Tulare County Feasibility Study for Regional Solutions for Disadvantaged Community Water Needs

Applicant: Tulare County

Problem Description:

Tulare County has many public water systems with unsafe drinking water. Approximately 20% of the small public drinking water systems are unable to meet a Maximum Contaminant Level (MCL) on a regular basis, and another 20% are over half the MCL in at least one contaminant. The small communities served by these water systems are almost entirely disadvantaged communities. These systems continue to rely on increasingly contaminated, over-drafted, groundwater aquifers. With decreasing surface water deliveries to the area, groundwater water quality and quantity will continue to decline.

Nitrates, arsenic, DBCP and uranium are some of the leading contaminants. Unfortunately, treatment cost and by-product disposal are costly solutions for small, poor communities. Options for these small disadvantaged communities in Tulare County include locating and utilizing safe groundwater sources if they are still available, blending groundwater with other sources, connecting to larger systems, and/or participating in regional solutions.

Communities with drinking water systems and irrigation water users recognize the need to develop regional solutions to increase the reliability and quality of our water supplies. There is a need for the development of regional strategies that are long-term sustainable solutions for exchanging water and meeting the drinking water needs and water supply reliability Tulare County communities.

Project Description:

A technical regional evaluation is needed to identify ways by which small communities can achieve clean and reliable water supplies, and implement those plans. This feasibility study would examine how to improve the regional planning, plumbing and water management that would provide increased water reliability and drinking water quality. Such a study would include mapping the existing needs and assets, and subsequently making the recommendations of the feasible ways to improve the planning, plumbing and water management decisions that will maximize these assets and meet more of the water needs of the region. The feasibility study would evaluate the use of some of the following infrastructure alternatives:

- ✓ Community-to-water district and community-to-community **inter-ties**
- ✓ Connections to cross valley and inter-valley **pipelines** and/or **canals**
- ✓ Regional **drinking water treatment facilities**
- ✓ Regional **wastewater treatment facilities**
- ✓ **Conjunctive**-use sites and groundwater recharge improvement
- ✓ Improved and new wastewater collection and drinking water **distribution infrastructure**

The feasibility study would also evaluate regional and joint cost-sharing and management structures for projects to ensure that small, disadvantaged communities are able to keep operational costs at affordable levels.

Projected Project Costs: $500,000

BoS Agenda 7/17/07
enclosure (4)

Applicant: Tulare County

Problem Description:

Tulare County has many public water systems with nitrate levels over the Maximum Contaminant Level (MCL) of 45 ppm. Approximately 20% of Tulare County's small public drinking water systems are unable to meet the nitrate MCL on a regular basis, and another 20% are over half the nitrate MCL. The number of systems affected and the levels continue to increase. Additionally, the State Water Resources Control Board's (SWRCBs) Groundwater Ambient Monitoring Assessment Program (GAMA) recently found that 40% of the private domestic wells tested in the County had nitrate levels over the MCL.

Most of the areas of high nitrate are located in particular regions of the County, especially along the east side of the valley floor. In order to begin to look at source water protection and decrease inputs of nitrate into drinking water aquifers, we must identify the types of sources. Potential sources include fertilizers, animal waste, food processing facilities, septic systems, and public wastewater treatment systems. Without a study to identify sources, the County and individual water systems have no guidance as to how to reduce current and prevent future nitrate contamination.

Project Description:

The County would work with consultants to design and implement a sampling program to identify the sources of nitrate and age of the water in which the nitrate is found, for a number of representative regions of the County where groundwater utilized for drinking water has nitrate levels over the MCL. The results would be utilized to map areas of nitrate contamination and make recommendations on actions that can be taken to prevent/reduce future nitrate contamination of aquifers.

Total Amount Requested: $500,000

Tulare County Feasibility Study to Evaluate Ground Water Quality Information

Applicant: Tulare County

Problem Description:

Tulare County is dependant on ground water for almost all of its drinking water. The County has extensive groundwater quality issues primarily related to the contaminants nitrate, arsenic, DBCP and uranium. It is estimated that contamination issues will be exacerbated by land use practices and from overdraft, drought, and the loss of Friant-Kern water due to the San Joaquin River settlement. Approximately 20% of our small public water systems are over the Maximum Contaminant Level for nitrates and another 20% are over half the MCL. The trend has been for a continual increase in the number of systems affected and the levels seen. There are nearly 20,000 private wells within the county and there is very little information on the water quality of these wells. The SWRCB's GAMA Program recently found that 40 percent of the 180 private domestic wells tested in the County had nitrate levels over the MCL.

The small communities served by public water systems are almost entirely disadvantaged communities and continue to rely on increasingly contaminated, over-drafted, groundwater aquifers. With decreasing surface water deliveries to the area, groundwater water quality and quantity will continue to decline.

Though nitrates, arsenic, DBCP and uranium are the leading contaminants, there is no thorough knowledge of the magnitude of the problem in Tulare County.

Since agriculture is the driving force of the economy the effect of diminished water for irrigation due to the Friant–Kern - San Joaquin River decision will have an impact on ground water levels and quality due to increased pumping to make up for the deficit.

Project Description:

An evaluative study over an 18 month period of the county's water quality is needed to formulate policies and make recommendations of projects that can prevent additional contamination of aquifers used as a source of drinking water. To this end it is necessary to know what the situation is so that solutions can be determined. The study would include:

Compiling of current and historic data on ground water contamination
Testing and research to fill in the data gaps
GIS mapping of information
Evaluating data in relationship to depth of wells, precipitation, importation of surface water, groundwater pumping and other factors

Maps and other information generated would be produced in a format that would be usable to County planners and water agencies for policy decisions and project recommendations.

Projected Project Cost: $500,000

Enclosure (20)

C#	Date	T	Source	Location	Overview of Changes Requested/Made	Staff Recommendation	Status
	31			Measure 22)		Policy WR-3.9, Establish Critical Water Supply Areas should be the reference policy, not Policy WR-3.10, Diversion of Surface Water.	
					WR (General Comments)		
1	FEB 22	L	Susan Shaw, Tulare County HHSA	WR (General Comments)	Ag and dairies have an impact on the quality of our water but are essential for our economy. We are not reaching a crisis of quantity and quality with regard to our water. It is important that we take a regional approach with such a comprehensive issues as water which touches son many agencies, entities and interests. Solutions need to look at the macro view instead of band aiding as has been done in the past.	Agree. See Implementation 3.	No change needed
2	FEB 22	L	Susan Shaw, Tulare County HHSA	WR (General Comments)	The valley is experiencing ever increasing levels of salts and in particular, nitrates. Much of the county is in overdraft which will increase as we will no longer will be receiving the amount of water from we once had from the Friant-Kern Canal. This will put an increased demand on ground water and increased pumping will also serve to pull the contamination vertically into the deeper aquifers. The water table is lowering in certain areas and the stress will be particularly felt in draught years. Finding good water is increasingly becoming a challenge and in certain areas a doubtful risk. Our situation demands cooperation in finding and implementing solutions. The Salinas Valley in Monterey established a working relationship with the agricultural community to address their nitrate situation. Education and best management practices are an important part of this effort and getting buy-in from the source of pollution. They found that farmers at first reluctant to have interference in how they conduct their livelihood later became the very ones demanding stronger regulations on their peers.	Comment noted.	No change needed

Typo. Should be "now" vice "not" according to source at phone (559) 733-6441, extension 2510, Tulare County Environmental Health

C#	Date	T	Source	Location	Overview of Changes Requested/Made	Staff Recommendation	Status
1	FEB 13	L	Center on Race, Poverty and The Environment	WR (Implementation Measure 15)	This implementation measure is very vague. Instead of merely considering the feasibility, the County should require evidence of long-term water availability or will serve letter prior to approving a tentative map.	Agree. The words "consider the feasibility of" will be removed.	Policy Report revised 06/12/07
2	JAN 31	L	G. Schwaller	WR (Implementation Measure 15)	"The County shall *adopt* an ordinance to require ...."	See WR (Implementation 15) (1)	No change needed
WR (Implementation 17)							
1	JAN 31	L	G. Schwaller	WR (Implementation Measure 17)	"The County shall maintain . . . and establish incentives . . . for compliance *and penalties for non-compliance.*"	"Compliance" implies penalties. The Implementation Measure will be revised as follows, "The County shall maintain and implement its water efficient landscape ordinance consistent with the Department of Water Resources Model Water Efficient Landscape Ordinance. All ordinances have civil fines and penalties attached.	Policy Report revised 07/13/07
WR (Implementation 20)							
1	JAN 17	L	Del Strange	WR (Implementation Measure 20)	Line 5 should read: "...degrading water quality <u>or reducing groundwater supply</u>."	The policy will be modified by replacing the word "reducing" with "affecting".	Policy Report revised 06/12/07
WR (Implementation 22)							
1	JAN	L	G. Schwaller	WR (Implementation	"The County shall *establish* development or design standards . . . ."	Agree. This change will be made.	Policy Report revised 06/12/07

C#	Date	T	Source	Location	Overview of Changes Requested/Made	Staff Recommendation	Status
3	FEB 22	L	Susan Shaw, Tulare County HHSA	WR (General Comments)	More than 95% of county residents use groundwater for their drinking supply. There are 420 public water systems within the county and over 20,000 private wells. Tulare county ranks about 5th in the state for the number of people on private wells. **Breakdown of public water systems:** County Environmental Health oversees: 290 systems (15-199 connections) 74 state smalls (5-14 connections) State oversees: 56 systems (200+ connections and National Park systems)	Comment noted.	No change needed
4	FEB 22	L	Susan Shaw, Tulare County HHSA	WR (General Comments)	Nitrate is the most prevalent contaminant effect over a third of the 290 systems that the county oversees. There are 56 of these 290 systems over the maximum contaminant level (MCL) and 60 over half the MCL. Four of the 56 larger systems which the state oversees are over the MCl and 2 are over half the MCl. Systems such as Porterville, Exeter, Lindsay, Cutler and Orosi have limited excess water supply and have trouble finding new supply which does not require treatment. The number of systems with high nitrates levels continue to rise. Nitrates have numerous sources such as fertilizers, animal waste (confined animal operations), human waste (sewage and septic) and naturally occurring. Some of the other contaminants present in our public water systems are dibromochloropropane (DBCP), arsenic, uranium and carbon tetrachloride. DBCP is a fumigant used for nematodes in vineyards and orchards which was banned in 1977. Arsenic is naturally occurring and is found primarily in the mountains and in the deep alluvium in the southwestern part of the county. Uranium is also naturally occurring in the mountain, foothills and valley. The county began a program of testing new private domestic wells in 2005 and this has revealed areas of concern, in particular a pocket of high uranium which has initiated further study. Recently a state program (GAMA – Groundwater Ambient Monitoring and Assessment) did an evaluation of about 181 random private wells and the results showed 75 over	Comment noted.	No change needed

C#	Date	T	Source	Location	Overview of Changes Requested/Made	Staff Recommendation	Status
					the MCl for nitrate. Currently most of our data comes from where there is a public water system so there are numerous areas where we have little or no knowledge of the water quality.		
5	FEB 22	L	Susan Shaw, Tulare County HHSA	WR (General Comments)	What can be done about the water issues facing the County?		No change needed
					Do the Research: Determine what is our solution – how do we become self sustaining. - How much growth we can sustain - Water quality - Water quantity - Geology/soils/topography - Causes of contamination - Prevention measures: BMP, destroy abandoned wells - Options - Feasibility - Cost	This task is ongoing.	
					1) Re-write the well ordinance and septic regulations to reflect what we are seeing.	See Implementation 14C, which will be amended to change "known bacteriological contamination" to "known contaminants".	Policy Report revised 07/13/07
					2) Gather more data in areas where we have little or no info to get a better understanding of our situation. Currently most of our data is from public water systems. Due to the number of people on private wells we need to get more water quality information on these wells. It would be good to expand the testing of private wells by requiring water testing on the sale of a property for the few know contaminants.	See new Implementation Measure 7A.	No change needed
					3) Develop a good education program to inform citizens about what they can do; care of wells, aquifer protection, septic care, health effects of contaminants.	See Implementation Measure 19.	No change needed
					4) Stress the importance of destroying abandoned wells.	This is a continuing and ongoing program.	No change needed

C#	Date	T	Source	Location	Overview of Changes Requested/Made	Staff Recommendation	Status
					5) Set spatial and number limitations on septic systems and encourage community systems and regional waste water treatment plants.	This is done in Chapter 5, Land Use, Table 5-1, Land Use designations, which sets minimum parcels sizes for septic and well, and in Chapter 13, Public Facilities and Services, Policy PFS-3.3, New Development Requirements and Policy PFS-3.4, Alternative Rural Wastewater Systems. We should add the words, "such as annexation to city systems and regional wastewater treatment systems" to the last bullet in PFS-1.8, Funding for Service Providers.	Policy Report revised 07/13/07
					6) Build in the concept of a retention pond in new communities which can serve as a park.	See PFS-4.5, Detention/Retention Basins. The 2nd word "detention" will be removed.	Policy Report revised 07/13/07
					7) Trade nitrate contaminated groundwater from disadvantaged communities for Friant-Kern Canal water creating large regional surface water treatment plants.	This is probably not feasible as it will put contaminated water into a canal that will be used eventually for drinking water.	No change needed
					8) Encourage with incentives consolidation between cities and smaller contaminated systems located close-by. Until this time this has met with much resistance and roadblocks. We are particularly looking at Porterville and Exeter. The worry of losing their Charter City status has been a problem and several attempts have been made in the legal arena to address this issue but nothing as yet has been resolved.	This is addressed in part in Chapter 13, Public Facilities and Services, PFS-1.8, Funding for Services Providers	No change needed
					9) Engage a cooperative participation with the agricultural community to work with nitrate management and to find solutions.	See Chapter 11, Water Resources, Policy WR-2.7, Industrial and Agricultural Production. This title will be changed to "Industrial and Agricultural Sources" to more accurately reflect the policy	Policy Report revised 07/13/07

C#	Date	T	Source	Location	Overview of Changes Requested/Made	Staff Recommendation	Status
						contents.	
					10) Create a County-wide GIS program to share the data so we could do a drill down on a particular parcel and see everything that is known or what is planned for that parcel.	This is an existing program.	No change needed
					11) See that Tulare County receives its share of funding monies available. Tulare County is the poorest in the state yet it doesn't get the grants according to its needs. We need to take a consolidated approach to get the funding.	In order to receive a fair share of grant funding an Integrated Regional Water Management Plan is required. See next comment.	Policy Report revised 07/05/07
					12) The county should take the lead in coordinating regional efforts to put together an Integrated Regional Water Management Plan.	Policy WR-3.2, Develop an Integrated Regional Water Master Plan and Implementation Measure 14B have been added to address this issue.	
					We are at a point where it would be irresponsible to continue on our current course to where our water is no longer drinkable without expensive treatment. The county should take the lead in pulling the regional efforts together.	Policy WR-3.2, will be changed to indicate that the "County will take the lead with other agencies..."	
6	FEB 9	L	Paul Boyer, Self Help Enterprises	WR (General Comments)	SHE supports the Water Resources Element's draft goals. We believe that water quality as well as water quantity are necessary aspects of securing the current and long-range needs of Tulare County. The adequate supply of potable water and the availability of sanitary sewage disposal facilities to County residents are crucial. The affordability of these basic services should also be a factor. The target rate for water and sewer services should not be more than 1% each of the median household income of the area served.	Comment noted. Any target rates must be based on the cost of the services provided; otherwise it is considered a tax under Prop. 218.	No change needed
7	JAN 16	L	Laurel Firestone, Community Water Center	WR (General Comments)	Overall the Water Resources Element's Draft Goals are good. We think it is important that the General Plan recognize that both water quality and water supply are necessary aspects of securing the current and long-range needs of the County. The current draft also recognizes that the groundwater in the valley floor is high in nitrates and salts, an important first step to addressing these severe problems in the County.	Comment noted.	No change needed

TULARE COUNTY WATER COMMISSION

SUBCOMMITTEE ON NITRATES
NITRATE INVESTIGATION WORKSHOP
9:00 am - 4:00 pm on Thursday, January 17, 2008
Tulare County Water Commission Contact: Jeff Forbes, staff (559) 733-6271

WORKFORCE INVESTMENT DEPARTMENT
4025 W. NOBLE AVE., SUITE A
VISALIA, CA 93277

AGENDA

Objective: Develop a study design and methods that will address the following questions, and provide reasonable expectations of a timeframe with the available funds and resources.

Study Design & Method Questions:

1. **Characterization of the problem (9:00 am - 10:45am)**
    a. **What is the extent of nitrate contamination?**
        i. **What existing data can we use?**
            1. **Public drinking water wells**
            2. **Private wells**
        ii. **How can we fill in the gaps?**
            1. **Consistency in data**
            2. **Site selection / getting volunteers**
            3. **Design of monitoring wells**
        iii. **What are the health consequences of nitrate?**
        iv. **Should we include other contaminants / variables?**
            1. **DBCP, TDS, coliform, etc.**

2. **What are the sources of nitrate contamination? (11:00am – 12:00 pm)**
    a. **How can we determine sources of nitrate?**
        i. **Different water ages**
        ii. **Different depth**
        iii. **Different areas of the county**

3. **Developing Solutions (1:00pm – 2:00pm)**
    a. **How can we use this data to address the problem?**
        i. **What are potential management practices?**
        ii. **Are there ways to reduce contamination in the groundwater?**
            1. **Bioremediation**
            2. **Recharge/pumping**
    b. **How can we monitor progress on solutions?**

4. **Moving Forward (2:00 pm– 3:15pm)**
    a. Funding
        i. **What do we already have funding for and what can we do given that amount of funding?**
        ii. **What additional funding is necessary and where can we get it?**
    b. Timing
        i. **How long will this study reasonably take?**
        ii. **When can we get started?**

5. **Next steps (3:15 pm – 4:00pm)**

ENCLOSURE (21)

EDMUND G. BROWN JR.
Attorney General

State of California
DEPARTMENT OF JUSTICE

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April 14, 2008

By Overnight Mail and Facsimile

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

RE: Draft Environmental Impact Report for Tulare County General Plan 2030 Update
SCH # 2006041162

Dear Mr. Bryant:

The Attorney General submits these comments pursuant to the California Environmental Quality Act ("CEQA") on the Draft Environmental Impact Report ("DEIR") for the Tulare County General Plan 2030 Update ("General Plan").[1]

1. Introduction

The general plan is "at the top of the hierarchy of local government law regulating land use[.]"[2] As the California Supreme Court has noted, this basic land use charter governing the direction of future land use is in the nature of a planning "constitution."[3] Taking some measure of control over future land use is the local government's affirmative duty. "The planning law . . .

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[1]The Attorney General provides these comments pursuant to his independent power and duty to protect the natural resources of the State from pollution, impairment, or destruction in furtherance of the public interest. (See Cal. Const., art. V, § 13; Cal. Govt. Code, §§ 12511, 12600-12; *D'Amico v. Board of Medical Examiners* (1974) 11 Cal.3d 1, 14-15.) These comments are made on behalf of the Attorney General and not on behalf of any other California agency or office.

[2]*DeVita v. County of Napa* (1995) 9 Cal.4th 763, 773 (internal citation omitted).

[3]*Ibid; Lesher Communications, Inc. v. City of Walnut Creek* (1990) 52 Cal.3d 531, 542.

compels cities and counties to undergo the discipline of drafting a master plan to guide future local land use decisions."[4] The Tulure County General Plan thus presents both an opportunity and a responsibility to the County – an opportunity to shape the future growth of the County, and a responsibility to ensure that such growth is consistent with State and local goals, including protecting the public health and welfare of the County's inhabitants and protecting the environment.

According to the DEIR, the Plan anticipates that the population of Tulare County will reach 621,549 by 2030, an increase of approximately 254,000 people,[5] and that emissions of carbon dioxide (CO_2) from this growth will increase by approximately 1.7 million tons/year. As you are aware, global warming presents profoundly serious challenges to California and the nation. While we commend the County for addressing greenhouse gas ("GHG") emissions in the DEIR, we have concluded that the DEIR is not in compliance with the requirements of CEQA in significant respects. First, the DEIR does not disclose the actual growth that may occur under the proposed General Plan – which leaves much of the control over land uses and growth patterns to the market – and the GHG emissions that will result from such growth. Second, the DEIR considers only vehicle miles traveled and dairies as sources of GHG emissions, and neglects to consider other significant new sources of GHG emissions, including emissions from construction, residential and non-residential energy use, and other activities that will result from the build-out of the Plan. Third, the DEIR considers only a narrow range of alternatives, ignoring any alternative that would aggressively foster "smart growth" by more significantly limiting development to existing urban areas. Finally, the DEIR does not impose enforceable and quantifiable mitigation measures to mitigate the impact of the GHG emissions.

Because the analysis of GHG emissions is inadequate and incomplete, the DEIR does not comply with CEQA, and does not provide substantial evidence to support the County's finding that the impacts of GHG emissions will be "significant and unavoidable."

2. Climate Change Background

Before discussing the General Plan and legal adequacy of the DEIR, it is important to understand why human-caused climate change is of particular concern to California and to the San Joaquin Valley.[6]

The impacts of climate change are not limited to remote parts of the world – they are being

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[4] *DeVita, supra*, 9 Cal.4th at p. 773.

[5] The County indicates that the General Plan is intended to accommodate 25% of this grown in the unincorporated areas, an increase of approximately 64,000 residents.

[6] The physics of climate change are well described in the Intergovernmental Panel on Climate Change, Fourth Assessment Report, "Frequently Asked Questions" (available at http://ipcc-wg1.ucar.edu/wg1/Report/AR4WG1_Print_FAQs.pdf) and need not be repeated here.

felt in California today. In California, global warming is causing damage to agriculture, losses to the Sierra snowpack, higher risks of fire, eroding coastlines, and habitat modification and destruction. Global warming affects public health directly, through heat-related illnesses and deaths caused by more hot days, and longer heat waves, and indirectly as higher temperatures favor the formation of ozone and particulate matter in areas that already have severe air pollution problems.[7]

The impacts of climate change are of particular concern to the San Joaquin Valley and Tulare County, especially in the areas of agriculture and public health. According to a whitepaper from the California Climate Action Team on the impacts of climate change on agriculture, "California's cornucopia is predicated on its current climate and its supply and distribution of irrigation water[.]"[8] Rising temperatures will cause larger crops growing in warmer climates to use more water and also may stimulate more weeds and insect pests. Pollination – essential to many Valley crops – will be negatively affected if warming causes asynchronization between flowering and the life cycle of insect pollinators. And the occurrence of adequate winter chill, necessary for fruit trees to flower, may be lost for many fruit species.[9] Higher temperatures due to global warming also have an impact on the dairy industry, which is of special importance to Tulare County, by causing lower milk production and heat-related animal deaths. Dairy producers will no doubt recall the extended heat wave of 2006, which caused the death of thousands of cows and created a backlog of carcasses for disposal.[10]

The health related impacts of climate change are also of substantial importance to the County. A Stanford study details how for each increase in temperature of 1 degree Celsius (1.8 degrees Fahrenheit) caused by climate change, the resulting air pollution would lead annually to about a thousand additional deaths and many more cases of respiratory illness and asthma.[11] The effects of warming are most significant where the pollution is already severe. Thus, the study has serious implications for California overall and for the San Joaquin Valley in particular. Given that California is home to six of the ten U.S. cities with the worst air quality, including Visalia-Tulare, and that the San Joaquin Valley has some of the worst air quality in the nation, the State and the

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[7]A summary of impacts to California, together with citations, is available on the Attorney Generals' website at http://ag.ca.gov/globalwarming/impact.php.

[8]California Climate Change Center, *An Assessment of the Impacts of Future CO2 and Climate on Californian Agriculture* (March 2006) at p. 1, available at http://www.energy.ca.gov/2005publications/CEC-500-2005-187/CEC-500-2005-187-SF.PDF.

[9]*Id.*, Abstract.

[10]Williams, "Dairy producers regroup after cow deaths," Bakersfield Californian (Aug. 5, 2006) available at http://www.bakersfield.com/102/story/66292.html.

[11] Jacobson, Mark Z., *On the causal link between carbon dioxide and air pollution mortality*, Geophysical Research Letters, Vol. 35 L03809 (2008).

Valley are likely to bear an increasingly disproportionate public health burden if we do not significantly reduce our GHG emissions.

The atmospheric concentration of CO_2, the leading GHG, is now 380 parts per million (ppm),[12] higher than any time in the last 650,000 years,[13] and rising at about 2 ppm per year. According to experts, an atmospheric concentration of CO_2 "exceeding 450 ppm is almost surely dangerous" to human life because of the climate changes it will cause.[14] Thus, we are fast approaching a "tipping point," where the increase in temperature will create unstoppable, large-scale, disastrous impacts for all the inhabitants of the planet.[15]

We must take prompt action and control of our future. In the words of Rajendra Pachauri, Chairman of the United Nations Intergovernmental Panel on Climate Change, "If there's no action before 2012, that's too late. What we do in the next two to three years will determine our future. This is the defining moment."[16]

3. Description of the General Plan

Pursuant to Government Code section 65302, subdivision (a) a general plan must contain 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 . . . and other categories of public and private uses of land. . . .

The distribution and general location of land uses under the Tulare County General Plan Update is almost impossible to discern from Plan documents. Maps typically accompany general plans.[17] While the General Plan does identify a limited number of land use designations (General Plan at pp. 5-5 to 5-12), it does not include any maps or diagrams identifying where the

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[12]http://www.esrl.noaa.gov/gmd/ccgg/trends/

[13]IPCC 4th, WGI, Frequently Asked Question 7.1, *Are Increases in Atmospheric Carbon Dioxide and Other Greenhouse Gases During the Industrial Era Caused by Human Activitites?* http://ipcc-wg1.ucar.edu/wg1/Report/AR4WG1_Print_FAQs.pdf.

[14] *See* http://www.nasa.gov/centers/goddard/news/topstory/2007/danger_point.html.

[15] *See ibid.*

[16]Rosenthal, *U.N. Chief Seeks More Leadership on Climate Change*, N.Y. Times (November 18, 2007).

[17]*See Las Virgenes Homeowners Federation, Inc. v. County of Los Angeles* (1986) 177 Cal.App.3d 300, 307 [general plan maps are visual depictions of planned development policies indicating the geographic or spatial aspects of the plan].

designations are, or the acreage available for development within each designation. A document entitled Board Update, dated April 2006, which was provided to the Board of Supervisors, includes detailed land use maps for certain limited areas – specifically, each of the 21 existing unincorporated communities "hamlets." These maps, however, are not included in the General Plan. Nor does the Plan contain a table or tables indicating the general location, extent and type of land uses that could occur in the various geographic areas of the County. Ultimately, it is "impossible to relate any tabulated density standard of population to any location in the County."[18]

The General Plan contains a Goals and Policies Report that purports to set forth a "hierarchy of goals, policies, and implementation measures designed to guide future development in the County." (General Plan at p. 1-3.) The policies and implementation measures are in many cases nothing more than statements of preferences and opinions, rather than definite commitments to adopt enforceable policies and specific standards, or to use the powers the County has to enact ordinances and control development.

For example, one policy states that the County shall "encourage" residential growth to locate in existing Urban Development Borders ("UDBs"), Urban Area Boundaries ("UABs"), and Hamlet Development Boundaries ("HDBs"), but none of the accompanying implementation measures provide enforceable requirements or standards that would ensure that this policy is followed.[19] (General Plan at pp. 2-16 to 2-21.) Similarly, while the Plan states a policy of discouraging "new towns" (*id.* at p. 2-12), the policy has only very broad, general criteria and appears to allow new planned communities at an unlimited number of locations in the County as controlled by the market.[20] In the area of Land Use, the Plan again states a series of policies that are said to promote smart growth, encourage mixed use and infill development, etc. (General Plan at pp. 5-12 to 5-19), but the accompanying implementation measures contain no enforceable requirements that would ensure that development occurs consistent with these policy statements. (*Id.* at pp. 5-22 to 5-24.)

Thus, despite the general goals of the Plan to direct development in urban areas and in unincorporated hamlets and communities, nothing in the Plan will prevent a significant portion of

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[18] *See Camp v. Board of Supervisors of Mendocino County* (1981) 123 Cal.App.3d 334, 350.

[19] According to the 2003 State of California General Plan Guidelines ("General Plan Guidelines") at pp. 16-17, published by the Governor's Office of Planning and Research, a general plan should contain implementation measures which are actions, procedures, programs, or techniques, that carry out the general plan policy, as well as standards, which are rules or measures establishing a level of quality or quantity that must be complied with or satisfied.

[20] Similarly the Plan states a policy to "discourage the creation of ranchettes. . . ." (Plan at p. 4-4), which are residences built on large lots from 1.5 acres up. This policy does not, however, impose any enforceable limitations on ranchette development.

the future growth from occurring outside the UDBs, for example in the foothill areas in the far eastern part of the County that are far from services, jobs, and transportation.

Ultimately, it appears that, rather than being a "constitution" for future development, the General Plan will largely leave the shape of new development, in amount and in location, primarily to the control of the market. This is as much as acknowledged in the DEIR which states repeatedly that "[w]hile the proposed General Plan Update includes policies intended to control the amount and location of new growth. . . it does not solidly advocate, promote or represent any one development scenario because any attempt to predict the exact pace and locations of future market-driven growth is considered speculative." (DEIR at p. ES-7.)

4. CEQA Requirements

An EIR is an informational document intended to provide both the public and government agencies with detailed information about the effects of a proposed project on the environment, to list ways in which those effects can be mitigated, and to discuss and analyze alternatives to the project.[21] A "project" is defined 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. . . ."[22] The project must be adequately described in the EIR,[23] and the entirety of the project must be considered, not just some smaller portion of it.[24] A decision to approve a project "is a nullity if based upon an EIR that does not provide the decision-makers, and the public, with the information about the project that is required by CEQA."[25]

CEQA was enacted to ensure that public agencies do not approve projects unless feasible measures are included that mitigate the project's significant environmental effects.[26] CEQA therefore requires that "[e]ach public agency shall mitigate or avoid the significant effects on the

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[21] *Laurel Heights Improvement Ass'n v. Regents of University of California* (1988) 47 Cal.3d 376, 390-91 (citing Pub. Res. Code, § 21061; Cal.Code Regs., tit. 14, § 15003, subd. (b)-(e) (hereafter "Guidelines").

[22] Guidelines, § 15378, subd. (a).

[23] Guidelines, § 15124.

[24] *San Joaquin Raptor Rescue Center v. County of Merced* (2007) 149 Cal.App.4th 645, 654.

[25] *San Joaquin Raptor/Wildlife Rescue Center v. County of Stanislaus* (1994) 27 Cal.App.4th 713, 721-22 (quoting *Santiago County Water Dist. v. County of Orange* (1981) 118 Cal.App.3d 818, 829).

[26] Pub. Res. Code, § 21002.

environment of projects that it carries out or approves whenever it is feasible to do so."[27] The mitigation measures must be enforceable and the benefits quantifiable, rather than just vague policy statements.[28]

The CEQA Guidelines further provide that the EIR must discuss a "range of reasonable alternatives to the project or to the location of the project which would feasiblely attain most of the basic objectives of the project but would avoid or substantially lessen any of the significant effects of the project, and evaluate the comparative merits of the alternatives."[29] The EIR must include sufficient information about each alternative to provide meaningful analysis and comparison,[30] and must consider alternatives that could eliminate significant effects or reduce them to a less than significant level, even if the alternatives could impede the attainment of the project's objectives to some degree.[31]

5. The DEIR Does Not Adequately Analyze GHG Emissions Under CEQA

As the Legislature has recognized, global warming is an "effect on the environment" under CEQA, and an individual project's incremental contribution to global warming can be cumulatively considerable and therefore significant.[32] The DEIR briefly and generally discusses global climate change, noting that California has passed Assembly Bill 32 ("AB 32"), the Global Warming Solutions Act of 2006, which requires the Air Resources Board to implement regulations to reduce GHG emissions statewide to 1990 levels by 2020. (DEIR at pp. 4-44 to 4-46.) The DEIR concludes that, even with mitigations, the GHG emissions from the project will be significant and unavoidable and will conflict with the goals of AB 32. (*Id.* at pp. 4-64 to 4-68). This analysis is deficient for the reasons discussed below.

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[27]Pub. Res. Code, §§ 21002.1, subd. (b); *City of Marina Board of Trustees* (2006) 39 Cal.4th 341, 360.

[28]*See* Publ. Res. Code, § 21081.6, subd. (b); *Federation of Hillside and Canyon Associations v. City of Los Angeles* (2000) 83 Cal.App.4th 1252, 1261 (agency must take steps to ensure mitigation measures are fully enforceable through permit conditions, agreements, or other measures).

[29] Guidelines, § 15126.6, subd. (a).

[30] Guidelines § 15126.6, subd. (d).

[31] Guidelines § 15126.6, subd. (b); see also *Save Round Valley Alliance v. County of Inyo* (2007) 157 Cal.App.4th 1437, 1456-57 [cannot exclude alternative simply because it impedes project objectives or is more costly].

[32]*See* Pub. Res. Code, § 21083.05 subd. (a); see also Sen. Rules Com., Off. of Sen. Floor Analyses, Analysis of Sen. Bill No. 97 (2007-2008 Reg. Sess.) Aug. 22, 2007.

a. The DEIR Does Not Adequately Disclose and Analyze All of the Potential Growth and GHG Emissions that May Result from the General Plan

A general plan embodies an agency's decisions as to how to guide future development, and any evaluation of the general plan "must necessarily include a consideration of the larger project, i.e., the future development permitted by the amendment."[33] Thus, in order to comply with CEQA, the DEIR must describe and consider the full extent of the growth permitted by the Plan and must quantify the GHG emissions, both direct and indirect from that growth.[34]

Because the Plan does not include enforceable measures guiding how and where development will occur in Tulare County, the DEIR performs its analysis based on "assumptions" about "population growth and the market distribution of that growth throughout the County." (DEIR at p. 2-7.) The DEIR states that the population of Tulare County is anticipated to reach 621,549 by 2030, an increase of approximately 254,000 people, and assumes that approximately 75% of that growth is expected to occur within the UDBs of the incorporated cities, with the remaining 25%, or approximately 64,000 new residents, in unincorporated communities, hamlets and development corridors. (*Id.* at pp. ES-5, 2-7.)

In fact, however, as discussed above, the proposed General Plan is so open-ended that it does nothing to constrain market-driven population growth in the County and appears to allow unlimited development far beyond the scope of what is assumed in the DEIR. The actual remaining capacity for development within the existing UABs and UDBs of unincorporated communities in Tulare County is over 126,000 residents, indicating that the existing potential for growth in unincorporated areas is nearly twice the 64,000 that the DEIR assumes.[35] Further, development is not limited to existing communities and hamlets, but can occur at the discretion of the County in new towns located in rural, undeveloped areas of the County. Such development is not only likely in the future – it is already in progress; the County is currently considering just such a development project, the Yokohl Valley Ranch, a 10,000 unit residential development to be located in the Sierra Nevada foothills on land that is currently set aside for agriculture.[36]

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[33] *City of Redlands v. County of San Bernardino* (2002) 96 Cal.App.4th 398, 409.

[34] *See* Guidelines, §§ 15126, 15358, subd. (a)(1), (2); *Las Virgenes Homeowners Federation, supra,* 177 Cal.App.3d at p. 307 [in adopting General Plan, County "necessarily addressed the cumulative impacts of buildout to the maximum possible densities allowed by those plans"]; see also *Christward Ministery v. Superior Court* (1986) 184 Cal.App. 3d 180, 194 [evaluation of general plan must include future development permitted by amendment].

[35] Tulare County General Plan Board Update (2006) at p. 8 [table showing estimate of population capacity within existing UDBs and UABs of unincorporated communities].

[36] *See* Notice of Preparation and Initial Study for Yokohl Ranch Project, available at http://www.ceqanet.ca.gov/DocDescription.asp?DocPK=617530.

In order to comply with CEQA, it is not sufficient for the DEIR to disclose only an assumed level of growth based on population projections, and an assumed distribution of that growth based on general policies and statements of preference. Rather, it must disclose the full potential for market-driven growth that is permitted under the Plan, and must evaluate the extent and impact of GHG emissions if a significant portion of that growth is accommodated in rural, undeveloped areas, as the Plan appears to allow.

b. The DEIR Does Not Adequately Quantify the Emissions from the Assumed Growth

In addition to failing to disclose the full amount of potential growth that may occur under the General Plan, the DEIR also fails to properly quantify the GHG emissions from the development it does disclose. The DEIR purports to quantify GHG emissions from the anticipated increase in vehicle miles traveled ("VMT") in the assumed market-driven development, stating that CO_2 emissions will increase from 1,997,046 to 3,446,934 tons/year, (approximately a 73% increase). (DEIR at p. 4-50.)

There is no explanation or supporting analysis describing how the DEIR derives this number. It would seem impossible to determine VMT without knowing in general terms where the new development will occur in the County and the distance from workplaces and services. Development that occurs close to urban centers and mass transit will produce significantly less VMT (and GHG emissions) than development that occurs in the far foothills, away from the population centers. Since the General Plan relies on "market-driven" development and does not implement enforceable procedures to guide development, the assessment of GHG emissions from increased VMT is inaccurate and incomplete.

Second, the DEIR discusses only emissions related to VMT and dairy operations. While the DEIR notes that there will be increased emissions from the actual "buildout" of the Plan (including increased use of electricity, woodburning fireplaces, natural gas, and equipment), it states that it lacks information to quantify these emissions, and therefore makes no effort to do so. (DEIR at p. 4-50) These omitted emissions are almost certainly substantial. According to the California Energy Commission, residential, commercial, and industrial sources make up about 30% of the CO_2 emissions in the State,[37] and that does not include methane production from sources such as landfills and wastewater treatment.

There are a number of models available to assist the County in estimating future GHG emissions. One source of helpful information is the report issued by the California Air Pollution Control Officers Association (CAPCOA), "CEQA and Climate Change."[38] The document discusses a variety of models that can be used to calculate GHG emissions. Similarly, the

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[37]California Energy Commission, *Inventory of California Greenhouse Gas Emissions and Sinks: 1990 to 2004*, December 2006, Table 6.

[38]The document is available at http://www.capcoa.org/.

Attorney General's Website provides a table of currently available models that are useful for calculating emissions.[39] Other models are available from a variety of sources,[40]

The DEIR must fully quantify and consider all of the emissions from the project, including those resulting from the build-out.

c. The DEIR Does Not Include All Feasible Alternatives and Does Not Quantify GHG Emissions from Those Alternatives

The DEIR considers five alternatives which it terms the (1) No-Project alternative, (2) City-Centered Alternative, (3) Rural Communities Alternative, (4) Transportation Corridors Alternative, and (5) Confined Growth Alternative. (DEIR at pp. ES-8 to 9, 7-3 to 7-34.) Based on Table 7-1, which outlines the assumed population growth in unincorporated areas for each of the alternatives, it appears that the range of alternatives is narrow, representing a difference of only approximately 4% in growth in unincorporated areas (from 26% to 30%). (DEIR at pp. 7-3 to 7-4.) The alternatives thus ignore a range of "smart growth" alternatives that would concentrate development in already existing urban areas near mass transit and preserve more agricultural land and open space. A more intense "smart growth" alternative would appear to be feasible given the evidence that existing cities can currently accommodate all of the growth anticipated by the County.[41] Thus, in order to be consistent with CEQA, the DEIR must consider a broader range of alternatives that would focus more of the development in existing urban areas, or explain and provide evidence supporting a conclusion as to why such alternatives would be infeasible.

