Cal EMA regarding comment on your Plan update. Andrew will be in touch with you shortly after his return and please let me know if I can be of further assistance.

Thanks again, Dave!

Julie

Julie Norris
Hazard Mitigation Planning Division
California Emergency Management Agency
3650 Schriever Avenue
Mather, CA 95655
Phone (916) 845-8160
Fax (916) 845-8386

From: David Bryant
Sent: Friday, June 01, 2012 2:16:56 PM

To: Media; Moustafa Abou-Taleb
Subject: Draft Tulare County General Plan 2030 Update Safety Element

To whom it may concern:

In March 2010 Tulare County prepared and released a draft General Plan Update (including a draft Safety element) and an associated Recirculated Draft EIR for review. At the same time, the County filed a Notice of Completion with OPR's State Clearinghouse. As part of this review, OPR's Letter to the County indicated that the Office of Emergency Management Agency received the RDEIR and the associated Appendices (which included the draft General Plan, and the draft Safety Element).
However, the County received no comments from the California Emergency Management Agency (Cal EMA). The County would like to ensure that it has consulted with Cal EMA regarding its General Plan Update and Safety Element, pursuant to Government Code * 65302(g)(5), for the purpose of including information known by and available to the agency. Does Cal EMA have any comments on the draft General Plan or the associated Safety Element included therein? Alternatively, we would appreciate being informed if Cal EMA has no comments. If this e-mail has not reached the appropriate contact for this purpose, please forward it to the proper contact with a copy to us or advise us by a reply e-mail.

The current draft General Plan 2030 Update is available online (the Safety Element is made up of Part I, Chapter 9, Chapter 10, and Chapter
11):

http://generalplan.co.tulare.ca.us/documents/GeneralPlan2010/Appendix%20C%20-%20General%20Plan%202030%20Update.pdf

Thank you. DB

Dave Bryant
Special Projects Manager
County of Tulare Resource Management Agency
5961 S. Mooney Blvd, Visalia, CA 93277
Direct Phone (559) 624-7130
Agency Phone (559) 624-7000
Fax (559) 730-2653
dpbryant@co.tulare.ca.us

EDMUND G. BROWN, JR.
GOVERNOR

MIKE DAYTON
ACTING SECRETARY



Cal EMA
CALIFORNIA EMERGENCY MANAGEMENT AGENCY

October 20, 2011

[Name], [Title]
[Jurisdiction]
[Address]
[City], California [Zip]

Re: Qualifying for Additional California Disaster Assistance Act (CDAA) State Share Under AB 2140

Dear [Name],

In October 2006, the Legislature passed AB 2140 which became effective January 1, 2007. This bill limits the funding of an additional state share for certain disaster recovery projects funded with CDAA unless the local agency has complied with the provisions set forth in that legislation. The purpose of this letter is to provide information regarding qualifying for that funding under this new law. Compliance with AB 2140 is optional. Compliance with AB 2140 does not guarantee additional CDAA funding. Only the Legislature can authorize additional CDAA funding following a disaster.

A complete copy of the text of the AB 2140 may be found on the internet at:

http://www.leginfo.ca.gov/pub/05-06/bill/asm/ab_2101-2150/ab_2140_bill_20060929_chaptered.html

Additional State Share Reimbursement Documentation

To qualify for the increased state share provided in the law, the following documentation must be filed with Cal EMA Hazard Mitigation Planning Division in order to be considered eligible for the increased Public Assistance reimbursement under the law:

1. A certified copy of the Resolution of Adoption by the city or county that demonstrates that the FEMA approved LHMP has been adopted (by reference or Incorporation) into the safety element of the general plan.

3650 SCHRIEVER AVENUE • MATHER, CA 95655
HAZARD MITIGATION PLANNING DIVISION
(916) 845-8150 • (916) 845-8386

2. A cover letter from the local agency which states one of the following:
    a. The LHMP approved by FEMA on (*insert date your LHMP was approved*) has no significant changes in hazards, vulnerabilities, or risk assessment and is in compliance with Government Code § 65302.6 (a), or,
    b. The LHMP approved by FEMA on (*insert date your LHMP was approved*) has had significant changes in hazards, vulnerabilities, or risk assessment and is now in compliance with Government Code § 65302.6 (a), (*provide Cal EMA Hazard Mitigation Division a copy of the amendments and request a review of updates to the LHMP*).