Moreover, while the DEIR purports to compare the impacts of the various alternatives, the discussion of the alternatives is inadequate. There are no anticipated population numbers provided for two of the alternatives (No-Project and Confined Growth alternatives), making it impossible to compare them to the other three alternatives (DEIR at pp. 7-3 to 7-4), and the discussion of alternatives does not even mention GHG emissions. (DEIR at pp. 7-14 to 7-34.) In order to comply with CEQA, the DEIR must quantify and compare the GHG emissions from each of the alternatives. Again, as discussed above, there are modeling resources available to the County for performing this analysis.

d. The DEIR Does Not Impose All Feasible Measures to Mitigate GHG Emissions

CEQA provides that a public agency should not approve a project as proposed if there are

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[39] http://ag.ca.gov/globalwarming/ceqa/modeling_tools.php.

[40] *See, e.g.*, UPlan at http://ice.ucdavis.edu/doc/uplan.

[41] Tulare County General Plan: Policy Alternatives, Board of Supervisors Edition (August 2005) at p. 9, available at http://generalplan.co.tulare.ca.us/documents.html.

additional feasible mitigation measures that would substantially lessen the significant environmental effects of the project.[42] Further, in order to ensure that mitigation measures are actually implemented, they must be "fully enforceable through permit conditions, agreements, or other measures."[43]

The DEIR refers to a series of policies in the General Plan that purport to mitigate GHG emissions related to general development. They include, for example, requiring any development to minimize air impacts, requiring the County to "consider" any strategies identified by the California Air Resources Board, studying methods of transportation to reduce air pollution, encouraging departments to replace existing vehicles with low emission vehicles, and identifying opportunities for infill. (General Plan at pp. 9-4 to 9-5.) While these policies are a positive step, they are general and unenforceable, as are the accompanying implementation measures. Further, the DEIR makes no attempt to quantify the extent to which these mitigation measures will reduce GHG emissions, instead simply jumping to the conclusion that the climate change impacts from the project would be "significant and unavoidable." (DEIR at pp. 4-65 to 4-68.)[44]

In fact, there are many mitigation measures that are readily available to the County to decrease GHG emissions from new development. We are not suggesting that the County must adopt any specific set of mitigation measures, since this is a decision within its discretion. The County is, however, required by law to determine which measures are reasonable and feasible and to implement and enforce those measures. In considering which mitigation measures to implement, the County has many resources available. It can consider, for example, the measures set out in the CAPCOA document referenced above (pp. 79-87 and Appendix B-1), and those set forth in the list on the Attorney General's website[45] (copy attached), and in the comments in the

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[42] Pub. Res. Code, § 21002.

[43] Pub. Res. Code, § 21081.6, subd. (b); *Federation of Hillside & Canyon Ass'ns, supra,* 83 Cal.App.4th at p. 1261.

[44] The shortcomings of the mitigation discussion is further apparent in the DEIR's discussion of mitigation measures for dairies, which addresses GHG reduction only incidentally in the context of reducing other air pollutants, and which fails to discuss many potentially significant mitigation measures that are available. (DEIR at pp. 4-66 to 4-67.) To take one example, methane digesters, which are increasingly being used on dairies in California, process animal waste under anaerobic conditions, yielding methane gas that is collected on site and can be sold directly to utilities or used to generate electricity, bringing in revenue to the dairy. *See* California Energy Commission, *Dairy Power Production Program, Dairy Methane Digester System 90-Day Evaluation Report, Eden-Vale Dairy,* December 2006 at p. 4; http://cpuc.ca.gov/Final_resolution/68429.htm; http://www.epa.gov/agstar/resources.html; Fresno County Notices of Intention to Adopt a Mitigated Negative Declaration (Unclassified Conditional Use Permits 3215-3218).

[45] http://ag.ca.gov/globalwarming/ceqa.php.

letter of the San Joaquin Valley Unified Air Pollution Control District ("APCD") dated May 26, 2006, included in Appendix A to the Notice of Preparation. All of these sources provide concrete and enforceable recommendations, and address all aspects of project development that have an impact on GHG emissions, including conservation, land use, circulation, housing, open space, safety, and energy. Other sources discussing mitigation measures are readily available.[46]

Finally, the DEIR states that the County will, at some unspecified future time, develop a GHG Emissions Reduction Plan that parallels requirements adopted by the California Air Resources Board. (DEIR at p. 4-67) While we commend the County for recognizing that such a plan is necessary, this reference to an as yet undeveloped and completely undefined plan cannot serve as mitigation for the project's GHG emissions, since deferring environmental assessment to some future date is counter to CEQA's mandate that environmental review be performed at the earliest stages in the planning project.[47]

We encourage the County to pursue adoption of a GHG Emissions Reduction Plan as part of its General Plan. To constitute effective mitigation, the County should consider including in the Plan a baseline inventory of the GHGs currently being emitted in the County from all sources, projected emissions for target years (e.g., 2020 and beyond), targets for the reduction of those sources of emissions that are consistent with AB 32 and Executive Order #S-03-05, and a suite of feasible emission reduction measures to meet the reduction target(s).[48] An effective plan would also likely include monitoring and reporting requirements so that the County will obtain information on the performance of its plan, and an adaptive management element to ensure that the Plan, once implemented, can be adjusted if necessary to meet the reduction targets.

In sum, given the wealth of resources available describing specific mitigation measures for GHG emissions, it is feasible for the County to develop and impose a set of mitigation measures that will be implemented and enforced as conditions of all future development projects. Since the County has not fully explored the extent to which there are feasible mitigation measures that

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[46] *See, e.g.*, www.gosolarcalifornia.ga.gov/nshp [discussing the California Energy Commissions' New Solar Homes Partnership which provides rebates to developers of six units or more who offer solar power on 50% of the new units]; www.energy.ca.gov/efficiency/lighting/outdoor_reduction.html and www.newbuildings.org/lighting.htm [energy efficient lighting]; www.energy.ca.gov/title24/2005standards/ [feasible green building measures identified by the California Energy Commission's Compliance Manuals]; www.vtpi.org/park_man.pdf [discussion of parking management programs that provide environmental benefits].

[47] Pub.Resources Code, § 21003.1; *Sunstrom v. County of Mendocino* (1988) 202 Cal.App.3d 296, 307 (and cases cited therein).

[48] See the Attorney General's settlement with San Bernardino County, available at http://ag.ca.gov/cms_pdfs/press/2007-08-21_San_Bernardino_settlement_agreement.pdf.

would substantially reduce the global warming impacts of this project, it has not complied with CEQA.

e. The DEIR Cannot Conclude, Without Fuller Analysis, that GHG Effects are Significant and Unavoidable and Inconsistent with AB 32

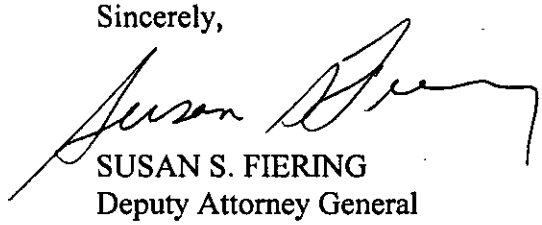
The DEIR concludes that the GHG emissions from the project will be significant and unavoidable. (DEIR at p. 4-68.) In light of the fact that the emissions are not fully quantified, enforceable mitigation measures are not imposed, and the efficacy of any mitigation are not analyzed qualitatively or quantitatively, this conclusion is unsupported and contravenes CEQA.[49]

6. Conclusion

This is a critical time for all of California. Scientists acknowledge that global warming is real. Unless we depart from the "business as usual" paradigm and embrace the new principles of "smart growth," we risk pushing the environment past the "tipping point" into catclysmic climate change. The stakes are too high for Tulare County to abdicate it responsibilities, allowing the market to control the future of the hundreds of thousands of people who currently live and work – and the hundred thousands more who will live and work – in Tulare County. The County, through its General Plan and the CEQA process, has the opportunity, and indeed the duty, to become one of the leaders in planning the future of California. The decisions the County makes today will determine what the County will look like in the coming years and 30 years from now, and they can help move California forward into a new era of development and sustainable growth, consistent with the State's goals for a lower-carbon future.

Thank you for your consideration of these comments. We would appreciate the opportunity meet with County staff to discuss these comments further in an effort to work cooperatively on these issues.

Sincerely,



SUSAN S. FIERING
Deputy Attorney General

For EDMUND G. BROWN JR.
Attorney General

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[49] *See Berkeley Keep Jets Over the Bay Committee v. Board of Port Commissioners* (2001) 91 Cal.App.4th 1344, 1371 [lead agency cannot simply conclude that there are overriding considerations that would justify a significant and unavoidable effect without fully analyzing the effect].

EDMUND G. BROWN JR.
Attorney General

State of California
DEPARTMENT OF JUSTICE

The California Environmental Quality Act
Addressing Global Warming Impacts at the Local Agency Level

Under the California Environmental Quality Act (CEQA), local agencies have a very important role to play in California's fight against global warming – one of the most serious environmental effects facing the State today. Where local agencies undertake projects directly, they can and should design sustainable projects from the start, incorporating global warming related considerations into their projects at the earliest feasible time. Further, local agencies can encourage well-designed, sustainable private projects by analyzing and disclosing to the public the environmental benefits of such projects in any required environmental documents. And where projects as proposed will have significant global warming related effects, local agencies can require feasible changes or alternatives, and impose enforceable, verifiable, feasible mitigation measures to substantially lessen those effects. By the sum of their decisions, local agencies will help to move the State away from "business as usual" and toward a low-carbon future.

This document provides information that may be helpful to local agencies in carrying out their duties under CEQA as they relate to global warming. Included in this document are various measures that may reduce the global warming related impacts of a project. As appropriate, the measures can be included as design features of a project, required as changes to the project, or imposed as mitigation (whether undertaken directly by the project proponent or funded by mitigation fees). The measures set forth in this package are examples; the list is not intended to be exhaustive. Moreover, the measures cited may not be appropriate for every project. The decision of whether to approve a project – as proposed or with required changes or mitigation – is for the local agency, exercising its informed judgment in compliance with the law and balancing a variety of public objectives.

The first section of this document lists examples of measures that could be applied to a diverse range of projects where the lead agency determines that the project under consideration will have significant global warming related effects. In general, a given measure should not be considered in isolation, but as part of a larger set of measures that, working together, will reduce greenhouse gas emissions and the effects of global warming.

The second section of this document lists examples of potential greenhouse gas reduction measures in the general plan context. This section is included both to suggest how the measures set forth in the first section could be incorporated into a general plan, as well as to identify measures that are general plan specific. The measures in the second section may also be appropriate for inclusion in larger scale plans, including regional plans (*e.g.*, blueprint plans) and in specific plans. Including these types of measures at the larger planning level, as appropriate, will help to ensure more sustainable project-specific development.

The third section provides links to sources of information on global warming impacts and emission reduction measures. The list is not complete, but may be a helpful start for local agencies seeking more information to carry out their CEQA obligations as they relate to global warming.

The endnotes set forth just some of the many examples of exemplary emission reduction measures already being implemented by local governments and agencies, utilities, private industry, and others. As these examples evidence, California at every level of government is taking up the challenge, devising new and innovative solutions, and leading the charge in the fight against global warming.

(1) Generally Applicable Measures

Energy Efficiency[1]

- Design buildings to be energy efficient. Site buildings to take advantage of shade, prevailing winds, landscaping and sun screens to reduce energy use.[2]
- Install efficient lighting and lighting control systems. Use daylight as an integral part of lighting systems in buildings.
- Install light colored "cool" roofs, cool pavements, and strategically placed shade trees.[3]
- Provide information on energy management services for large energy users.[4]
- Install energy efficient heating and cooling systems, appliances and equipment, and control systems.[5]
- Install light emitting diodes (LEDs) for traffic, street and other outdoor lighting.[6]
- Limit the hours of operation of outdoor lighting.
- Use solar heating, automatic covers, and efficient pumps and motors for pools and spas.[7]
- Provide education on energy efficiency.[8]

Renewable Energy

- Install solar and wind power systems, solar and tankless hot water heaters, and energy-efficient heating ventilation and air conditioning. Educate consumers about existing incentives.[9]
- Install solar panels on carports and over parking areas.[10]
- Use combined heat and power in appropriate applications.[11]

Water Conservation and Efficiency[12]

- Create water-efficient landscapes.[13]
- Install water-efficient irrigation systems and devices, such as soil moisture-based irrigation controls.
- Use reclaimed water for landscape irrigation in new developments and on public property. Install the infrastructure to deliver and use reclaimed water.
- Design buildings to be water-efficient. Install water-efficient fixtures and appliances.
- Use graywater. (Graywater is untreated household waste water from bathtubs, showers, bathroom wash basins, and water from clothes washing machines.) For example, install dual plumbing in all new development allowing graywater to be used for landscape irrigation.[14]
- Restrict watering methods (*e.g.*, prohibit systems that apply water to non-vegetated surfaces) and control runoff.
- Restrict the use of water for cleaning outdoor surfaces and vehicles.
- Implement low-impact development practices that maintain the existing hydrologic character of the site to manage storm water and protect the environment. (Retaining storm water runoff on-

site can drastically reduce the need for energy-intensive imported water at the site.)[15]

- Devise a comprehensive water conservation strategy appropriate for the project and location. The strategy may include many of the specific items listed above, plus other innovative measures that are appropriate to the specific project.
- Provide education about water conservation and available programs and incentives.[16]

Solid Waste Measures

- Reuse and recycle construction and demolition waste (including, but not limited to, soil, vegetation, concrete, lumber, metal, and cardboard).
- Provide interior and exterior storage areas for recyclables and green waste and adequate recycling containers located in public areas.
- Recover by-product methane to generate electricity.[17]
- Provide education and publicity about reducing waste and available recycling services.[18]

Land Use Measures

- Include mixed-use, infill, and higher density in development projects to support the reduction of vehicle trips, promote alternatives to individual vehicle travel, and promote efficient delivery of services and goods.[19]
- Educate the public about the benefits of well-designed, higher density development.[20]
- Incorporate public transit into project design.
- Preserve and create open space and parks. Preserve existing trees, and plant replacement trees at a set ratio.
- Develop "brownfields" and other underused or defunct properties near existing public transportation and jobs.
- Include pedestrian and bicycle-only streets and plazas within developments. Create travel routes that ensure that destinations may be reached conveniently by public transportation, bicycling or walking.[21]

Transportation and Motor Vehicles

- Limit idling time for commercial vehicles, including delivery and construction vehicles.
- Use low or zero-emission vehicles, including construction vehicles.
- Promote ride sharing programs *e.g.*, by 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.
- Create car sharing programs. Accommodations for such programs include providing parking spaces for the car share vehicles at convenient locations accessible by public transportation.[22]
- Create local "light vehicle" networks, such as neighborhood electric vehicle (NEV) systems.[23]
- 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, *e.g.*, imposing tolls and 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, *e.g.*, 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.[24]
- Work with the school district to restore or 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 information on all options for individuals and businesses to reduce transportation-related emissions. Provide education and information about public transportation.

Carbon Offsets

If, after analyzing and requiring all reasonable and feasible on-site mitigation measures for avoiding or reducing greenhouse gas-related impacts, the lead agency determines that additional mitigation is required, the agency may consider additional off-site mitigation. The project proponent could, for example, fund off-site mitigation projects (*e.g.*, alternative energy projects, or energy or water audits for existing projects) that will reduce carbon emissions, conduct an audit of its other existing operations and agree to retrofit, or purchase carbon "credits" from another entity that will undertake mitigation.

The topic of offsets can be complicated, and a full discussion is outside the scope of this summary document. Issues that the lead agency should consider include:

- The location of the off-site mitigation. (If the off-site mitigation is far from the project, any additional, non-climate related benefits of the mitigation will be lost to the local community.)
- Whether the emissions reductions from off-site mitigation can be quantified and verified.
- Whether the mitigation ratio should be greater than 1:1 to reflect any uncertainty about the effectiveness of the offset.

(2) General Plan Measures[25]

Global warming measures may be reflected in a general plan as goals, policies, or programs; in land use designations; or as additional mitigation measures identified during the CEQA review process. Many of the measures listed above may be appropriate for inclusion in a general plan. In addition, a non-exhaustive list of measures specific to the general plan context follows. The examples are listed under required general plan elements. A given example may, however, be appropriate for inclusion in more than one element, or in a different element than listed. Global warming measures may, alternatively, be included in an optional Climate Change or Energy element.

Conservation Element[26]

- Climate Action Plan or Policy: Include a comprehensive climate change action plan that requires a baseline inventory of greenhouse gas emissions from all sources by a date certain; greenhouse gas emissions reduction targets and deadlines; and enforceable greenhouse gas emissions reduction measures.[27] (Note: If the Climate Action Plan complies with the requirements of Section 15064(h)(3) of the CEQA Guidelines, it may allow for the streamlining of individual projects that comply with the plan's requirements.)
- Climate Action Plan Implementation Program: Include mechanisms to ensure regular review of progress toward the emission reduction targets established by the Climate Action Plan, report progress to the public and responsible officials, and revise the plan as appropriate, using principles of adaptive management. Allocate funding to implement the plan. Fund staff to oversee implementation of the plan.
- Strengthen local building codes for new construction and renovation to require a higher level of energy efficiency.[28]
- Require that all new government buildings, and all major renovations and additions, meet identified green building standards.[29]
- Adopt a "Green Building Program" to require or encourage green building practices and materials.[30] The program could be implemented through, *e.g.*, a set of green building ordinances.
- Require orientation of buildings to maximize passive solar heating during cool seasons, avoid solar heat gain during hot periods, enhance natural ventilation, and promote effective use of daylight. Orientation should optimize opportunities for on-site solar generation.
- Provide permitting-related and other incentives for energy efficient building projects, *e.g.*, by giving green projects priority in plan review, processing and field inspection services.[31]
- Conduct energy efficiency audits of existing buildings by checking, repairing, and readjusting heating, ventilation, air conditioning, lighting, water heating equipment, insulation and weatherization.[32] Offer financial incentives for adoption of identified efficiency measures.[33]
- Partner with community services agencies to fund energy efficiency projects, including heating, ventilation, air conditioning, lighting, water heating equipment, insulation and weatherization, for low income residents.
- Target local funds, including redevelopment and Community Development Block Grant resources, to assist affordable housing developers in incorporating energy efficient designs and features.

- Provide innovative, low-interest financing for energy efficiency and alternative energy projects. For example, allow property owners to pay for energy efficiency improvements and solar system installation through long-term assessments on individual property tax bills.[34]
- Fund incentives to encourage the use of energy efficient vehicles, equipment and lighting.[35] Provide financial incentives for adoption of identified efficiency measures.
- Require environmentally responsible government purchasing.[36] Require or give preference to products that reduce or eliminate indirect greenhouse gas emissions, *e.g.*, by giving preference to recycled products over those made from virgin materials.[37]
- Require that government contractors take action to minimize greenhouse gas emissions, *e.g.*, by using low or zero-emission vehicles and equipment.
- Adopt a "heat island" mitigation plan that requires cool roofs, cool pavements, and strategically placed shade trees.[38] (Darker colored roofs, pavement, and lack of trees may cause temperatures in urban environments to increase by as much as 6-8 degrees Fahrenheit as compared to surrounding areas.[39]) Adopt a program of building permit enforcement for re-roofing to ensure compliance with existing state building requirements for cool roofs on non-residential buildings.
- Adopt a comprehensive water conservation strategy. The strategy may include, but not be limited to, imposing restrictions on the time of watering, requiring water-efficient irrigation equipment, and requiring new construction to offset demand so that there is no net increase in water use.[40]
- Adopt water conservation pricing, *e.g.*, tiered rate structures, to encourage efficient water use.[41]
- Adopt water-efficient landscape ordinances.[42]
- Strengthen local building codes for new construction and implement a program to renovate existing buildings to require a higher level of water efficiency.
- Adopt energy and water efficiency retrofit ordinances that require upgrades as a condition of issuing permits for renovations or additions, and on the sale of residences and buildings.[43]
- Provide individualized water audits to identify conservation opportunities.[44] Provide financial incentives for adopting identified efficiency measures.
- Provide water audits for large landscape accounts. Provide financial incentives for efficient irrigation controls and other efficiency measures.
- Require water efficiency training and certification for irrigation designers and installers, and property managers.[45]
- Implement or expand city or county-wide recycling and composting programs for residents and businesses. Require commercial and industrial recycling.
- Extend the types of recycling services offered (*e.g.*, to include food and green waste recycling).
- Establish methane recovery in local landfills and wastewater treatment plants to generate electricity.[46]
- Implement Community Choice Aggregation (CCA) for renewable electricity generation. (CCA allows cities and counties, or groups of them, to aggregate the electric loads of customers within

their jurisdictions for purposes of procuring electrical services. CCA allows the community to choose what resources will serve their loads and can significantly increase renewable energy.)[47]

- Preserve existing conservation areas (*e.g.*, forested areas, agricultural lands, wildlife habitat and corridors, wetlands, watersheds, and groundwater recharge areas) that provide carbon sequestration benefits.
- Establish a mitigation program for development of conservation areas. Impose mitigation fees on development of such lands and use funds generated to protect existing, or create replacement, conservation areas.
- Provide public education and information about options for reducing greenhouse gas emissions through responsible purchasing, conservation, and recycling.

Land Use Element[48]

- Adopt land use designations to carry out policies designed to reduce greenhouse gas emissions, *e.g.*, policies to minimize or reduce vehicle miles traveled, encourage development near existing public transportation corridors, encourage alternative modes of transportation, and promote infill, mixed use, and higher density development.
- Identify and facilitate the development of land uses not already present in local districts – such as supermarkets, parks and recreation fields, and schools in neighborhoods; or residential uses in business districts – to reduce vehicle miles traveled and allow bicycling and walking to these destinations.
- Create neighborhood commercial districts.
- Require bike lanes and bicycle/pedestrian paths.
- Prohibit projects that impede bicycle and walking access, *e.g.*, large parking areas that cannot be crossed by non-motorized vehicles, and new residential communities that block through access on existing or potential bicycle and pedestrian routes.
- Site schools to increase the potential for students to walk and bike to school.
- Enact policies to limit or discourage low density development that segregates employment, services, and residential areas.[49]
- Where there are growth boundaries, adopt policies providing certainty for infill development.[50]
- Require best management practices in agriculture and animal operations to reduce emissions, conserve energy and water, and utilize alternative energy sources, including biogas, wind and solar.

Circulation Element[51]

- In conjunction with measures that encourage public transit, ride sharing, bicycling and walking, implement circulation improvements that reduce vehicle idling. For example, coordinate controlled intersections so that traffic passes more efficiently through congested areas.[52]
- Create an interconnected transportation system that allows a shift in travel from private passenger vehicles to alternative modes, including public transit, ride sharing, car sharing, bicycling and walking. Before funding transportation improvements that increase vehicle miles

traveled, consider alternatives such as increasing public transit or improving bicycle or pedestrian travel routes.

- Give funding preference to investment in public transit over investment in infrastructure for private automobile traffic.[53]
- Include safe and convenient bicycle and pedestrian access in all transportation improvement projects. Ensure that non-motorized transportation systems are connected and not interrupted by impassable barriers, such as freeways[54] and include amenities such as secure bicycle parking.
- Provide adequate and affordable public transportation choices including expanded bus routes and service and other transit choices such as shuttles, light rail, and rail where feasible.
- Assess transportation impact fees on new development in order to maintain and increase public transit service.[55]
- Provide public transit incentives, including free and reduced fare areas.[56]
- Adopt a comprehensive parking policy that discourages private vehicle use and encourages the use of alternative transportation.[57] For example, reduce parking for private vehicles while increasing options for alternative transportation; eliminate minimum parking requirements for new buildings; "unbundle" parking (require that parking is paid for separately and is not included in rent for residential or commercial space); and set appropriate pricing for parking.
- Develop school transit plans to substantially reduce automobile trips to, and congestion surrounding, schools. (According to some estimates, parents driving their children to school account for 20-25% of the morning commute.) Plans may address, *e.g.*, necessary infrastructure improvements and potential funding sources; replacing older diesel buses with low or zero-emission vehicles; mitigation fees to expand school bus service; and Safe Routes to School programs[58] and other formal efforts to increase walking and biking by students.
- Create financing programs for the purchase or lease of vehicles used in employer ride sharing programs.
- Enter into partnerships to create and expand polluting vehicle buy-back programs to include vehicles with high greenhouse gas emissions.
- Provide public education and information about options for reducing motor vehicle-related greenhouse gas emissions. Include information on trip reduction; trip linking; public transit; biking and walking; vehicle performance and efficiency (*e.g.*, keeping tires inflated); low or zero-emission vehicles; and car and ride sharing.

Housing Element[59]

- Improve the jobs-housing balance and promote a range of affordable housing choices near jobs, services and transit.
- Concentrate mixed use, and medium to higher density residential development in areas near jobs, transit routes, schools, shopping areas and recreation.
- Increase density in single family residential areas located near transit routes or commercial areas. For example, promote duplexes in residential areas and increased height limits of multi-unit buildings on main arterial streets, under specified conditions.

- Encourage transit-oriented developments.[60]
- Impose minimum residential densities in areas designated for transit-oriented, mixed use development to ensure higher density in these areas.
- Designate mixed use areas where housing is one of the required uses.
- In areas designated for mixed use, adopt incentives for the concurrent development of different land uses (*e.g.*, retail with residential).
- Promote infill, mixed use, and higher density development by, for example, reducing developer fees;[61] providing fast-track permit processing; reducing processing fees; funding infrastructure loans; and giving preference for infrastructure improvements in these areas.

Open Space Element[62]

- Preserve forested areas, agricultural lands, wildlife habitat and corridors, wetlands, watersheds, groundwater recharge areas and other open space that provide carbon sequestration benefits.
- Establish a mitigation program for development of those types of open space that provide carbon sequestration benefits. Require like-kind replacement for, or impose mitigation fees on development of such lands. Use funds generated to protect existing, or create replacement, open space.
- Allow alternative energy projects in areas zoned for open space where consistent with other uses and values.
- Protect existing trees and encourage the planting of new trees. Adopt a tree protection and replacement ordinance, *e.g.*, requiring that trees larger than a specified diameter that are removed to accommodate development must be replaced at a set ratio.
- Connect parks and publicly accessible open space through shared pedestrian/bike paths and trails to encourage walking and bicycling.

Safety Element[63]

- Address expected effects of climate change that may impact public safety, including increased risk of wildfires, flooding and sea level rise, salt water intrusion; and health effects of increased heat and ozone, through appropriate policies and programs.
- Adopt programs for the purchase, transfer or extinguishment of development rights in high risk areas.
- Monitor the impacts of climate change. Use adaptive management to develop new strategies, and modify existing strategies, to respond to the impacts of climate change.

Energy Element

Many of the goals, policies, or programs set forth above may be contained in an optional energy element. The resources set forth below may be useful to local agencies in developing an energy element or an energy conservation plan.

- The Local Government Commission produced a detailed report in 2002 entitled General Plan Policy Options for Energy Efficiency in New and Existing Development. The document sets forth energy saving policies suitable for inclusion in general plans. Policies range from

exceeding State minimum building efficiency standards, to retrofitting buildings to reduce energy consumption, to implementing energy conservation strategies for roofs, pavement and landscaping. The report also contains suggested general plan language. The report is available here: http://www.redwoodenergy.org/uploads/Energy_Element_Report.pdf.

- The California Energy Commission summarizes the energy-related efforts of Humboldt County, City of Pleasanton, City of Pasadena, City and County of San Francisco, the Los Angeles area, City of Chula Vista, the San Diego region, City of San Diego, City and County of San Luis Obispo, and City of Santa Monica, in the 2006 Integrated Energy Policy Report at pp. 82-87, available here: http://www.energy.ca.gov/2006publications/CEC-100-2006-001/CEC-100-2006-001-CMF.PDF.
- In 2006, the Association of Monterey Bay Area Governments published a regional energy plan, available here: http://www.ambag.org/EnergyWatch/regional_plan.html. Part 1 describes the plan's goals and course of action. Part 2 describes actions that local agencies already have taken and identifies the most cost-effective measures in each sector. The appendices list existing energy programs that may provide support and funding for energy efficiency projects, suggest language for energy-related provisions to be included in general plans, and list and give brief explanations of more than one hundred energy-saving measures.
- The California Local Energy Efficiency Program (CALeep) has available on its website, http://www.caleep.com/default.htm, various resources and documents, including an energy "Workbook." The Workbook lays out a process for instituting local energy efficiency programs based in part on information developed in six California pilot projects (Inland Empire Utilities Agency, City of Oakland, San Joaquin Valley, Sonoma County, South Bay Cities Council of Governments, and Ventura County Regional Energy Alliance). The Workbook is designed to be used by local officials to initiate, plan, organize, implement, and assess energy efficiency activities at the local and regional level.

(3) Resources About Global Warming and Local Action

The following web sites and organizations provide general information about mitigating global warming impacts at the local level. These sites represent only a small fraction of the available resources. Local agencies are encouraged to conduct their own research in order to obtain the most current and relevant materials.

- The U.S. Conference of Mayors' Climate Protection Agreement contains valuable information for the many local agencies that are joining the fight against global warming. The Agreement is available here: http://www.coolcities.us/resources/bestPracticeGuides/USM_ClimateActionHB.pdf. Over one hundred and twenty California cities have joined the "Cool Cities" campaign, which means they have signed the U.S. Mayor's Climate Protection Agreement and are taking concrete steps toward addressing global warming. These steps include preparing a city-wide greenhouse gas emissions inventory and creating and implementing a local Climate Action Plan. Additional resources, including various cities' Climate Action Plans, are located at the Cool Cities website: http://www.coolcities.us/resources.php.
- In July 2007, Alameda County became one of twelve charter members of the "Cool Counties" initiative. Participating counties sign a Climate Stabilization Declaration, which is available at the website for King County (Washington State): http://www.metrokc.gov/exec/news/2007/0716dec.aspx. Participating counties agree to work with local, state, and federal governments and other leaders to reduce county geographical greenhouse gas emissions to 80% below current levels by 2050 by developing a greenhouse gas emissions inventory and regional reduction plan. Current member counties

are recruiting new members and are committed to sharing information. Cool Counties contact information is available at: http://www.kingcounty.gov/exec/coolcounties/Joinus.aspx.

- Local Governments for Sustainability, a program of International Cities for Local Environmental Initiatives (ICLEI), has initiated a campaign called Cities for Climate Protection (CCP). The membership program is designed to empower local governments worldwide to take action on climate change. Many California cities have joined ICLEI. More information is available at the organization's website: http://www.iclei.org/.

- The Institute for Local Government (ILG), an affiliate of the California State Association of Counties and the League of California Cities, has instituted a program called the California Climate Action Network (CaliforniaCAN!). The program provides information about the latest climate action resources and case studies. More information is available at the CaliforniaCAN! website: http://www.cacities.org/index.jsp?displaytype=&section=climate&zone=ilsg.

  ILG's detailed list of climate change "best practices" for local agencies is available at http://www.cacities.org/index.jsp?displaytype=&section=climate&zone=ilsg&sub_sec=climate_local.

  ILG maintains a list of local agencies that have Climate Action Plans. The list is available here: http://www.cacities.org/index.jsp?zone=ilsg&previewStory=27035. According to ILG, the list includes Marin County and the cities of Arcata, Berkeley, Los Angeles, Palo Alto, San Diego, and San Francisco. Many additional local governments are in the process of conducting greenhouse gas inventories.

- The non-profit group Natural Capitalism Solutions (NCS) has developed an on-line Climate Protection Manual for Cities. NCS states that its mission is "to educate senior decision-makers in business, government and civil society about the principles of sustainability." The manual is available at http://www.climatemanual.org/Cities/index.htm.

- The Local Government Commission provides many planning-related resources for local agencies at its website: http://www.lgc.org/.

  In cooperation with U.S. EPA, LGC has produced a booklet discussing the benefits of density and providing case studies of well-designed, higher density projects throughout the nation. Creating Great Neighborhoods: Density in Your Community (2003) is available here: http://www.lgc.org/freepub/PDF/Land_Use/reports/density_manual.pdf.

- The Pew Center on Global Climate Change was established in 1998 as a non-profit, non-partisan and independent organization. The Center's mission is to provide credible information, straight answers, and innovative solutions in the effort to address global climate change. See http://www.pewclimate.org. The Pew Center has published a series of reports called Climate Change 101. These reports provide a reliable and understandable introduction to climate change. They cover climate science and impacts, technological solutions, business solutions, international action, recent action in the U.S. states, and action taken by local governments. The Climate Change 101 reports are available at http://www.pewclimate.org/global-warming-basics/climate_change_101.

- The Climate Group, www.theclimategroup.org, is a non-profit organization founded by a group of companies, governments and activists to "accelerate international action on global warming with a new, strong focus on practical solutions." Its website contains a searchable database of about fifty case studies of actions that private companies, local and state governments, and the United Kingdom, have taken to reduce GHG emissions. Case studies include examples from California. The database, which can be searched by topic, is available at

http://theclimategroup.org/index.php/reducing_emissions/case_studies.

U.S. EPA maintains a list of examples of codes that support "smart growth" development, available here: http://www.epa.gov/piedpage/codeexamples.htm. Examples include transit-oriented development in Pleasant Hill and Palo Alto, rowhouse design guidelines from Mountain View, and street design standards from San Diego.

- The Urban Land Institute (ULI) is a nonprofit research and education organization providing leadership in responsible land use and sustainability. In 2007, ULI produced a report entitled, "Growing Cooler: The Evidence on Urban Development and Climate Change," which review s existing research on the relationship between urban development, travel, and greenhouse gases emitted by motor vehicles. It further discusses the emissions reductions that can be expected from compact development and how to make compact development happen. "Growing Cooler" is available at http://www.uli.org/growingcooler.

- The California Department of Housing and Community Development, http://www.hcd.ca.gov/, has many useful resources on its website related to housing policy and housing elements and specific recommendations for creating higher density and affordable communities. See http://www.hcd.ca.gov/hpd/hrc/plan/he/.

- The California Transportation Commission (CTC) recently made recommendations for changes to regional transportation guidelines to address climate change issues. Among other things, the CTC recommends various policies, strategies and performance standards that a regional transportation agency should consider including in a greenhouse reduction plan. These or analogous measures could be included in other types of planning documents or local climate action plans. The recommendation document, and Attachment A, entitled Smart Growth/Land Use Regional Transportation Plan Guidelines Amendments, are located at http://www.dot.ca.gov/hq/transprog/ctcbooks/2008/0108/12_4.4.pdf.

- The California Energy Commission's Public Interest Energy Research (PIER) Program supports energy research, development and demonstration projects designed to bring environmentally safe, affordable and reliable energy services and products to the marketplace. On its website, http://www.energy.ca.gov/pier/, PIER makes available a number of reports and papers related to energy efficiency, alternative energy, and climate change.

- The Governor's Office of Planning and Research (OPR) provides valuable resources for lead agencies related to CEQA and global warming at http://opr.ca.gov/index.php?a=ceqa/index.html. Among the materials available are a list of environmental documents addressing climate change and greenhouse gas emissions and a list of local plans and policies addressing climate change. In addition, OPRs' The California Planners' Book of Lists 2008, which includes the results of surveys of local agencies on matters related to global warming, is available at http://www.opr.ca.gov/index.php?a=planning/publications.html#pubs-C.

- The California Air Pollution Control Officers Association has prepared a white paper entitled "CEQA and Climate Change" (January 2008). The document includes a list of mitigation measures and information about their relative efficacy and cost. The document is available at http://www.capcoa.org/ceqa/?docID=ceqa.

- The Attorney General's global warming website includes a section on CEQA. See http://ag.ca.gov/globalwarming/ceqa.php. The site includes all of the Attorney General's public comment letters that address CEQA and global warming.

(4) Endnotes

1. Energy efficiency leads the mitigation list because it promises significant greenhouse gas reductions through measures that are cost-effective for the individual residential and commercial energy consumer.

2. Leadership in Energy and Environmental Design (LEED) administers a Green Building Ratings program that provides benchmarks for the design, construction, and operation of high-performance green buildings. More information about the LEED ratings system is available at http://www.usgbc.org/DisplayPage.aspx?CategoryID=19. Build it Green is a non-profit, membership organization that promotes green building practices in California. The organization offers a point-based, green building rating system for various types of projects. See http://www.builditgreen.org/guidelines-rating-systems. Lawrence Berkeley National Laboratories' Building Technologies Department is working to develop coherent and innovative building construction and design techniques. Information and publications on energy efficient buildings are available at the Department's website at http://btech.lbl.gov. The California Department of Housing and Community Development has created an extensive Green Building & Sustainability Resources handbook with links to green building resources, available at http://www.hcd.ca.gov/hpd/green_build.pdf.

3. For more information, see Lawrence Berkeley National Laboratories, Heat Island Group at http://eetd.lbl.gov/HeatIsland/.

4. See California Energy Commission, "How to Hire an Energy Services Company" (2000) at http://www.energy.ca.gov/reports/efficiency_handbooks/400-00-001D.PDF.

5. Energy Star is a joint program of the U.S. Environmental Protection Agency and the U.S. Department of Energy that certifies energy efficient products and provides guidelines for energy efficient practices for homes and businesses. More information about Energy Star-certified products is available at http://www.energystar.gov/. The Electronic Product Environmental Assessment Tool (EPEAT) is a system that ranks computer products based on their conformance to a set of environmental criteria, including energy efficiency. More information about EPEAT is available at http://www.epeat.net/AboutEPEAT.aspx.

6. LED lighting is substantially more energy efficient than conventional lighting and can save money. See http://www.energy.ca.gov/efficiency/partnership/case_studies/TechAsstCity.pdf (noting that installing LED traffic signals saved the City of Westlake about $34,000 per year). As of 2005, only about a quarter of California's cities and counties were using 100% LEDs in traffic signals. See California Energy Commission (CEC), Light Emitting Diode Traffic Signal Survey (2005) at p. 15, available at http://www.energy.ca.gov/2005publications/CEC-400-2005-003/CEC-400-2005-003.PDF. The CEC's Energy Partnership Program can help local governments take advantage of energy saving technology, including, but not limited to, LED traffic signals. See http://www.energy.ca.gov/efficiency/partnership/.

7. See Palm Desert Energy Partnership at http://www.sce.com/rebatesandsavings/palmdesert. The City, in partnership with Southern California Edison, provides incentives and rebates for efficient equipment. See Southern California Edison, Pool Pump and Motor Replacement Rebate Program at http://www.sce.com/RebatesandSavings/Residential/_Pool/PoolPumpandMotor/.

8. Many cities and counties provide energy efficiency education. See, for example, the City of Stockton's Energy Efficiency website at http://www.stocktongov.com/energysaving/index.cfm. See also "Green County San Bernardino," http://www.greencountysb.com/ at pp. 4-6. Private projects may also provide education. For example, a homeowners' association could provide information and energy audits to its members on a regular basis.