Please submit the qualifying information on a compact disk (CD) to the following address:

California Emergency Management Agency
Hazard Mitigation Planning Division
3650 Schriever Avenue
Mather, CA 95655
Attn: State Hazard Mitigation Officer

Hazard Mitigation Planning Division staff are available to provide assistance should you have questions or comments, at (916) 845-8150. Public Assistance questions may be directed to your assigned Area Coordinator (AC) or you may call the Public Assistance Branch at (916) 845-8200.

Sincerely,

Ken Worman

KEN WORMAN
State Hazard Mitigation Officer

From: "Chief Ralph Michaels" <r.michaels@orangecovefire.com>
To: "'David Bryant'" <DPBryant@co.tulare.ca.us>
Date: 06/07/2012 2:04 PM
Subject: RE: Draft Tulare County General Plan 2030 Update Safety Element

David: I have read the General Plan (Part I, Ch. 10 and 14) and concur with your new policies. I have no recommendations for change on behalf of Orange Cove Fire Protection District for the working relationship we hold with Tulare County. Orange Cove Fire Protection District will abide with your new policies.

If you feel you need more discussion on this , please contact me at any time.

Ralph Michaels - Fire Chief - Orange Cove fire Protection District.

-----Original Message-----
From: David Bryant [mailto:DPBryant@co.tulare.ca.us]
Sent: Thursday, May 24, 2012 6:10 PM
To: r.michaels@orangecovefire.com
Subject: Draft Tulare County General Plan 2030 Update Safety Element

Orange Cove Fire Protection District
550 Center Street
Orange Cove, CA 93646

ATTN: Ralph Michaels, Fire Chief

Our office would like to know whether the Orange Cove Fire Protection District, under Government Code section 65302.5, has any comments or recommendations on the draft General Plan 2030 Update Safety Element relating to:

1. Uses of Land and policies in state responsibility areas and very high fire hazard severity zones that will protect life, property, and natural resources from unreasonable risks associated with wildland fires; or 2. Methods and strategies for wildland fire risk reduction and prevention within state responsibility areas and very high hazard severity zones.

Alternatively, we would appreciate being informed if the Orange Cove Fire Protection District has no comments or recommendations on the draft Safety Element. Please consideration this a submission in compliance with Government Code section 65302.5. We would like the opportunity to discuss this matter directly with you.

The draft General Plan 2030 Update is available online (the Safety Element is made up of Part I, Chapter 9, Chapter 10, and Chapter 11):

http://generalplan.co.tulare.ca.us/documents/GeneralPlan2010/Appendix%20C%20-%20General%20Plan%202030%20Update.pdf
(in particular see Part I, Chapters 10 and 14, for discussion of Urban and Wildland Fire Hazards). County Staff have also recommended the addition of language to General Plan PFS Implementation Measure #3 as follows:

1. *The County shall develop and adopt an impact fee program for new development to provide financing mechanisms to ensure the provision, operation, and on-going maintenance of appropriate public facilities and services (including, but not limited to, fire stations and equipment, police stations and equipment, utility infrastructure, recreational and library facilities).*

Please contact me if you have any questions. Sincerely,

Dave Bryant
Special Projects Manager
County of Tulare Resource Management Agency Phone (559) 624-7000 Fax (559) 730-2653 dpbryant@co.tulare.ca.us

From: David Bryant
To: Real, Chuck@DOC
Date: 08/17/2012 10:03 AM
Subject: RE: Draft Tulare County General Plan 2030 Update Safety Element

Chuck,

Thank you for your email correspondence dated 6-8-2012. Your letter suggests that there was more recent information related to earthquakes, ground shaking, liquefaction, and groundwater elevations than the information contained in General Plan Figure 10-1.