9. See http://www.gosolarcalifornia.ca.gov/documents/CEC-300-2007-008-CMF.PDF. At the direction of Governor Schwarzenegger, the California Public Utilities Commission (CPUC) approved the California Solar Initiative on January 12, 2006. The initiative creates a $3.3 billion, ten-year program to install solar panels on one million roofs in the State. See http://www.gosolarcalifornia.ca.gov/nshp/index.html.

10. For example, Alameda County has installed two solar tracking carports, each generating 250 kilowatts. By 2005, the County had installed eight photovoltaic systems totaling over 2.3 megawatts. The County is able to meet 6 percent of its electricity needs through solar power. See http://www.acgov.org/gsa/Alameda%20County%20-%20Solar%20Case%20Study.pdf.

11. Many commercial, industrial, and campus-type facilities (such as hospitals, universities and prisons) use fuel to produce steam and heat for their own operations and processes. Unless captured, much of this heat is wasted. Combined heat and power (CHP) captures waste heat and re-uses it, *e.g.*, for residential or commercial space heating or to generate electricity. See U.S. EPA, Catalog of CHP Technologies at http://www.epa.gov/chp/documents/catalog_of_%20chp_tech_entire.pdf. The average efficiency of fossil-fueled power plants in the United States is 33 percent. By using waste heat recovery technology, CHP systems typically achieve total system efficiencies of 60 to 80 percent. CHP can also substantially reduce emissions of carbon dioxide. http://www.epa.gov/chp/basic/efficiency.html. Currently, CHP in California has a capacity of over 9 million kilowatts. See list of California CHP facilities at http://www.eea-inc.com/chpdata/States/CA.html.

12. The California Energy Commission has found that the State's water-related energy use – which includes the conveyance, storage, treatment, distribution, wastewater collection, treatment, and discharge – consumes about 19 percent of the State's electricity, 30 percent of its natural gas, and 88 billion gallons of diesel fuel every year. See http://www.energy.ca.gov/2007publications/CEC-999-2007-008/CEC-999-2007-008.PDF. Accordingly, reducing water use and improving water efficiency can help reduce energy use and associated greenhouse gas emissions.

13. The Water Conservation in Landscaping Act of 2006 (AB 1881) requires the Department of Water Resources (DWR), not later than January 1, 2009, to update the Model Water Efficient Landscape Ordinance. The draft of the entire updated Model Water Efficient Landscape Ordinance will be made available to the public. See http://www.owue.water.ca.gov/landscape/ord/updatedOrd.cfm.

14. See Graywater Guide, Department of Water Resources, Office of Water Use Efficiency and Transfers at http://www.owue.water.ca.gov/docs/graywater_guide_book.pdf. See also The Ahwahnee Water Principles, Principle 6, at http://www.lgc.org/ahwahnee/h2o_principles.html. The Ahwahnee Water Principles have been adopted by City of Willits, Town of Windsor, Menlo Park, Morgan Hill, Palo Alto, Petaluma, Port Hueneme, Richmond, Rohnert Park, Rolling Hills Estates, San Luis Obispo, Santa Paula, Santa Rosa, City of Sunnyvale, City of Ukiah, Ventura, Marin County, Marin Municipal Water District, and Ventura County.

15. See Office of Environmental Health Hazard Assessment and the California Water and Land Use Partnership, Low Impact Development, at http://www.coastal.ca.gov/nps/lid-factsheet.pdf.

16. See, for example, the City of Santa Cruz, Water Conservation Office at http://www.ci.santa-cruz.ca.us/wt/wtcon/index.html; Santa Clara Valley Water District, Water Conservation at http://www.valleywater.org/conservation/index.shtm; and Metropolitan Water District and the Family of Southern California Water Agencies, Be Water Wise at http://www.bewaterwise.com. Private projects may provide or fund similar education.

17. See Public Interest Energy Research Program, Dairy Power Production Program, Dairy Methane Digester System, 90-Day Evaluation Report, Eden Vale Dairy (Dec. 2006) at http://www.energy.ca.gov/2006publications/CEC-500-2006-083/CEC-500-2006-083.PDF. See also discussion in the general plan section, below, relating to wastewater treatment plants and landfills.

18. Many cities and counties provide information on waste reduction and recycling. See, for example, the Butte County Guide to Recycling at http://www.recyclebutte.net. The California Integrated Waste Management Board's website contains numerous publications on recycling and waste reduction that may be helpful in devising an education project. See http://www.ciwmb.ca.gov/Publications/default.asp?cat=13. Private projects may also provide education directly, or fund education.

19. See U.S. EPA, Our Built and Natural Environments, A Technical Review of the Interactions between Land Use, Transportation, and Environmental Quality (Jan. 2001) at pp. 46-48 http://www.epa.gov/dced/pdf/built.pdf.

20. See California Department of Housing and Community Development, Myths and Facts About Affordable and High Density Housing (2002), available at http://www.hcd.ca.gov/hpd/mythsnfacts.pdf.

21. Palo Alto's Green Ribbon Task Force Report on Climate Protection recommends pedestrian and bicycle-only streets under its proposed actions. See http://www.city.palo-alto.ca.us/civica/filebank/blobdload.asp?BlobID=7478.

22. There are a number of car sharing programs operating in California, including City CarShare http://www.citycarshare.org/, Zip Car http://www.zipcar.com/ and Flexcar http://www.flexcar.com/.

23. The City of Lincoln has a NEV program. See http://www.lincolnev.com/index.html.

24. See, for example, Marin County's Safe Routes to Schools program at http://www.saferoutestoschools.org/.

25. For information on the general plan process, see Governor's Office of Planning and Research, General Plan Guidelines (1998), available at http://ceres.ca.gov/planning/genplan/gpg.pdf.

26. The Conservation Element addresses the conservation, development, and use of natural resources including water, forests, soils, rivers, and mineral deposits. Measures proposed for the Conservation Element may alternatively be appropriate for other elements. In practice, there may be substantial overlap in the global warming mitigation measures appropriate for the Conservation and Open Space Elements.

27. See the Attorney General's settlement agreement with the County of San Bernardino, available at http://ag.ca.gov/cms_pdfs/press/2007-08-21_San_Bernardino_settlement_agreement.pdf. See also Marin County Greenhouse Gas Reduction Plan (Oct. 2006) at http://www.co.marin.ca.us/depts/CD/main/pdf/final_ghg_red_plan.pdf; Marin Countywide Plan (Nov. 6, 2007) at http://www.co.marin.ca.us/depts/CD/main/fm/cwpdocs/CWP_CD2.pdf; Draft Conservation Element, General Plan, City of San Diego at http://www.sandiego.gov/planning/genplan/pdf/generalplan/ce070918.pdf.

28. Public Resources Code Section 25402.1(h)2 and Section 10-106 of the Building Energy Efficiency Standards establish a process that allows local adoption of energy standards that are more stringent than the statewide Standards. More information is available at the California Energy Commission's website. See http://www.energy.ca.gov/title24/2005standards/ordinances_exceeding_2005_building_standards.html.

29. See, *e.g.*, LEED at http://www.usgbc.org/DisplayPage.aspx?CategoryID=19; see also Build it Green at http://www.builditgreen.org/guidelines-rating-systems.

30. The City of Santa Monica, for example, has instituted a Green Building Program. See http://www.greenbuildings.santa-monica.org/. The City of Pasadena also has a green building ordinance that applies to public and private buildings. See http://www.ci.pasadena.ca.us/permitcenter/greencity/building/gbprogram.asp and http://ordlink.com/codes/pasadena/index.htm?Search_Code=Begin+Searching+Municipal+Code at Title 14. The City of San Francisco is considering adopting green building performance requirements that would apply to public and private buildings. See http://www.sfenvironment.org/downloads/library/gbtfrrreleasev1.3.pdf.

31. See, *e.g.*, "Green County San Bernardino," http://www.greencountysb.com/. As part of its program, the County is waiving permit fees for alternative energy systems and efficient heating and air conditioning systems. See http://www.greencountysb.com/ at p. 3. For a representative list of incentives for green building offered in California and throughout the nation, see U.S. Green Building Council, Summary of Government LEED Incentives (updated quarterly) at https://www.usgbc.org/ShowFile.aspx?DocumentID=2021.

32. For example, Riverside Public Utilities offers free comprehensive energy audits to its business customers. See http://www.riversideca.gov/utilities/busi-technicalassistance.asp.

33. Under Southern California Gas Company's Energy Efficiency Program for Commercial/Industrial Large Business Customers, participants are eligible to receive an incentive based on 50% of the equipment cost, or $0.50 per therm saved, whichever is lower, up to a maximum amount of $1,000,000 per customer, per year. Eligible projects require an energy savings of at least 200,000 therms per year. See http://www.socalgas.com/business/efficiency/grants/.

34. The City of Berkeley is in the process of instituting a "Sustainable Energy Financing District." According to the City, "The financing mechanism is loosely based on existing 'underground utility districts' where the City serves as the financing agent for a neighborhood when they move utility poles and wires underground. In this case, individual property owners would contract directly with qualified private solar installers and contractors for energy efficiency and solar projects on their building. The

City provides the funding for the project from a bond or loan fund that it repays through assessments on participating property owners' tax bills for 20 years." See http://www.cityofberkeley.info/Mayor/PR/pressrelease2007-1023.htm.

The California Energy Commission's Public Interest Energy Research Program estimates that the technical potential for rooftop applications of photovoltaic systems in the State is about 40 gigawatts in 2006, rising to 68 gigawatts in 2016. See Public Interest Energy Research Program, California Rooftop Photovoltaic (PV) Resource Assessment and Growth Potential by County (2007), available at http://www.energy.ca.gov/publications/displayOneReport.php?pubNum=CEC-500-2007-048.

35. As described in its Climate Action Plan, the City of San Francisco uses a combination of incentives and technical assistance to reduce lighting energy use in small businesses such as grocery stores, small retail outlets, and restaurants. The program offers free energy audits and coordinated lighting retrofit installation. In addition, the City offers residents the opportunity to turn in their incandescent lamps for coupons to buy fluorescent units. See San Francisco's Climate Action Plan, available at http://www.sfenvironment.org/downloads/library/climateactionplan.pdf.

36. Among other strategies for reducing its greenhouse gas emissions, Yolo County has adopted purchasing policies for computers and electrical equipment. http://www.yolocounty.org/docs/press/GreenhouseGas.htm.

37. See, for example, Los Angeles County Green Purchasing Policy, June 2007 at http://www.responsiblepurchasing.org/UserFiles/File/General/Los%20Angeles%20County,%20Green%20Purchasing%20Policy,%20June%202007.pdf. The policy requires County agencies to purchase products that minimize environmental impacts, including greenhouse gas emissions.

38. Some local agencies have implemented a cool surfaces programs in conjunction with measures to address storm water runoff and water quality. See, for example, The City of Irvine's Sustainable Travelways/Green Streets program at http://www.cityofirvine.org/depts/redevelopment/sustainable_travelways.asp; The City of Los Angeles's Green Streets LA program at http://water.lgc.org/water-workshops/la-workshop/Green_Streets_Daniels.pdf/view; see also The Chicago Green Alley Handbook at http://egov.cityofchicago.org/webportal/COCWebPortal/COC_EDITORIAL/GreenAlleyHandbook_Jan.pdf.

39. See the website for Lawrence Berkeley National Laboratory's Urban Heat Island Group at http://eetd.lbl.gov/HeatIsland/LEARN/ and U.S. EPA's Heat Island website at www.epa.gov/heatisland/. To learn about the effectiveness of various heat island mitigation strategies, see the Mitigation Impact Screening Tool, available at http://www.epa.gov/heatisld/resources/tools.html.

40. For example, the City of Lompoc has a policy to "require new development to offset new water demand with savings from existing water users, as long as savings are available." See http://www.ci.lompoc.ca.us/departments/comdev/pdf07/RESRCMGMT.pdf.

41. The Irvine Ranch Water District in Southern California, for example, uses a five-tiered rate structure that rewards conservation. The water district has a baseline charge for necessary water use. Water use

that exceeds the baseline amount costs incrementally more money. While "low volume" water use costs $.082 per hundred cubic feet (ccf), "wasteful" water use costs $7.84 per ccf. See http://www.irwd.com/AboutIRWD/rates_residential.php. Marin County has included tiered billing rates as part of its general plan program to conserve water. See Marin County Countywide Plan, page 3-204, PFS-2.q, available at http://www.co.marin.ca.us/depts/CD/main/fm/cwpdocs/CWP_CD2.pdf.

42. See the City of Fresno's Watering Regulations and Ordinances at http://www.fresno.gov/Government/DepartmentDirectory/PublicUtilities/Watermanagement/Conservation/WaterRegulation/WateringRegulationsandRestrictions.htm.

43. See, *e.g.*, the City of San Diego's plumbing retrofit ordinance at http://www.sandiego.gov/water/conservation/selling.shtml.

44. The City of Roseville offers free water conservation audits through house calls and on-line surveys. See http://www.roseville.ca.us/eu/water_utility/water_conservation/for_home/programs_n_rebates.asp.

45. See Landscape Performance Certification Program, Municipal Water District of Orange County at http://waterprograms.com/wb/30_Landscapers/LC_01.htm.

46. For example, San Diego's Metropolitan Wastewater Department (SDMWD) installed eight digesters at one of its wastewater treatment plants. Digesters use heat and bacteria to break down the organic solids removed from the wastewater to create methane, which can be captured and used for energy. The methane generated by SDMWD's digesters runs two engines that supply enough energy for all of the plant's needs, and the plant sells the extra energy to the local grid. See http://www.sandiego.gov/mwwd/facilities/ptloma.shtml. In addition, the California Air Resources Board approved the Landfill Methane Capture Strategy as an early action measure. http://www.arb.ca.gov/cc/ccea/landfills/landfills.htm. Numerous landfills in California, such as the Puenta Hills Landfill in Los Angeles County (http://www.lacsd.org/about/solid_waste_facilities/puente_hills/clean_fuels_program.asp), the Scholl Canyon Landfill in the City of Glendale (http://www.glendalewaterandpower.com/Renewable%20Energy%20Development.asp), and theYolo Landfill in Yolo County, are using captured methane to generate power and reduce the need for other more carbon-intensive energy sources.

47. On April 30, 2007, the Public Utilities Commission authorized a CCA application by the Kings River Conservation District on behalf of San Joaquin Valley Power Authority (SJVPA). SJVPA's Implementation Plan and general CCA program information are available at www.communitychoice.info. See also http://www.co.marin.ca.us/depts/CD/main/comdev/advance/Sustainability/Energy/cca/CCA.cfm. (County of Marin); and http://sfwater.org/mto_main.cfm/MC_ID/12/MSC_ID/138/MTO_ID/237 (San Francisco Public Utilities Commission). See also Public Interest Energy Research, Community Choice Aggregation (fact sheet) (2007), available at http://www.energy.ca.gov/publications/displayOneReport.php?pubNum=CEC-500-2006-082.

48. The Land Use Element designates the type, intensity, and general distribution of uses of land for housing, business, industry, open-space, education, public buildings and grounds, waste disposal facilities, and other categories of public and private uses.

49. Samples of local legislation to reduce sprawl are set forth in the U.S. Conference of Mayors' Climate Action Handbook. See http://www.iclei.org/documents/USA/documents/CCP/Climate_Action_Handbook-0906.pdf.

50. For a list and maps related to urban growth boundaries in California, see Urban Growth Boundaries and Urban Line Limits, Association of Bay Area Governments (2006) at http://www.abag.ca.gov/jointpolicy/Urban%20Growth%20Boundaries%20and%20Urban%20Limit%20Lines.pdf.

51. The Circulation Element works with the Land Use element and identifies the general location and extent of existing and proposed major thoroughfares, transportation routes, terminals, and other local public utilities and facilities.

52. See Orange County Transportation Authority, Signal Synchronization at http://www.octa.net/signals.aspx. Measures such as signal synchronization that improve traffic flow must be paired with other measures that encourage public transit, bicycling and walking so that improved flow does not merely encourage additional use of private vehicles.

53. San Francisco's "Transit First" Policy is listed in its Climate Action Plan, available at http://www.sfenvironment.org/downloads/library/climateactionplan.pdf. The City's policy gives priority to public transit investments and provides public transit street capacity and discourages increases in automobile traffic. This policy has resulted in increased transit service to meet the needs generated by new development.

54. The City of La Mesa has a Sidewalk Master Plan and an associated map that the City uses to prioritize funding. As the City states, "The most important concept for sidewalks is connectivity. For people to want to use a sidewalk, it must conveniently connect them to their intended destination." See http://www.ci.la-mesa.ca.us/index.asp?NID=699.

55. San Francisco assesses a Downtown Transportation Impact Fee on new office construction and commercial office space renovation within a designated district. The fee is discussed in the City's Climate Action plan, available at http://www.sfenvironment.org/downloads/library/climateactionplan.pdf.

56. For example, Seattle, Washington maintains a public transportation "ride free" zone in its downtown from 6:00 a.m. to 7:00 p.m. daily. See http://transit.metrokc.gov/tops/accessible/paccessible_map.html#fare.

57. See, *e.g.*, Reforming Parking Policies to Support Smart Growth, Metropolitan Transportation Commission (June 2007) at http://www.mtc.ca.gov/planning/smart_growth/parking_seminar/Toolbox-Handbook.pdf; see also the City of Ventura's Downtown Parking and Mobility Plan, available at http://www.cityofventura.net/depts/comm_dev/resources/mobility_parking_plan.pdf, and its Downtown Parking Management Program, available at http://www.cityofventura.net/depts/comm_dev/downtownplan/chapters/5_programs_implementation.pdf.

58. See Safe Routes to School Toolkit, National Highway Traffic Safety Administration (2002) at www.nhtsa.dot.gov/people/injury/pedbimot/bike/Safe-Routes-2002; see also www.saferoutestoschools.org (Marin County).

59. The Housing Element assesses current and projected housing needs. In addition, it sets policies for providing adequate housing and includes action programs for that purpose.

60. The U.S. Conference of Mayors cites Sacramento's Transit Village Redevelopment as a model of transit-oriented development. More information about this project is available at http://www.cityofsacramento.org/planning/projects/65th-street-village/. The Metropolitan Transportation Commission (MTC) has developed policies and funding programs to foster transit-oriented development. More information is available at MTC's website: http://www.mtc.ca.gov/planning/smart_growth/#tod. The California Department of Transportation maintains a searchable database of 21 transit-oriented developments at http://transitorienteddevelopment.dot.ca.gov/miscellaneous/NewHome.jsp.

61. The City of Berkeley has endorsed the strategy of reducing developer fees or granting property tax credits for mixed-use developments in its Resource Conservation and Global Warming Abatement Plan. City of Berkeley's Resource Conservation and Global Warming Abatement Plan p. 25 at http://www.baaqmd.gov/pln/GlobalWarming/BerkeleyClimateActionPlan.pdf.

62. The Open Space Element details plans and measures for preserving open space for natural resources, the managed production of resources, outdoor recreation, public health and safety, and the identification of agricultural land. As discussed previously in these Endnotes, there may be substantial overlap in the measures appropriate for the Conservation and Open Space Elements.

63. The Safety Element establishes policies and programs to protect the community from risks associated with seismic, geologic, flood, and wildfire hazards.

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April 14, 2008

David Bryant
Tulare County Resource Management Agency
5961 South Mooney Boulevard
Visalia, California 93277

Subject: Tulare County General Plan 2030 Update Draft Environmental Report (DEIR);
SCH No. 2006041162

Dear Mr. Bryant:

The Department of Fish and Game has reviewed the DEIR for the Tulare County General Plan Update. The General Plan Update consists of a comprehensive update of Tulare County's existing General Plan. Included in the General Plan documents are the Goals and Policies and the Background Reports. The Goals and Policies Report contains the goals and policies that will guide future decisions within the County and identifies implementation measures that will ensure the goals and policies of the General Plan Update are carried out.

The Department has the following comments regarding the General Plan Update.

Trustee Agency Authority: The Department is a Trustee Agency with the responsibility under the California Environmental Quality Act (CEQA) for commenting on projects that could impact plant and wildlife resources. Pursuant to Fish and Game Code Section 1802, the Department has jurisdiction over the conservation, protection, and management of fish, wildlife, native plants, and habitat necessary for biologically sustainable populations of those species. As a Trustee Agency for fish and wildlife resources, the Department is responsible for providing, as available, biological expertise to review and comment on environmental documents and impacts arising from project activities, as those terms are used under CEQA.

Comments and Recommendations

Environmental Resource Management (ERM)-Biological Resources: The Department appreciates the inclusion of ERM policies 1.1-1.17 and the accompanying Implementation Measures in the General Plan Update. As stated in the DEIR, Tulare County is an ecologically diverse county whose lands support a variety of sensitive species and habitats as well as public hunting and fishing opportunities. The ERM policies and Implementation Measures provide a base that will allow the County to protect the natural resources in the County through policy implementation and coordination with other agencies. We applaud and welcome the desire of the County to work together in the protection and preservation of natural resources and is willing to assist in identification of sensitive habitat areas and other important biological resources within Tulare County.

Transportation and Circulation: The DEIR does not discuss the proposed State Highway 65 expansion and the potentially significant growth-inducing and cumulative impacts of the expansion on the foothills. Figure 12.1 in the Goals and Policy Report presents the proposed

alignment of Highway 65 but the extension is not mentioned with other proposed transportation projects in the text of the document. The extension of Highway 65 is likely to lead to commercial development along the route and would likely facilitate urban sprawl in the pattern typically observed along transportation corridors. In fact, the Corridor Policies section of Part II of the Goals and Policies Report appears to encourage growth and development along the Highway 65 corridor. These issues should be addressed in the DEIR.

The cumulative impacts of the extension of Highway 65 should be addressed in Section 8.2 of the DEIR along with the five General Plan Amendments and Initiatives already included (Goshen, Westfield, Yokohl Ranch, Rancho Sierra and Earlimart).

Agriculture Policy 1.6 (AG-1.6): This policy requires the County to develop an agricultural easement program to help protect and preserve agricultural lands. Depending on the crops grown and management regimes used, agricultural land (including pastureland) can provide foraging habitat, nesting habitat, and dispersal habitat for a variety of wildlife species. The Department supports this policy as agricultural easements in perpetuity would help offset the loss of wildlife-compatible agricultural land that would occur in Tulare County as a result of development anticipated in the General Plan. However, the timing of this agricultural land mitigation policy is unclear as the DEIR does not contain a timeline for this mitigation measure, only a requirement that it be implemented. What does the County propose to do to conserve and mitigate for impacts to loss of agricultural land before AG-1.6 is fully implemented and the agricultural easement program is developed? The Department recommends that an interim policy requiring permanent agricultural easements be obtained to offset agricultural land loss as a result of individual project development be put in place until AG-1.6 can be fully implemented to ensure that mitigation for this impact is not deferred or unexecuted.

If you have any questions regarding these comments, or would like the Department to assist in identification of sensitive habitat areas or other important biological resources within the General Plan area, please contact Justin Sloan, Environmental Scientist, at the address provided on this letterhead or by telephone at (559) 243-4014, extension 216.

Sincerely,

W. E. Loudermilk

W. E. Loudermilk
Regional Manager

cc: State Clearinghouse
Office of Planning and Research
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DATE: 4/14/08 PAGE 1 OF 3

TO: David Bryant
Tulare County Resource Management Agency

FAX: (559) 733-2053 PHONE: (559) 733-6291

FROM: Justin Sloan

INSTRUCTIONS: Original to follow by mail.

Kimball R. Loeb, P.G.
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April 14, 2008

Mr. David Bryant
Division Manager - Special Projects
Tulare County Resource Management Agency
5961 S. Mooney Blvd.
Visalia, CA 93277

Re: Review and Comments Regarding Water Resources
Draft Tulare County General Plan *Goals and Policies Report*, *Background Report*, and *Environmental Impact Report*

Dear Mr. Bryant:

Water resources information contained in the Draft Tulare County General Plan is presented in multiple sections in three different documents. The sections have little consistency between them, much is based on old and general data sources, and they are not internally cross referenced rendering the information difficult to access for policy makers and the public, and likely for the document preparers as well.

The pertinent sections of the *Goals and Policies Report* and the *Draft Environmental Impact Report* (DEIR) indicate that they are based upon the "detailed" information contained in the Water Resources section of the *Background Report*. However, there are in fact two unrelated Water Resources sections in the *Background Report*. Both of these Water Resources sections are based on sources that had been revised as of the date of the *Background Report*.

The two Water Resources sections of the *Background Report* need to be updated with current information and integrated into a single comprehensive section. Additionally, the General Plan water resources sections and analysis should address the impacts and planning necessary to address the potentially profound changes to precipitation and Sierra snowpack caused by Global Climate Change.

Once the Water Resources section of the *Background Report* is revised to fully address the present and future water resources of Tulare County, the dependant sections of the *Goals and Policies Report* and DEIR should be revised accordingly.

This letter discusses specific issues and provides comments regarding the three documents.

Background Report – Water Resources

Oddly, there are two different Water Resources sections contained in the *Background Report*. The Water Resources section contained in the body of the report is essentially an extract of the *California Water Plan* published by the State Department of Water Resources in 1998. The *Background Report* is dated December 2007; the 2005 update to the *California Water Plan* should have been used, rather than nearly 10-year-old data.

The other Water Resources section is included as Appendix C of the *Background Report*. While not specifically identified, this document is presumed to be the "Keller, Wegley & Associates" report referenced in other General Plan Documents including the DEIR. Further, the *Background Report* table of contents and introduction make no mention of any appendices. This is the document that was not included in the initial release of the General Plan and DEIR, which resulted in extension of the public review period.

California's Groundwater (Bulletin 118, Update 2003) published by the California Department of Water Resources has much more specific information regarding groundwater conditions in the three principal

Tulare County subbasins. This document is cited in the DEIR, but is not referenced in, nor was it apparently used for preparation of the Water Resources sections in the *Background Report*.

Most of the references cited in the Water Resources sections are not included in the *Background Report* Bibliography. All citations and reference sources used for the Water Resource sections should be included in the Bibliography.

Water Resources Report in Body of Background Report

The introduction to the Natural Resources section of the *Background Report*, of which the Water Resources section is a part, states "This chapter of the Background Report provides a general overview of water resources and mineral resources within Tulare County to identify and understand these key natural resources." However, what is presented in section 10.2 Water Resources, is not what section 10.1 Introduction states that it is.

The *Background Report*, and the *California Water Plan* upon which it is based, provides broad regional information about the Tulare Lake Hydrologic Region, which in addition to Tulare County includes most of Fresno County, all of Kings County, and the western two-thirds of Kern County. It is essentially an extract of the *California Water Plan*.

While it is useful and important to provide a regional setting when conducting an analysis of water resources, all of the analyses of projected water usage and availability are based on the large regional analysis conducted by the state (other than one table of irrigation districts in the county based on data in a 36-year-old report [cited as Bookman-Edmonston Engineering, 1972]).

Misleading Local Conclusions by Reliance on Regional Analysis

Relying on an overly broad regional view of water resources can lead to misleading conclusions on a local level. For example, the Water Resources section of the *Background Report* concludes with tables presented in the "Water Use Summary" subsection. Tables 10-7 and 10-8, Tulare Lake Basin Average Year and Drought Water use, respectively, list urban, agricultural, environmental, and total water usage for 1995 and projected for 2020.

Face-value inspection of average year water use indicates 13,100 thousand acre-feet used in 1995 decreasing to 12,900 thousand acre-feet in 2020. While this projection is good news for the Tulare Lake Hydrologic Region *as a whole*, the local story for Tulare County is not so rosy.

Closer inspection shows that there is a projected increase of 409 thousand acre-feet (59% increase) in urban water usage, which is offset by a projected decrease of 613 thousand acre feet (6% decrease) in agricultural usage. However, the decrease in agricultural usage is largely due to the anticipated retirement of land in western Fresno and Kings counties. And of course, the largest portion of the increase in urban water usage would be expected to occur in the populated eastern portion of the Basin including Tulare County.

Therefore, if the projections were less generalized and focused on impacts to Tulare County, they would show a projected deficit. This is because a decrease in pumping in the confined aquifer on the west side of the Valley would not be expected to compensate for increased urban usage in the county, especially for the unconfined aquifer from which most of the populated areas of Tulare County obtain their water.

Incorrect Conclusion Regarding Groundwater Supplies

In discussing the 820,000 acre-feet per year of overdraft in the Tulare Lake Basin, the Water Resources section concludes that "this overdraft is due to reductions of surface supplies in recent years by Delta export restrictions, Endangered Species Act requirements, and other factors."

While there is no arguing that decreases in imported surface water supplies have exacerbated the overdraft, the Basin and Tulare County have been in overdraft since long before imported surface water

supplies were made available. The simple fact is that we have been mining our groundwater by pumping and using more than can be sustainably replenished. The quoted conclusion appears to be a political opinion, not a statement of scientific fact.

Tulare County has been conducting non-sustainable mining of its groundwater since development began in the second half of the 19th century. Water table elevations declined between 41 and 100 feet between 1860 and 1961 in the unconfined aquifer beneath Tulare County (Williams and others, 1989). Greater declines were experienced in the lower confined aquifer resulting in the well documented significant land subsidence in the Tulare to Wasco area.

A recent study conducted on the Kaweah River Watershed for the Kaweah Delta Water Conservation District (KDWCD) determined that 413,000 acre-feet were mined between 1981 and 1999, representing a loss of 17% of the total groundwater in storage (KDWCD, December 2003; revised July 2007).

A hydrograph of a water supply well in the City of Visalia was included in Appendix C of the *Background Report* (a copy is attached to this letter for reference). The hydrograph shows a declining static water level (non-pumping) trend from 50 feet below ground surface (bgs) in 1986 to 100 feet bgs in 2005. A hydrograph of this well included in the KDWCD report shows water levels back to 1945, which display a declining trend from original depths of 20 to 30 feet bgs in the 1940s.

Water Resources Report in Appendix C of Background Report

This document provides a much more detailed analysis of the four valley watersheds and the foothill mountain region of Tulare County.

Much of the information in this document should have been included in water resource summaries contained in the other General Plan documents. For example, the following information from Appendix C should be included in water resource summaries of the main General Plan documents including the *Goals and Policies Report* and the DEIR:

Kings River Watershed

- *The static levels of groundwater within the Kings River Watershed exhibit a gradual decline, with time.*
- *There are no communities which are not impacted, to some degree, by either naturally occurring or man-induced contamination within this watershed.*

Kaweah River Watershed

- *While the easterly unit showed approximate balance, computations utilizing different methodologies showed that the overall underground reservoir was overdrafted at a level of between 17,000 [revised to 21,700 in the July 2007 revision] to 36,000 acre-feet per year. Groundwater trend information for the City of Visalia area is presented on Figure 4-8. As can be seen from an analysis of this figure, the static groundwater trend is ever decreasing, as is the corresponding quantity of water being held in storage in the groundwater reservoir.*
- *Lands immediately adjacent to foothills exhibit elevated chloride and nitrate characteristics. As groundwater is tapped toward the central portion of the valley floor of the County, the water normally produced is of excellent quality. Anomalies occur where man-induced contamination has adversely influenced the quality characteristics. Influences from nematodecides such as DBCP, herbicides, pesticides and fertilizers all appear at certain locations within the Kaweah River Watershed, as do the impacts from industrial chemicals such as dry cleaning solvents and petroleum fuels.*

Tule River Watershed

- [No analysis of groundwater trends were included in the document for the Tule River Watershed. The document should be revised to include this section.]
- *The east side of the valley floor in the Tule River Watershed contains the highest population of individuals impacted by lower quality groundwater of any area within the County. From the foothill fringe, adverse groundwater quality extends into the valley floor for several miles in all locals, except for those immediately adjacent to the Tule River.*

Deer Creek/White River Watershed

- *The maintenance of the groundwater reservoir through this area is dependent, as previously noted, on the continued capability to have available surface water sources available for delivery into the area.*
- *The groundwater quality characteristics appurtenant to the Deer Creek/White River Watershed vary from east to west. In general, water quality on the east side of the valley floor of the County in this area is characterized by diminished quality where nitrates, phenols and salts are present in different concentrations and in different locals. On the westerly side of the Deer Creek/White River Watershed, groundwater quality again declines into unacceptable conditions. Principal among these conditions are elevated levels of arsenic and microsand conditions requiring special drilling techniques and/or well head treatment to allow compliance with applicable standards. Many of these wells produce various gases including hydrogen sulfide, methane and natural gas, further aggravating the capability to deliver a potable supply.*

Analysis of Anticipated Change of Status over Planning Horizon Is Incomplete

The Appendix C report states that "This overview includes the status of each of the major sources and any anticipated change in status over the planning horizon covered by the General Plan update." However, there is no analysis of potential impacts due to, and planning needed to address Global Climate Change.

The document includes a good overview on the San Joaquin River restoration litigation and its possible implications to Tulare County water resources. However, this section concludes by stating that:

> *There is no possible way of providing an estimate of those impacts at the current time other than to indicate that both settlement and an adverse court decision will considerably modify the status quo.*

But a few paragraphs before is the statement:

> *Information contained in the Expert Report of Richard M. Moss, P.E., in his representation of the Friant Division contractors in the referenced litigation provides estimates of the degree to which water deliveries could be potentially reduced to County lands as a result of a decision to provide flows for San Joaquin River restoration purposes.*

Why is there "no possible way" to estimate the impacts if there are specific estimates of potential water delivery reductions in the Moss report? Specific estimates of potential impacts to available water supply should be prepared based on available data to provide the information needed to plan for future growth in Tulare County.

Goals and Policies Report – Water Resources

The introduction to *Section 11. Water Resources* states "The policies in this element should not be construed to insert the County into the allocation or management of water resources." This is in direct conflict with several of the implementation measures which state that the County shall take a lead role in management such as WR-1.8 and WR-3.2. Perhaps removing the word "management" from this

sentence would resolve the conflict, but leave the ostensible intent of clarifying that the County does not have regulatory authority over the allocation of water resources.

A number of the policies lack implementation measures. Without effective implementation measures, stated policies are just well-intentioned platitudes without much chance of being realized.

All of the policies and implementation measures should be reviewed and rewritten as necessary to promote "sustainable" water resources in Tulare County. This means not contributing to the groundwater overdraft and not approving new projects with the hope of obtaining unknown or undefined surface water imports at some time in the future. Additionally, planning for the potential impacts of Global Climate Change should be included in the water resource policies and implementation measures.

The Existing Conditions Overview should be revised as needed subsequent to completion of the necessary updating and revisions to the *Background Report*.

11.1 General

WR-1.1 Groundwater Withdrawal

There are not adequate implementation measures for this policy. While Implementation Measure 1 is listed as implementing this policy, it specifically addresses an ordinance "permit process for groundwater export." This implementation measure is applicable to policy *WR-1.3 Water Export Outside the County*, which is not listed as a policy this measure implements.

A similar implementation measure and ordinance should be required to address new wells and groundwater extraction within the County.

WR-1.2 Groundwater Monitoring

Use of the terminology "The County shall support the collection of monitoring data..." should be changed to "The County shall require the collection of monitoring data..."

Implementation Measure 5 should require groundwater monitoring "for facilities or uses that are potential sources of groundwater pollution as part of project approvals..."

Implementation Measure 9 states that the "County shall seek cooperation from realtors to require all sales of homes to have water testing for nitrates and bacteria in addition to valley sites testing for DBCP and mountain sites for radiological contamination." Instead, the County should develop an ordinance requiring testing of all new domestic wells, and of domestic wells upon sale of existing homes. The County should require that the Environmental Health Department develop a list of contaminants of concern by location in the County and that the wells be tested for these contaminants.

WR-1.3 Water Export Outside County

Use of vague and undefined criteria such as use of the word "substantially" in "Find and determine that the extraction will not substantially increase the overdraft of the groundwater underlying the County" significantly limit effectiveness of the proposed ordinance. No export should be allowed that would cause any contribution to overdraft.

Issuance of permits for groundwater export should be for relatively short time periods and should require a reevaluation of permit conditions and findings for renewal.

WR-1.4 Conversion of Agricultural Water Resources

This policy should be rewritten to replace "discourage" with "prohibit the transfer of water used for agricultural purposes..." This important policy lacks implementation measures.

WR-1.6 Expand Use of Reclaimed Water

This policy lacks any implementation measures.

WR-1.7 Collection of Additional Groundwater Information

This policy is vague and should include language regarding collection of data relating to both water supply and quality. Further, information collected should be made readily available to County residents via County websites.

WR-1.8 Groundwater Basin Management

This is a good policy, but the policy and Implementation Measure 11 seem to be in conflict with the statement in the section Introduction referenced above that the "policies in this element should not be construed to insert the County into the allocation or management of water resources."

WR-1.9 Collection of Additional Surface Water Information

This policy lacks any implementation measures. Information collected should be made readily available to County residents via County websites.

WR-1.10 Channel Modification

This policy should be modified to:

> *Channel modification shall be ~~discouraged~~ prohibited in streams and rivers where it increases the rate of flow, rate of sediment transport, erosive capacity, ~~have~~ has adverse effect on aquatic life or ~~modify necessary groundwater recharge~~ reduces groundwater recharge.*

Implementation Measure 13 should be changed from "Stream crossing points should involve a minimum disturbance to banks..." to "Stream crossing points shall be designed to minimize disturbance to banks..."

11.2 Water Quality

WR-2.1 Protect Water Quality

This is a very important policy, however, the terminology "all major land use and development plans" is vague and must be concisely defined. This policy should also be implemented for all projects in known sensitive areas (e.g., as identified under policy WR-3.9).

While there is some overlap in implementation measures for other policies, there is no specific measure to implement this policy.

WR-2.2 National Pollutant Discharge Elimination System (NPDES) Enforcement

Implementation Measure 15, which addresses waterway flood control design, lists WR-2.2 as the sole policy that this measure implements. Was this meant to address policy WR-1.10?

WR-2.3 Best Management Practices (BMPs)

In addition to construction and urban runoff, this policy should include runoff form industrial and agricultural sites (especially from confined animal feeding operations).

WR-2.5 Major Drainage Management

Suggest modifying this policy to:

> *The County shall continue to promote protection of each individual drainage basin within the County based ~~in the basins~~ on each basin's unique hydrologic and use characteristics.*

There are no implementation measures for this policy.

WR-2.6 Degraded Water Resources

This policy should be changed to:

> *The County shall ~~encourage and support the identification of~~ identify degraded surface water and groundwater resources and promote restoration whenever ~~where appropriate~~ feasible.*

There is no specific implementation measure for this policy.

WR-2.7 Industrial and Agricultural Sources

This policy should be changed to:

> *The County shall ~~work with~~ require to its fullest regulatory authority that agricultural and industrial concerns ~~to~~ ensure that water contaminants and waste products are handled in a manner that ~~protects the long-term viability~~ prevents degradation of water resources ~~in~~ of the County.*

The only implementation measure for this policy is 16, which is limited to consideration of expanding the role of the Water Commission to "examine contaminant management." Stronger implementation measures should be developed.

WR-2.8 Point Source Control

There are no implementation measures for this policy.

WR-2.9 Private Wells

Suggest modifying this policy to:

> *The County shall ensure that private wells are adequately constructed to provide protection from bacteriological and chemical contamination and do not ~~provide~~ create a potential groundwater contamination hazard ~~as to contaminate the aquifer~~.*

11.2 Water Supply

WR-3.1 Develop Additional Water Sources

There are no implementation measures for this policy. Likely, the greatest source of additional water will be realized from conservation measures. Rather than simple "promotion of water conservation programs," the County should develop ordinances requiring significant water conservation in new developments and provide incentives for retrofitting existing development. These should include, but not be limited to:

- Installation of water meters and implementation of tiered pricing
- Installation of low-flow toilets, shower heads, water faucets, etc.
- ~~Water conserving irrigation and usage requirements~~
- Water conserving landscaping

Some of these measures are included in Implementation Measure 10. Policy WR-3.1 should be included in the policies that are implemented by this measure.

WR-3.2 Develop an Integrated Regional Water Master Plan

This is a good policy, but the policy and implementation measures seem to be in conflict with the statement in the Introduction referenced above that the "policies in this element should not be construed to insert the County into the allocation or management of water resources."

Implementation Measure 3 should assure that watershed planning includes a balance of all water demands including environmental and rural in addition to agricultural and urban demands.

WR-3.3 Adequate Water Availability

This is an excellent and important new policy, however, Implementation Measure 19 should be strengthened to:

> *The County shall adopt an ordinance to require new development proposals to provide suitable evidence of adequate and sustainable long-term water availability or will serve letter prior to approval of the tentative map or other entitlement. For subdivisions proposing to use well water, the new ordinance shall eliminate current waiver provisions and require ~~well pump tests~~ aquifer testing, including long-term pumping tests, conducted by a qualified Professional Geologist or Engineer, to demonstrate water supply capabilities. The aquifer testing report must include a professional opinion that proposed extraction from the new well will be sustainable, will not contribute to groundwater overdraft, and must consider cumulative and regional impacts.*

Simply stating that "well pump tests" be conducted is not adequate as this could be interpreted to mean short-term tests (commonly referred to as "Edison" tests) that would not yield information on the sustainability of the water supply.

WR-3.4 Water Resource Planning

Water resource planning should include evaluation of, and planning for, potential impacts due to Global Climate Change.

WR-3.5 Uses of Native and Drought Tolerant Landscaping

This policy should be changed to:

> *The County shall encourage the use of low water consuming, drought-tolerant and native landscaping and ~~emphasize the importance of utilizing~~ develop an ordinance requiring utilization of water conserving techniques, such as night watering, mulching, and drip irrigation.*

Implementation Measure 10 should be modified to include a water conservation ordinance mandating irrigation schedules, draining or filling of pools by permit, no hosing down sidewalks or driveways, etc. This implementation measure should also be modified to require installation of water meters and tiered billing within the County's regulatory authority.

WR-3.6 Agricultural Irrigation Efficiency

There is no specific implementation measure for this policy.

WR-3.10 Diversion of Surface Water

This is a good policy, but is rendered vague by the terminology "needed groundwater recharge." How is this determined? Perhaps this should be defined as part of policies WR-3.2 and/or WR-3.9. There are no implementation measures for WR-3.10.

Draft Environmental Impact Report – Water Resources

The DEIR does not include discussion and analysis of potential impacts to water resources due to Global Climate Change. The DEIR concludes that there is "no feasible mitigation available" for two of the four identified impacts, yet a number of policies are included in the *Goals and Policies Report* which may provide mitigation if properly implemented. Three of the four identified impacts are expected to cause "significant and unavoidable" impacts to the water resources of Tulare County due to implementation of the policies in the General Plan Update.

The authors of the DEIR need to conduct additional analysis in conjunction with the proposed revisions to the *Background Report* and *Goals and Policies Report* to identify appropriate mitigations to these impacts to provide sustainable water resources for Tulare County. To simply state they are significant and unavoidable with no mitigation measures available is unacceptable.

Impact WR-1: The General Plan Update would require or result in the construction of new water treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects.

Impact WR-1 indicates that new facilities that may need to be constructed "could include water treatment facilities, pipelines, pump houses, wells, etc." Construction and extraction of groundwater from new wells will potentially further exacerbate the groundwater overdraft in the County. This is not discussed in the impact analysis or addressed in the mitigation measures.

Impact WR-2: The General Plan Update would require new or expanded water supply entitlements.

The impact analysis finds:

> *Implementation of the General Plan Update would result in additional County-wide residential and non-residential land use developments. These land uses and development consistent with the General Plan Update would increase the demand for water and, in some cases, result in insufficient water supplies available to serve some of the unincorporated areas designated for urban development from existing entitlements. New or expanded entitlements would be required.*

Additionally, the impact analysis finds:

> *As a result, this analysis of the adequacy of future water supplies is based upon whether or not there is a reasonable likelihood that public water suppliers will be able to successfully bring future water supplies on line where it is necessary to serve their respective districts.*

Impact analysis focuses on infrastructure improvements by twenty unincorporated communities for treatment of contaminated water supplies or improved storage and delivery of water. However, the analysis does not address the decreasing availability of water county-wide caused by continued overdraft, decreasing availability of imported surface water supplies, and issues related to Global Climate Change.

The DEIR concludes there is "no feasible mitigation available" for this impact and that it will result in "significant and unavoidable" impact to the water resources of the County.

Mitigation of this impact should include a policy not to approve any development in the County unless the project provides evidence that adequate and sustainable water is available without further exacerbating overdraft conditions. This would be consistent with policy WR-3.3.

Impact WR-3: The General Plan Update would have the potential, in the long-term, to deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table.

The impact analysis finds:

> *Implementation of the General Plan Update would result in an increased demand on groundwater supplies for urban and rural uses within the unincorporated areas of the County. Due to the lack of comprehensive information regarding the County's groundwater resources, it is uncertain if groundwater supplies would be sufficient to meet the future demand of rural private domestic, small municipal and agricultural wells.*
>
> *In some of the unincorporated urban development areas, there are concerns that adequate water supplies cannot be achieved through sustainable groundwater 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 upon groundwater supplies.*

There is more than enough information in the *Background Report* and available elsewhere in published reports to conclude that current water usage is not sustainable and has resulted in long-term overdraft of groundwater in the County. Certainly if the County is not meeting its current needs, future demand will only exacerbate the situation.

While the *Goals and Policies Report* provides a number of policies that would help mitigate this impact, the DEIR concludes there is "no feasible mitigation available." Mitigation of this impact should include a policy not to approve any development in the County unless the project provides evidence that adequate and sustainable water is available without further exacerbating overdraft conditions. This would be consistent with policy WR-3.3.

Other mitigations should include the provisions of WR-1.1, as modified above, mandatory water conservation measures, and all of the WR-3 policies as modified above.

Impact WR-4: The General Plan Update could violate water quality standards or waste discharge requirements, or otherwise degrade water quality.

The DEIR finds that this impact is "less-than-significant" with "no mitigation required." However, this was based on a fatally flawed impact analysis. The impact analysis only considered surface-water runoff, but did not consider potential exacerbation of widespread groundwater contamination due to increased demands, potential contamination from agricultural operations, especially confined animal feeding operations, and other sources.

The DEIR does find that "Water quality impacts may also be significantly greater during the rainy season," but offers no analysis or proposed mitigation measures. Much more work needs to be conducted on this impact.

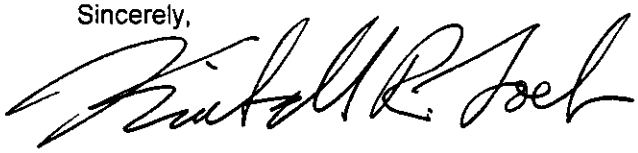
Global Climate Change

As stated previously, none of the General Plan documents (*Background Report, Goals and Policies Report*, nor DEIR) address the potential impacts of Global Climate Change on the water resources of Tulare County. It would be irresponsible not to include planning for the potential effects of Global Climate Change in these essential planning documents.

It is the overwhelming consensus of researchers that Global Climate Change will likely cause profound changes to precipitation patterns affecting Central California and significant decreases in the Sierra snowpack. The California Department of Water Resources estimates "the potential loss of 5 million acre-feet or more of average annual water storage in the State's snowpack" (DWR, July 2006).

It is recommended that the County review available information and published reports from the California Department of Water Resources and other sources and revise all of the General Plan documents and DEIR to address and plan for the potential impacts of Global Climate Change on the water resources of Tulare County.

Sincerely,



Kimball R. Loeb
Professional Geologist No. 5865
Certified Hydrogeologist No. HG 121
Certified Engineering Geologist No. EG 1945

Attachment: Figure 4-8, Average Groundwater Elevations, City of Visalia

References Cited

DWR, November 1998, *California Water Plan Update 1998:* California Department of Water Resources Bulletin 160-98.

DWR, 2003, *California's Groundwater:* California Department of Water Resources Bulletin 118, Update 2003.

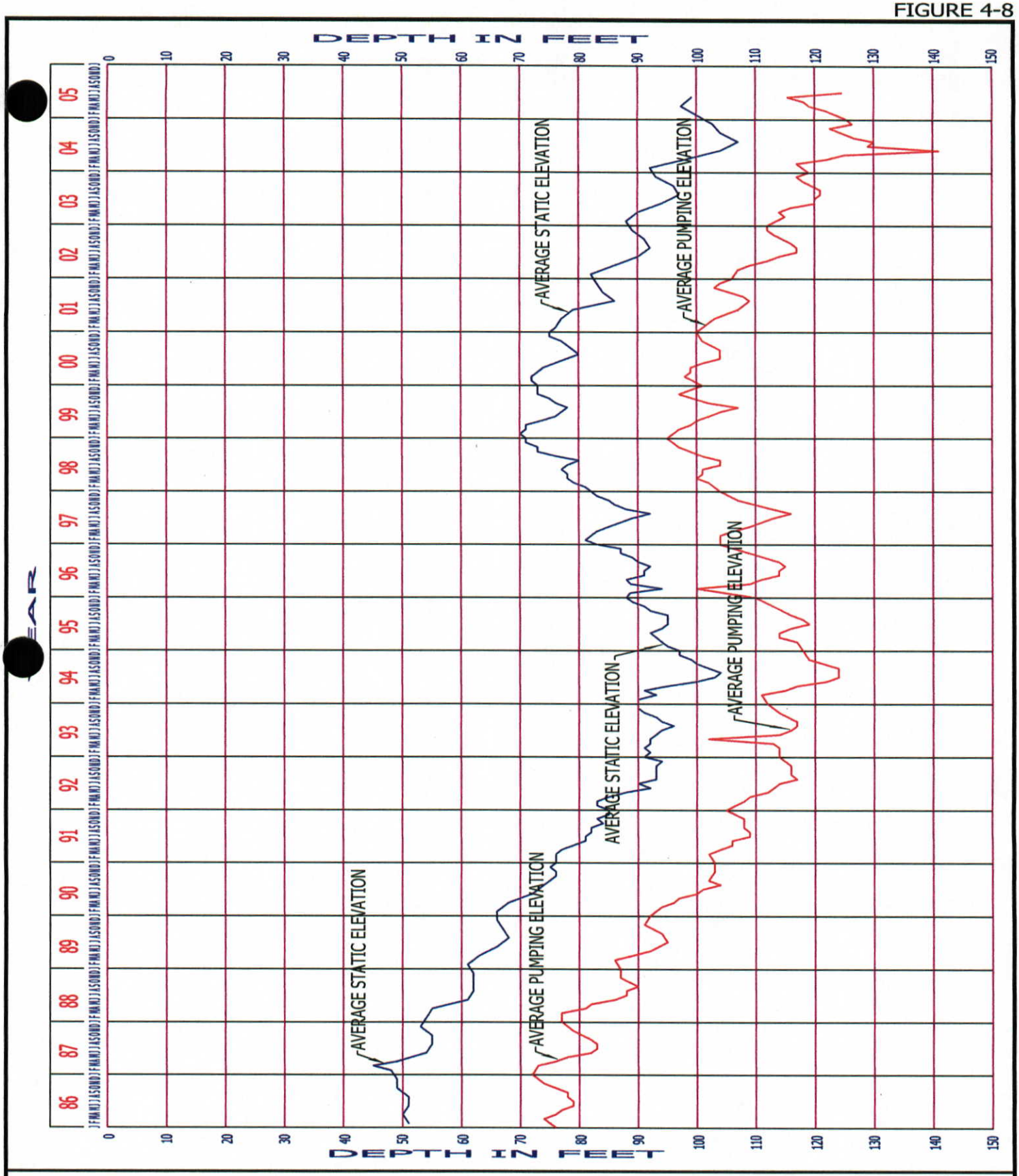
DWR, December 2005, *California Water Plan Update 2005:* California Department of Water Resources Bulletin 160-05.

DWR, July 2006, *Progress on Incorporating Climate Change into Planning and Management of California's Water Resources, Technical Memorandum Report:* California Department of Water Resources.

KWDWC, December 2003 (Revised July 2007), *Water Resources Investigation of the Kaweah Delta Water Conservation District, Final Report:* Kaweah Delta Water Conservation District, Visalia, CA.

Williamson, A.K., Prudic, D.E., and Swain, L.A., 1989, *Ground-Water Flow in the Central Valley, California:* U.S. Geological Survey Professional Paper 1401-D.

FIGURE 4-8



AVERAGE GROUNDWATER ELEVATIONS

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CITY OF VISALIA

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GENERAL PLAN
COUNTY OF TULARE

P. O. Box 1
Lemon Cove, CA
April 14, 2008

Mr. Dave Bryant
Division Manager-Special Projects
Tulare County Resource Management Agency
5961 South Mooney Blvd.
Visalia, CA 93277

Dear Mr. Bryant:

We appreciate being given the opportunity to comment on the General Plan Update. Despite the efforts and hard work of many of our citizens, the evidence of thoughtful planning is often hard to see when traveling through Tulare County. It is painful for people who have lived in this very special place all their lives, as well as those of us who have moved here because of the County's beauty to see the disappearance of its farmlands and the sprawl of one city into the next.

We strongly urge the County to include in their Updated Plan mechanisms that would direct future growth into existing urbanized areas and provide for the eliminiation of exceptions that allow for the sprawl along corridors between existing development boundaries. The infill of existing communities needs to be encouraged through the use of incentives such as forgiveness on fees for new development where infrastructure exists.

The conversion of agricultural lands to suburbia needs to be discouraged through the utilization of agricultural conservation easements and preserves, if necessary. The spirit and letter of the Williamson Act law needs to be adhered to, enforced, and strengthened with local ordinances.

The issue of the creation of new towns or exceptional communities should be considered on a case-by-case individual basis, and not governed by a one-size-fits all, generic policy.

Resource Management needs to provide strong, definite policies with concrete and enforceable criteria and conditions and provide the staffing to implement and follow through on their mandates.

Sincerely,

Bill and Peggy Pensar

From: bill pensar <pensar3@netzero.com>
To: David Bryant <DPBryant@co.tulare.ca.us>
Date: 04/15/2008 2:47 PM
Subject: Re: General Plan Update
Attachments: Bryant (WP).pdf; Part.001

Mineral King Group
Kern-Kaweah Chapter

SIERRA CLUB
FOUNDED 1892

April 14, 2008

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

Re: Tulare County General Plan Update and DEIR

Dear Mr. Bryant:

The Sierra Club Mineral King Group include members throughout Tulare County. We submit these comments and recommendations on the General Plan Update and DEIR.

Scenic Landscapes

The scenic landscapes element acknowledges that our county possesses many of California's most unspoiled places and presents goals and policies that reflect our values. Unfortunately, it falls short on effective implementation.

SL-1.1 is a policy to *require new development to not significantly impact or block views of natural landscapes* and the implementation for this policy is that the County shall adopt procedure criteria. This is vague and we have a right to know what the criteria are. The DEIR states the GP Update will *substantially degrade the existing visual character* and *no other feasible mitigation available*. We disagree and submit this mitigation measure as procedure criteria for the County to adopt: The County shall adopt a tree ordinance to protect the visual beauty of this resource. This mitigation is feasible because the City of Visalia has adopted an oak tree ordinance and it is evident throughout the city.

SL-1.3 is a policy to protect watercourses. It did not mention rivers, creeks and streams. These are natural landscapes and must be included. Implementation measures were not listed, so we will submit one: The County shall require a 30-ft or more setback from waterway channels; width of the setback shall depend on the presence of riparian habitat and shall include the riparian habitat. This mitigation is feasible because the City of Visalia has adopted such a standard. Many cities in California, including the City of Visalia, made the mistake of paving over their waterways many decades ago and are now recognizing that these are valuable community resources. Protecting this resource is an asset to the health and wellness of a community's residents. Natural open space and parks along waterways is a scenic respite from the urban structure. Hiking and walking trails along waterways offers aerobic fitness and is much more scenic than a going-nowhere treadmill in a tasteless gym.

SL-2 is a goal *to protect the scenic views for travelers along the County's roads and highways.* Policy SL-2.1 is to formalize a system of County scenic routes and says to see

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Figure 7.2-1. There is no Figure 7.2-1 in the report. The closest thing to Figure 7.2-1 is Figure 7.2 in the Background Report and is a map of solid waste facilities - not very scenic.

The value of scenic corridors is additionally recognized in the Foothill Growth Management Plan as FGMP-6 to protect scenic routes within the foothills. Several policies are stated to achieve this goal.

FGMP-6.1 is a policy to protect scenic roads against obtrusive development. The policy refers to the FGMP adopted in 1981, which describes some implementation measures. The current version of the FGMP does not state any so we offer this one: New towns or a Planned Community Area (PCA) shall not be allowed within scenic corridors. These types of massive developments with shopping centers and industrial operations are obtrusive.

FGMP-6.2 is a policy for the County to identify scenic routes. Without a doubt, Yokohl Drive through Yokohl Valley is a scenic route.

FGMP-6.3 is a policy *that development along all scenic highways and routes meet the development standards of this FGMP.* Which development standard is the FGMP referring to? The 1981 version identifies a few building standards and scenic corridor standards, but the development standards in the Appendix of the current version refer only to fire protection. The FGMP is very confusing and convoluted. There should be a discussion on which implementation measures from the 1981 version still apply.

We would also like to point out that the FGMP identified development corridors - areas in the foothills where development may occur and will be guided by the PD-F zone. Four development corridors were identified: 1) Badger/Elderwood 2) Kaweah River 3) Tule River 4) Round Valley.

Another point on page 3-3 of the FGMP, a statement in the first paragraph reads "*it is the policy of the FGMP to strengthen the community identify of Springville, Lemon Cove and Three Rivers; therefore, most retail commercial is limited to those existing communities rather than areas outside these communities*".

These two points support our proposed implementation measure that new towns or PCA's shall not be located within a scenic corridor.

Air Pollution

It is common knowledge that air pollution in the San Joaquin Valley is quite dreadful. As a reminder, our air basin is classified extreme non-attainment for ozone and the EPA requires a plan to meet the standards of the federal Clean Air Act by the year 2010. Failure to demonstrate achievement of the standards could lead to denial of federal funding and permits for highway construction and sewage treatment plants. This could result in economic disruption for our county because businesses will not or cannot locate here.

In response to the extreme non-attainment, the Board of Supervisors adopted Resolution 2002-0157 in 2002, requiring the County to commit to implementing Reasonably Available Control Measures (RACM). Some of these are good, such as increasing transit service to the

unincorporated communities of Woodville, Poplar and Cotton Center; supporting the purchase of hybrid vehicles for the County fleet. The Board followed up with another resolution in 2004, Resolution 2004-067, with additional RACM such as *the development and implementation of recommended procedures, thresholds, and policies related to land use projects to help achieve air quality goals.*

We recommend it is now time for the Board of Supervisors to adopt an updated resolution that the County will commit to implementing the Best Available Control Measures (BACM). This new resolution should include expanding transit service to all growth communities, purchasing clean-burning buses, and developing concise, effective procedures to achieve air quality goals.

As written, the DEIR is inconsistent with the Goals and Policies Report and the GPR is internally inconsistent. For example, the DEIR states that *best available controls* will be implemented to regulate air emissions (Impact AQ-2, p. 4-55), referring to policies AQ-4.1 through AQ-4.5 in the GPR. However, AQ-4.1 actually states that BACM and RACM will be applied. Additionally, AQ-4.1 is inconsistent with its stated goal (AQ-4), which is *to implement the best available controls and monitoring necessary to regulate air emissions.* Thus it is also inconsistent with the Board of Supervisors outdated resolutions. A new, updated resolution can be based on specific thresholds. For instance, projects with potentially significant emissions should be analyzed and those that trigger an agreed threshold will be required to implement BACM.

The DEIR presents an inadequate analysis of indirect source review for new development directed into all the UDBs, HDBs, UABs, SOIs, New Towns, Urban Corridors, Highway Corridors, Regional Growth Corridors, and Foothill Growth Corridors. It presents an inadequate discussion of the cumulative impacts resulting from the General Plan Update. The data presented only refers to on-road vehicle and dairy/feedlot emissions. The DEIR should present a summary of the types of sources of air pollution. These would be industrial sources such as factories and power plants; mobile sources including off-road; area sources such as construction and landscaping activities; and residential sources such as energy consumption. Concurrent to this, the DEIR should present an inventory of emissions produced by each type of source.

While many projects will be subject to the ISR rule adopted by the San Joaquin Valley Air Pollution Control District (SJVAPCD), the rule will only offset about half the air pollution associated with the project. Given that our air basin must attain federal standards by 2010, the Plan should include a goal to reduce new projects air pollution impacts to zero. A BACM implementation to achieve this could be a requirement for all new projects to come to an agreement with the SJVAPCD to completely offset the air pollution associated with the project. A number of developers in Bakersfield (the West Ming project and the Old River Ranch project) have agreed to participate in an Emissions Reduction Program through the SJVAPCD. This program utilizes techniques such as onsite design features and offsite pollution reduction projects to completely offset the emissions associated with the project. Such participation is validation that this mitigation measure is feasible. The DEIR should include an evaluation of such a program.

Additionally, a recent article in the Fresno Bee, published 2/22/08, reports that a Fresno County judge has upheld a fee imposed on developers to pay for pollution caused by traffic

coming from new homes and businesses built on sprawl. The ruling allows the Air District to raise millions of dollars to invest in clean air projects, such as replacing diesel buses and street sweepers. The fee can be reduced if developers offset the emissions associated with their project...more reason for implementing an Emissions Reduction Program. These fees could be a benefit to the County, which can be used to uphold your 2002 Resolution for increased transit service and purchasing hybrid vehicles.

Global Warming

The DEIR acknowledges the GP Update will significantly conflict with state AB32 goals to reduce greenhouse gas (GHG) emissions. It offers an analysis of CO_2 emissions from on-road vehicles and methane from dairy and feedlot operations. However, it fails to provide a systematic analysis of other sources of GHGs such as electric generation facilities, gas generation facilities, waste facilities, cement manufacture, residential and commercial.

The DEIR presents two new policies AQ-4.7 and AQ-4.9 as mitigation measures to reduce GHG. The two new policies are not included in the Goals and Policies Report (GPR). We request these policies be officially incorporated into the GPR. AQ-4.9 is a Greenhouse Gas Emissions Reduction Plan. It is merely a policy that states the County will do what it is already required to do by AB32. The DEIR defers action by stating that projects, which will contribute significant CO_2 emissions, have not been defined. Deferring action (i.e. implementation/mitigation measures) is not acceptable under CEQA. For instance, the DEIR lists policies on energy conservation (ERM-1 through ERM-4.6) that are designed to address GHG impacts, yet implementation measures were not stated.

The Goals and Policies Report is inadequate in offering sufficient goals and policies for the reduction of greenhouse gas emissions. We request the GPR contain a separate goal that GHG associated with new projects shall be objectively quantified and completely mitigated. There are a number of policies and implementation measures that could serve as project-specific mitigation. Some of these include:

- Green building measures, such as design buildings to be at least 15% more energy efficient than Title 24 standards.
- Solar energy measures, such as building solar photovoltaics and solar water heating into every structure.
- Water conservation and efficiency measures, such as create water-efficient landscapes, install water-efficient fixtures and appliances.
- Land use measures, such as incorporate mixed-use, infill, higher density developments into all new projects.
- Transportation and motor vehicle measures, such as designating a certain percentage of parking spaces for ride sharing vehicles.

The California Attorney General's Office has made available a document to help local agencies with mitigation measures that can be adopted to offset global warming impacts caused by the projects they permit. This document is available at http://ag.ca.gov/globalwarming/ceqa.php. Once the County determines which mitigation measures will be required, the General Plan Update EIR should address the effect that each of the mitigation measures will have on GHG impacts.

Biological Resources

The DEIR has not fully considered all available options to mitigate GPU impacts to sensitive habitat (Impact ERM-1), riparian habitat (Impact ERM-2), wetlands habitat (Impact ERM-3) and therefore presents an inadequate analysis of project impacts:

ERM-1 is a goal to preserve and protect sensitive, significant habitat. Unfortunately, the policies supporting this goal are too broadly drawn and vague. Policy should be clear and solid, with well defined standards. Thus, mitigation can be measured against these standards. For instance, ERM-1.1, a policy for protection of rare and endangered species, should include a "no net loss" standard. It could be added to the current policy as written: "....., *through compatible land use development* that strives to avoid the net loss of important wildlife habitat." Thus the mitigation for this could be achieved through the use of conservation easements or mitigation banking.

Including the "no net loss" standard would also provide a process to measure mitigation for ERM-1.2, which is a policy to limit or modify development in environmentally sensitive areas. For instance, implementation measure #4 states *"Where avoidance is infeasible, the County shall.....limit the loss of habitat, including modification of the proposal"* and is just a restatement of the policy. It provides no real mitigation. We recommend strengthening this implementation measure to state "Where avoidance is infeasible, the County shall require mitigation at sufficient ratios to replace the function and value of the habitat that was removed or degraded. Mitigation can be adequately achieved through restoration, creation, or mitigation banking."

ERM-1.4, 1.5, 1.6, and 1.8 are policies to protect riparian areas and wetlands. Again, these policies should indicate well defined standards.

Remaining riparian habitat provide critical wildlife habitat and movement corridors. A policy with standards, such as stating "No mature riparian woodland is destroyed or reduced in size" is a clear, strong statement as to how mitigation can be measured. Or a policy similar to that of Fresno County General Plan, October 2000 (Policy OS-D.4) with buffer standards, which provide a clear, unambiguous process for implementation:

"Policy OS-D.4 The County shall require riparian protection zones around natural watercourses and shall recognize that these areas provide highly valuable wildlife habitat. Riparian protection zones shall include the bed and bank of both low- and high-flow channels and associated riparian vegetation, the band of riparian vegetation outside the high-flow channel, and buffers of 100 feet in width as measured from the top of the bank of unvegetated channels and 50 feet in width as measured from the outer edge of the dripline of riparian vegetation."

Remaining wetlands habitat is a State and federal concern, and includes policies for "no net loss". State policy include goals to achieve "net gain" in wetland acreage. ERM-1.6 is a weak policy and should be strengthened to state "The County shall support the preservation and management of wetlands to achieve no net loss of wetland acreage, function or value". Thus, a strong policy provides a solid base to establish concrete mitigation. Examples would

be avoidance of wetlands as the preferred, but where avoidance is not possible, mitigation would be to achieve a net gain in wetland habitat through restoration or creation.

The "no net loss" standard is feasible because numerous County General Plans, including Fresno County, include this standard. The GPR should be revised to include this standard and the DEIR should include a discussion and analysis of this standard.

ERM-1.8 is a policy for open space buffers but does not provide solid guidelines, specifically because it incorporates the word "should" in the buffer requirements. Changing the word "should" to "shall" and adding standards, such as the Fresno County Policy OS-D.4, will strengthen the policy.

Many of the policies (ERM-1.1, ERM-1.4, ERM-1.5, ERM-1.6, and ERM-1.8) will be carried out through the Zoning Ordinance (Implementation Measure #7 and #8). Implementation Measure #7 is not true mitigation. It is merely a technicality to update the Zoning Ordinance with the Resource Conservation (RC) designation for those areas that are already parks or preserves (i.e. Sequoia/Kings Canyon NP, Blue Ridge NWR) and as new parks or preserves are added. Additionally, this designation is vague because the description for RC (GPR page 5-8) is in the foothill and mountain regions, which leaves out many preserves on the Valley floor (i.e. James K. Herbert Wetlands Preserve, Pixley NWR, etc.).

The DEIR is deficient in discussing how the Zoning Ordinance will protect sensitive, significant habitat and does not quantify how new requirements will mitigate GPU impacts. It does not provide any information to the general public on the adequacy of mitigation that will be incorporated in the Zoning Ordinance (Implementation Measure #8).

In practice, the Zoning Ordinance is undesirable as a means to implement mitigation unless the standards are clearly defined in the General Plan. Mitigation measures must be transparent and available for public review. An acceptable implementation measure would be to prepare a Waterways, Open Space, Wetlands/Riparian or similar Ordinance in conjunction California Department of Fish and Game, U.S. Fish and Wildlife Service, U.S. Army Corps of Engineers, other stakeholders, interested citizens; and then submitted for public hearing as a separate process.

Thank you for consideration of our comments that we believe, are reasonable and flexible and can be incorporated into the General Plan Update.

Respectfully submitted,

Mary Moy
Conservation Chair
Sierra Club Mineral King Group

Kathleen and James Seligman
46136 South Fork Drive
Three Rivers, California 93271

April 14, 2008

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

RE: General Plan 2030 Update and Environmental Impact Report

Dear Mr. Bryant:

Thank you for the opportunity to submit comments on the Draft Goals and Policies Report of the Tulare County General Plan Update (GPU) and Draft Environmental Impact Report (DEIR).

While the draft GP contains many excellent Value Statements and generally positive Framework Concepts and Guiding Principles, unfortunately the draft GP is inconsistent in its goals and policies and often too vague, weak, or non-existent in its corresponding implementation measures. Therefore the current DGP will not foster desirable development in our cities, communities and hamlets; nor will it address the continued loss of agricultural land and open space to poorly-planned development.

Further, these flaws in the General Plan directly contradict the expressed will of Tulare County residents, who took the time to participate in many public outreach workshops and who consistently stated their desire to see growth directed into existing communities in order to protect air and water quality and preserve farmland and open space.

The draft General Plan must eliminate policies which would foster sprawling, leapfrog development outside Urban Development Boundaries (UDBs) and Hamlet Development Boundaries (HDBs)

The draft GP needs stronger policies to preserve lands important for agriculture and sensitive environmental resources. Specifically, the draft GP lacks policies and implementation programs that will ensure the long-term conservation of the County's important farmlands, wildlife and natural resources

The DEIR does not provide a reasonable range of alternatives for the Tulare County citizens and decision-makers to consider. There is no alternative where development is resource efficient. Nor is there a alternative that limits circumstances under which development boundaries could be modified and that directs growth to existing urbanized areas.

All the Alternatives offered by the DEIR incorporate the same policies and implementation measures from the draft General Plan which are weak and vague. Clearly stronger more clearly defined policies and mitigation measures need to be written to implement an alternative that would reflect the wishes of the citizenry of this county.

The updated General Plan needs to ensure cleaner air, reliable water supplies, while protecting our agricultural land, open space and natural resources. This can be done by focusing growth into existing urbanized area. The DGP and DEIR, therefore, must be revised to reflect these priorities.

Sincerely,

Kathleen and James Seligman

April 14, 2008

Tulare County Resource Management Agency

ATTN: David Bryant, Project Planner

[redacted]vernment Plaza

5961 South Mooney Boulevard

Visalia, CA 93277

RECEIVED APR 15 2008

RE: General Plan 2030 Update and Environmental Impact Report (SCH No. 2006041162)

Dear Mr. Bryant:

Please find enclosed our comments on the draft General Plan 2030 Update (GPU) and its DEIR. We appreciate the tremendous effort that the County has put into preparing these documents, and the opportunity to comment on them.

Unfortunately, we have found the draft GPU/DEIR to be inconsistent, incomplete, contradictory, vague, and weak. It does not provide a comprehensive, cogent view of the County's current conditions, nor does it adequately address the project's effects on the County's citizens' priorities of cleaner air, reliable water, protection of our agricultural and open space lands, a diverse economy, and efficient growth centered on our existing communities.

The DEIR does not present a reasonable range of alternatives including one that is focused on achieving these priorities, and the [redacted]oject's policies and implementation measures are far too vague and weak to accomplish them.

The draft documents do not provide an adequate baseline, do not adequately disclose significant adverse environmental impacts, do not adequately identify alternatives and mitigation measures, do not adequately address cumulative impacts and measures to avoid or mitigate them, do not adequately address the project's impacts on climate change (nor the impacts of climate change on the project), and do not adequately address measures to avoid or mitigate GHG emissions.

Because the GPU/DEIR must be extensively revised and corrected, and it should be re-circulated after these improvements have been made. The re-circulated DEIR must include an Alternative that focuses on accomplishing the expressed priorities of Tulare County's citizens by firmly directing resource-efficient growth into existing urbanized areas and by implementing a strong mitigation program for unavoidable impacts.

Thank you for considering our comments.

Sincerely,

Greg and Laurie Schwaller

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Thank you for the opportunity to comment on these documents – the revised Goals and Policies Report, the Matrix of comments received, the Background Report (**we were not previously aware of its existence and its importance; it was not given out with previous versions of the Goals and Policies Report**), the draft Environmental Impact Report, the Policy Alternatives document, and the additional pages for the DEIR, including Appendices A, B, and C, which were issued with a cover memo dated January 25, 2008 (but which did not include the Tables described in Appendix C), as well as the subsequent correctory to Appendix C issued on February 26, 2008.

OVERVIEW:

Obviously, County staff and consultants have labored hugely to generate and compile this material. It is heartening to find that a number of the comments documented in the Matrix have been positively addressed and that many of the new Goals and Policies aim to promote a better future for Tulare County.

On the other hand, it is disturbing to find that, at the outset of a new century, suffering too often from the worst air quality in the nation, recognizing that it is facing an emergency in water supply and quality, and menaced by the dire threats of accelerating global warming and the demands of a rapidly burgeoning population, Tulare County is doing so little to boldly address the work that must be done to create a General Plan that will ensure a better future for its residents.

THE GPU DOES NOT ADEQUATELY INVENTORY AND ANALYZE BASELINE AND IMPACTS:

The Value Statements, Framework Concepts, and Guiding Principles of the Goals and Policies Report are worthy, inter-related, and generally reflective of the expressed wishes of the County's citizens. Yet despite hundreds of pages of comments received on the Goals and Policies and on the NOP for the EIR, and regardless of the professional, scientific, legislative, and legal findings available to guide it, **the County is still failing to adequately inventory and analyze current (baseline) conditions (in the Background Report), to adequately inventory and analyze the environmental impacts associated with the General Plan's implementation (in the DEIR), and to write policies and implementation measures adequate to effectively address the adverse effects of current conditions and those adverse conditions that will be created or exacerbated by implementation of the proposed General Plan.**

The Plan's component documents present a great deal of information, but **too often ignore or assume solutions to problems without presenting the public and decision makers with sufficient facts and clear analysis to confidently determine that the necessary relevant issues and their impacts have been fully and accurately described and that the policies and implementation measures provided to remedy these adverse conditions will be sufficiently comprehensive, clear, firm, measurable, enforceable, and funded to do so.**

For example, p. 1-6 of the Goals and Policies Report (under 1.4 Environmental Analysis) states that the General Plan and EIR have been prepared as a combined document to minimize redundancy. Minimizing redundancy is admirable. However, there are **numerous instances in which these documents conflict, making them inconsistent and therefore unable to be analyzed or to provide a sound basis for decision-making** (e.g., DEIR p. 3-8 discusses a revision of policy AG-1.6, and writes out the revised policy on p. 3-9; however, policy AG-1.6 in the Goals and Policies Report, p. 4-4, has not been revised, so the reader does not know which version to address) and **thus the components taken together do not meet the CEQA requirements for EIR content and analysis.**

Additionally **the Background Report, which is to provide the environmental setting, in numerous instances does not provide sufficient information to establish a clear baseline and inventory of existing conditions and their impacts, nor does it sufficiently explain the sources used and the basis for selection of the information presented; in some instances it seems even to be deliberately misleading.**

For example, Table 6-2, on p. 6-11 of the Background Report is mystifying on its face; after investigation on the CARB website, **Table 6-2 turns out to be, in fact, information from two separate tables that has been erroneously combined under the headings of only one of the tables.**

The Table must be corrected: split into two parts, with the second half being the Number of Days Above the Federal Standard.

Furthermore, **the Table is misleading because it does not describe and clarify the basis for the information it presents regarding PM10.** The data tables on the CARB website show that **PM10 information is reported two ways, as an actual measurement, and as an estimated measurement.** The PM10 monitoring station samples the air typically **only about every 6 days** and then records the PM10 for each of those days. This measurement provides the **actual** PM10 level **on about 60 specific days out of the year**, which the CARB reports as **the Number of Days Above the Standard**. The CARB also prepares an **estimate** of the number of days PM10 levels would exceed the standard within a year by compiling the 60 specific days' measured information and projecting it through the 365 days of that year; CARB reports this as the **Estimated** Days Above Standard. **The Estimated Days Report's figures give a more meaningful idea of the actual PM10 impact, because most of us are breathing the air every day**, not just on the approximately 60 days of actual measurement. Here's the difference, for instance, looking at the data from the Visalia Monitoring Station for 1996-2003. The first figure shows **the number of days out of the approximately 60 on which measurements were actually taken** that PM10 exceeded the State 24-Hour Standard; the second figure shows the **estimated number of days on a yearly basis, projected from the actual days' readings**, that the standard would be exceeded: 1996—25/148.2, 1997 – 11/64.6, 1998 – 18/101.8, 1999 – 30/182.1, 2000 – 30/195.6, 2001 – 27/167.9, 2002 – 29/178.8, 2003 – 17/107.9. **The Estimated Days report shows that PM10 levels are estimated to exceed the State Standard on typically one-third to one-half of the days of the year**, providing a very different impression of PM10 impact from that provided in Table 6-2. Another

way to look at this is to say that the figures that the County selected to include show the number of days exceeding the State standard **out of about only 60 days total** (the days on which the PM10 was actually sampled). Thus, in 1996, 25 days out of about 60 exceeded the standard, in 1997 11 days out of 60 exceeded it, in 1998, 18 out of 60, etc.

The Table should reproduce exactly the complete information from the CARB website, not edit it to create a misleading impression of the impact.

Additionally, the Background Report is supposed to provide information on conditions in 2005, but Table 6-2 (BR p. 6-11) provides information only through 2003, while the CARB site contains the data through 2006. Therefore, **the Table should be updated to show the information at least through 2005, and preferably through 2006** (Table 4-2, for example, on p. 4-50 of the DEIR shows data regarding vehicle emissions for year **2007**). Also, the CARB site began showing PM 2.5 data in 2004, but Table 6-2 has omitted this important report.

The Table should be updated to include the PM 2.5 data.

That so many **errors and inadequacies are found in a single table raises concerns regarding the accuracy and reliability of the other tables and information in the GPU documents.** Numerous examples will be noted below as these comments proceed through the GPU.