Earthquakes and Ground Shaking
The referenced resource (1) in your email was not available at the time the Background Report or Recirculated Draft EIR (RDEIR) was prepared. However, the General Plan, the Background Report, and RDEIR accurately reflect that Tulare County is located within an area considered to be of low risk for seismic and groundshaking potential. The referenced updated materials do not contradict or change the conclusions in these documents or otherwise significantly affect the content or adequacy of the conclusions therein.

In most earthquakes, only weaker, masonry buildings would be damaged within Tulare County. However, (the website indicates that) very infrequent earthquakes could still cause strong shaking in Tulare County and the surrounding area. This information is consistent with the conclusions presented on pages 3.7-5 and 3.7-6 of the RDEIR.

Landslides
The referenced regional landslide hazard maps (2) appear to only be updated for selected portions of the State (Bay Area and Southern California) not including Tulare County.

Additionally, the updated report (3) does not contradict or change the information or conclusion in the Background Report, the General Plan, or the RDEIR. Additionally, there were no (0) declared landslides during the 1950 to 2009 reporting period in Tulare County.

Liquefaction
The websites referenced in the email contain no information on liquefaction or groundwater elevations specific to Tulare County; the only site specific information found on the web site was for the San Francisco Bay Area. Consequently, we have not located any additional mapping data that would contradict or change the overall conclusions of the Background Report, the General Plan, or the RDEIR.

Nevertheless, County Staff will be suggesting incorporation of some of the information from these websites. This information is consistent with the descriptions provided in the EIR, the current draft of the General Plan, and the Background Report.

(1) http://myplan.calema.ca.gov/
(2)Contained on http://myplan.calema.ca.gov/
(3)http://www.conservation.ca.gov/cgs/information/publications/ms/Documents/MS58.pdf

Thank you for your time in preparing your comments. DB

Dave Bryant
Special Projects Manager
County of Tulare Resource Management Agency
5961 S. Mooney Blvd, Visalia, CA 93277
Direct Phone (559) 624-7130
Agency Phone (559) 624-7000
Fax (559) 730-2653

dpbryant@co.tulare.ca.us

>>> "Real, Chuck@DOC" <Chuck.Real@conservation.ca.gov> 06/08/2012 5:04 PM >>>
Mr. Bryant,

I have reviewed Section 10.2 of the Draft General Plan and Section 8.2 of the associated Background Report. In general, the documents do not contain current information available on earthquake occurrences and expected earthquake ground shaking. Figure 10.1, Seismic/Geologic Hazard and Microzones Map, is very out of date (1974), and should be replaced. Understanding of expected ground shaking has advanced significantly since 1974, and shaking information consistent with the building code is conveniently available over the internet. Regarding liquefaction hazards, groundwater elevations should be updated. CGS recommends that all sections dealing with seismicity and earthquakes be updated with current information: earthquake epicenters, principal faults, probabilistic ground shaking maps, etc. It would be helpful for you to review hazards in your county using the MyPlan web service: http://myplan.calema.ca.gov/. Also, a new regional landslide hazard map is available at the following link: http://www.conservation.ca.gov/cgs/information/publications/ms/Documents/MS58.pdf.

Other more recent hazard information is also available from the US Geological Survey. If Tulare county is undertaking development of a Hazard Mitigation Plan, linking the information with the General Plan and Safety Element would be an efficient way to update.

Thank you for the opportunity to review these documents.

Charles R. Real, GP 968
Supervising Engineering Geologist
California Geological Survey
801 K Street MS 12-31
Sacramento CA 94814-3531
(916) 323-8550
mailto:creal@conservation.ca.gov
http:\\www.conservation.ca.gov\cgs

-----Original Message-----
From: David Bryant [mailto:DPBryant@co.tulare.ca.us]
Sent: Thursday, May 24, 2012 6:09 PM
To: Real, Chuck@DOC; Clinkenbeard, John@DOC
Subject: Draft Tulare County General Plan 2030 Update Safety Element

California Geological Survey

Headquarters/Office
of the State Geologist
801 K Street, MS 12-30
Sacramento, CA 95814

ATTN: John Clinkenbeard
ATTN: Chuck Real

In March 2010 Tulare County prepared and released a draft General Plan Update (including a draft Safety element) and an associated Recirculated Draft EIR for review. At the same time, the County filed a Notice of Completion with OPR*s State Clearinghouse and requested review by the Department of Conservation. The State Clearinghouse sent out copies of the Tulare County*s Recirculated Draft EIR, which included the draft Tulare County General Plan 2030 Update (including the Safety Element) and the Background Report as Appendices.

Tulare County received a comment letter from the Division of Land Resource Protection of the Department of Conservation (dated May 12, 2010), but received no comments from the California Geological Survey. Tulare County would like to know whether the California Geological Survey, also in the Department of Conservation, has reviewed and has any comments under Government Code section 65302.5 relating to seismic and other geologic hazard information in the draft Safety Element (included in the draft *General Plan 2030 Update*),the associated Background Report, or the EIR, available online at: http://generalplan.co.tulare.ca.us/. Alternatively, we would appreciate being informed if the California Geological Survey has no comments or recommendations. If the Department of Conservation did not provide you with your copy of these materials, please consideration this a submission in compliance with Government Code section 65302.5.

Specific Links are provided below:

1. General Plan 2030 Update (Part I, Chapter 9, Chapter 10, and Chapter 11 make up the draft Safety Element. See Chapter 10 for information pertaining to seismic and other geologic hazard information):
http://generalplan.co.tulare.ca.us/documents/GeneralPlan2010/Appendix%20C%20-%20General%20Plan%202030%20Update.pdf

2. Background Report:
http://generalplan.co.tulare.ca.us/documents/GeneralPlan2010/Appendix%20B%20-%20Background%20Report.pdf

3. Recirculated Draft
EIR:http://generalplan.co.tulare.ca.us/documents/generalplan2010/RecirculatedDraftEIR.pdf

County Staff has also recommended inclusion of a new policy (HS-2.8) in the General Plan 2030 Update not included in the attached file:
*HS-2.8 Alquist-Priolo Act Compliance. The County shall not permit any structure for human occupancy to be placed within designated Earthquake Fault Zones (pursuant to and as determined by the

Alquist-Priolo Earthquake Fault Zoning Act; Public Resources Code, Chapter 7.5) unless the specific provisions of the Act and Title 14 of the California Code of Regulations have been satisfied.

Please contact me if you have any questions. Sincerely,

Dave Bryant
Special Projects Manager
County of Tulare Resource Management Agency
Phone (559) 624-7000
Fax (559) 730-2653
dpbryant@co.tulare.ca.us

From: David Bryant
To: Castrillo, Dennis
Date: 08/17/2012 9:38 AM
Subject: RE: Draft Tulare County General Plan 2030 Update Safety Element

Dennis, Thank you for your e-mail, comments, and information. As you are aware, we already submitted our RDEIR to the State Clearinghouse and to your agency in March 2010. Since your agency had the opportunity to comment on the RDEIR during the public comment period as stated in the March 2010 OPR circulation letter, the County will not be reopening the public comment period on the RDEIR, and any further comments on the final EIR received after the close of the CEQA review period will still be considered at the public hearing on this matter before the Board of Supervisors. Your agency will receive a notice as to the time and location of this public hearing before the Board of Supervisors. Thanks, DB

Dave Bryant
Special Projects Manager
County of Tulare Resource Management Agency
5961 S. Mooney Blvd, Visalia, CA 93277
Direct Phone (559) 624-7130
Agency Phone (559) 624-7000
Fax (559) 730-2653
dpbryant@co.tulare.ca.us

>>> Dennis Castrillo <Dennis.Castrillo@calema.ca.gov> 06/12/2012 2:09 PM >>>
All:

Government Code 65302(g)(5) requires local governments that are updating their general plans to consult with CalEMA (and other agencies) for the purpose of gathering and including information within their safety element that is know by and available from CalEMA so they will have the best available information regarding the hazards the safety element is required to address. This section does not require CalEMA to review the safety element for legal or technical accuracy, nor has the legislature granted CalEMA to power to approve or disapprove any local agencies safety element.

If the County wishes us to comment on the EIR for the General Plan at this time, they would first need to reopen the comment period and allow others to comment on the General Plan as well (i.e. re-circulate the document through the state clearinghouse).