THE GPU DOES NOT PROVIDE ADEQUATE POLICIES AND IMPLEMENTATION MEASURES:

Furthermore, the Goals and Policies Report and Area Plans are to embody the project description and environmental mitigation. Page 1-8 of the GPR (second paragraph) states that **a policy is "a statement that guides a specific course of action for decision-makers to achieve a desired goal. The County has strived to develop clear and unambiguous as [*sic*] policies."** Page 1-2 of the Goals and Policies Report (GPR) states that the GPR is the "essence" of the General Plan and that it "identifies **a full set of implementation measures that will ensure the goals and policies in the General Plan will be carried out."** Page 1-9 of the GPR states that an implementation measure is "a **specific measure, program, procedure, or technique** that carries out plan policies" and that **"Implementation measures should describe actions that are concrete and measurable so their completion can be easily monitored** in annual reports."

Unfortunately, many of the policies are far from specific, clear, and unambiguous, and many have no corresponding implementation measures listed. Many of the implementation measures that are provided are so vague as to be neither measurable nor enforceable; many state that they are "new," yet indicate for their timeline that they are "ongoing," so that one cannot determine whether they are supposedly already being implemented (in which case the date of actual implementation should be shown) **or when one could expect them to be in force; others are scheduled to be commenced so far in the future that it is doubtful that much in the way of meaningful outcomes can be made to result from them within the life of the General Plan.**

For example, LU-7.13 on p. 5-20 of the GPR states as a New Policy that "The County shall encourage preservation of buildings and areas with special and recognized historic, architectural, or aesthetic value. New development should respect architecturally and historically significant buildings and areas." **"Encourage" is not a clear, unambiguous, specific course of action**, as required by the definition of a policy on p. 1-8. The **Implementation Measure, #23** on p. 5-24, says "The County shall cooperate with local preservation groups and community property owners who identify historic buildings . . . to encourage perpetuation of identified architectural characteristics in new proposed development . . . within the same viewshed as the historic building." This is stated to be a New Program. The timeframe is shown as "Ongoing." **This Implementation Measure (IM) is not "a specific measure, program, procedure, or technique," nor is it concrete or measurable**, as prescribed by the definition of an implementation measure on GPR p. 1-9. **How does one measure or enforce "encourage," "should," and "cooperate?" The policy to "encourage" is to be implemented by a measure requiring the County to "cooperate" with others to "encourage."** The goal behind this policy is admirable, but how will the policy or its implementation measure ensure achievement of the desirable goal?

Similarly, **LU-7.15** (a New Policy on p. 5-20 of the GPR) states that "The County shall **encourage** the use of solar power and energy conservation building techniques in all new development." The **Implementation Measure (#24** on p. 5-24) says "The County shall review LEED and LEED-ND certification requirements and **develop** an implementation program." This review is timed to start sometime between 2010-2015. **Again, the policy ("encourage") is in no way a statement of a clear, unambiguous, specific course of action, and the implementation measure ("develop . . . a program") is far from being a concrete, measurable, specific measure, program, procedure, or technique.** Given the urgency of global warming and the need to comply with AB32, not to mention the County's severe air and water problems, and also given the abundance of jurisdictions which have already adopted and implemented LEED standards, the County must do much more than merely "encourage" use of solar power and energy conservation building techniques, and the requirement to do so should commence well before 2010.

Unfortunately, these examples are typical of the GPU's policies and implementation measures: vague, ambiguous, and not measurable. Thus, the policies and implementation measures cannot be relied on to achieve the goals of the GPU, to effect the DEIR's mitigation measures, nor to implement the selected DEIR Alternative.

THE GPR DOES NOT INDICATE POLICY CATEGORIES: On p. 1-8 (second paragraph), the GPR states that "**Consistency determinations** are not made based upon a specific goal but made **based upon policies** set out under that goal. . . . The County has strived to develop clear and unambiguous as policies [*sic*]." The last paragraph of p. 1-8 states that "General Plan **policies fall into four categories** depending on the purpose they serve and how they are implemented." The categories are (1) **Framing Policies**, which "set out broad direction, much like a goal," and "typically **do not require a follow-up implementation measure**"; (2) **Consistency Standard Policies**, which establish a basis for consistency findings in project reviews and are **"self-implementing"** and do not require follow-

up implementation measures; (3) **County Directory Policies**, which commit the County to an action and **generally require a specific implementation measure**; and (4) **Environmental Mitigation Policies**, which serve to minimize or eliminate environmental impacts, often identified through the EIR process; it is **not stated whether these latter policies require implementation measures.**

However, **the policies in the GPR are not labeled to indicate which of the categories they belong in, leaving the reader to wonder** whether they are supposed to not need implementation measures or are self-implementing, or do require implementation measures.

Please label the policies per their categories (it would be especially helpful if Environmental Mitigation Policies were labeled as such; wouldn't most of them need mitigation measures?).

THE GPU DOES NOT ADEQUATELY RESPOND TO THE PEOPLE'S PRIORITIES:

In public workshops, hearings, and comment letters, the people of Tulare County have repeatedly expressed their priorities for the future: cleaner air, reliable availability and quality of water, growth centered on existing developed areas to minimize the conversion of natural resource lands (farmlands, ranchlands, scenic landscapes, open space, forests) to urban uses, and a more diverse economy; in other words: healthy air, healthy water, healthy land, and a healthy economy.

The GPU gives lip service to these values. Unfortunately, as will be discussed below, it **fails to provide the planning framework; strong mandatory policies and implementation measures; and EIR Alternatives that will fulfill these priorities.**

THE GPU DOES NOT PROVIDE A REASONABLE RANGE OF ALTERNATIVES, NOR DOES IT PROVIDE A REASONABLY ENVIRONMENTALLY SUPERIOR ALTERNATIVE:

The Alternatives presented all assume the adoption of the current draft of the Goals and Policies Report, which, as discussed above, provides inadequate policies and implementation measures that cannot be relied on to effect the project Alternatives or mitigation measures.

None of the Alternatives offers a clear choice and firm direction for compact, resource-efficient, healthy growth, as demanded by the County's citizens, as discussed above.

No concrete, quantified, factual comparison of the relative impacts of the proposed Alternatives is made to enable the reader to confidently evaluate their actual relative effects on the environment and on achieving the project's objectives.

Good maps and statistics should be provided, clearly depicting the "before" and "after" for each Alternative, so that the reader can "see" and evaluate the impacts of each Alternative and its likelihood of achieving the project's objectives.

Indeed, one cannot determine from the GPU what the project objectives <u>are</u> in any concrete sense because the GPU seems never to actually plan or direct growth, or to seriously address environmental impacts, instead lackadaisically

relying on the "market" to determine where growth should go and on "significant and unavoidable" to absolve it of responsibility for the outcome.

The GPU must specifically describe and explain how and where each of the Alternatives will direct growth and show specifically the differences that each Alternative would achieve in terms of air quality, availability and quality of water supply, quantity of land developed, quantity of agricultural and open space land preserved, and diversification and strengthening of the County's economy – as well as the effect of each Alternative on County compliance with AB32.

The GPU must provide a truly environmentally superior Alternative that is measurably significantly resource-efficient, demonstrably acts to reduce VMTs, and concretely effects compliance with AB32.

This Alternative will ensure that our growth is resource-efficient and focused in our existing urbanized areas that want and can accommodate it, and it will protect and preserve the natural resources on which our economy and our well-being depend. It will be supported and effected by strong, clear, enforceable policies and implementation measures, including a tiered developer impact fee program and an effective mitigation program, that will minimize resource consumption and pay its own way.

Please SEE APPENDIX B for additional comments on the DEIR Alternatives.

ADOPT AND IMPLEMENT THE AHWAHNEE PRINCIPLES (OR BETTER):

Most of the principles for successful healthy growth in our communities are well summarized in "**The Ahwahnee Principles**," put forth by the Local Government Commission's Center for Livable Communities.

These principles (or better) should be incorporated into Tulare County's General Plan, with appropriate policies and implementation measures to ensure that they will be adhered to and carried out in all future urban development in our county.

The Ahwahnee Principles should be added to the Guiding Principles Section of the General Plan Framework (page A-2), to establish the overarching direction for development in the County; thus, they can be easily referenced, and can inform all the policies and implementation measures that follow. For ready reference, we will include them as Appendix A to these comments.

By adopting and implementing the Ahwahnee Principles for development, many jurisdictions have been able to create and maintain a distinct character and sense of place that attracts residents, businesses, and tourists, **improving their economy**. They have also **saved on infrastructure costs.** With the adoption of a specific plan prior to any development, the developer knows exactly what the community wants, saving time and money. The participation of citizens (including developers) from all sectors of the community in the process of developing the plan ensures that citizens will get what they want for their community and can create a sense of community and understanding among all sectors. The Ahwahnee Principles were written into a guidance document published by the **U.S. Department of Housing and Urban Development** of local officials applying for CDBG and other funds. As a nearby example, **the**

City of Reedley adopted the Ahwahnee Principles and also the Fresno County Growth Alternatives Alliance's "Landscape of Choice" and implemented them in the City's Specific Plan.

The GPU's draft Goals and Policies Report (GPR) includes several of the Ahwahnee Principles in various goals and policies, but they are not yet sufficiently comprehensive, concrete, and enforceable.

ORGANIZATION OF SPECIFIC COMMENTS:

We will continue our comments by following the organization of the Goals and Policies Report, tying in relevant sections of the Matrix, the DEIR, and the Background Report. We will use the term "community" to refer generically to any existing city, community, or hamlet that has a defined development boundary and infrastructure that can accommodate development.

PART I – GOALS & POLICIES REPORT

COMPONENT A --GENERAL PLAN FRAMEWORK

VALUE STATEMENTS (p. A-1): As the people declared that clean air, good water, and agricultural and open space land are their top priorities; and as a healthy environment is essential to a diverse, healthy, sustainable economy and a healthy population; and as the County declared in September, 2007, that we are facing an impending water crisis; and as our air is near or at the top of the worst in the nation (and as AB32 requires that we immediately begin to address that problem); and as global warming will only worsen our air and water problems, we must again recommend that the County **add a new Value Statement to the effect that: "The County will protect and preserve its invaluable natural resources, including air quality, water supply and quality, soil supply and quality, biodiversity, habitat, and open space."**

GUIDING PRINCIPLES

Principle 4 (p. A-2) "Strictly limit rural residential development . . . avoid rural residential sprawl":
Please strengthen language to ". . . (i.e. *prohibit* rural residential sprawl)." This is a key strategy for preserving agricultural lands, working landscapes, and open space, and for meeting AB32 requirements.

2. PLANNING FRAMEWORK

PF-1 (p. 2-4) "To provide a planning framework that promotes the viability of communities . . . while protecting the . . . natural resources heritage of the County.": To achieve the goal of PF-1 and to make meaningful Policies PF-1.1 and PF-1.2, the GPR must **include stringent measures to PROHIBIT leapfrog development and to REQUIRE new development (residential, commercial, and industrial) to occur ONLY within existing UDBs and HDBs where infrastructure is available and growth is desired by the community, to adhere to the**

Ahwahnee Principles, to be highly resource-efficient, and to pay its own way. This is our best, and possibly only, hope of achieving the city-centered growth, and healthier air, water, land, and economy prioritized by the people of Tulare County.

PF-1.2 (p. 2-4) "The County shall ensure . . . in the following areas" **should be changed to read: "The County shall ensure that urban development takes place only within incorporated cities."** The exceptions that are made in the policy as written are **inducements to sprawl.**

PF-1.2, iii, 3 (p. 2-4): If Policy PF-1.2 is not modified as recommended above, then at the very least **Section iii must be deleted.** This policy says to us (and will presumably say the same thing to developers) that a "regionally significant proposal" can run right past all the rules and get approved by the County. **The criteria for "special significance" are spectacularly vague, and provide carte blanche for sprawl.** Is it the County's intent that these criteria say that sprawl is OK if it is "innovative" (whatever that means; innovative is often not good at all), OR if it does some mitigation, OR if the County can make some money on it, OR if the County feels like approving it? **Recommendation: DELETE this wide-open growth-inducing invitation to sprawl.** This is NOT what the people of this County want, it will work against compliance with AB32, and it is definitely not needed. **Innovation, mitigation, and financial benefits to the County can all be provided within existing UDBs.**

PF 1.3: Please change to: "The **County shall *require*** those types of . . . ." "Requiring" would produce the intended consequence of limiting sprawl, which we have already had far too much of. **Please provide** a concrete Implementation Measure for this Policy.

Implementation #2 "A proposal submitted under PF-1.2 . . . should be subject to . . . review . . . the County should solicit . . . input . . . should consider . . . local interests." **(p. 2-16): Please change the 3 "shoulds" to *shalls*;** environmental and fiscal review, input of affected public entities, and balancing countywide and local issues must be mandatory, not discretionary.

PF 1.4: "The County **shall *require* residential** growth to locate . . . ." Same reasons still, substantially strengthened by AB 32 requirements.

PF-1.9 (p. 2-5) "Capacity Building and Self Governance": Following the Ahwahnee Principles and common sense and good policy, it is essential that the County ensure the involvement of residents in self-governance. **Please change to: "The County shall *ensure that opportunities are available for* the residents . . . ."**

PF-1.9, Implementation #2 (p. 2-16) "The County shall investigate techniques . . . .": Please strengthen the implementation measure for PF-1.9; simply investigating techniques will not ensure involvement. **Please change**

to: **"The County shall investigate *and implement* techniques to provide for enhanced local input . . . ."** Three Rivers found the community visioning process to be very useful; we achieved excellent participation. The City of Reedley (see General Comments above) outlines a plan used to good effect in their community. Please **implement as a key technique to ensure involvement: "The County shall hold as many meetings as possible in the evening so that working people may attend, and shall provide notice of these meetings in Spanish when the affected community's adults speak predominantly Spanish."** No flexibility is needed for this technique.

PF 2.2 (p. 2-6) "Modification of Community UDB": These boundaries are rendered meaningless and cannot function to limit urban development nor to provide an outstanding quality of life because **the policies make them far too easy to modify, and even appear to encourage their modification. The boundaries should dictate development patterns; developers' plans should not drive alteration of the boundaries**: that is a recipe for sprawl. Making the boundaries permanent will encourage efficient development within the boundaries; mitigation fees and tiered impact fees could be used to further efficiency also. **The paragraph beginning "Notwithstanding the foregoing criteria, the County may consider modification to a community UDB if it is determined that the Modification qualifies as a 'regionally significant proposal'" through its following 4 bullet points should be DELETED.** This paragraph and its 4 points say to me (and I expect that it will say the same thing to developers) that a "regionally significant proposal" can run right past all the rules and get approved by the County. The criteria for "special significance" are spectacularly vague, and provide carte blanche for sprawl. It says to me that sprawl is OK if it is "innovative" (whatever that means; innovative is often not good at all), OR if it does some mitigation, OR if the County can make some money on it, OR if the County feels like approving it. **Recommendation: DELETE this wide-open growth-inducing invitation to sprawl.** This is NOT what the people of this County want, it will work against compliance with AB32, and it is definitely not needed. Innovation, mitigation, and financial benefits to the County can all be provided **within existing UDBs and HDBs.**

PF 2.2, # 2 (p. 2-7) "Prior to approval of a UDB boundary expansion . . . . may require . . . infrastructure master plan": In the Matrix (p. 35) the **suggestion that this wording be changed to ". . . the County shall ensure that infrastructure can be provided *and maintained* . . ."** was rejected on the basis that "provided [implies] maintenance," and that infrastructure is typically provided and maintained by CSDs and PUDs over which the County has limited control. This implies that the County then likewise could not ensure that infrastructure would be provided to service the new areas added to the UDB, in which case the new areas must not be added. Item #10 on page 2-13 requires that a Planned Community project set up funding mechanisms to cover initial capital costs as well as long-term operations and maintenance for infrastructure. Since #2 on page 2-7 is presumably resulting from a developer's request to modify the community's UDB, then it seems that **the County could make the same requirement as in #10 on page 2-13.**

PF 2.2, #3 (p. 2-7), Modification of Community UDB, Implementation #6 (p. 2-16) "The County shall define implementation standards for UDB expansions to avoid uncertainty": Developing criteria for evaluating when non-ag lands are not reasonably available or suitable is key to the implementation of this important policy for preserving agricultural land, so **please change the implementation timeframe to 2007-2010, with 2008 as the target.**

PF 2.4A (p. 2-7) "Collaborative Community Planning Partnerships": **Please explain** what is meant by "Requirements for New Town development shall be utilized to guide such private/public joint planning efforts." It seems that if a developer is funding the community plan update, and this is being called a "private/public collaborative planning partnership" in the corresponding Implementation (#12, p. 2-18), the **developer would have undue influence** on the development of the community's plan.

This new Policy and its Implementation need to be much clearer about who will be involved in the collaboration and what measures will prevent conflict of interest and undue influence on the plan on the part of the applicant(s).

PF-3.2 (p. 2-9) "Modification of HDB": To protect water supplies and quality by minimizing hardscape and driving, to improve air quality by reducing VMTs, to improve health by improving air quality and promoting non-automotive travel, to preserve and protect natural resource lands, **the GPR must place much stricter limitations on when an HDB may be modified.**

Please change to: No change to an HDB shall be considered except during hamlet plan update or unless an amendment is proposed to the HDB and the hamlet residents review and approve it (in addition to the requirement for a General Plan amendment). Expansion of an HDB should be a last resort to accommodate more development. If 80% of the non-Williamson Act land within the HDB is developed, then 20% is still available.

Please **modify** the fourth bullet to **require that the available 20% be used (possibly as park or groundwater recharge or recreation land) before allowing consideration of HDB expansion.**

Studies, including one by the County's own consultant, show that all of the growth projected under the GPU through 2030 could easily be accommodated in our existing incorporated cities alone, not to mention our unincorporated communities and hamlets. Therefore, **there is obviously NO NEED to expand ANY of our existing growth boundaries during the course of this General Plan.** And **there are MANY vital reasons NOT to expand any of them** (conservation of natural resource lands and working landscapes, groundwater and flood control areas, scenic vistas, good agricultural land, increasing opportunities for walkability and bike-ability, allowing for transit, reducing the increase of VMTs and helping to limit increase of GHG emissions to comply with AB32, etc.).

The GPU should follow the principles of responsible growth and the clearly expressed wishes of the citizens of this county; please **do not waste the taxpayers' money and further jeopardize their health and welfare by promoting development that is not contiguous to existing infrastructure and existing jobs.**

PF-3.2 para. 2. (p. 2-9) "Modification of HDB" "Prior to approval of a HDB expansion": **Please make this enforceable by changing as follows:** "If the expansion pushes the hamlet . . .master plan for the hamlet ***shall*** be prepared . . . ."

However, no significant development should be allowed to be planned in any hamlet until a hamlet plan has been completed (with, of course, full public participation), or updated, if such a plan already exists, including a clear factual analysis of the hamlet's short and long term ability to provide necessary urban services. If we can't afford to prepare the hamlet plan, incorporating the desires of its residents, and evaluating its capacity, then how can we afford the consequences of ensuing growth?

The **Planning Commission has urged (Matrix p. 45) that hamlet plans require compact development.** The policies under LU-1 (pp. 5-12-5-13) are too weak: they only "promote," "encourage," and "support" the principles of smart growth and healthy communities; **please make them firm and enforceable.** The Implementation Measures are (p. 5-22) similarly too vague and weak (e.g., #3, which says the County shall "consider" incentives to "encourage" smart growth during 2007-2010); **please make them concrete and measurable.**

The Implementation for **the outreach effort to prepare guidelines for the preparation of hamlet plans isn't scheduled to begin until 2010-2015.** Thus, many hamlets may have no plans during much of the GPU's timeframe.

Please strengthen these policies and implementation measures to ensure that hamlet growth will be timely and responsibly planned on the basis of smart growth principles.

Matrix p. 47 in **comment re PF-3.4** recommended including the policy in PF-3.4 ("Mixed Use Opportunities") in community plans as well, and RMA agreed. However, I do not **see that the Mixed Use Opportunities policy has been added to PF-2; please add this policy in the PF-2 section for communities.**

PF-3.5 (p. 2-10) "Improvement Standards in Hamlets": RMA states on Matrix p. 47 re comment on this Policy that the County will not stop development in hamlets while new standards are developed, which will not be until after adoption of the General Plan. **Recommendation: to guide development in the interim, the County should adopt the Ahwahnee Principles and require all interim development to adhere to them.**

PF-4.1 (p. 2-10) "UABs for Cities": **Cities should make the decisions regarding growth within their UDBs and UABs** if growth is to proceed in an orderly manner and the cities will be providing the urban services to these areas. Why should any development be permitted in the UABs during the life of this General Plan when there is **plenty of room for all the growth projected for the next 30 years within the existing UDBs?**

PF-4.2 "UDBs for Cities": **Cities should make the planning decisions within their UDBs designated by the County, since the cities have to provide the urban services there.** The cities should adopt and enforce adherence to the Ahwahnee Principles in all development within their UDBs. Please see Matrix comments, p. 31, re PF-1.7.

PF-4.3--PF-4.10 (p. 2-11): Same comments as in PF-3 regarding hamlets. **Please adopt and adhere to the Ahwahnee Principles and the wishes of the public: expand existing development boundaries only as a last resort.** Inefficient development is the root of many of our problems with air, water, and land. We do NOT need, nor given the requirements of AB32, can we afford, ANY more of that. The County should provide for denser, more convenient, clustered, pedestrian and transit friendly development with a good jobs/housing/services/recreation balance.

PF-4.3 (p. 2-11) "Modification of City UABs and UDBs": Last sentence s/b changed to read: "Expansions for residential . . . ***shall*** **be *firmly* discouraged . . . ."** Why promote incompatible land uses? The consequences will be negative. **Recommendation: Do not permit new dairies within UABs nor within one mile beyond UABs.**

PF-4.4 (p. 2-11) "Planning in UDBs": If the cities have the responsibility for the provision of urban development and services within their UDBs, then **cities should have the full authority for planning within the UDBs.** The County should be compensated via equitable revenue-sharing agreements. If annexation is not feasible or is rejected by the subject city, then development should not occur until annexation is agreed to (cf. PF-1.2).

PF 4.14 (p. 2-12) "Revenue Sharing": The policy says that the County will "**promote**" revenue sharing as an element of negotiation under certain circumstances; the **implementation measure (#26, p. 2-19)** says the County "will **consider** exploration . . . through the formation of a committee" and indicates that this is an ongoing implementation.

Please provide a definite implementation methodology and timeline for getting a workable revenue-sharing agreement finalized. Perhaps some type of mediation or "Model Cities/Model Counties" intervention is needed. Please see Matrix p. 31, comment re PF-1.7. The commonweal suffers while the cities and County fail to resolve this important issue.

PF-4.6 (p. 2-11) "Orderly Expansion of City Boundaries": **Please make this stronger: "The County shall *ensure* orderly . . . by supporting *only*** those city . . . proposals . . . ." Third paragraph: **"UDBs *shall* not be expanded . . . ."**

PF-5.1 (p. 2-12) "New Towns": Tulare County already has about 40 communities (cities, unincorporated communities, and hamlets); we have no need or desire for more. The next Policy (5.2) says that a new town must be a planned community; a planned community certainly does <u>not</u> have to be a new town.

PF 5.2 (p. 2-12) "Criteria for New Towns": Please **ADD to this Policy a numbered point stating that a planned community shall not be approved anywhere outside of existing development boundaries (UDBs, HDBs).** All the elements of a planned community can be contained within such boundaries. Permitting development outside of these boundaries during the term of this General Plan; to do so would induce sprawl and would unnecessarily, and to the detriment of the health and safety of the citizenry and their expressed priorities, increase GHG emissions and VMTs and further erode the County's ability to comply with AB32.

PF-5.2, #5 (p. 2-13) "That the planning program include joint meetings . . . .": This paragraph lists the Fire Chief as a regular participant on the intergovernmental advisory committee. Is this the same as the **CDF Fire Chief, per Matrix p. 72, #8, or should the CDF Chief be listed in addition to the Fire Chief?**

PF-5.2, #12 (p. 2-13) "New towns should not cause . . . .": **Please CHANGE** as follows: **"*New development shall* not cause** any conversion of Prime Farmland . . . ."

PF-7.4 (p.2-14), Implementation #35 (p. 2-20) "The County shall work with TCAG . . . to create a shared planning database....": **Please provide the missing timeframe information, preferably 2007-2010.**

PF Implementation #29 (p. 2-20): This surprising IM (which seems unrelated to the gist of PF-6.2) states that management of the State and federally owned lands in the County should include "provisions for continued and improved access through and within the County." **What does this vague measure mean?** Is it implying that there should be more roads through the federally owned lands? **The purpose of the management of these lands is certainly NOT to facilitate access through the County, but is instead to protect irreplaceable resources for the public good and to manage them sustainably.** If "improved access to" means the provision of less-polluting public transit, such as the recently-introduced bus service from Visalia to Sequoia National Park, then we're all for it.

COMPONENT B – TULARE COUNTY PROSPERITY

B. Prosperity (pp. B-1 and B-2); (see also Matrix, p. 85, #1): To improve its quality of life, attract investment, protect its agricultural economy, and promote self-sustaining communities, Tulare County must vigorously address its water crisis and its air quality. This page recognizes that Land Use principles are an important element in a plan for prosperity, but fails to mention two even more critical areas (air and water). Both Agriculture and Land Use principles and policies are discussed elsewhere, but are still selected for mention on these pages.

Air and water should be mentioned on these pages as well, with the indication that they are further discussed in Chapters 8, 9, and 11.

B. Prosperity, Concept 3 "Land Use" **(p. B-1)** (see also Matrix, p. 86, #2 at top): Staff response is that permanent agricultural and open space preserves would have to be a **voluntary** action by individual landowners. This implies that the County does not own any land in the valley or foothills and/or that zoning laws prohibit permanent conservation zoning. **Please clarify what the options are to actually limit conversion of agricultural and natural resource lands to urban uses.**

Agriculture Principle 2 "Maintain Separators" **(p. B-2)**: The Matrix (p. 86, #1) states that rural landscape Separators between the County's towns and cities are **mapped in Figure 7.3-1. We cannot find this figure** in the Goals and Policies Report issued in January, 2008 (nor in the July 2007 GPR). [Emailed RMA regarding this; email from David Bryant, 2/19/08 says the sentence re Figure 7.3-1 s/b deleted, and to see Policy 3.2 on p. 7-4 of the GPU. We believe **such a Figure is still needed; please provide it** (does SL-3.2 on p. 7-4 imply that the separators have not yet been defined?)]

3. ECONOMIC DEVELOPMENT

To a large degree, Tulare County's economic development is tied to the County's demographics. GPR page 3-2 (second paragraph) notes that a "quality work force is one key requirement for selecting a site" and that "efforts to create a highly skilled workforce must be made to attract industry into the area to ensure a diversified and vibrant economy." However, the Background Report does not provide a sufficiently detailed description of the County's demographics to give the reader an adequate understanding of what this might entail.

INADEQUACY OF BACKGROUND REPORT, SECTION 2.5 "DEMOGRAPHIC CHARACTERISTICS" (BR pp. 2-29 ff):

Tulare County's economic development is intertwined with its demographics: its residents are its labor force and its consumers. The demographic information in **the Background Report should be revised and expanded to cover more characteristics than simply age, gender, and ethnicity. It should also describe characteristics such as education, skills, income, employment, and health,** which are all indicators of the current and potential economic success of the County. Many of Tulare County's communities are characterized by high rates of poverty (including the highest rate of child poverty in the State), high rates of unemployment (often the highest in the State), low educational attainment (highest percentage of adults over age 25 without a high school diploma), female-headed households (with by far the highest rate of teen pregnancy in the State), very high percentages of immigrants and of non-English speaking individuals, and poor access to health care. **The Background Report should analyze the relationship between the County's demographics and its economy, and the GPU should provide specific policies and concrete implementation measures to address these issues.**

ED-2.3 "New Industries" **(p. 3-3): New industries, along with all other development, should be located within existing UDBs and HDBs.** We need compact development and jobs co-located with population and services.

Please modify this Policy to say that "*New industries shall locate within cities, unincorporated communities, and hamlets where appropriately zoned and where adequate infrastructure capacity is available or can be made available as a condition of approval of the development.*"

ED-2.12 "Intermodal Freight Connections" **(p. 3-3)**: Encouraging the development of freight handling facilities encourages the concentration of toxic diesel exhaust emitting vehicles, highly detrimental to air quality and the health of residents. PM 2.5 particulate matter associated with diesel engine exhaust is a substantial health concern.

Please add related policies and implementation measures to require that, as a minimum, any such facilities must strictly limit idling of diesel vehicles to 10 minutes maximum, prominently post signage to restrict diesel idling and to educate drivers re diesel health impacts, and install on-site electrical connections and to require drivers using the facilities to use these connections to power their heating and air conditioning and refrigeration units instead of operating diesel engines and diesel refrigeration units. Please condition approval of any such development upon implementation and enforcement of these requirements.

ED-3.3 "Non Agricultural Industries" **(p. 3-5): Please ensure that the County does NOT "encourage the development and expansion of food crop ethanol production,"** because the process of growing food crops and then producing ethanol from them takes more fossil-fuel energy input than is gained in energy output; furthermore, using food crops for ethanol drives up food prices.

Please encourage only "non-food stock based ethanol production.

ED-5.5 "Rivers" **(p.3-5):** The County's critically endangered riparian areas are almost our rarest resources, and yet are vital to the quality of life in our County. They can be wonderful tourist attractions, and are even more important to valley citizens, who have few other natural areas close by for refreshment and recreation; our rivers are also absolutely critical wildlife and plant habitat.

This policy should strictly limit recreational activities to only those that are compatible with the protection and preservation of our rare and endangered rivers. Please provide a concrete, measurable implementation measure for this policy. (For example: NO motorized vehicles allowed, and no vehicles at all in the riverbed or near enough to the banks to promote or create erosion or disruption of vegetation.)

ED-5.6 "Lakes" **(p. 3-5)**: With a grand total of two readily accessible lakes of any size in the entire County, **the County should, as in the case of its three rivers, make a major and continuing effort to ensure the protection of the recreational quality of these resources, and should pledge its efforts to do so in this policy which urges their exploitation.** How does the County mean to promote these lakes (there is **no implementation measure)?**

ED-5.9 "Bikeways" **(p. 3-5): Please clarify** this welcome Policy and **provide** it with a concrete, measurable **implementation measure**. Section 12.5 ("Other Transportation Modes,"p. 12-6) includes a number of related policies, also very welcome, also very vague ("coordinate," "consider incorporating," "evaluate feasibility," "identify routes," "support") and generally equally vague Implementation Measures (p. 12-10).

Please make these policies clear and enforceable and provide concrete, measurable IMs for them. Where are the County's current recreational bikeways? How are they marked? How will they be enhanced and promoted?

ED-6, ED-6.1, ED-6.2, and ED-6.3 "Address regional and local commercial needs by . . . ." **(p. 3-6)**: Providing access to community centers and regional entertainment venues by means of public transit (and walkways and bikeways where distance allows) is an especially important component of any plans for revitalization and redevelopment and for attractions designed to draw large crowds, particularly given Tulare County's air quality problems, public health problems, and necessity of complying with AB32. **All these policies should emphasize alternate transit.**

Please make these policies clear and enforceable, and provide concrete, measureable IMs for them and for the related policies under TC 12.4 ("Public Transportation," p. 12-6) and TC 12.5 ("Other Transporation Modes," pp. 12-6 and 12-7).

ED 6.6 "Core Area Beautification" **(p. 3-6): Please revise to make a primary component of this policy be the planting of abundant large-canopy trees in these core areas to provide shade and beauty, to cool and clean the air, and to attract pedestrian traffic and customers; extensive tree planting should be included in the Implementation Measure (#10, p. 3-8).** This might also aid the County in attaining compliance with AB32. This Policy is listed as "New," yet its Implementation Measure is shown as "Ongoing." **Please revise the IM** to indicate the source of funding for the beautification efforts.

4. AGRICULTURE

Key Terms – "Grazing Land" (p. 4-1): Unlike intensive agricultural lands, extensive agricultural lands (used for grazing) typically do not pollute air and groundwater with toxic chemicals, nor do they produce much in the way of GHG emissions. **In striving to meet AB32 goals and to ameliorate the County's water emergency, protection and preservation of grazing lands can be a very important strategy.**

Please revise the second sentence to **include the fact that rangeland also functions to provide groundwater recharge and, when not severely overgrazed, helps to prevent flood conditions.**

AG-1.3 "Williamson Act" (p. 4-3): The County downgraded this policy **from "shall" promote to "should" promote**. Given the importance of agriculture to the County, and the importance of the Williamson Act to agriculture, **why was this change made? Please change it back.**

AG-1.4 "Williamson Act in UDBs and HDBs" (p. 4-3): In response to AFT's concern (Matrix, p. 99, bottom #1 and #2) that agricultural land is being lost to development patterns that are not efficient, smart growth patterns, the County points to Policy PF-2.2 as promoting efficient land use. This Policy, among other circumstances, **provides for modification to a UDB "as part of a subdivision map or specific plan proposal," or "at the request of a special district or the community," or if a proposal demonstrates "substantial financial benefits" to countywide operations, or "any other relevant factor considered on a case-by case basis."** None of these circumstances seems designed to ensure efficient land use.

With all those loopholes, how can PF-2.2 be considered to promote efficient land use? Why couldn't Williamson Act land in UDBs and HDBs be kept in the Williamson Act for land conservation purposes and used as much-needed recreational space or open space?

AG 1.6 "Conservation Easements" (p. 4-4): Comments on this Policy (Matrix, p. 101) urged the County to adopt mitigation measures for the loss of agricultural land, such as requiring conservation easements and requiring developers to pay into a mitigation fund to be used to purchase development rights for agricultural land of the same classification of the land to be developed. The County responded that impact fees for agricultural land conversion would not be feasible without cooperation from the cities and a countywide approach.

The DEIR states (p. 4-132) that the City of Visalia" has imposed a land based charge on lands being converted from agricultural to urban uses to address the shift of water supply from a conjunctive use basis to that of exclusive groundwater." Is this an impact fee for agricultural land conversion? Has the County polled the cities on their interest in cooperating in such a policy?

The DEIR states (p. 3-8) that the County will "coordinate regional efforts to preserve farmland within Tulare County" and that "revised Policy AG-1.6 . . . would require the County to utilize a conservation easement program to help preserve agricultural lands." The revised Policy AG-1.6, which "would be required," is set forth on page 3-9 of the DEIR.

However, **the Goals and Policy Report (AG-1.6, p. 4-4) DOES NOT REFLECT THIS REVISION.** So, which version are we going with?

AG-1.6 is shown as a "New Policy" in the Goals and Policies Report, yet its Implementation Measures (p. 4-7, #1 and #5) state the County's efforts are ongoing (that the County "shall take the lead" to work with cities and TCAG to establish a comprehensive agricultural land mitigation program and to establish criteria for the locations for agricultural easements).

How will the County go about establishing this program? An article in the Fresno *Bee* on 07/22/07 titled "Trust seeks to keep farmland free of development" stated that Tulare County's Sequoia Riverlands Trust includes in its

mission conservation of farmland, and that the Great Valley Center in Modesto has urged the Trust to work on farmland conservation. Is the County working with the Trust on a program to conserve farmland? **Hasn't most of the farmland on the valley floor already been classified (e.g., as Prime, Statewide Importance, etc.), so that the County already knows where the best farmland is?** Has the County applied to the State's Resources Agency for funds for farmland mitigation? Is the County considering a developer impact fee for farmland mitigation?

Both IMs (#1 and #5 on p. 4-7) are too vague to be measured or enforceable and should be made more specific and given a deadline for establishment of the mitigation program and the locations for the conservation easements. How can this Policy and its IMs serve as mitigation for the GPU's impacts if the conservation program is not adopted and in place by the time the impacts begin to occur?

AG-1.7 "Preservation of Agricultural Lands" (p. 4-4): Please clarify and strengthen this Policy to "promote" preservation of the County's agricultural economic base and open space resources, and its Implementation Measures (p. 4-7, #1, #6, and #7) **so that they are direct and enforceable, with measurable results.** "Promoting," "taking the lead," and "monitoring" have not yet provided a functioning, enforceable program to find, fund, and preserve such land through mitigation or other preservation programs.

AG-1.10 "Extension of Infrastructure Into Agricultural Areas" (p. 4-4) and Implementation Measure #8 (p. 4-8): Extending urban infrastructure into areas designated for agriculture is a clear inducement to growth. The County changed its Policy wording from "discourage" to the stronger "oppose," but then requests LAFCO only to "discourage" these infrastructure extensions in the IM, and evidently will not do so until 2010-2015. "Discourage" is not an enforceable rule.

Please strengthen these policies and rules as part of the GPU process.

AG-1.11 "Agricultural Buffers" (p.4-4): Please change from "shall examine the feasibility of" to "*shall ensure the employment of* agriculture buffers . . . ." Protective buffers for schools should be specifically included and emphasized in the buffers program.

The buffer program could provide significant benefits to the health and safety of County residents. In addition to helping to "stabilize edge conditions, protect agricultural operations, and moderate untimely conversion of farmland," (IM #9, p. 4-8), buffers could provide open space and recreational areas for walking and bicycling. Planted with native vegetation, they would also provide a bit of habitat, air cooling and cleaning, visual relief, beautification, and an opportunity for exercise away from motorized traffic.

AG 1.12 "Ranchettes" (p. 4-4): This Policy is so vague as to be meaningless, and no IM is listed for it. The Matrix mentions (p. 105, #1) that two plans were developed in the County in the 1970's for ranchettes in areas that are not built out yet. **Where are those areas, what do the plans allow, and what is the areas' remaining capacity?**

The Matrix also refers to **LU-3.5 (p. 5-17)**, which says that the **County shall not designate any new rural residential development** in the RVLP area **unless "other objectives, such as buffers" can be achieved. Please clarify and strengthen this weak Policy and provide it with a concrete Implementation Measure. Please define what the "other objectives" would be.** Buffers will certainly not solve the problem of sprawl development in the RVLP.

Please change this Policy to: "The County shall prohibit the creation of any new Rural Residential Designations (ranchette developments), in order to use its developable land efficiently."

AG-1.13 b "Agricultural Related Uses" (p. 4-4): Please **correct to "The use *shall* not be sited . . . ."**

AG-1.15A"Schools in Agricultural Zones" (p. 4-5): Please change this Policy to "The County shall *prohibit* the location . . . ." Schools should be located within the communities they serve so that their students can safely and conveniently walk and bike to school and readily participate in after-school activities.

Locating new schools in agricultural zones not only exposes students more directly to such as dust and pesticide drift and overspray, but is also growth-inducing, increasing the pressure for further conversion of agricultural land to development.

No IM is shown for this "New" Policy other than #12 (p. 4-8), which is shown as ongoing, and indicates only that the County will indicate to school districts which infrastructure facilities and services require further analysis. **Please provide a stronger Implementation Measure.**

AG-1.16 "Agricultural Water Resources" (p. 4-5): Please clarify and strengthen this vague Policy and provide it with at least one concrete IM to enable measurement of its results; requirements for water conservation must be included and implemented; the ACFP must be included. The agricultural industry must play a major role in this protection and enhancement process.

AG-2 "Agricultural Productivity and Employment" (p. 4-5): To "support increased viability of agricultur[al] production," the County must include under this goal policies that will require its agricultural sector to become more resource efficient, in terms of conserving and reclaiming and reusing water, in terms of energy efficiency (as in AG-2.11), and in terms of reducing negative impacts on air, soil, and water.

For example, AG-2.1 should include a focus on drought-tolerant crops; AG-2.3 should assist higher-value crops only if they are not water-intensive; AG-2.4 should ensure that crop care education includes Best Management

Practices (BMPs) for water-efficient irrigation, for soil conservation, for watershed and riparian area preservation, for minimizing applications and adverse impacts of applications of polluting chemicals, etc.

Increased viability of agriculture must not be supported at the expense of the viability of our natural resources and the health and welfare of our residents. To achieve **compliance with AB32,** much will have to be done in the agricultural sector. The County should aim its policies toward achieving sustainable agriculture, the only way to achieve its long-term viability benefit to the County.

AG-3 "Support the responsible development and economic viability of animal confinement facilities" (p. 4-6): Animal confinement facilities significantly impact the County's air quality, water quality, soil quality, and public health. **The dairy industry is the single largest force in the County's agricultural economy.**

Why does the GPR give it only one sentence of attention (except for paragraph 5 on GPR p. 1-2 which states, erroneously, that the Animal Confinement Facilities Plan, a voluntary element adopted in 2000, is part of Chapter 8, Environmental Resources Management, Section 4.3; please correct p. 1-2)?

What does Policy AG-3 mean by "support," "responsible development," and "economic viability?"

Why are no Policies or Implementation Measures provided to clarify and implement this goal?

The ACFP is referenced in the information box beneath this goal.

The information box should also reference the Draft Supplemental Program Environmental Impact Report for the ACFP, which the County agreed to prepare in June, 2001, to settle CEQA litigation on the ACFP, and which is to "include a reasonable analysis and discussion of cumulative air quality impacts, groundwater quality impacts, and air quality impact mitigation measures" for the ACFP.

INADEQUATE BACKGROUND REPORT AND DEIR EXISTING CONDITIONS AND BASELINE INFORMATION:

The **Background Report (BR) discusses Dairy Production on pp. 4-18 – 4-21,** stating that in **2003** the County had 303 dairies and 358,000 dairy cows, with, as of 2004, 23 new dairies and 47 dairy expansions awaiting permit approval.

The BR information should be updated.

(As of July, 2007, the County was reporting **812,249 head, with 8,203,563,554 dairy wastewater gallons applied to cropland, and 1,233,320 tons of manure recycled and/or hauled offsite,** with the proviso that "the data is only as accurate as the information provided by the dairymen.")

The BR mentions dairy issues that the 1992 Agricultural Advisory Committee addressed, including **lack of tracking of solid waste disposal; increasing herd sizes without obtaining a special use permit; and the fact that the County's animal density standards in its 1974 Animal Waste Management Element were more permissive than the Regional Water Quality Control Board's requirements.** It states that in 2000, Phase I of the Animal Confinement Facilities Plan was prepared, along with a program EIR that raised issues including **degradation of**

surface water, groundwater and air quality; land use conflicts; potential health hazards; and loss of natural habitat.

The Background Report, which is supposed to provide "a detailed description of conditions in the planning area in 2005" **provides no further information regarding these substantial impacts, merely mentioning that the County is currently preparing a Supplemental Program EIR to further examine cumulative air and water quality issues,** and that Phase II of the ACFP will address animal confinement facilities for other types of animals. Figure 4-2 "Existing Dairy Production" (dated **2000**), BR p. 4-19, shows concentrations of dairies from the north end to the south end of the County's valley floor, but **does not state the number of dairies, nor their acreage, nor their herd size.**

The **DEIR provides almost no baseline information at all on Animal Confinement Facilities** (e.g., dairies and feedlots). It provides Table 4-2 "Tulare County Onroad Vehicle and Dairy/Feedlot Operational Emissions" (DEIR p. 4-50), but provides no context to allow the reader to understand their magnitude or the significance of these emissions. It provides no information on ACFs' impacts to water and soil. It does not discuss the impacts to the public's health or the County's ability to comply with AB32.

DEIR page 4-67 states that the County **"will develop" a GHG Emissions Reduction Plan** that identifies GHG emissions within the County and ways to reduce them, and that this plan will inventory the sources of GHG in the County and set targets for reduction of emissions attributable to the County's discretionary land use decisions and internal operations. But **WHEN will the County develop this GHG Plan?** Wouldn't this DEIR have been the place to start creating the baseline inventory? Isn't the County already aware of its major sources of GHG emissions? And isn't this GPU the appropriate vehicle for starting to address the reduction of their emissions?

The DEIR should discuss the following, to provide a useful baseline:

The DSPEIR appears to have been circulated in October, 2006, but then what happened? Some of its proposed measures are included in the GPU DEIR (pp. 4-52 ff), but not all of them, in the Air Quality and Global Climate Change section. **Why were seven of the proposed measures omitted? Where are the dairies' impacts on groundwater discussed? What about their impacts on soil? Has the County studied and assessed the adverse impacts of dairy operations in the Chino Basin of California?** In the Chino Basin, dairies are being connected to the Orange County Sanitation District's Regional Interceptor line in order to divert tons of biochemical oxygen demand, suspended solids, and dissolved solids from degrading the water quality of the underlying aquifer and the Santa Ana River. How much would a similar project cost Tulare County, to protect its aquifers from potentially devastating spills of manure-laden dairy waters?

Is there evidence that the measures being proposed in the ACFP and its DSPEIR will keep Tulare County from incurring the same environmental degradation and huge infrastructure costs that have plagued the Chino Basin area (which has far fewer milk cows than Tulare County)? Is there evidence that these measures have been successful elsewhere, and, if so, to what degree? **The DEIR should discuss mitigation measures such as** the

installation of methane digesters, the installation of solar systems or wind generators, and the incorporation of green building principles into the design and construction of ACFs to offset impacts.

What are the policies and implementation measures that are allowing Tulare County to permit huge increases in the numbers of dairy cows, with the total projected to exceed 1,100,000 in the near future? Why is Tulare County projected to have well over twice as many dairy cows as any other county in the San Joaquin Valley, despite the adverse impacts to air and water quality caused by dairy operations? Of the 8 counties in the SJVAB, **Tulare County accounts for more than 30% of the total dairy AUs and more than 16% of total feedlot cattle** (DSPEIR, p. 3-53).

Why does Tulare County have only one inspector for its hundreds of dairies, so that they are inspected at most only once every five years?

ANIMAL CONFINEMENT FACILITY AIR QUALITY IMPACTS:

The following information, as a minimum, should be presented and discussed in the GPU documents (BR, DEIR, and GPR, as appropriate) **to provide the public and decision-makers with fact necessary to an understanding of this significantly impactful sector of the County's agricultural industry.**

The SJVAB has been designated as nonattainment for the federal PM 2.5 standard and serious nonattainment for the 8-hour federal ozone standard. **Cumulative dairy emissions within the SJVAB will increase by 23%; a "substantial portion of the cumulative increase is because of the increased number of dairies in Tulare County"** (DSPEIR p. 3-53).

Tulare County is classified extreme non-attainment for ozone and severe non-attainment for federal PM10 and non-attainment with federal PM2.5 (the deadliest particles). Major contributing sources of PM10 emissions are (1) entrained roadway dust and (2) farming operations. **Dairies are major contributors in the roadway dust area and the farming operations area.**

The ACFP/FPEIR (p.69) describes how 80,000 pound dairy milk tankers traveling on minor roads inadequate to the weight and frequent trips of these vehicles are **degrading and destroying the County's rural roads at an accelerated rate. (See also BR p. 5-48 ff.)** Since the County doesn't have the money to re-engineer and rebuild and maintain the roads for this type of traffic, **the County will abandon the roads and no longer maintain them, so that they will go back to dirt, and rely on the dairies to keep down the mud and dust on the abandoned roads. How will this enable Tulare County to meet air quality goals?**

"Dust (PM10), NOx and ROG emissions from any dairy project site would contribute to criteria pollutant emissions generated throughout the SJVAB. . . . "An increase in greenhouse gases, including methane, in the atmosphere is an international environmental issue" (DSPEIR p. 3-54). **How will adding 165,000 cows (above our 836,000 current dairy cows) help Tulare County to meet GHG goals?**

"Ammonia (NH3) is a strong alkali that is a severe eye, ear, and throat irritant. Ammonia reacts with nitrates and sulfates in the air to form ammonium nitrate that is a particulate less than or equal to 2.5 microns. It is a precursor of PM-2.5" (ACFP/FPEIR, p. 75). About 90% of ammonia emissions come from animal husbandry, with cattle and

calves accounting for about 43%; there are additional ammonia emissions after the spreading of manure" (ACFP/FPEIR, p. 76). PM-2.5 is the deadliest of particulates. **How will this hugely increasing dairy industry impact the health of Tulare County residents?**

"Each new dairy or other animal confinement facility that is constructed in the county would contribute on an incremental basis to the generation of PM-10, ammonia (a precursor to PM-10), and ROG (a precursor to ozone). Because the San Joaquin Valley is designated as "non-attainment" for both PM-10 and ozone, any increase in emissions would further the non-attainment status" *(Ibid)*. **How will these constantly increasing impacts to our air quality affect visibility and our tourist industry?** "Emissions of fugitive dust and gaseous air pollutants from dairy operations and non-dairy cattle feedlots are recognized to contribute a significant fraction of the total air pollutant emissions within the SJVAB" (SPDEIR, p. D-1).

"Dairy-related emissions within Tulare County are predicted to increase by roughly 38% in the future compared to existing [2004] rates" (SPDEIR, p. D-5), and this is based just on proposed future dairies and dairy expansions at that time.

ANIMAL CONFINEMENT FACILITY WATER QUALITY IMPACTS:

The **following information, as a minimum, should be presented and discussed in the GPR** (in the Agriculture Element, under AG-3, or in the Water Resources Element, perhaps under WR-2.7), and **in the GPU DEIR**, which presently seems to deal only with domestic water and wastewater systems, like the Background Report).

When 51 wells were sampled at ACFs throughout Tulare County in 2001 and 2002, per the DSPEIR, **sodium violated the human toxicity threshold in approximately 88% of the samples, the taste and odor threshold was violated in approximately 77% of the samples, nitrate levels exceed the California Primary Maximum Contaminant Level and California Public Health Goal for Drinking Water in 35% of the samples** (and the sample wells do not represent the highest nitrate concentrations in Tulare County; when nitrate concentrations for the 51 wells plus Central Valley RWQCB monitoring wells were combined and averaged the **average nitrate concentration for approximately *half* of the wells in both sets of data exceeded the EPA primary MCL**, per DSPEIR, p. F-6), **total coliform was detected in 19.6% of the samples (and fecal coliform in one; the state has a health goal of zero total coliform because the presence of any coliform in drinking water causes a health risk), and the TDS (total dissolved solids) threshold was exceeded in about 12% of the samples (DSPEIR, p. 3-56).**

Wells upgradient of dairies have the lowest nitrate concentrations, while wells downgradient have the highest concentrations (DSPEIR, p. 3-57). The highest concentrations were generally found in wells located downgradient of croplands (DSPEIR, p. F-8). **Animal waste contains high levels of nitrogen compounds; nitrate is the most common form of nitrogen associated with runoff or seepage from dairies to groundwater,** and it was detected at somewhat elevated concentrations in the dairies from which groundwater samples were taken. Nitrate can cause health problems to infants, children, and other groups.

Drinking well water containing total nitrogen exceeding the MCL value (35% of the sampled wells exceeded the MCL value for nitrates) can lead to methemoglobinemia ("blue baby syndrome"; hemoglobin is converted to the methemoglobin form in the circulatory system, which reduces the oxygen-distributing capacity of blood throughout the body) **in infants, children, and sensitive individuals, and nitrate can form nitrosamine, a suspected human carcinogen; EPA also notes birth-defect potential.** Nitrate is **highly soluble in water and can often percolate freely through soil and into groundwater**. Ammonia is often absorbed to soils and incorporated into soil complexes. **Coliform and fecal coliform indicate bacterial contamination from waste from warm-blooded animals.** Pathogens such as **E. coli, hepatitis, and salmonella can cause very severe effects for all, but pose the greatest risk to infants, children, the elderly, and the ill. Salinity** (measured as TDS or sodium, and exceeded in about 12% of the 51 wells sampled) **poses a health risk to those on restricted-sodium diets**, and is also **detrimental to agriculture**; it also **violates drinking water thresholds associated with tastes and odors.**

Tulare County is facing a water crisis. The County's burgeoning dairy industry has adverse impacts on the County's water quality and also uses tremendous amounts of water (at about 100 gallons per head per day times a projected dairy total of over a million head, that's a lot of water). What would be the effects on water quality of a major flood event in our ever-growing dairy area?

The GPR must include specific policies and concrete, measurable implementation measures to address these substantial impacts. The fact that the County inspects only about 1/5 of the dairies annually (and thus inspects a typical dairy only once every 5 years) bodes ill for timely monitoring and enforcement of policies and implementation measures, especially since the dairies have had a history of increasing their number of animals beyond their permitted limits. **The GPU should address this weakness by increasing the frequency of inspections.**

Additionally, **the GPU should include one or more policies with implementation measures and funding sources identified to carry out the Data Needs Assessment and Recommendations in the DSPEIR on pp. F-12 and F-13. These could be included in the Agriculture Element or in the Water Resources Element under WR-1.2 Groundwater Monitoring (GPR p. 11-3) (Implementation Measure #4 or #5 on GPR p. 11-7 might be a good spot). These recommendations include** (1) comparing data from the U.S. Geological Survey National Water Information System database (@ 763 wells) and the California Department of Health Services database (@ 1479 public water supply wells) to provide a relationship between nitrate concentrations and well depth and help to define relationships between nitrate concentrations and the geochemical environment and sources, with time trends defined and nitrate inputs to groundwater defined over time, etc.; (2) looking at two GIS groundwater layers for depth-to-surface groundwater level and permeability or soil type to characterize permeability to groundwater, indicating which areas constitute risk if near a dairy and groundwater nitrate concentrations were elevated; (3) identifying areas more susceptible to groundwater contamination and incorporating them into ArcView /GIS/ArcInfo GRID to

categorize susceptibility to contamination and identify potential hotspots; (4) allow for a cumulative risk assessment for nitrates and other pollutants; (5)evaluation of regional, county, state, and RWQCB regulations and EPA guidance on dairy discharge to groundwater to determine the best way to mitigate dariy discharges; (6) collection of demographic data relating to drinking behaviors of Tulare County residents to quantify exposures to nitrates or other chemical pollutants.

It has been almost six and half years since the County entered into the settlement agreement requiring the County to prepare, circulate for public review, and certify the completion of a SPEIR to the PEIR for the ACFP-Phase I. **The County agreed to carry out these actions within nine months (or sooner) from the effective date of the agreement**, which was executed in June, 2001 (with the proviso that the time limit could be extended "as is reasonably necessary"). **How is six and a half years reasonable, given a commitment of nine months? In these six and a half years, how many more thousands of dairy cows have been added to the Tulare County dairy herds, with each cow producing daily 30 times the bodily waste that a human does?**

When the Water Board's own test data show that 63% of sampled valley dairies have at least one nitrate-polluted well, when 40% of sampled household wells in Tulare County contained unsafe amounts of nitrate, when more than 20% of the County's State-regulated public water systems failed the nitrate test, when students can't drink the water at their schools and residents have to buy bottled water for drinking (article in Sacramento *Bee,* 02/16/08, "suit pins bad water in Tulare on dairies"), **Tulare County must address this growing problem with determination and dispatch. This General Plan Update process is the time and the place to do so.**

The DEIR must thoroughly describe these impacts, direct and indirect, current and cumulative, and provide adequate mitigation measures for them. It is **"vitally important that an EIR avoid minimizing the cumulative impact. Rather, it must reflect a conscientious effort to provide public agencies and the general public with adequate and relevant detailed information about them"** (*Kings County Farm Bureau v. City of Hanford,* 1990).

Please revise the GPU documents to adequately inform the public and decision-makers about ACFs and their increasing impacts, and to provide strong, clear, enforceable policies and implementation measures that will demonstrably mitigate these impacts and protect the County's air, water, and soil, and the health and safety of its citizens. **(Please also see** discussion of proposed policies AQ-4.6, 4.7, 4.8, and 4.9 under the Air Quality Element.)

Implementation #3 "County shall maintain comprehensive database of ag preserves" (p. 4-7): This measure does not promote the long-term preservation of productive and potentially-productive agricultural lands. **This IM should include a mitigation measure with a ratio of at least 1:1 or better for the conversion of such preserves**

to urban development, preferably one that ensures that the protected lands are located within the County and are part of an established mitigation banking program.

Implementation Measures for AG-1.6: Please see comments on AG-1.6 above for comments on the IMs also. **Matrix, p. 113, #4:** Staff indicates that the plan provides a greater range of options for farm use, in response to the comment by the Avila family. **It should be noted that the Land Conservation Act allows for land within an Agricultural Preserve or Farmland Security Zone to also be dedicated to open space uses, such as scenic corridor, wildlife habitat, or recreational use.**

IM #12, p. 4-8: Please see comments above on AG-1.15A and this IM.

5. LAND USE

"Land Use Diagram and Standards" (p. 5-3, top): Please explain where the Tulare County Land Use Diagram can be found. We cannot find it in the GPR. The revised draft of the GPR issued 7/31/07 stated on p. 5-5 that "Figure 5-1 Land Use Diagram" was "To be Inserted." No diagram appeared in that version of the GPR. In the draft version of the GPR issued in January, 2008, we find as Figure 5.1, not "Tulare County Land Use Diagram," but instead "Tulare County Planning Areas." **As the GPR text continually refers to the County's Land Use Diagram, please include the Land Use Diagram in the GPR. Please provide** sufficient detail in it (as indicated in comments directly below on the current Figure 5.1) to enable the reader to understand where these Land Use Designations occur. It would be helpful to see where these designations are currently located (as a baseline) and where they would be located at build-out of the proposed project (GP), so **please provide two maps (baseline and build-out)** if possible. **Please include the two Land Use Diagram maps (baseline and build-out) in detail for each of the County's Planning Areas,** as depicted in Figure 5.1. It would be helpful to **place them with the discussion of their Planning Areas** (e.g., place the maps for Foothill Planning Area – the FGMP in Part II, Chapter 3, Foothill Growth Management Plan, perhaps immediately following the current Figure 3.1 on p. 3-5).

INADEQUACY AND INCONSISTENCY OF TEXT AND TABLES IN RELATED BACKGROUND REPORT INFORMATION:

The Background Report section on Land Use and Population contains text and tables related to Land Use Designations and population growth, but the information is inconsistent, incomplete, and confusing.

Please revise this section of the BR to make it clear and consistent and provide maps to make clear the baseline situation and what is proposed under the GPU build-out.

For example, **Table 3-6 "Summary of Community Plans, Tulare County 2004," BR p. 3-24,** shows for each of the eleven community plan areas "Total Plan Area (Acres)," "Vacant Land (Acres)," and "Projected Planning Period Land Need (Acres)."

Please explain: What is the Projected Planning Period Land Need? Is it the amount of land needed by the time horizon of the GPU build-out? Is it the same year for all of the communities listed, or is it some year defined in their individual plans?

If the Projected Planning Period Land Need Acres are less than the Vacant Land Acres, does that mean that all the land needed throughout the Planning Period is already available in the vacant acres?

Why are Springville and Richgrove NA? If more land is needed than the vacant land indicated, then what?

What is meant by Existing Plan Population? The figures do not match any of those in Table 2-26 "Tulare County Population Projection, 200-2025," (BR p. 2-42).

What year is meant by the Projected Population (Target Year) column? Is this the same year for each of the communities? **These figures, likewise, do not match** any of those on Table 2-26.

Additionally, when one looks at the **figures for population and for acreage in the text** for each community (BR pp. 3-25 - 3-38), **these figures do not match the figures in the Tables.**

How are the population projections related to the communities' ability to provide for projected population (e.g., do they have, or do they have a reasonable certainty of being able to provide, the necessary water supplies, sewer capacity, and other infrastructure, jobs, and other services required to accommodate the projected population?

The Background Report states on p. 3-55 that the General Plan **land use designations and the development standards** of the zoning ordinance determine the **holding capacity** and buildout potential of the county. But **don't the County's essential resources, such as water supply, soil and geographical conditions, and air quality, have a great deal to do with determining the holding capacity and buildout potential also?**

Where in the GPU documents is this connection spelled out and examined? Only Appendix C of the Background Report begins to get into this fundamental relationship, when it states (p. C-27) that **water supply considerations could "completely undermine the existing basis for Tulare County population, allocations, and disposal."**

The **GPU documents must address these basic factors when designating land uses and allocating population growth.**

In a similar vein, the DEIR really seems to have it backwards when it states (2-8) that the GPU is a policy plan that "relies on individual policies to direct growth to preferred locations in response to market forces." **Shouldn't the GPU be a plan that relies on a clear vision of its priorities for the County's future to determine policies that direct growth to preferred locations so that market forces will know where they can build houses, stores, office space, manufacturing plants, etc.? Please explain:** Why would the County abdicate its planning role to the

quick-buck, short-term whims of market forces? How could that be in the best interest of a healthy, sustainable future?

Figure 5.1 "Tulare County Planning Areas" (p. 5-4): Please include names of all hamlets on this map, along with identified roads and other indicators to enable the reader to understand where these Planning Areas are (the current hamlet designations are difficult to see in both the black and white and the color versions). **Please also label** the large Planning Areas (e.g., Kennedy Meadows Plan, Great Western Divide North Half Plan, etc.) with their names so that they can be identified in the hard copy documents, which are in black and white only. This would be helpful even when one prints out the Figure in color because the colors in the very small blocks on the Legend are hard to match to the color blocks on the map. **Please also include the acreage** of each of the Planning Areas. **Are the Land Use Designations for "Other Unincorporated" the ones that would be allowed in all the Development Corridors**, and also in the Plan areas in the mountains and foothills and the Kings River Plan area?

Table 5.1 "Land Use Designations" (p. 5-5 ff): Please explain: Why is the Resource Conservation land use designation allowed for communities and other unincorporated areas, but not for hamlets? Why is the Urban Reserve designation allowed for city UDBs and communities, but not for hamlets? Why are no Residential Designations (Low-Density Residential, Low-Medium-Density, Medium-Density, Medium-High-Density, and High-Density) allowed in hamlets, and no Commercial Land Use Designations? Why are Highway Commercial, Service Commercial, and Recreation Commercial allowed in cities, communities, and unincorporated areas, but not in hamlets? Why is Light Industrial allowed in communities and hamlets, but not in cities or unincorporated areas (while Heavy Industrial is allowed in all areas)? How do these designations (or non-designations) impact hamlets' opportunities for development?

Key Terms

Rural Residential (RR) (p. 5-9): This designation seems to define ranchettes, an extremely inefficient use of land that should be strictly minimized. The last sentence of this definition implies that the RR is primarily located at the edges of UDBs. **Please clarify**: Is this inside the edges or outside of the UDBs? All new development should be directed to occur within our existing UDBs and HDBs.

Highway Commercial (HC) (p. 5-10): This key term is defined with a statement that HC is located "primarily within UDBs and pursuant to regional growth corridor plans and policies." To limit unnecessary VMTs, promote less-polluted air, maintain urban edges, limit development of agricultural and open space lands, benefit the health of the County's residents, promote the people's stated priorities, promote investment and reinvestment in existing communities, and take steps to comply with AB32, the GPU must focus new development, including growth corridors or big box retail, in areas where development already exists.

Please change the last sentence of this Key Term definition to: "This designation is located within UDBs and HDBs."

Mixed Use (MU) (p. 5-11): To ensure a high quality, well balanced, efficient development that will protect and enhance the character of the area, **please modify the last two sentences in this Key Term definition as follows: "Specific plans *shall* be required to assist in the consideration . . . . This designation is found within UDBs and HDBs."** Please see HC comments above for rationale on eliminating regional growth corridor plans.

Foothill Mixed Use (FMU) (p. 5-11): Please see comments in FGMP Section below. This does not comply with the FGMP.

Planned Community Area (PCA) (p. 5-12): Please explain here the difference between a PCA and a Planned Community Zone. Why does master planning for a planned community have to occur only where a community plan does not exist? This implies that planned communities could occur only outside of existing UDBs and HDBs. **PCAs should be designated only within UDBs and HDBs** in order to promote an exceptional quality of life for the residents of this County and to reduce increases in VMTs and promote compliance with AB32, etc.

Light Industrial (LI) (p. 5-12): Please change the last sentence of this definition to eliminate the regional growth corridors: "This designation is found within UDBs and HDBs."

Heavy Industrial (HI) (p. 5-12): Same as above comments. HI designation should include requirement of buffers, with lots of trees to help mitigate noise, odor, and visual impacts.

Public/Quasi-Public (P/QP) (p. 5-12): Churches, schools, civic centers, hospitals, fire stations, sheriff stations, and other P/QP services/facilities that are used daily by large numbers of people should be constructed where the large numbers of people already are, NOT out in a regional growth corridor. PLEASE walk the talk: direct growth to existing communities, discourage sprawl, encourage infill, preserve open space, per LU-1.1.

LU-1 (p. 5-12) states that the County will "**encourage** . . . highly efficient land use." **This level of commitment, clarity, specificity, and determination seems highly unlikely to produce the level of resource-efficient development that the County needs to achieve comprehensively in the very near future.**

LU-1.1 Smart Growth and Healthy Communities (p. 5-12): This policy includes a good list of principles, but it **must be clarified and strengthened** beyond "promote" to truly put them into practice. **Please revise this policy accordingly.**

The IMs corresponding to this Policy (#2, #3, #4 on p. 5-22) must be made concrete, direct, and enforeceable so as to provide measurable certainty of achievement.

IM #2 says that the County shall prepare Land Development Regulations addressing a number of areas applicable to land development. Does the County not presently have such regulations regarding land development? If such regulations exist, **what is the purpose of this IM? How, specifically, will it ensure smart growth and healthy communities?**

IM #3 says that the County shall "consider" appropriate incentives to encourage smart growth. **What would these "appropriate" incentives be?** Are they already being utilized? The **incentives should be tiered to urge developers to achieve maximum adherence to responsible growth principles and practices in their projects**; development proposals that do not reflect a serious good faith effort to achieve these goals should be rejected.

IM #4 says that its implementation is **ongoing**, which indicates that the County has been ensuring that smart growth principles are incorporated as conditions of project approval, "as appropriate." **Where are the results** of this "ongoing" implementation of smart growth development that can be visited in Tulare County? **How can the public track the County's progress in implementing responsible growth policies and principles? What, specifically are these principles that are being implemented and what determines "appropriate?"**

LU-1.2 "Innovative Development" (p. 5-13): Please clarify and strengthen this vague Policy and provide it with a concrete Implementation Measure.

LU-1.4 "Compact Development" (p. 5-13): This policy that could play a major role in helping the County to comply with AB32 and the people's priorities, but "actively support" is **too vague to be meaningful, and the corresponding IM, #3 on p. 5-22, says only that the County shall "consider" incentives to encourage smart growth. Please make the Policy and its IM clear, concrete, and enforceable.**

LU-1.8 "Encourage Infill Development" (p. 5-13): This important Policy is **basically gutted by its chief Implementation Measure (#6, p. 5-22), which calls for the County sometime between 2010 and 2015 to develop criteria to determine whether projects are infill** and to develop incentive programs for infill. Many jurisdictions already have developed and implemented working programs to mandate and incentivize smart, resource-efficient, healthy infill development. **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. 11-16): "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)."

IM #8 (p. 5-22) (for LU-1.8) is "ongoing" in terms of the GIS database, and totally vague on "encourage" new development to occur on identified sites. If this IM is ongoing, does it mean that the County is already encouraging infill development? If so, how, and with what results?

IM #9 (p. 5-22): Doesn't the County already require access to public roads as a pre-requirement for development? When would the program to consolidate infill sites be implemented?

IM #10 (p. 5-22) is a good idea except that community plan updates and the creation of hamlet plans take many years, and most of them are not even scheduled. What about infill development in these areas in the meantime? Why shouldn't these inventories be made on a fixed schedule of their own, before more inefficient growth is allowed? Haven't many communities and hamlets already identified their infill sites, as the City of Visalia has?

LU-1.10 "Specific Plans" (pp. 5-13—5-15): The Ahwahnee Principles (or better) should be incorporated in all specific plans or equivalent plans. The Development Standards (p. 5-14) should include the requirement to meet at least LEED-Silver or higher standards for all construction. Plan approvals and developer impact fees should be tiered in terms of the plan's realization and implementation of these principles and standards.

LU-2.1"Agricultural Lands" (p. 5-15): This is a fine-sounding Policy directing development away from ag lands to developed areas where public facilities and infrastructure are available is eviscerated **by the General Plan Update's emphasized and expanded sections on New Towns and new Growth Corridors. Policy LU-2.1 should make itself "self-implementing" by prohibiting the development of New Towns and new Growth Corridors and restricting new development during the life of this Plan to within the existing UDBs and HDBs, which are more than adequate to accommodate it**; it is certainly not self-implementing as written.

p. 5-15, LU-2.3: The former LU-2.3 was moved to ERM. However, **on p. 5-15, there is no indication of why there is no LU-2.3, so it appears that a policy is missing. The remaining policies s/b renumbered, or a note s/b inserted regarding 2.3.**

LU-2.4"Open Space Character" (p. 5-15): Why does the Policy specifically mention the scenic open space character of rangelands only? Does the Policy not intend to maintain the scenic open space character of *any* open space areas (which could be riparian, orchards, vineyards, foothills, etc.)? Furthermore, **new development should be required to utilize natural landforms and vegetation not only in a manner that is least visually disruptive, but also to preserve natural drainage characteristics and capabilities, in order to minimize flooding and enable natural groundwater recharge** (which cleans the water as it is absorbed by the plants and soil). **Hilltop and ridgeline development should be prohibited,** as it mars the viewshed from every direction and from long distances. **Please reword this Policy accordingly.**

LU-2.6 "Agricultural Support Facilities" (p. 5-16), Implementation Measure #16 (p. 5-23): This Policy allows agricultural support facilities to be turned into new businesses, including non-agricultural uses, to provide employment.

Please change this Policy and its Implementation Measure as follows: **These facilities should be allowed to be converted to non-agricultural uses ONLY if they are located contiguously to non-agricultural development**; non-agricultural jobs should be located where potential employees and customers live, NOT amidst agricultural areas, which will cause unnecessary traffic in these areas, and promote unnecessary VMTs.

LU-2.7"Timing of Conversion From Urban Reserve" (p. 5-16): A criterion requiring that urban services, schools, and infrastructure CAN be made available seems useless, in that, presumably, such facilities and services always COULD become available. The issue is whether they ARE available or WILL become available, meaning that they are already proposed and funded for development. Please revise this Policy accordingly.

LU-3.1 "Residential Developments" (p. 5-16): This Policy is laudable in concept, but far too vague (how will the County "encourage?") and has no Implementation Measure. The County should require all new residential development to locate near existing infrastructure, which it can do by requiring all major new development of any kind to occur within existing UDBs and HDBs, and to adhere to the Ahwahnee Principles (or better). **Please change this Policy accordingly and provide it with a concrete Implementation Measure** to ensure cost-efficient and resource-efficient development.

LU-3.2 "Cluster Development" (p.5-16) and Implementation Measure #19 (p. 5-24): On page 141 of the Matrix, it is stated that this Policy applies only to the few remaining undeveloped RR properties in the County; **this Policy should be revised to so state, or it will continue to cause confusion.** On the other hand, why should cluster development be applicable on only those parcels? The **Implementation Measure** for preparation of a cluster development ordinance is listed as Ongoing, with the contents to be developed "later." Compact cluster development can be a significant means of resource-efficient development that can protect natural resource lands and open space. When will this ordinance be ready for adoption? With no timeline, **this IM is not measurable. Please make it concrete and measurable.**

LU-3.3 "High-Density Residential Locations" (p. 5-16): Matrix p. 142, #2, response states that new Implementation Measures will be added for this Policy, with incentives for affordable housing, but no IMs are listed for Policy 3.3. **Please make this Policy more specific (how will the County "encourage?"), and provide it with the promised IMs.**

LU-3.5 "Rural Residential Designations" (p. 5-17): Please amend this Policy to state that **no new rural residential development areas will be designated in the RVLP area or the FGMP area** (because RR

development – basically ranchettes – is resource-inefficient and slices up habitat and open space).. Buffers can be much better provided via easements or other measures funded by developer impact fees or other sources. If permanently populated (as with RR development), buffers are no longer buffers, and will continue to create ag/urban conflict. Instead, buffers should be open space used only transiently for recreation (e.g., walking, biking, jogging, bird-watching), and should be well-vegetated with native plants to provide sound buffering, visual buffering, groundwater recharge, habitat, etc. Wherever possible, buffers should preserve natural boundaries such as riparian areas and swales that will also provide natural flood control and groundwater recharge.

LU-3.6 "Project Design" (p. 5-17): Please include outdoor lighting in the Project Design Policy; the lighting should be shielded to prevent light trespass and preserve Dark Skies. Please cite the location of the project design requirement details (is this set forth in the Housing Element, in an Ordinance, or . . .?).
LU-3.8 "Rural Residential Interface" (p. 5-17): Please clarify this vague Policy: by what means will the County "minimize" these potential land use conflicts?

LU-4.1 "Neighborhood Commercial Uses" (p. 5-17): This welcome policy could serve to reduce VMTs and promote community centers and gathering places. **Please clarify how the County will "encourage" this development and provide it with a concrete Implementation Measure.**

LU-4.2 "Big Box Development" (p. 5-17): As part of this Policy, the County should also limit the footprint of "big box" facilities' parking lots, such as by requiring multi-level structures instead of acres of asphalt. The multi-level structures would shade and cool the parked cars and would not contribute so much to the heat island effect as gigantic unshaded parking lots, which also have adverse visual impacts.

Please require large parking lots which are all one level (on the ground) include extensive planting and maintenance of large-canopy trees, landscaped pathways (for safety, beautification, and shade), and extensive use of permeable paving to reduce negative groundwater impacts. These configurations also attract shoppers.

LU-5.1" Industrial Developments" (p. 5-18): Please add "The County shall focus on attracting clean, sustainable, energy- and water-efficient industrial development." It is critical that we do not attract industrial development that will worsen our air quality and our water emergency. **Please clarify this Policy** by stating how the County will "encourage" these developments.

LU-5.2 "Industrial Park Developments" (p. 5-18): Please add that these developments shall adhere to the Ahwahnee Principles (or better) and LEED silver (or better) standards. **Landscaping** must be xerigraphic (using native plants as much as possible), mulched, and drip irrigated with recycled water. These developments must also provide for and encourage alternate **transit** (e.g., sheltered bus stops, secure bike parking), must be as **energy- and**

water-efficient as possible; permeable paving should be required wherever feasible. **Please clarify** how the County will "encourage" these developments.

LU-5.5 "Access" (p. 5-18): The County should require that all industrial development be located so that it can be readily served by public transit and should require developers to **include facilities to accommodate and encourage transit** (e.g., shaded, sheltered bus stops and secure, sheltered bike storage areas).

LU-6.1 "Public Activity Centers" (p. 5-19): These centrally-located public activity centers are an excellent concept; please state how the County will "encourage" their development (there is **no Implementation Measure**).

Please require these centers to **be built in accordance with the Ahwahnee Principles (or better) and to LEED-Silver (or better) standards** to serve as models and inspiration for future development in their communities, and make them less expensive to maintain.

Please require that these key activities be clustered in a central location and be readily accessible via transit and active transit in order to reduce VMTs.

LU-6.2 "Buffers" (p. 5-19): Please add that, for efficient land use, and to encourage alternate transit, buffers, whenever possible, should be designed to serve multiple beneficial purposes: they should provide open space that can be used for recreation (e.g., walking, biking, jogging), and as transit alternatives; they should be well-vegetated with native plants to provide sound buffering, visual buffering, groundwater recharge, air cleaning, habitat, etc.; wherever possible, buffers should preserve natural boundaries such as riparian areas and swales that will also provide natural flood control and groundwater recharge. Buffers should be corridors of natural beauty and abundance, giving wildlife and native plants a chance in a paved-over world, and providing relief and regeneration to people, too. Any **paving in buffer areas should be permeable** whenever feasible.

LU-6.3 "Schools in Neighborhoods" (p. 5-19): For the health or our air and the health of our children, **please make this mandatory** if it is in any way possible.

LU-7.1 "Distinctive Neighborhoods" (p. 5-19): Please clarify this wonderful policy by stating how the County will "encourage" such development, and provide it with a concrete Implementation Measure. Please implement strong, clear, tiered incentive and impact fee schedules to help make this happen.

LU-7.3 "Friendly Streets" (p. 5-19): Please add to this welcome Policy a bullet: **new streets to be constructed in a traditional grid pattern, without cul de sacs, to facilitate walking, bicycling, and transit access, and to reduce VMTs**, which would not only facilitate healthier communities, but could contribute to compliance with AB32. **Please clarify** how the County will "encourage" compliance with this Policy, **and provide** it with a concrete, enforceable **Implementation Measure.**

LU-7.6 "Screening" (p. 5-19): Please add that the landscaping must be xerigraphic, native plants whenever possible, mulched, drip-irrigated, and irrigated with recycled water. It must **also include large-canopy trees** to maximize shading, cooling, and air-cleaning capability.

LU-7.7 "Parking Location" (p. 5-19): Please add that parking areas shall be required to be **well-shaded** with either shade structures roofed with solar panels or with large-canopy trees (preferably native species), or both, and that parking areas must **maximize permeable hardscape** surfaces to facilitate effective groundwater recharge; **paving of parking areas must be light-colored** to minimize heat island effects; parking areas shall include a shaded, secure area for **bicycle parking. Please clarify** how the County will "encourage" these parking locations.

LU-7.11 "Adaptive Reuse" p. 5-20): Please provide this fine policy with specific, enforceable language and a concrete implementation measure; how will the County "encourage" preservation, and what is meant by new development "should respect" significant buildings and areas?

LU-7.12 "Historic Buildings and Areas" (p. 5-20): Please make this policy specific ("encourage" and "support" how?) and do the same for its Implementation Measure (#23, p. 5-24).

LU-7.13 "Preservation of Historical Buildings" (p. 5-20): Same comment as for LU-7.11 above.

LU-7.14 "Contextual and Compatible Design" (p. 5-20): Same comment as for LU-7.11 above.

LU-7.15 "Energy Conservation" (p. 5-20) and Implementation #24 (p. 5-24): Please strengthen this extremely important policy and move its **implementation** to BEFORE 2010, preferably BEFORE 2009. **Please change** "encourage" to "require." **Please also add** to this policy or add a new policy in this section requiring **Water Conservation as well.** The Ahwahnee Principles and the LEED certification program could be adopted and implemented right away; LEED-ND has not yet been issued, but that is no reason to delay requiring compliance in all new development and construction with the existing standards. Many additional ideas for Energy Efficiency and Renewable Energy measures and Water Conservation and Efficiency measures are available on the website of the Office of the California Attorney General and on numerous other sites presumably well known to County planners and decision-makers. With global warming accelerating and AB32 urging us on, please implement of a highly effective Energy and Water Conservation policy well before 2010.