Dave:

We normally provide comments on the EIRs that are written for General Plan updates. I know that Andrew Rush has done many of them. I receive a daily package of materials to review from the state clearinghouse and I am the only person in our environmental/historical section so I may have overlooked your general plan. Our comments normally remind local agencies to review the state planning law requirements and when appropriate address, in terms of land use policy, those hazards that are present within their jurisdiction. For your information I have attached the standard comment package we normally send.

Please feel free to call me if you have any questions.

Dennis Castrillo
CalEMA Environmental Officer
916-845-8270

-----Original Message-----
From: Julie Norris
Sent: Monday, June 11, 2012 9:37 AM

To: Dennis Castrillo; Andrew Rush
Subject: RE: Draft Tulare County General Plan 2030 Update Safety Element

Thanks To Both!! They are waiting for our response, so I apologize in getting this to the wrong person which caused further delay....

-----Original Message-----
From: Dennis Castrillo
Sent: Monday, June 11, 2012 9:35 AM
To: Andrew Rush
Cc: Julie Norris
Subject: RE: Draft Tulare County General Plan 2030 Update Safety Element

Thanks, I'll check it out.

From: Andrew Rush
Sent: Monday, June 11, 2012 9:31 AM
To: Dennis Castrillo
Cc: Julie Norris
Subject: FW: Draft Tulare County General Plan 2030 Update Safety Element

Dennis,

Julie forwarded me this message from Tulare County. The county is looking for a review of its updated General Plan.

Julie,

I transferred over to the Hazard Mitigation Grants Unit last year. Dennis is handling all environmental reviews. Thanks.

Andrew Rush
Senior Emergency Services Coordinator

California Emergency Management Agency
Hazard Mitigation Grants Branch
3650 Schriever Avenue
Mather, CA 95655
(916) 845-8269
andrew.rush@calema.ca.gov

-----Original Message-----
From: Julie Norris
Sent: Monday, June 04, 2012 10:24 AM
To: dpbryant@co.tulare.ca.us; Andrew Rush
Cc: Jim Brown; Mark R. Johnson; Moustafa Abou-Taleb; LeAnn Raffanti
Subject: RE: Draft Tulare County General Plan 2030 Update Safety Element

Hello Dave and Andrew-

Dave, it was good to touch base with you this morning regarding the timeframe for submitting Cal EMA comments related to the Tulare General Plan Update. As I mentioned, Andrew is currently out of the office until June 11th, but will be able to complete the review as soon as possible so you may continue

with the approval process for you GP Update. If Cal EMA has no additional comment, he will advise you of that as well.

Additionally, I am attaching the Letter regarding AB2140 compliance I mentioned that provides information regarding adopting the County of Tulare Local Hazard Mitigation Plan into the General Plan Safety Element to enable the county to receive increased Public Assistance funding opportunities following a disaster. Please see the website link within the letter for more information related to AB 2140 compliance.

Thank you for following up with Cal EMA regarding comment on your Plan update. Andrew will be in touch with you shortly after his return and please let me know if I can be of further assistance.

Thanks again, Dave!

Julie

Julie Norris
Hazard Mitigation Planning Division
California Emergency Management Agency
3650 Schriever Avenue
Mather, CA 95655
Phone (916) 845-8160
Fax (916) 845-8386

From: David Bryant
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11):

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Thank you. DB

Dave Bryant
Special Projects Manager
County of Tulare Resource Management Agency
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Direct Phone (559) 624-7130
Agency Phone (559) 624-7000
Fax (559) 730-2653
dpbryant@co.tulare.ca.us

Attachment A
Hazards and State Planning Law Requirements

General Plan Consistency

65300.5. In construing the provisions of this article, the Legislature intends that the general plan and elements and parts thereof comprise an integrated, internally consistent and compatible statement of policies for the adopting agency.

Seven Mandated Elements

65302. The general plan shall consist of a statement of development policies and shall include a diagram or diagrams and text setting forth objectives, principles, standards, and plan proposals. The plan shall include the following elements:
(a) A land use element that designates the proposed general distribution and general location and extent of the uses of the land for housing, business, industry, open space, including agriculture, natural resources, recreation, and enjoyment of scenic beauty, education, public buildings and grounds, solid and liquid waste disposal facilities, and other categories of public and private uses of land. The land use element shall include a statement of the standards of population density and building intensity recommended for the various districts and other territory covered by the plan. The land use element shall identify areas covered by the plan which are subject to flooding and shall be reviewed annually with respect to those areas. The land use element shall also do both of the following:
(1) Designate in a land use category that provides for timber production those parcels of real property zoned for timberland production pursuant to the California Timberland Productivity Act of 1982, Chapter 6.7 (commencing with Section 51100) of Part 1 of Division 1 of Title 5.
(2) Consider the impact of new growth on military readiness activities carried out on military bases, installations, and operating and training areas, when proposing zoning ordinances or designating land uses covered by the general plan for land, or other territory adjacent to military facilities, or underlying designated military aviation routes and airspace.
(A) In determining the impact of new growth on military readiness activities, information provided by military facilities shall be considered. Cities and counties shall address military impacts based on information from the military and other sources.
(B) The following definitions govern this paragraph:
(i) "Military readiness activities" mean all of the following:
(I) Training, support, and operations that prepare the men and women of the military for combat.
(II) Operation, maintenance, and security of any military installation.
(III) Testing of military equipment, vehicles, weapons, and sensors for proper operation or suitability for combat use.
(ii) "Military installation" means a base, camp, post, station,yard, center, homeport facility for any ship, or other activity under the jurisdiction of the United States Department of Defense as defined in paragraph (1) of subsection (e) of Section 2687 of Title 10 of the United States Code.
(b) A circulation element consisting of the general location and extent of existing and proposed major thoroughfares, transportation routes, terminals, any military airports and ports, and other local public utilities and facilities, all correlated with the land use element of the plan.
(c) A housing element as provided in Article 10.6 (commencing with Section 65580).

(d) A conservation element for the conservation, development, and utilization of natural resources including water and its hydraulic force, forests, soils, rivers and other waters, harbors, fisheries, wildlife, minerals, and other natural resources. The conservation element shall consider the effect of development within the jurisdiction, as described in the land use element, on natural resources located on public lands, including military installations. That portion of the conservation element including waters shall be developed in coordination with any countywide water agency and with all district and city agencies that have developed, served, controlled or conserved water for any purpose for the county or city for which the plan is prepared. Coordination shall include the discussion and evaluation of any water supply and demand information described in Section 65352.5, if that information has been submitted by the water agency to the city or county. The conservation element may also cover the following:

(1) The reclamation of land and waters.

(2) Prevention and control of the pollution of streams and other waters.

(3) Regulation of the use of land in stream channels and other areas required for the accomplishment of the conservation plan.

(4) Prevention, control, and correction of the erosion of soils, beaches, and shores.

(5) Protection of watersheds.

(6) The location, quantity and quality of the rock, sand and gravel resources.

(7) Flood control.

The conservation element shall be prepared and adopted no later than December 31, 1973.

(e) An open-space element as provided in Article 10.5 (commencing with Section 65560).

(f) A noise element which shall identify and appraise noise problems in the community. The noise element shall recognize the guidelines established by the Office of Noise Control in the State Department of Health Services and shall analyze and quantify, to the extent practicable, as determined by the legislative body, current and projected noise levels for all of the following sources:

(1) Highways and freeways.

(2) Primary arterials and major local streets.

(3) Passenger and freight on-line railroad operations and ground rapid transit systems.

(4) Commercial, general aviation, heliport, helistop, and military airport operations, aircraft overflights, jet engine test stands, and all other ground facilities and maintenance functions related to airport operation.

(5) Local industrial plants, including, but not limited to, railroad classification yards.

(6) Other ground stationary noise sources, including, but not limited to, military installations, identified by local agencies as contributing to the community noise environment.

Noise contours shall be shown for all of these sources and stated in terms of community noise equivalent level (CNEL) or day-night average level (Ldn). The noise contours shall be prepared on the basis of noise monitoring or following generally accepted noise modeling techniques for the various sources identified in paragraphs (1) to (6), inclusive. The noise contours shall be used as a guide for establishing a pattern of land uses in the land use element that minimizes the exposure of community residents to excessive noise. The noise element shall include implementation measures and possible solutions that address existing and foreseeable noise problems, if any. The adopted noise element shall serve as a guideline for compliance with the state's noise insulation standards.