6. HOUSING

The GPR (p. 6-1) states that the County's current Housing Element, adopted in December, 2003, and certified by the California Housing and Community Development Department in April, 2004, **will be incorporated into the GPU in its final version.**

Why isn't it being incorporated and made consistent with the draft version of the GPU, so that it could be evaluated by the public and decision-makers as to its adequacy and consistency before the final version comes out?

The **web address listed on p. 6-1 for access to the Housing Element does not work; please correct it.**

As a minimum, the following areas of the Housing Element should be discussed in the Background Report and DEIR, because they must be factors in the County's decision-making about where and how the County should grow, and must be considerations in constructing the DEIR Alternatives.

The hard copy of the Tulare County Housing Element, obtained from RMA, states in its Preface that it "contains standards and plans for the improvement of housing and *for the provision of adequate sites*" and "makes *adequate provisions for the housing needs of all economic segments of the unincorporated area* of Tulare County." It *identifies both "immediate and prospective needs for market-rate and nonmarket-rate households and sets forth a program to meet identified needs.*" Among many other things, the law requires the Housing Element to be updated at least every five years, to incorporate the regional allocation of housing needs by income group, and to identify adequate sites suitable for all income levels (including multiple-family, mobile homes, emergency shelters, etc.), and it includes a **State-mandated density bonus for projects that reserve 20% of the units for moderate-income** homebuyers.

The Executive Summary (p. ES-2) states that the County's General Plan update process will be "completed in 2005," and ***any required changes to the Housing Element to provide for consistency between this Element and the General Plan will also be addressed during the General Plan Update process."***

Please explain the apparent discrepancy between the action described in this sentence and that described in the sentence abpve. **Where in the GPU is there any description of what's in the Housing Element and how it relates to and is or is not consistent with the GPU documents' provisions?**

The Housing Element shows 45,116 **housing units in the unincorporated County, analyzes special housing needs**, lower income households overpaying for housing (34% of those renting), number of overcrowded households (about 20%) and number of housing units needing rehabilitation/replacement (showing shocking **percentages of deteriorated and dilapidated housing** in many of the County's communities: e.g., only 11% of the housing is sound in Allensworth, with 42% deteriorated and 48% dilapidated; only 29% sound in Alpaugh, only 22% sound in Delft Colony, only 19% in East Orosi, only 23% in Matheny Tract, only 20% in Plainview, etc.). It

projects numbers of housing units needed in unincorporated communities and states (p. ES-8) that an adequate amount of residentially zoned vacant land is available within the Urban Area Boundaries or Service Areas of the unincorporated communities, but that there was a significant shortfall of new units due to the County's 1991-97 recession caused by a citrus freeze, flooding, and closure of several companies (p. ES-12).

Why doesn't the Background Report include any of this type of information? The BR discusses water and wastewater issues for at least some of the unincorporated communities, but never mentions their housing issues; surely, **these must be a factor in the GPU's land use planning and direction of growth.**

The Housing Element states that a home should be suitable, affordable, and in a **satisfactory environment ("one in which residents are beneficially influenced by services such as adequate public facilities, access to employment opportunities, transportation, compatible adjacent land uses, and convenient access to commercial uses,"** p. I-4), and that Tulare County is concerned about the issue of farmworker housing and the issue of affordable housing in general (p. II-21) (farmworkers have the lowest income and educational attainments, and the highest poverty rate of any occupation surveyed by the Census Bureau); people with a farming occupation comprise 26% of the total in the unincorporated areas of the County).

Yet Table 3-1B (p. III-5) shows that **many of the unincorporated communities, primarily due to sewer and water constraints, can support no medium or high-density residential development** (e.g., Alpaugh, East Orosi, Lemoncove, London, Plainview, Springville, Three Rivers, and Woodville). **Where and how does the GPU describe and address these concerns?** Shouldn't this be a factor in determining where and how the County should direct growth?

Lack of community sewer and water systems, in addition to posing potential health hazards, can result in further constraints on residential development (e.g., **ability to get loans** for new housing), p. IV-11. The Housing Authority has not provided for any new public housing developments within the unincorporated area, due to the need for referendum approval (p. V-5). **Please describe the impact of this funding constraint on where and how the County should grow.**

The County is currently working on implementing Density Bonus allowances (p. V-14). It is expected that the Ordinance will be adopted by the end of FY 2003-04 (p. V-37 and p. VI-33). County policy: when locating agricultural industry in rural areas, a determination should be made that an employment base exists within a reasonable distance of the site (p. VI-28). **Where is this factor discussed in the GPU documents and reflected in its policies and implementation measures?**

COMPONENT C – TULARE COUNTY ENVIRONMENT

Concept 3: Air Quality (p. C-1): Please include development and construction practices and land use practices in this list. Water use practices should be included also because pumping and distributing water accounts for major percentages of our energy use and consequent GHG emissions.

Concept 4: Health and Safety (p. C-1): Please add that an important component of our water strategy described herein should be determining the nature and extent of our existing water supplies. How can we know how much we need to conserve or how much we need to find from new sources such as recycling and re-use until we know how much water we have?

Scenic Landscapes

Principle 2: Reinvestment (p. C-2): Please revise as follows: "Promote reinvestment . . . that enhance*s sustainability*, livability and image."

Principle 5: New Town Impacts (p. C-2): This principle should not be needed because the County should prohibit the development of any New Towns. The space available within our almost 40 existing UDBs and HDBs will more than accommodate all the growth projected throughout build-out of the General Plan, and limiting new development to within those boundaries will do the most to fulfill the people's priorities of focusing growth in existing developed areas, preserving agricultural and open space lands, and improving air quality and protecting water supply and quality.

Environmental Resources Management

Principle 1: Natural Resources (p. C-2): Please revise as follows: "Provide for the *identification, protection,* and appropriate utilization . . . ." The County should be pro-active in the first two areas, as well as utilization.

Principle 4: Natural Lands (p. C-2): Please modify as follows: "*Ensure* the continued preservation of natural lands *and their natural inhabitants*." It's much cheaper and easier in the long run to preserve the habitat necessary to sustain viable populations of native species than it is to go through the requirements of the Endangered Species Act and related legislation. It's also the right thing to do.

Air Quality

Principle 2: Reduce Pollution (p. C-2): Please include *land use* in the list of practices that contribute to poor air quality; land use practices are a major factor in air quality.

Principle 3: Alternative Transportation Modes (p. C-3): Please revise as follows: "Promote land use patterns *and provide alternative travelways (such as bicycle and pedestrian trails and paths, traffic lanes for multi-passenger vehicles only, etc.)* that support . . . ."

SL-1.1 Natural Landscapes (p. 7-2): Please add this bullet: "Ensure that all exterior lighting is shielded to minimize light trespass, meeting 'Dark Skies' standards."

SL-1.2 Working Landscapes (p. 7-2): Please add this bullet: "Minimizing impermeable paving and hardscape in order to promote effective groundwater recharge."

SL-2.1 Designated Scenic Routes and Highways (p. 7-3): The Scenic Landscapes Element is really inspiring. **Please add this bullet:** "Establishing trail systems within these scenic corridors to encourage their enjoyment by foot and by bicycle." It would be healthier for the scenery and for the tourists to be enjoying our marvelous landscape outside of their vehicles. This would encourage active tourism with lower GHG emissions and also promote a healthier local citizenry.

Also, **the penultimate bullet references Figure 7.2-1, but we can't find it. Has it been inadvertently omitted** (it was included in the July, 2007 draft GPR)? **Please include it.**

Also, **please cross-reference** (in a text box?) C-1.3 "Scenic Corridor Protection Plans" (p. 2-1, Part II Area Plans). **Please explain** how these two policies are related. Are they supposed to be doing the same thing? **Why are the County's candidate scenic routes not mentioned in C-1.3?**

SL-3.4 Planned Communities (p. 7-4): Planned communities must be allowed only within existing UDBs and HDBs which have the infrastructure to support them and the desire to host them. Development on ridgelines and hilltops must be prohibited, and light trespass must be prohibited. **Flexibility regarding worthy goals and policies provides no way to enforce them and thus promotes widespread non-compliance.**

We strongly urge the County to adopt and uniformly and universally implement a "Dark Skies"/light trespass ordinance. The language and specifications are readily available, and many jurisdictions have already implemented such ordinances. Minimizing light trespass is not only essential to maintaining visual access to one of our greatest (and absolutely free) resources (our spectacular night sky), it is also important to being a good neighbor and to conserving energy, and thus reducing GHG. **EM-5.18 "Night Sky Protection" (p. 8-10) does not suffice:** it is a piecemeal approach that ignores the facts that a concerned public has already demonstrated the interest, energy-efficiency is an extremely important issue that the County must firmly address, and the BMPs have already been determined..

SL-4.1 Design of Highways (pp. 7-4, 7-5): Please add this bullet: "Providing identified wayside pullouts and rest areas with parking space and interpretive signage to enhance attractiveness and safety of our roads, encourage travelers to learn about the area's natural and cultural history and attractions, and allow safe opportunities for photography, picnicking, resting from driving, and (on smaller roads) allowing other vehicles to safely pass."

SL-4.2 Design of County Roads (p. 7-5): Please add same bullet as above in comment for SL-4.1.

Implementation Measure #1 (p. 7-6): This IM must list a Policy, a Responsible Agency, and a Timeframe. It's rather urgent, as 190 and 198 are rapidly losing their scenic qualities due to haphazard development that certainly does not meet the criteria for scenic highway development.

Implementation Measure #8, for SL-2.3 (p. 7-7): Local Chambers of Commerce and historical groups would likely also be good sources and might be able to contribute to getting the list published and distributed to tourists and interested residents.

Implementation Measure #9, for SL 2.5 (p. 7-7): The County might be able to engage volunteer assistance in this inventory process. Various groups interested in beautification and tourism come to mind.

Implementation Measure #13, for SL-3.2 (p. 7-7): Please revise as follows: "Whenever new . . . urban separators *shall* be considered . . . ."

8. ENVIRONMENTAL RESOURCES MANAGEMENT

Key Terms

Williamson Act (p. 8-3): Please revise as follows, because as written (showing agricultural production only) this paragraph is quite misleading: "This act allows property owners to have their property assessed on the basis of **agricultural production** ***or open space uses such as scenic highway corridor, wildlife habitat area, or recreational area,*** rather than current market value. The purpose of the Act . . . continue to use their property in **agricultural** ***or open space*** **activities** to prevent . . . ."

Existing Conditions Overview (p. 8-4): Several resource categories are mentioned here. The County's **scenic resources** are only implied by some of the remarks that follow. Since these resources are among the foremost in the County that must be protected and preserved, perhaps they should be mentioned, or the reader should be referred to the Scenic Landscapes section. Another of County's foremost resources, its **rich and productive soils,** is not mentioned here, although the soil has proven much more valuable to the County than its mineral resources, which are listed and given a paragraph. The reader could perhaps be referred to the Agriculture section and to ERM-7; our soil resources certainly merit a mention and our careful consideration.

ERM-1.1 Protection of Rare and Endangered Species (p. 8-5) and Implementation Measures #1-#7 (pp. 8-13 and 8-14): The problem with this fine Policy and its Implementation Measures is that **while the wording of the Policy implies proactivity, the IMs for the Policy are almost entirely only reactive,** dealing with the activities of protection only on a haphazard, piecemeal basis as sites come up for project development, which will do very little

to carry out the stated intent of the Policy (protection of wildlife and plant life, especially that which is rare, threatened, or endangered cannot meaningfully occur on a fragmented, piecemeal basis, as it is primarily habitat-dependent, and protecting disconnected small oases of fragmented habitat will not ensure protection of viable populations of species). If the County truly means to ensure protection of its native plants and animals, it must **proactively identify, protect, and preserve habitat areas sufficient to sustain them before it's too late.**

IM #1- Encourage and Support Education (p. 8-13) is a good goal, but does not say how it would do so, rendering the IM **too vague to be meaningful or enforceable. Please correct this deficiency.**

IM #5 – Develop a Joint Study (p. 8-13) is a good start, but it does not state what will be done once the study is completed, which would be the real implementation. Additionally, **habitat must be preserved not only for the survival of rare and endangered species, as required by law, but also to ensure that native populations do not become rare and endangered.**

Most of the information needed for this study is already available, waiting to be compiled from various sources (Fish and Game, Fish and Wildlife, Native Plant Society, Natural Resources Conservation Service, Center for Biological Diversity, etc.). **Furthermore, much of the habitat needing to be protected and preserved is immediately obvious and is already very rare and endangered itself, so that time is of the essence in completing this study and acting upon it.**

Tulare County, per the Background Report (p. 9-9), is only 0.17% lake, only 0.21% wetlands and only 0.34% riparian (these percentages, of course, used to be much greater). These watery areas in the desert floor of our valley are absolutely critical habitat and corridors for native plants and animals, and important for humans as well. **The County should preserve and sustain these key environments for all of us who depend on them, for flood protection, for groundwater recharge, for tourism, for recreation, for scientific study, for cleaning and cooling the air, for cleaning runoff water, and for themselves.** The alpine habitat (.18%) is already protected federal land. **Quite certainly, all of these areas have already been mapped and GISed.**

We already have (or should very shortly have, as in the case of long-overdue developer impact fees) **the means to preserve these tiny remaining portions of our natural heritage, through the California Land Conservation Act (Williamson Act), the Quimby Act, the Oak Woodland Conservation Act, developer impact fees, zoning, mitigation programs, etc.**

Please prioritize this study and state how and when its results will be used. One of its products should be a comprehensive County biodiversity map, with overlays for all of our sensitive, significant, rare, threatened and endangered species and habitats (including wildlife corridors), plus existing and other suitable recreational resource lands. This map should guide all land use decision-making, to ensure protection and preservation of these vanishing resources.

IM #7 Resource Conservation Areas (p. 8-14) should indicate what the "existing provisions" within the Zoning Ordinance are. Please see comment on IM #5 directly above for areas that can be identified immediately as in dire need of being designated as Resource Conservation Areas to protect them as habitat.

Please explain why, if these provisions already exist, we are showing a timeline of 2010-2015 for implementing them.

Please provide concrete, trackable implementation measures with a timeframe of 2008-2010.

ERM-1.2 Development in Environmentally Sensitive Areas (p. 8-5): Please add to the second sentence: "Development in natural habitats . . . to minimize erosion *and disturbance of natural watercourses, water bodies, and drainage systems,* and *to* maximize beneficial . . . ." This Policy should also require at least 1:1 mitigation for any development allowed in sensitive habitat areas.

ERM-1.3 Encourage Cluster Development (p. 8-5): This Policy should encourage cluster development to preserve not only sensitive habitat potential, but open space in general. This could help in meeting the people's priorities and also in complying with AB32. **No IM is shown for this Policy** to tell what methods the County would use to encourage cluster development, which is unlikely to occur on the basis of "encourage" alone. **LU 3.2 (p. 5-16) and IM # 19 (p. 5-24)** address cluster development in an equally **vague and unmeasurable manner.** (Likewise, **Policy HS-6.4** Encourage Cluster Development, p. 10-6, says that the County shall "encourage" cluster developments in areas subject to high fire hazard, but gives no idea how the County would do this and provides no IM.)

Please provide a concrete program with a measurable timeline for this implementation.

ERM-1.4 Protect Riparian Areas (p. 8-5) and Implementation Measures #7, #8, and #9 (p. 8-14): Given global warming, the County's impending water crisis, AB32, and the people's priorities, this is an extremely important Policy that must be implemented comprehensively and very promptly. Per the Background Report (p. 9-9), **only 0.35% of Tulare County is riparian.** Much of this small remaining percentage is already degraded. This is an increasingly essential, increasingly endangered resource.

Unfortunately, IMs #7 and #8 are timed for 2010-2015, which is incomprehensible given our water emergency and given that IM #7 states that the County has existing Zoning Ordinance provisions to designate Resource Conservation Areas to protect habitat. It is astonishing that the County should qualify IM #8 with **"if feasible and needed," ignoring the fact that mitigation banking programs are already well-established and functioning to preserve and protect natural resource lands in many other jurisdictions.** The County has been urged to implement a mitigation program and certainly has the means to do so in the immediate future.

Please change the 2020-2015 timelines on IM #7 and IM #8 to 2008-2010. Please **make concrete and measurable the steps that the County will take in this timeframe to effectively protect our vanishing riparian areas** (for example, set annual goals of riparian acreage to be protected, with a meaningful total goal to be achieved, and a monitoring and reporting that allows the public to review annually the effectiveness of this program).

ERM-1.5 Riparian Management Plans and Mining Reclamation Plans (p. 8-5) and IM #7 (p. 8-14): Please apply comments above on ERM-1.4 to ERM-1.5 also. The sole IM for this Policy has to do with the County designating Resource Conservation Areas in **2010-2015; please clarify** the applicability to this Policy, and move the **Timeframe** forward to 2008-2010.

Please make this Policy and its IM concrete and measurable. Please state what measures must be included in the plans, how they will be implemented and monitored, and when this will be required.

Please explain how this is related to the County's Zoning Ordinance provisions to designate Resource Conservation Areas.

ERM-1.6 Management of Wetlands (p. 8-5) and IMs #5, #6, #7, #10, #11 (pp. 8-13 and 8-14): Given global warming, endangered and threatened species and habitat, the County's impending water crisis, AB32, and the people's priorities, this extremely important Policy must be implemented comprehensively and very promptly.

Please clarify and strengthen this vague Policy and its IMs. Per the Background Report (p. 9-9), **only 0.21% of Tulare County is wetlands**. This is a tiny fraction of the wetlands areas that once so enriched our County. The Background Report states (p. 9-1) that wetlands provide habitat for many plants and animals and are essential in preserving the quality of surface waters and in recharging **groundwater** aquifers.

The joint study in **IM #5** is important; it is very likely that **most of this information is already available** from Fish and Game, Fish and Wildlife, Natural Resources Conservation Service, the Center for Biological Diversity, etc. **IM #5 should state how the study will be used. Please see the comments above** (with ERM 1.4) on **IMs #7 and #8.**

IM #10 shows a 2010-2015 timeline for pursuing a program for vernal pools; **please change this to 2007-2010,** because these pools are highly threatened (the Background Report, p. 9-12, states that vernal pool ecosystems are considered one of the most threatened ecosystems in California, often occurring on relatively flat terrain, and highly vulnerable to destruction from agriculture, heavy grazing, urbanization, brush clearing, and off-road vehicle use). Admirably, IM #10 says that the County shall actively pursue acquisition or preservation of vernal pools, BUT not until 2010-2015, by which time many more will have been irretrievably lost. Since **conservation easements and trusts are already available instruments** in the County, the County should **define** concretely what it means by **"actively pursue"** and begin preserving these pools right away.

Please establish a mitigation banking program well BEFORE 2010, along with developer impact fees. IM #10 should be revised to state a minimum number of acres of vernal pool ecosystems that the County will commit to acquiring or preserving before 2010 **and should establish an ongoing annual goal for their preservation, the achievement of which will be monitored and measured, with the results available annually for public review.**

IM #11 Wetland Preserves (p. 8-14) must be made clear, concrete, and enforceable. It should state what the County's current efforts are to maintain and enlarge wetland preserves. **It should as a minimum set specific annual goals for additional acreage to be set aside for wetland preserves to maintain the flyway route.** It should recognize that, beyond their importance to habitat, such **preservation areas can be very attractive to**

tourists, especially the ever-growing numbers of bird-watchers. **Please revise its current second sentence** to "Such wetlands *shall* also . . . ." **Then state in concrete terms, with measurable implementation objectives,** how the County will protect these preserves through the programs listed.

ERM-1.7 Planting of Native Vegetation (p. 8-5) and IM #12 (p. 8-14): This Policy would be good not only for native plants and the wildlife dependent on them, but also for maintaining the natural character of Tulare County, and, very importantly, given our impending water crisis, for reducing water use, as native plants will typically need no **irrigation** once established.

Please change "encourage" to "require," especially in the case of developers. If the County insists that it cannot require anything because it needs flexibility, then require a percentage only, such as 80% (after all, Las Vegas is allowing no more grass front yards and is paying homeowners to rip out their thirsty lawns and plants and replace them with natives).

The Implementation Measure (#12), developing a list of native vegetation to be used (already currently available from the Native Plant Society, local nurseries, and numerous other sources), **is not likely to significantly increase the planting of native vegetation,** since that information is already widely available. **To promote water conservation and achieve measurable increases in such planting, the Policy and the IM must be strengthened** and should include specific annual goals for native planting.

ERM-1.8 Open Space Buffers (p. 8-5) and IM #9 (p. 14): Please revise the second sentence in the Policy: "These buffers *shall* be sufficient . . . ." **The IM is unclear** when it says that the buffers will be public open space. Does that mean that the buffers will be open to public access? If so, they will need to be larger in order to accommodate human activity in addition to their function for preservation.

ERM-1.10 Appropriate Access for Recreation (p. 8-6) and IM #13 (p. 8-14): Here is another example of a Policy to "encourage" to be effectuated by an Implementation Measure to "encourage." The interesting part here is that, per IM #13, the County "shall classify and preserve private lands which are prime timber lands and reserve them for that use . . . ." How can the County do this? If it can preserve private timber lands and reserve them for timber, then can it also preserve private wetlands and riparian areas and other key habitat areas and reserve them for ecological purposes? Please clarify, and apply to other critical resource lands if possible.

ERM-1.12 Management of Oak Woodland Communities (p. 8-6) and IM #14-16 (p. 8-14): The Policy should be clarified because "support" is too vague. **IM #14** says **"the County shall ensure the provisions of PRC 21083.4 [The California Oak Woodland Conservation Act of 2001] are followed** when evaluating projects in woodlands." The Oak Woodland Conservation Act grew out of concern at the extensive loss of these woodlands to development, firewood harvesting, and agricultural conversions, because **oak woodlands moderate temperatures, reduce soil erosion, facilitate nutrient cycling, sustain water quality, enhance natural and scenic beauty,**

enhance the monetary and ecological value of real property, promote ecological balance, and provide habitat for about 5,000 insect species, 160 bird species, and 80 mammal species, according to the University of California (this is not to mention their value for tourism and hunting and fishing interests). The Act established an Oak Woodland Conservation Program administered by the Wildlife Conservation Board, which is authorized to purchase oak woodland conservation easements and provide grants for land improvements and oak restoration efforts; its intent is to support and encourage voluntary, long-term private stewardship and conservation of these woodlands through financial incentives and to encourage planning that is consistent with oak woodland preservation. Twenty percent of the money may be used for public education and outreach by local governments and others and for grants to provide technical assistance and to develop and implement oak conservation elements in a general plan.

To qualify for funding, the county (or city) must have adopted an Oak Woodland Management Plan; grant proposals may come from private landowners, local government entities, and others, but the County (or city) must certify that proposed grant requests are consistent with its adopted Oak Woodlands Management Plan. Thus, <u>IM #14 is apparently meaningless unless the County has adopted an Oak Woodlands Management Plan.</u>

IM #15 (p. 8-15) indicates that <u>the County has</u> <u>not adopted such a plan</u>. It states that the County (in 2010-2015) "**shall work with stakeholders to determine the feasibility of adopting an oak woodlands management plan** pursuant to the . . . Act." This is a poor replacement for the related IM in the last draft of the GPR (#13 on p. 8-17), which said that the County "shall protect oak trees throughout the foothill and mountain areas. Preservation methods may include agreements with the owner, conservation easements, and purchase of the property by the County or other organization such as the Sequoia Riverlands Trust"; that IM was indicated as being ongoing. Of course, the County should also be protecting oak trees in the valley, but at least in the last iteration it was committed to an ongoing effort, not to just a feasibility study sometime in the next 7 years.

Numerous groups and individuals are assuredly ready to work with the County NOW to assist it in preparing the Resolution that it must adopt (and which many other counties have already adopted) in order to qualify for the grant funding available through the program. **Please change the IM #15 Timeline to BEFORE 2010.** In IM #13, the County is preserving prime timber lands and reserving them for that use. The County should be preserving prime oak woodlands and reserving them for habitat and their multiple other beneficial uses as described in IM #14 comments directly above. This is an important step to take in the effort to comply with AB32, to help to mitigate global warming impacts, and to meet the people's priorities.

Any reduction of natural oak woodland should compel mitigation on at least a 1:1 basis of preservation of equivalent oak woodland. Planting oak seedlings somewhere will not suffice to mitigate loss of mature oak woodland.

IM #16 (p. 8-14) states that the County "shall establish **a program to require replacement planting of native oaks**" when development projects propose to alter oak woodlands. **It would be far better for the County to prohibit any extensive development in oak woodlands;** they should be largely preserved due to their value as stated directly above in comments on IM #14 and #15. **Any development in oak woodlands should be required not to disturb any oaks over a certain diameter and to preserve as many oaks as possible.** An oak seedling, if

it lives, takes dozens of years to grow to a size sufficient to provide the benefits of a mature tree. **While replacement planting mut be required when oaks in a woodland must be removed, replacement planting is no substitute for avoidance of oak disturbance in the first place.**

Please clarify what kind of program the County means to establish, and make it much stronger than this vague and weak IM. When projects propose to alter oak woodlands, project applicants must be required to mitigate on at least a 1:1 basis with preservation of equivalent oak woodland.

ERM-1.13 Pesticides (p. 8-6) and IM #17 (p. 8-14): Please amend the Policy statement to: "The Tulare County . . . *shall* cooperate . . . in evaluating the side effects . . . to limit effects on natural resources *and on humans and wildlife.*"

This Policy should also address the requirement to cooperate in evaluating and regulating the significant GHG emission impacts of pesticides. Most **pesticides contain VOCs, which evaporate from fields and are a key component of ozone, our most abundant air pollutant.** Per the Department of Pesticide Regulation, fumigants are responsible for about half of the San Joaquin Valley's pesticide emissions. They are **highly toxic gases that contain high concentrations of smog-forming compounds and can have neurological and reproductive effects when inhaled.** The fumigant methyl bromide damages Earth's protective ozone layer, contributing to global warming and causing international concern. More than 700 pesticides contain VOCs. Overuse and misapplication of pesticides causes or allows these highly toxic chemicals or drift off fields or seep into groundwater, adversely affecting health. Ninety percent of pesticides used in California are prone to drift. Exposure to pesticides is linked to short- and long-term effects including headaches, dizziness, skin rashes, asthma, reproductive harm, acute poisoning, and cancer. Tulare County used more than 17.5 million pounds of pesticides in 2005, the third highest use of any County in California. Over 50% of Tulare County's public schools are located within ¼ mile of agricultural operations. **If this information is not included in ERM 1.3, then it must be included in the Background Report and/or the EIR and addressed under CEQA by the EIR.**

IM #17 (p. 8-15) should be amended as follows: "The County shall continue . . . the inappropriate application of pesticides, *herbicides, or other chemical controls*. This *shall* include damages . . . impregnated with pesticides or herbicides *or other chemical controls* which are . . . ."

ERM-1.14 Mitigation and Conservation Banking Program (p. 8-6): This Policy is important and long-overdue, but very disappointing because it is so **vague and has no implementation measure,** rendering it almost meaningless. The only indication of what the "support" will be is that the County will work with others to identify lands for protection and recovery of imperiled species impacted by development. **Thousands of acres of those lands have already been identified. The point is to find the money to preserve and protect them** (such as via developer impact fees with which to purchase lands outright or to protect them with permanent conservation easements).

The Policy should be revised to state "The County shall *establish and administer* a mitigation program, . . . to evaluate, *identify, preserve and protect* appropriate lands . . . ."

Please **add a concrete and measurable IM with a Timeline for implementation BEFORE 2010.** There are many good working models to follow, in place in other counties. The County's "ACFP Phase I: Dairy/Bovine Animal Confinement Facilities" states on p. 30 of the "Response to Comments" section, in Response to Comment 20, that "As noted in Section 4.3.3 of the draft PEIR, a Preliminary Draft Habitat Conservation Plan (HCP) was prepared for Tulare County in 1996." **What happened to this Preliminary Draft Habitat Conservation Plan? Was it ever adopted and implemented? Could it not serve** as a basis for the County's Mitigation and Conservation Banking Program?

RECOMMENDATION ON MITIGATION AND CONSERVATION PROGRAM:

A survey conducted by the Association of Environmental Professionals found that 82% of the lead agencies responsible for monitoring mitigation efforts had "inadequate in-house staff and funding to perform monitoring and reporting." "Two thirds of the agencies said that they had not taken enforcement actions against project sponsors for failing to comply with mitigation measures or to perform adequate monitoring and reporting." Two thirds also said that they had no established procedure for modifying a mitigation measure if it is determined infeasible or inadequate once implementation and monitoring is attempted, and that they "had never modified measures that were determined to be inadequate once monitoring had begun."

Therefore, **please ensure through concrete policies and implementation measures that Tulare County's program requires developers pay into a fund that is used to hire staff to monitor mitigation efforts, and that the County does not allow development to proceed until mitigation is complete and demonstrably successful.** For multi-phase projects, the County **should incorporate mitigation checkpoints,** so that subsequent development phases cannot move forward until mitigation benchmarks have been achieved. The County's program **should require the lead agency and the developer to prepare an annual report on the status of the mitigation measures which must go to the Board of Supervisors for approval, with an opportunity for public review and input.**

ERM-2 Mineral Resources – Surface Mining (p. 8-6): The County should take at least equal care to conserve, identify, and restrict incompatible development from its other natural resources as it does with its aggregate and mineral deposits.

ERM-2.6 Streamline Process (p. 8-6): This Policy should be revised to clarify that **the streamlining process shall continue to ensure full CEQA review and establishment of applicant's financial responsibility for mitigation and reclamation.**

ERM-2.6 Streamline Process and IM #27 (p. 8-16): Please amend this IM to state that the Zoning Administrator shall have no authority to approve any mining permits or reclamation plans without prior public notice and consideration of public comment.

ERM-2.8 Minimize Adverse Impacts (p. 8-6) and IM #28 (p. 8-16): This Policy should **include global warming impacts and GHG emissions related to mining, also PM10 and other particulates. This vague, but very important, Policy needs a strong, clear, enforceable IM;** please revise IM #28 to include an indication of what procedures are contemplated and change the Timeline to 2008-2010.

ERM-2.14 SMARA Requirements (p. 8-7): Why would the County exempt a mine from reclamation meeting SMARA requirements? **Please revise to:** "All surface mines shall be subject to completion of reclamation plans that meet or exceed SMARA requirements."

ERM-3.3 Small-Scale Oil and Gas Extraction (p. 8-7): This Policy should require the County to evaluate the GHG emissions and global warming impacts of such activities prior to permitting them; such activities could negatively affect the County's ability to comply with AB32.

Additionally, given its impending crisis in water quantity and quality, this Policy should also require the County to carefully evaluate the impact of proposed extractive activities on water quality and supply.

The GPU documents must include discussion and evaluation of the environmental impacts and risks associated with oil and gas extraction, including those related to disposition of solid wastes from drilling and workover operations; contaminants in produced water and in cuttings; leaching of contaminants from reserve pits; emissions of VOCs and methane from leaks and venting of overpressure and conditioning of natural gas; flaring of gases such as methane, hydrogen sulfide, and nitrous oxides from combustion; release of contaminating fluids from spills, leaks, blowouts, and deliberate releases for re-injection, discharge of separated water to percolation pits, and reuse of separated water (as for irrigation and road dust suppression); subsurface migration of contaminants between aquifers due to casing leaks; idle and orphan wells; etc. Natural gas and oil production emits significant methane (one ton of which has the global warming potential of 21 tons of carbon dioxide); methane is also emitted during processing, transmission and storage, and distribution. There is also GHG impact from fuels burned to support field production.

ERM-3.4 Oil and Gas Extraction (p. 8-7): Same comment as on ERM-3.3, directly above.

ERM-3.5 Reclamation of Oil and Gas Sites (p. 8-7): Please amend this Policy to include a timeframe in which reclamation must be completed, and clarify "timely"; e.g. , "Reclamation shall be completed timely to the satisfaction of the County within a period not to exceed one year from the termination of extraction activities." **Correct the second sentence**: "Reclamation costs shall be **borne** by . . . ."

Implementation Measure #27 Zoning Administrator to Approve Mining Permits and Reclamation Plans (p. 8-16): Please ensure that no mining permits or reclamation plans may be approved by anyone without prior public notice, the opportunity for public comment, and CEQA review.

Implementation Measure #29 Conditions to Minimize Mining Impact (p. 8-16): Please change last part of sentence: "Conditions to minimize . . . pursuant to CEQA and SMARA, *shall* be imposed . . . ."

Implementation Measure #36 Conditions Imposed with Mining Permit Application (p. 8-17): Please amend: "Conditions *shall* be imposed . . . ."

Implementation Measure #46 New or Amended Mining Permits (p. 8-19): Please amend: "For all new . . . County *shall* require submittal . . . requirements. Reclamation *shall* be done . . . ."

ERM 8.4 Energy Resources (p. 8-7): This section should deal with **Energy *and Water* Resources.**

ERM-4.1 Energy Conservation and Efficiency Measures (p. 8-7): This Policy should be changed to deal with "Energy *and Water* Conservation and Efficiency Measures." Global warming, the requirement to comply with AB32, our impending water crisis, and common sense dictate that **the County must not simply "encourage" energy and water conservation and efficiency.**

Please amend to: "The County shall *require* the use of best available energy and water conservation and efficiency technologies, including, but not limited to, solar energy . . .panels, *on-demand tankless water heaters, compact fluorescent light bulbs, energy- and water-saving appliances, and water-saving landscaping* ."

Please **expand and strengthen this Policy, and give it a concrete, measurable Implementation Measure.** The State Attorney General's Office website (along with many other websites) lists numerous measures to promote energy efficiency and renewable energy and water conservation and efficiency.

Many more such measures should be provided for in this section. If water conservation and efficiency measures are not going to be discussed in this section, there should be a box showing where this essential information is provided.

The County should establish a baseline of current water and energy use per capita **and establish specific, measurable goals for reducing per capita usage significantly year by year.**

ERM-4.2 Streetscape and Parking Area Improvements for Energy Conservation (p. 8-8): Please amend this to: "Streetscape . . . **Energy *and Water* Conservation.**" This is an important Policy because of global warming and AB32; the trees will cool and clean the air and cool the surfaces below them and will beautify street and parking areas and encourage pedestrian traffic, which could help to reduce VMTs. This Policy should **require that**

developers plant the trees and should ensure that funds will be available for their maintenance. The County should require that the trees be large-canopy native trees whenever possible, so as to provide habitat and drought tolerance. If the trees are not natives, they must still be drought-tolerant. The trees should be mulched and should be watered with recycled water. This Policy needs a concrete, enforceable, measurable Implementation Measure which will be effective before 2010. It should be done this year. It takes a long time to grow a tree large enough to mitigate global warming.

ERM-4.4 Promote Energy Conservation Awareness (p. 8-8): This should be changed to "Promote Energy *and Water* Conservation Awareness." This Policy is worded so vaguely as to be almost meaningless and it has no Implementation Measure. Of course, the County should provide public education on this critical subject. Will it? **Please strengthen and clarify the Policy and provide a concrete, measurable IM.**

ERM-4.5 Advance Planning (p. 8-8): Please amend this Policy: "The County shall participate . . . strategies and facilities, *with an emphasis on reducing energy consumption in order to reduce GHGs and global warming impacts.*"

ERM-4.6 Renewable Energy (p. 8-8): This **Policy must be clarified and strengthened.** How will the County "support" efforts for development and use of alternative energy resources? **This Policy needs an Implementation Measure** that shows how and when the County will effectuate renewable energy measures. For example, the County should require all new dairies to install methane capture systems to generate energy. The County should require solar energy systems on all new construction. Etc.

ERM-5.1 Parks as Community Focal Points (p. 8-8) and IMs # 49 and #50 (p. 8-19): Here's a fine Policy, but the IMs indicate that **the County, on an ongoing basis, is passing the responsibility for carrying it out to local entities such as CSDs and developers. Prospects seem dim for our County parks:** the Background Report (p. 4-2) indicates that **the County is currently "not proposing any new parks due to budget restrictions for operation of the facilities."** There is no way to measure the success of this Policy or its IMs. The County should **set specific goals for providing community center/recreation buildings to specific parks, with a timeline** for targeting their completion. The **Background Report provides no baseline information on existing community center/recreation buildings.** It may be noted that, per Table 4-1 (pp. 4-2—4-3) in the Background Report, **only 5 of the County's 21 unincorporated communities (and none of the 11 hamlets) even have County parks,** (although Bartlett Park is located 8 miles east of Porterville,and Allensworth State Park is about 7 miles from Earlimart, both too far for most visitors to access without driving; perhaps the residents of the hamlet of Allensworth visit the State Park. Allensworth, however, is a historical park, not a community focal point or recreational area).

ERM 5.2 Park Amenities (p. 8-8): This is yet another fine-sounding Policy with no IM, no concrete plan indicated, and no way to measure the County's success in providing these amenities. There appears to be no baseline information in the Background Report on these amenities, other than in Table 4-1 (pp. 4-2—4-3), which indicate that many of the County parks have reservable picnic areas and one has campsites. **Table 2 shows only one park, Mooney Grove, out of the total of 13 County parks, with additional amenities such as paddle boats, a playground, and baseball diamonds.** And, as noted directly above, in the ERM-5.1 comment, the great majority of the County's unincorporated communities and hamlets have no County parks.

ERM 5-3 Park Dedication Requirements (p. 8-8): This is an excellent Policy with no IM. **Please include a concrete IM and a date for implementation.** (The Quimby Act was enacted in 1975.) Parks are very important to public health, to tourism, to helping to mitigate heat island effects, to beautification; and, if well planted with native large-canopy trees, they can provide habitat and air cleaning and assist in achieving compliance with AB32.

ERM-5.4 Park-Related Organizations (p. 8-8): This Policy is too vague ("consider") and has no IM. There are many successful models in effect to choose from. **Please include a measurable IM with a timeline.** No new development should occur in the County without the creation of new parklands or the preservation of open space, achieved either by direct applicant development of the park or by applicant's payment of impact or mitigation fees to be used for the creation of a nearby accessible park or preserved open space area.

ERM-5.6 Location and Size Criteria for Parks (pp. 8-8 and 8-9) and IMs # 51 and #52: The Background Report seems to provide no baseline information on neighborhood Play Lots (Pocket Parks) or Neighborhood Parks. Thus, progress on the goals and policies and implementation measures for Recreation and Open Space Resources can't be readily measured. The Report indicates that the County **lacks Community Parks (only 5 of the 21 unincorporated communities and none of the hamlets appear to have County parks).**

Although the County's population is now over 400,000, **we have no Regional Parks over 200 acres in size and only one large somewhat centrally located County park (Mooney Grove, 143 acres).** The largest County-owned park, beautiful Balch Park, is too far away in the mountains for most residents to visit it with any regularity at all. The **County desperately needs more large parks in the valley, where its population is, and where people would not have to drive much, or preferably at all, to visit them.**

Page 8-9 of the GPR states that the County "shall strive to **maintain an overall standard of five to nine acres of County-owned improved parkland per 1,000 population . . . .**" The County's population currently exceeds 400,000. Table 4-1 in the Background Report (p. 4-2) shows a total of **less than 700 acres of County-owned parkland. According to the standard, there should be 2,000 to 3,600acres.**

For the health and welfare of its residents, and to mitigate global warming and GHG emission impacts, and to work toward compliance with AB32, the County must implement effective, measurable programs to ensure a timely and significant increase in the number and size of County parks. Page 8-9 of the

GPR states that "Neighborhood play lots (pocket parks) are encouraged as part of new subdivisions applications." **The County should require all developments to provide or contribute to the provision of parks** (see above comment on ERM-5.7).