(g) A safety element for the protection of the community from any unreasonable risks associated with the effects of seismically induced surface rupture, ground shaking, ground failure, tsunami, seiche, and dam failure; slope instability leading to mudslides and landslides; subsidence, liquefaction and other seismic hazards identified pursuant to Chapter 7.8 (commencing with Section 2690) of the Public Resources **Code**, and other geologic hazards known to the legislative body; flooding; and wild land and urban fires. The safety element shall include mapping of known seismic and other geologic hazards. It shall also address evacuation routes, military installations, peakload water supply requirements, and minimum road widths and clearances around structures, as those items relate to identified fire and geologic hazards.
(1) Prior to the periodic review of its general plan and prior to preparing or revising its safety element, each city and county shall consult the Division of Mines and Geology of the Department of Conservation and the Office of Emergency Services for the purpose of including information known by and available to the department and the office required by this subdivision.
(2) To the extent that a county's safety element is sufficiently detailed and contains appropriate policies and programs for adoption by a city, a city may adopt that portion of the county's safety element that pertains to the city's planning area in satisfaction of the requirement imposed by this subdivision.

Consistency with Airport Land Use Plans

65302.3. (a) The general plan, and any applicable specific plan prepared pursuant to Article 8 (commencing with Section 65450), shall be consistent with the plan adopted or amended pursuant to Section 21675 of the Public Utilities Code.

Review of Safety Element

65302.5. (a) At least 45 days prior to adoption or amendment of the safety element, each county and city shall submit to the Division of Mines and Geology of the Department of Conservation one copy of a draft of the safety element or amendment and any technical studies used for developing the safety element. The division may review drafts submitted to it to determine whether they incorporate known seismic and other geologic hazard information, and report its findings to the planning agency within 30 days of receipt of the draft of the safety element or amendment pursuant to this subdivision. The legislative body shall consider the division's findings prior to final adoption of the safety element or amendment unless the division's findings are not available within the above prescribed time limits or unless the division has indicated to the city or county that the division will not review the safety element. If the division's findings are not available within those prescribed time limits, the legislative body may take the division's findings into consideration at the time it considers future amendments to the safety element. Each county and city shall provide the division with a copy of its adopted safety element or amendments. The division may review adopted safety elements or amendments and report its findings. All findings made by the division shall be advisory to the planning agency and legislative body.
(1) The draft element of or draft amendment to the safety element of a county or a city's general plan shall be submitted to the State Board of Forestry and Fire Protection and to every local

agency that provides fire protection to territory in the city or county at least 90 days prior to either of the following:
(A) The adoption or amendment to the safety element of its general plan for each county that contains state responsibility areas.
(B) The adoption or amendment to the safety element of its general plan for each city or county that contains a very high fire hazard severity zone as defined pursuant to subdivision (b) of Section 51177.
(2) A county that contains state responsibility areas and a city or county that contains a very high fire hazard severity zone as defined pursuant to subdivision (b) of Section 51177, shall submit for review the safety element of its general plan to the State Board of Forestry and Fire Protection and to every local agency that provides fire protection to territory in the city or county in accordance with the following dates as specified, unless the local government submitted the element within five years prior to that date:
(A) Local governments within the regional jurisdiction of the San Diego Association of Governments: December 31, 2010.
(B) Local governments within the regional jurisdiction of the Southern California Association of Governments: December 31, 2011.
(C) Local governments within the regional jurisdiction of the Association of Bay Area Governments: December 31, 2012.
(D) Local governments within the regional jurisdiction of the Council of Fresno County Governments, the Kern County Council of Governments, and the Sacramento Area Council of Governments: June 30, 2013.
(E) Local governments within the regional jurisdiction of the Association of Monterey Bay Area Governments: December 31, 2014.
(F) All other local governments: December 31, 2015.
(3) The State Board of Forestry and Fire Protection shall, and a local agency may, review the draft or an existing safety element and report its written recommendations to the planning agency within 60 days of its receipt of the draft or existing safety element. The State Board of Forestry and Fire Protection and local agency shall review the draft or existing safety element and may offer written recommendations for changes to the draft or existing safety element regarding both of the following:
(A) Uses of land and policies in state responsibility areas and very high fire hazard severity zones that will protect life, property, and natural resources from unreasonable risks associated with wildland fires.
(B) Methods and strategies for wildland fire risk reduction and prevention within state responsibility areas and very high hazard severity zones.
(b) Prior to the adoption of its draft element or draft amendment, the board of supervisors of the county or the city council of a city shall consider the recommendations made by the State Board of Forestry and Fire Protection and any local agency that provides fire protection to territory in the city or county. If the board of supervisors or city council determines not to accept all or some of the recommendations, if any, made by the State Board of Forestry and Fire Protection or local agency, the board of supervisors or city council shall communicate in writing to the State Board of Forestry and Fire Protection or to the local agency, its reasons for not accepting the recommendations.

Open Space Plans

65560. (a) "Local open-space plan" is the open-space element of a county or city general plan adopted by the board or council, either as the local open-space plan or as the interim local open-space plan adopted pursuant to Section 65563.

(b) "Open-space land" is any parcel or area of land or water that is essentially unimproved and devoted to an open-space use as defined in this section, and that is designated on a local, regional or state open-space plan as any of the following:

(1) Open space for the preservation of natural resources including, but not limited to, areas required for the preservation of plant and animal life, including habitat for fish and wildlife species; areas required for ecologic and other scientific study purposes; rivers, streams, bays and estuaries; and coastal beaches, lakeshores, banks of rivers and streams, and watershed lands.

(2) Open space used for the managed production of resources, including but not limited to, forest lands, rangeland, agricultural lands and areas of economic importance for the production of food or fiber; areas required for recharge of groundwater basins; bays, estuaries, marshes, rivers and streams which are important for the management of commercial fisheries; and areas containing major mineral deposits, including those in short supply.

(3) Open space for outdoor recreation, including but not limited to, areas of outstanding scenic, historic and cultural value; areas particularly suited for park and recreation purposes, including access to lakeshores, beaches, and rivers and streams; and areas which serve as links between major recreation and open-space reservations, including utility easements, banks of rivers and streams, trails, and scenic highway corridors.

(4) Open space for public health and safety, including, but not limited to, areas which require special management or regulation because of hazardous or special conditions such as earthquake fault zones, unstable soil areas, flood plains, watersheds, areas presenting high fire risks, areas required for the protection of water quality and water reservoirs and areas required for the protection and enhancement of air quality.

From: "Hulse, David S CIV NAVFAC SW" <david.s.hulse@navy.mil>
To: <DPBryant@co.tulare.ca.us>
CC: "Bush, Kimberly N CIV NAVFAC SW, ESWD" <kimberly.n.bush@navy.mil>, "Fox,...
Date: 06/22/2012 2:44 PM
Subject: Re: Meeting to Discuss General Plan Update and Compatible Use of Military Airspace

Mr. Bryant:

Thank you for taking my call about two weeks ago. I intended to email back to you sooner, but I've been traveling so it's been kind of hectic the past two weeks.

As you may recall, I would like to schedule a good time to discuss the presence of Military Training Routes (MTRs) and Restricted Use Airspace within Tulare County and a the General Plan Update and provisions in the Plan to support a possible zoning ordinance amendment to establish a review process for projects that could potentially penetrate this airspace. We have been meeting with many counties in our 6-state region to discuss this issue and working together to adopt review procedures for new development that could impact our MTRs.

I would like to request a meeting, perhaps in mid-July, where we can meet with you and your staff and discuss this issue further. We have a GIS based "Mission Compatibility Analysis Tool" (MCAT) that we can present that helps us to quickly evaluate planning constraints and the potential encroachment of proposed new development on our airspace. I also have some draft General Plan and zoning ordinance language for this purpose that may be beneficial to you.

Thank you again and please let me know what dates may work best for you for the meeting.

R/
David Hulse, AICP
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