Implementation Measure #51 Park Development Impact Fee (p. 8-19) states that the Board of Supervisors shall establish such a fee, but this is LONG overdue. A definite deadline needs to be set for the implementation of this implementation measure.

Implementation Measure #52 Access to Suitable Recreation Land (p. 8-19): states that maximum efforts should be concentrated on acquiring recreation sites within one hour's travel time from urban concentrations throughout the County. **Please revise to ". . . sites *within walking or cycling distance whenever possible, and within 10 to 15 minutes'* travel time from urban . . . ." The County needs recreation land and open space in or adjacent to its urban concentrations** to promote healthful activity for its residents, and for environmental benefits. Locating recreational lands distant from populations will discourage their use and will add unnecessary VMTs; this will not help us achieve AB32 compliance.

Background Report Figure 4-1 Existing Parks (p. 4-4): The numbers in this Figure presumably refer to the numbers of the locations given in Table 4-1 on the preceding two pages. **Many of the numbers are in the wrong locations; this Figure should be corrected.** For example, #15, which is Mountain Home State Forest in the Table, is placed next to Three Rivers in the Figure, which is where Lake Kaweah, #16 in the Table, is located. #14, Allensworth State Park in the Table, is depicted in the Figure in the area of Giant Sequoia National Monument, when it should be located near the hamlet of Allensworth, which has an unlabeled dot nearby. Etc.

ERM-5.7 Public Water Access (p. 8-9) and IM #53: Since the overwhelming majority of the County's residents live in and spend the overwhelming majority of their time in the desert environment of the valley, public access (well regulated so as not to abuse the resource and habitat) to water courses would be very desirable, as would acquisition of multi-purpose sites. **This Policy must be strengthened beyond its vague "encourage" and armed with a concrete Implementation Measure showing how and when the County will acquire these access sites and rights.** Lakes Success and Kaweah, of course, are operated by the U.S. Army Corps of Engineers and already provide lake access, swimming, fishing, boating, hiking, and camping opportunities.

Implementation Measure #53 Shoreline Development Standards (p. 8-20): Please revise: "The County shall develop . . . such as . . . public access, and ***requiring*** protection of . . . ."

ERM-5.8 Watercourse Development (p. 8-9): This buffer minimum is a good start. Three hundred feet would probably be better. **Please revise to indicate that a qualified resources conservation professional shall**

determine the necessary buffer parameters beyond the required mimimum on a case by case basis, depending on the location, habitat, soils, etc. at the specific site.

ERM-5.9 Encourage Development of Private Recreation Facilities (p. 8-10): Please revise the second sentence: "The intensity . . . *shall* not exceed . . . and *shall* be compatible . . . ."

ERM-5.10 Recreational Facilities for Special Use Groups (p. 8-10): Please revise to: "The County *shall ensure* the provision . . ." **IM #54 and IM #55 (p. 8-20)** are shown for ERM-5.10; neither relates directly to it, but both are important. **Please revise IM #55** by changing each "should" to "*shall*" because "should" is not enforceable.

ERM-5.12 Meet Changing Recreational Needs (p. 8-10): While the recreational opportunities are excellent in the national and state forests and parks, they are generally remote from the County's main population centers, which are all in the valley. **Many residents cannot afford the time or gas required to visit these parks** with any regularity, plus that's a lot of VMTs. **A good way to promote visitation would be to implement more public transportation, such as the Park Shuttle from Visalia, which would also reduce VMTs and help with AB32 compliance. Please clarify this Policy (how will the County "promote?") and provide it with a concrete, measurable Implementation Measure.**

ERM-5.13 Funding for Recreational Areas and Facilities (p. 8-10): Please clarify this Policy (how will the County "support" and "strive?") and **provide it with a concrete Implementation Measure. IM #49 (p. 8-19)** states that the County shall encourage and assist CSDs or other local entities to take over all functions related to parkland in established areas. **Does this mean that the County's goal is to push this responsibility onto much smaller and less well funded local entities?** "Support" means give it to someone else to do? **What is the likely effect of this on the viability of our parklands and recreational areas?**

ERM-5.14 Park Design (p. 8-10): Please clarify this Policy (what kind of efforts?) and note that the IM specified for it **(IM #56, p. 8-20)** does not seem to be closely related to ERM-5.14. The IM seems to state that the County has an ongoing program through subdivision and development approvals of acquiring scenic and open space easements, including wooded areas, flood plains, scenic and historic sites, and other recreation areas. **Please clarify this IM. Is this a mitigation program? Where can it be found? Where are the easements** that have been acquired? Are they open to the public?

ERM 5.15 Open Space Preservation (p. 8-10) and IM #57 (p. 8-20): Preservation of open space is a high priority of Tulare County residents, important to the tourism industry, extremely important for recharging our hugely overdrafted groundwater basins, and also very important to global warming mitigation. The only **Implementation Measure for Policy ERM 5.15 is #57**, which says the County's open space protection program is the ongoing

Williamson Act, which is a State voluntary program for private landholders, not a County program to preserve open space (and the general public typically has no access to most Williamson Act lands, because they are used for private agricultural purposes). The County says it will give "attention" to other tools, such as Transfer of Development Rights, as needed. Such programs are clearly needed now.

Please revise this IM to make it concrete and measurable: Please explain what exactly is the County's "existing open space land protection program" and where it can be found; "attention to" is not concrete or measurable). As discussed several times above, the **County must establish development impact mitigation programs as soon as possible**, and should be using all the tools available to it to meet the priority goal of preserving and protecting meaningful portions of its open space for the public.

ERM 5-18 Night Sky Protection (p. 8-10): As previously stated, given the need to save energy, the benefits of preserving visual access to the wonder of our night sky, the advantages of preventing light trespass, and the fact that local astronomers and many residents support it, **the County should promptly adopt and implement "Dark Skies" standards (readily available on the web) for all new exterior lighting.**

ERM-5.18 Interagency Cooperation (p. 8-10): This duplicates Policy ED-5.14. Per Matrix p. 193, #2, this Policy was to be moved to Economic Development. It's been moved, but has not been deleted here.

ERM-6.2 Protection of Resources (p. 8-11): Please make this Policy clear, strong, and enforceable. IM #58 should work, once the provisions are incorporated.

ERM-6.5 Cultural Resources Education Programs (p. 8-11): This Policy of "should support" programs, with no IM, is too vague and unsupported to be measurable or enforceable; **it should be strengthened and clarified and given a concrete Implementation Measure.**

ERM-6-6 Historic Structures and Sites (p. 8-11) and IM #59 (p. 8-20): The "shall support" of the Policy has an **IM (#59)** stating that **the County "should" establish a committee**, with a Timeframe of Ongoing. Is this to imply that the County should have established this committee for quite some time? The last bullet of this IM indicates that the committee would "determine appropriate locations . . . as a Certified Local Government."

The **Background Report (p. 9-33) states that the County is NOT a Certified Local Government**, at least as of September, 2004. **Please make this an enforceable and convincing IM.**

Additionally, **p. 4-39 of the DEIR states that ERM-6.6 should be revised** and includes revised and new language for the Policy. However, **this revision has not been made** to ERM-6.6 in the GPR.

ERM-6.7 Cooperation of Property Owners (p. 8-11): This Policy should be clarified and strengthened and should include a concrete, measurable IM.

ERM-7 Soil Resources (p. 8-12): Please revise to: "To preserve . . . for . . . timber *and habitat* productivity and *to* protect . . . ."

ERM-7.1 Soil Conservation (p. 8-12) and IM #61 (p. 8-21): The title of this Policy should be changed to "Soil Conservation, *Protection, and Sustainability*." **The Policy should be expanded and clarified to cover not just the traditional idea of soil conservation** (e.g., implement best practices to keep it from blowing away or being washed away), **but also to protect it from the introduction of harmful chemicals** (e.g., herbicides and pesticides, nitrates and ammonia, etc.), **compaction, salinization from improper irrigation, degradation and desertification from overgrazing, etc.** Urbanization, industrialization, mining, and transportation systems impact soils far more permanently than agriculture. Healthy land, air, and water are the irreducible requirements for human sustenance and quality of life. **Please strengthen and expand IM #61 (p. 8-21) to include these concerns and to ensure that the County's standards will be sufficiently comprehensive and enforceable to ensure conservation, protection, and sustainability. Another key implementation measure for this Policy should be to strictly limit greenfield development in the County, confining all new development to within existing UDBs and HDBs.** To preserve our soils, we need to implement and enforce highly efficient land use practices. The County should also **minimize the construction of new roads**, focusing on compact development and public transit; new roads create a tremendous amount of soil compaction and feed many contaminants into the soil from vehicular traffic.

ERM-7.2 Soil Productivity (p. 8-12): Please see and incorporate for this section also the comments on ERM-7.1and IM #61directly above. The comments apply to both conservation and productivity of soil.

ERM-7.3 Protection of Soils on Slopes (p. 8-12): This Policy should be revised (or another Policy should be added) to protect soils on slopes by also limiting the percentage of the area of the slope that can be graded in order to prohibit, for example, switchbacking roads or driveways that remove or degrade from its natural condition and/or function more than 20% of the total surface of the affected slope.

ERM Implementation Measures (p. 8-13 ff): Per pp. **4-41 and 4-42 of the DEIR, three new IMs (designated as 56A, 56B, and 56C) are required to be added to the ERM Implementation Measures** to address impacts to archaeological resources. **These new IMs do not appear in** this section (8.9) **of the GPR. Please explain how and when they will be added to the GPR.**

9. AIR QUALITY:

Global warming, the health and welfare of its citizens, and the requirements of AB32 necessitate the County's taking a bold, pro-active leadership role in addressing this issue, which is a the top of the people.

KEY TERMS (p. 9-1 ff):

Please include in the definitions of the Key Terms sufficient factual and consequential information to enable readers to understand why the terms are being discussed and why the General Plan must forcefully address Global Warming and Greenhouse Gas Emissions. Most General Plan readers will never read the Background Report and the EIR. They need to find relevant information for understanding and decision-making in the GPR. (The Background Report and EIR are also deficient in these respects, as will be discussed in more detail below.) **It is imperative that the General Plan disclose and discuss the effects on human health of poor air quality in general and of key pollutants in particular, and that it also fully discuss the effects of pollution on crop production, tourism, and other sectors of the economy, and that it adopt all feasible mitigation measures (which are to be reflected in our GPR's Implementation Measures) to address the costs and consequences of air pollution and GHG emissions.**

Carbon Dioxide (CO2) (p. 9-1): This definition is written so as to give the impression that human-caused emissions of CO2 as a GHG are virtually insignificant and therefore need not be addressed. This is dangerously and irresponsibly deficient and misleading information.

This Key Term's definition must be re-written to meaningfully address the significance of CO2 as a GHG and agent of global warming. The point, of course, is not the relative percentages of natural vs. anthropogenic CO2 emissions. The point is that until recently Earth's CO2 was in balance; 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 (not to mention all the other living things on board). 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. (See Global Warming definition below for additional information.)

Carbon Monoxide (p. 9-1): Please add to this definition the following information so that the reader may understand WHY CO is being discussed: "Carbon monoxide reduces the ability of blood to deliver oxygen to vital tissues, affecting the cardiovascular and nervous system; it impairs vision, causes dizziness, and can lead to unconsciousness or death."

Please add a Key Term (p. 9-2) and discussion as follows: "Costs of Poor Air Quality: Many studies have shown the costs of poor air quality in our area, as indicated by the following examples: A recent CSU Fullerton study showed that the health-related impacts of air pollution drain the San Joaquin Valley's economy of **$3 billion every year.** That's the cost of shortened life spans, hospitalizations, job absences, school absences, and other

economic and health effects of the region's chronically poor air quality. The Valley's annual school absenteeism due to asthma totals about 808,000, accounting for **lost revenue to regional school districts** of at least $26 million annually (not to mention the students' lost learning days). The financial **cost of asthma** to four Valley cities alone exceeded $85 million per year (this is not to mention the suffering of those afflicted with asthma).

According to the Air District, ozone pollution causes as much as $270 million a year in damaged agricultural crops in the Valley. Harvests of crops such as grapes, cotton, tomatoes, oranges, and alfalfa can be reduced 10-20% as a result of air pollution.

In California, respiratory **illnesses caused or exacerbated by airborne particulate matter** are responsible for 9,300 deaths, 16,000 hospital visits, 600,000 asthma attacks and 5 million lost work days each year, **costing more than half a billion dollars a year.** A recent analysis of **diesel particulate matter** pollution attributed approximately 3,000 premature deaths per year to this pollutant alone, with about 260 of those deaths occurring in the SJV.

Our **national parks,** forests, and monuments suffer from the poor air quality we create with our GHG emissions. Sequoia and Kings Canyon National Parks have been listed as among the five most polluted national parks in the country, and have had the second highest annual average ozone level of any national parks. This poor air quality and often greatly reduced visibility negatively affect **tourism,** not to mention the health of the parks.

Economic development and business recruitment will be difficult in an area plagued by unhealthy air quality. If we do not succeed in implementing programs to reduce emissions from mobile sources, then we will have to reduce the emissions from job-producing stationary sources. If we do not attain air quality standards, then **Federal sanctions may be imposed that limit stationary source expansion (which could make most industrial expansion prohibitively expensive) and withhold highway funds.** The great challenge is to drive less, so we must plan, develop, and manage our communities to make it easy for people to walk, bicycle, or use public transit."

This information should be added here to the Key Terms section or discussed elsewhere in the Air Quality element and must also be included in the Background Report and the EIR. Information about the costs of poor air quality is critical to understanding the issue and to policy-making and evaluating mitigation measures and effective implementation measures. **The EIR and the Background Report are deficient because they contain no discussion of the costs of poor air quality.** (Table 6-1 on page 6-5 of the Background Report does briefly note some of the adverse health impacts of air pollutants.)

Global Warming (p. 9-1): This is a shockingly insufficient and disgracefully misdirected definition of global warming that must be almost completely rewritten in order to make it accurate and relevant. **Please include the following** or comparable statements of findings by the legislature of the State of California, the IPCC, the State Attorney General, and the California Climate Change Center: **"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. Temperatures are expected to rise 4.7 to 10.5 degrees by the end of this century. These increases will have serious consequences, including the exacerbation of air quality problems, a reduction in the quality and supply of water, a shrinking Sierra snowpack, an increase of as much as 55% in the risk of large wildfires, increased stress on the state's vital resources and natural landscapes, an increase in human health-related problems (including increased incidences of infectious diseases, asthma, heat stress and heat-related deaths), damage to agriculture (from increasing heat, pests, pathogens, and weeds), wine making, tourism, skiing and other winter recreation, forestry, and fishing, and a potential reduction in hydropower. It will also cause a rise in sea levels resulting in the displacement of thousands of coastal businesses and residences, shrinking beaches, and increased coastal floods. **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."**

Greenhouse Gas (p. 9-2): Please add this or a comparable statement to aid the reader's understanding of the relevance of this definition: "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. It should be noted that about 80% of California's CO2 equivalent GHG emissions are emissions of CO2 from fossil fuel combustion. See page 9-4 for additional information."

Please add to Key Terms on p. 9-2: "Methane. Methane accounts for approximately 5.7% of all GHG emissions in California, and half of the State's methane emissions comes from livestock and manure. Methane is a powerful GHG that has 21 times the global warming potential of carbon dioxide. Livestock and their manure emit GHGs equivalent to 13.2 million tons of carbon dioxide each year in California." [From letter by State Attorney General to RMA, dated 2/26/07, re NOP for Buena Vista Dairy]

Sulfur Dioxide (H2S) (p. 9-2): Please add: Sulfur dioxide levels are generally highest near large industrial complexes. Exposure to very high levels may cause wheezing, chest tightness, and shortness of breath. Long-term exposure can cause respiratory illness, alter the lungs' defense mechanisms, and aggravate existing cardiovascular disease."

Lead (Pb) (p. 9-2): Please add: "Since the phase-out of leaded gasoline, metals processing is the major source of lead emissions to the air today, with the highest levels generally found near lead smelters; other stationary sources are waste incinerators, utilities, and lead-acid battery manufacturers. Lead can enter water systems through runoff and from sewage and industrial waste streams and is still found at high levels in urban and industrial areas; it deposits on soil and in water and harms animals and fish, and particularly affects young children and infants,

causing learning deficits and lowered IQs. Exposure to lead causes damage to the kidneys, liver, brain, nerves, and other organs, and may lead to osteoporosis and reproductive disorders; it causes high blood pressure and increases heart disease, and may lead to anemia. Excessive exposure causes seizures, mental retardation, behavioral disorders, memory problems, and mood changes. Low levels of lead can slow vegetative growth near lead sources. Wild and domestic animals can ingest lead while grazing, or may ingest it when feeding on animals killed by lead bullets; they experience the same kind of effects from exposure as people do."

Mobile Source (p. 9-2): Please add: "Mobile emission sources account for a very significant percentage of CO2 GHG emissions, so we must focus on these sources in our efforts to combat global warming and air pollution. In the San Joaquin Valley, emissions from mobile sources such as cars, trucks and equipment represent almost 70% of the air pollution challenge. In just 20 years, the Valley's population has grown by 60%, and daily vehicle miles traveled has increased by 150%."

Nitrogen Oxides (NOx) p. 9-2): 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** because of various compounds and derivatives in the family of NOx, including **NO2, nitric acid, nitrous oxide, nitrates, and nitric oxide**. NO2, a common pollutant, forms, along with air particles, a reddish brown layer that can often be seen over many urban areas. **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."

O3 (p. 9-2): Please add: "Ozone occurs both in the Earth's upper atmosphere (beneficially) and at ground level (unhealthfully, due to air pollutants). **Ground level ozone affects people of all ages who are active outdoors, and particularly children**, because during physical activity ozone penetrates deeper into the more vulnerable parts of the lungs. Ozone can cause itchy, watery eyes; irritate the respiratory system, causing coughing, throat irritation, and chest discomfort; ozone can reduce lung function, making it more difficult to breathe deeply and vigorously; aggravate asthma; and make people more sensitive to allergens and more susceptible to respiratory infections;

repeated exposure to ozone can permanently scar lung tissue, resulting in permanent loss of lung function and a lower quality of life. Respiratory illnesses, asthma attacks, and impaired lung function and growth lead to emergency room visits, hospitalizations, and premature death. The American Lung Association gave Tulare County a grade of 'F' for ozone pollution in 2007 because the County had 210 days that were rated on the Air Quality Index as 'unhealthy for sensitive groups' (children, active adults, and people with respiratory disease such as asthma) and 29 days that were rated 'unhealthy' for everyone due to ozone levels.

O3 Precursors (p. 9-2): Please add: "*The Federal Clean Air Act mandates us to reduce emissions of ozone precursors by at least 3% per year until air quality standards are attained.*" [per SJVAPCD]

Particulate Matter 2.5 Micrometer (PM2.5) (p. 9-2): Please add: "PM 2.5, also known as soot, is expelled from tailpipes, factory smokestacks, farm equipment, agricultural burning, dust, and other sources. Particle pollution includes a mixture of solids and liquid droplets, some emitted directly while others are formed in the atmosphere when other pollutants react. When inhaled, it can penetrate deep into the lungs; it is linked to severe asthma and premature deaths from heart and lung disease. Particle pollution also can increase susceptibility to respiratory infections and can aggravate existing respiratory diseases, such as asthma and chronic bronchitis, and heart diseases such as congestive heart failure and coronary artery disease, and triggers heart attacks, strokes, and irregular heartbeat, increasing emergency room visits, hospitalizations, and premature deaths. Particle pollution is the most dangerous, and deadly, of the widespread outdoor air pollutants. It also reduces visibility and may cause soiling of surfaces."

Particulate Matter 10 Micrometers (PM10) (p. 9-2): Please add: "Particle pollution (particulate matter) in the air includes a mixture of solids and liquid droplets, some emitted directly, others formed in the atmosphere when other pollutants react. Their sources include combustion, industrial and agricultural fumes, and dust. Particles smaller than 10 micrometers in diameter (PM 10) are so small that they can get into the lungs, increasing susceptibility to respiratory infections and aggravating existing respiratory diseases. People with heart or lung diseases – such as congestive heart failure, coronary artery disease, asthma, or chronic obstructive pulmonary disease, when exposed to particulate matter, are more likely to visit emergency rooms, be admitted to hospitals, or even to die The American Lung Association gave Tulare a grade of 'F' on particulate matter pollution in 2007 because the County had 29 days rated on the Air Quality Index as 'unhealthy for sensitive groups (children, active adults, and people with respiratory diseases such as asthma) and 2 days that were rated as 'unhealthy' for everyone due to particulate matter pollution."

Please add as a Key Term (p. 9-2): "Pesticides. Pesticides are the fourth biggest cause of air pollution, or "smog," in the San Joaquin Valley. Tulare County used more than 17.5 million pounds of pesticides in 2005, the third highest use of any county in California. Pesticides can cause immediate poisoning, cancer, Parkinson's disease, birth defects, sterility, neurotoxicity, and permanent, irreversible damage to developing children; pesticides can

aggravate asthma and other respiratory problems. Over 90% of pesticides used in California drift very easily away from where they are applied."

ROG (p. 9-2): Please add: "ROG is the abbreviation for Reactive Organic Gases, which 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."

Sensitive Groups (p. 9-3): Please add: "The Valley has the highest child asthma rate in California; up to 1 in 5 Valley children suffer from asthma and up to 1 in 8 adults, and there are more than 1200 premature deaths each year in the Valley due to particulate matter pollution."

SO2 (p. 9-3): Please note that sulfur dioxide is discussed on p. 9-2 after the heading "Sulfur Dioxide (H2S)." Perhaps that section should be moved to p. 9-3, to go in alphabetical order as Sulfur Dioxide. Note that H2S is not the chemical symbol for Sulfur Dioxide.

Stationary Source (p. 9-3): Please add *agricultural irrigation pumps*, as they are a significant source in Tulare County.

Existing Conditions Overview (p. 9-3): Please add: *"Tulare County exceeded the State PM 10 standard on an estimated 146 days in 2005 and an estimated 156 days in 2006. The American Lung Association gave Tulare County an 'F' grade on its particle pollution, as the County had 29 days that were 'unhealthy for sensitive groups'(children, active adults, people with respiratory disease such as asthma) and two days that were classified as unhealthy for everyone.* " [see CARB website and American Lung Assn.] "Tulare County experiences some of the worst health conditions in the state, with avoidable hospitalizations about 20% higher than the statewide average, including diagnoses of asthma, COPD, congestive heart failure, diabetes mellitus, and hypertension [*Health in the Heartland: The Crisis Continues*]. Our vehicle-oriented development contributes hugely to greenhouse gas emissions and lack of exercise, which lead to medical problems. Our incidence of asthma is as high as one in five affected."

Existing Conditions Overview (p. 9-4):

PM2.5: Please amend: "Tulare County is in non-attainment with federal standards, *and also exceeded the State 3-year maximum average on 23 days in 2004, 20 days in 2005, and 20 days in 2006 (there is not yet a State standard for PM 2.5).*"

Existing Conditions Overview (p. 9-4, top right-hand column): The problem with **the "featured policies and implementation measures"** is that while they **often sound good** (such as by using appropriate terms such as "smart growth" and "healthy communities") **they are far too often vague, weak, and unenforceable; too often they do not even have implementation measures, and far too many of the implementation measures that are presented are not concrete, not measurable, and/or not to be timely effectuated; thus they are unlikely to enable the County to effectively "comply with State law requirements" and to "enhance the quality of life and public welfare of County residents."** Please see comments on individual policies and implementation measures throughout the GPR.

Please clarify, strengthen, and make measurable and enforceable these policies and implementation measures.

Additionally, somewhere in the Air Quality element, perhaps in the Existing Conditions Overview, or else in the policy portion, **the GPR should discuss and address the impacts of agriculture on air quality**. The Air Quality Element deals with Regional Perspective, Transportation Design, Land Use/Design, and Air Pollution Control, but never mentions agriculture directly. SB 700 and the County's ACFP and its DSPEIR should be mentioned in this Element.

SB 700 states that "**Agricultural operations necessary for growing crops or raising animals are a significant source of directly emitted particulates, and precursors of ozone and fine particulate matter.** These emissions have a significant adverse effect on the ability of . . . the San Joaquin Valley to achieve health-based state and federal ambient air quality standards. . . . **agricultural sources of air pollution still contribute twenty six percent of the smog-forming emissions in the San Joaquin Valley**. In the San Joaquin Valley, a large portion of the sources of particulate emissions are areawide sources whose emissions are directly related to growth in population and the resulting vehicle miles traveled. According to the State Air Resources Board, however, **agricultural sources of air pollution account for over fifty percent of the directly emitted particulate air pollution generated in the valley during the fall, amounting to over 170 tons per day of emissions.**

All parties living or operating a business in an area that has been classified as being a nonattainment area with respect to the attainment of federal or state ambient air quality standards share the responsibility of reducing emissions from air pollutants. . . . It is therefore the intent of the Legislature to . . . to regulate stationary, mobile, and area sources of agricultural air pollution. . . . Each district that is designated as a serious federal nonattainment area for an applicable ambient air quality standard for particulate matter as of January 1, 2004, shall adopt . . . a rule or regulation requiring best available control measures (BACM) for sources for which those measures are applicable and best available retrofit control technology (BARCT) to reduce air pollutants from sources for which that technology is applicable for agricultural practices, including, but not limited to, tilling, discing, cultivation, and raising of animals, and for other source categories by the earliest feasible date, but not later than January 1, 2006."

Tulare County benefits from agriculture, but agriculture also costs the County. As a significant contributor to our air quality problems, **agriculture must be mentioned in the Air Quality Element, and the GPR must indicate what policies apply to this industry. With well over a million head of dairy cows projected for Tulare**

County in the near future (ACFP DSPEIR, Table 3-14a), the dairy industry alone, just one part of the County's agricultural sector, will have a huge adverse impact on our air quality.

AQ 1.3 Cumulative Air Quality Impacts (p. 9-4): If the County indeed will "require developments to be located . . . in a manner that would minimize cumulative air quality impacts", then the County must restrict new development to within existing UDBs and HDBs and require new development to be concentric, compact, mixed-use, and resource-efficient. **Please revise accordingly.**

AQ-1.4 Air Quality Land Use Compatibility (p. 9-5): Please add: *"In order to promote compliance with the requirements of AB32, and to protect the health and welfare of its residents, the County shall strongly discourage industrial or other developments which are likely to cause undesirable air pollution, and shall concentrate on attracting industrial and other developments that will cause minimal air pollution."*

AQ-1.6 Purchase of Low Emission/Alternative Fuel Vehicles (p. 9-5) and IM #8: Please change "encourage" to "*shall.*" Surely this is one thing the County can do immediately to mitigate air quality problems, reduce GHG emissions, set a good example, and save on fuel costs. The IM says only that the County will conduct a periodic review of its existing hybrid and alternative fuels vehicles; the timeline is Ongoing. Since most of the County's few hybrid/alternative fuel vehicles appear to have been purchased in 2001 and 2002 (per its draft Facilities Impact Fee study), presumably the ongoing periodic reviews have already revealed whether the performance and maintenance characteristics of these vehicles have proven satisfactory. Frustratingly, **this Policy and its IM, so typically, do not commit the County to any concrete, enforceable, measurable plan of action to achieve an important goal. Recommendation: As a minimum, the County should adopt SJVAPCD Policy 20 (County fleet vehicle operators shall replace or convert conventional fuel vehicles with clean fuel vehicles as rapidly as feasible) and its three implementation strategies,** from the SJVAPCD's "Air Quality Guidelines for General Plans" (revised June, 2005). This document (although with a 2003 date) is referenced on p. 6-9 of the Background Report. It contains 34 recommended policies for counties to adopt, a number of which Tulare County has included in the GPR.

AQ-1.7 Support Statewide Global Warming Solutions (p. 9-5): Please revise this very vague and confusing statement, which seems designed to obfuscate and avoid the issue. **The CARB has already formulated and published numerous mitigation strategies (many of which have been obvious for years and promulgated by many other sources) that may be implemented by local government.** The time has passed for the County to simply "consider" them. **The County must resolve to implement as many of them as it feasibly can as fast as it possibly can,** in order to comply not only with AB32, but with the priorities of its populace, and with its responsibility for promoting the health and welfare of its citizens. **We need a General Plan with strong, clear policies and concrete, measurable, enforceable, timely implementation measures to accomplish this.**

AQ-2.2 Indirect Source Review (p. 9-5): Please include in the list of mitigations what is perhaps the most important one: "*Locating, preferably as infill, adjacent to existing development, jobs, infrastructure, schools, and services so as to minimize necessary VMTs.*"

AQ-2.3 Transportation and Air Quality (p. 9-5) and IMs #9 and #10 (p. 9-9): Please amend: "Some possible alternatives that *have been studied* are . . . ." Is it correct that all of these alternatives have already been comprehensively studied? It's time for implementation to the degree that we can fund it. If we can't fund it, the County should be actively seeking funding. The IMs are both shown to be "ongoing." **IM #9 provides no concrete, measurable implementation plan, and IM #10 sounds like something that could be accomplished in about a week** (type the letter, enclose a response form, identify the major employers, mail the letter, follow up with a phone call ?); the Resolution information indicates that this idea has been here since 2004.

AQ-3.1 Location of Support Services (p. 9-6): This is a good idea, but **the Policy is too vague ("encourage;" how? when?) to be meaningful, and it has no implementation measure. Recommendation: the County should immediately begin to promote infill development through tiered developer impact fees and/or other incentives (including mitigation fees for non-infill greenfield development) and through strict enforcement of UDBs and HDBs.** The County must adopt all feasible measures to reduce VMTs and GHGs and reduce global warming impact, and this would be one of them.

AQ-3.2 Infill Near Employment (p. 9-6) and IM #12: Identifying opportunities doesn't make infill happen. **Please strengthen this Policy to state concretely what the County will do to actually, measurably increase infill development and reduce vehicle trips.**. The IM states that **the County will identify these opportunities by identifying opportunities** in community [plan?] updates, hamlet plans, and redevelopment plans over time. The community and hamlet plan processes are extremely lengthy and rare occurrences. **The County should implement tiered developer impact fees and/or other incentives** to cause every applicant for new development to seriously consider infill as the more cost-effective option, as mentioned in the preceding comment.

AQ-3.3 Street Design (p. 9-6): Here is yet **another "good idea" Policy that is too vague** ("promote"; how? when? What kind of design?); **please clarify and also provide a specific Implementation Measure. Recommendation:** the County should require new development to be based on a small-block traditional grid street system to promote walking and biking and reduce VMTs.

AQ-3.4 Landscape (p. 9-6): Same comment as the preceding (but substitute "encourage"). **Please include** that the landscaping must be drought tolerant and incorporate a high percentage (over 50%) of native plants.

AQ-3.5 Alternative Energy Design (p. 9-6) and IM #13: Here the County has a **Policy to "encourage" implemented by an IM only to "encourage."** Mandating energy-efficient and water-efficient design are key methods of reducing GHGs and addressing global warming impacts and complying with AB32. Yet there is nothing concrete or measurable in this IM. PLEASE put meaningful green building requirements in place before the end of this year to begin accomplishing these key objectives.

AQ-3.6 Mixed Land Uses (p. 9-6): This worthy **Policy is rendered almost meaningless by "encourage" and no IM.**

AQ-4.1 Air Pollution Control Technology (p. 9-6) and IM #14: What BACM and RACM measures have been adopted by the County so far? What determines whether these measures are "appropriate" to new development? The IM says that implementation of this Policy is Ongoing, but, given its air quality problems, clearly, **the County must implement much more stringent measures, especially in the face of the tremendous growth and additional VMTs projected under the General Plan,** if it is to meet air quality standards, protect the health of its citizens, and comply with AB32.

AQ-4.2 Dust Suppression Measures (p. 9-6): In the Matrix, p. 215, it was requested that this Policy be changed from requiring "contractors" to requiring "anyone engaged in earth moving" to implement dust suppression measures. The County responded by changing this to "developers," and stating that the County "does actively require contractors and permit holders to implement dust suppression measures in accordance with SJVAPCD standards." We applaud the County's positive activity in this respect. **We are glad to see that the SJVAPCD standards are being echoed and emphasized here in the GPR. We believe that this emphasis should extend beyond developers to all significant dust-producers, including agriculturists. Please include a Policy regarding agricultural dust suppression measures.**

AQ-4.3 Paving or Treatment of Roadways for Reduced Air Emissions (p. 9-6): Please eliminate "where feasible" in the first sentence; logically, if you can get the equipment in there to create a road, you can get the equipment in to pave or treat the road. **Please clarify** the second sentence, which implies that there could be new projects that will never have to pave their roads. **Please require all new projects to pave their roads and to establish permanent funding for their maintenance.** Unpaved roads are a major source of deadly particulate matter pollution (and may also contribute to dispersal of Valley Fever spores). Requiring all roads to be paved could contribute to better air quality and to better visibility (also important to tourism).

AQ-4.4 Wood Burning Devices (p. 9-6): It is heartening to see a Policy in which the County actually "requires" a beneficial action. The second sentence, however, is still only a **"promote," which is too vague, and the referenced IM (#15) deals with treating roads to reduce dust impacts. Please add** a concrete IM with a near-

term implementation date. The County already has a lot of "no burn" days; these are necessary, but the rule is very hard to enforce, especially at the level of individual homes. **Recommendation: the County should disallow wood-burning fireplaces and stoves in any new construction.** I hate to say this, because of the romance and tradition of fireplaces and woodstoves, but fireplaces and woodstoves (even EPA Phase II certified) produce orders of magnitude more particulate matter than well-tuned gas devices producing equivalent heat, and, given the exigencies of the County's air pollution problems, its need to protect the health and welfare of its citizens, and its need to comply with AB32, wood-burning devices probably have to become a thing of the past, unless we can hugely reduce California's population. The more of us there are, the greater our cumulative impact, the more we must restrict our wonted freedoms. The Matrix, p. 216, #12, rejected a previous comment's recommendation to ban fireplaces and woodstoves, stating that the County will comply with State law and SJVAPCD rules. **Since the County is, presumably, already complying with State law and SJVAPCD rules and nevertheless is far too often failing to meet State air quality standards, then, obviously, the County must implement more stringent policies and implementation measures of its own.** Of course, **agricultural burning** probably contributes more emissions and particulate matter than all the residential burning put together, and agricultural burning is not mentioned here. **Recommendation: a new Policy should be added to prohibit agricultural burning** (unless some defined emergency condition exists).

AQ-4-5 Public Awareness (p. 9-7): The Policy is vague ("promote," with no indication of when or how) and has no IM; please provide clarity and a concrete IM. A good place to start walking this talk would be right here in the General Plan update, which is not getting anywhere near describing the seriousness and extent of the County's existing pollution problems, in a way that will **promote public awareness and understanding, enabling the community to realize and support the fact that the County must take concrete (and not easy) steps to remedy a dire situation that will exacerbate and will be exacerbated by global warming.**

AQ 9.6 Implementation Measures (pp. 9-8 and 9-9): In addition to the specific comments above, it must be noted that **of the 15 IMs listed for effectuating improvement in the County's air quality, all but two are shown as "ongoing." Only IM #3** (investigate feasibility of incentives for air quality sensitive development – scheduled for implementation sometime between 2010 and 2015, although adopted by resolution in 2004) **and IM #5** (develop standard methods for determining and mitigating air quality impacts, with a 2007-2010 timeline) **appear to be new, and the timeline for IM #3 indicates no sense of urgency.** The Matrix states (p. 216) that IM #3 is a Board-adopted RACM (apparently in 2004), yet, per the timeline, it may not be implemented until 2015, almost 10 years after adoption. As improving air quality is a top priority of residents, is essential to public health, is very important to tourism, is a top priority (in terms of GHG emissions) in mitigating global warming, is required by the Federal and State governments, and is being given a big push by the need to comply with AB32, **the County's commitment to meeting these critical goals as evidenced in these implementation measures seems shockingly half-hearted, lackadaisical, and dilatory.** As mentioned before, CARB and numerous other organizations publish long lists of

positive actions that the County could take right away to address its air quality problems, and many counties have already implemented many of them, so we have a wide path to follow. **Recommendation: the County should adopt by resolution and implement through strong, clear policies and implementation measures all applicable CARB mitigation measures (incorporated by reference herein) by the end of 2008. Recommendation: the County should herald its commitment and leadership by joining other counties across the nation in the Cool Counties partnership.**

Consistency Question: On Matrix p. 218 (top), RMA states, with regard to methyl bromide, that "**the County can and has imposed requirements beyond the minimum required** by State law." However, in response to a suggestion that the County adopt a Policy to implement agricultural dust suppression measures (Matrix, p. 217), RMA's response was that "the SJVAPCD currently regulates these issues." Please advise what the criteria are for the County to reiterate or even exceed the requirements of State law or SJVAPCD or other agency's regulations. We would like to see much better control of agricultural dust and burning, to reduce pollution, GHG emissions, and haze, and to mitigate global warming.

Recommendation: the County should include in the GPR policies limiting agricultural dust and burning, either reiterating the requirements of the applicable law or regulation, or, preferably, imposing requirements beyond the legal or regulatory minimums. (Why does the GPR address development dust impacts, but not agricultural dust impacts?)

AIR QUALITY – BACKGROUND REPORT (BR):

The source for **Table 6-1 State and National Criteria Air Pollutant Standards, Effects, and Sources (p. 6-5)** shows as its source http://www.arb.ca.gov/aqs/aaqs2.p. We cannot find the data via this address. We were able to find the Ambient Air Quality Standards (CARB, 02/22/07) at arb.ca.gov/research/aaqs/aaqs2.pdf. Please ensure that the BR correctly shows how to find the source information, and that Table 6-1 shows the 02/07 standards (since the BR is dated 12/07).

The Background Report (p. 6-9, top paragraph) refers to the SJVAPCD's "Air Quality Guidelines for General Plans" (2003); these guidelines were revised in June, 2005. The guidelines (p. 1-1) emphasize that "To obtain full benefit from these adopted goals and policies, cities and ***counties must proceed rapidly with strong implementation programs***" [emphasis added]. "The District's plans to attain state and federal air quality standards ***rely on local government to implement control measures that reduce emissions . . . . to reduce vehicle trips and miles traveled, to increase average vehicle ridership, or to reduce direct emissions from vehicle activity*** . . . ." (p. 1-2). " . . .to persuade San Joaquin Valley residents to drive less . . . ***we must change the way we plan, develop, and manage our communities*** **to make it easier and more attractive . . . to use transit, bicycle, or walk."**

Policies that promote compact development and efficient infrastructure minimize infrastructure costs, preserve natural or agricultural lands, and achieve air quality benefits by reducing vehicle trip lengths and improving the potential for transit service (p. 1-8). ***"Implementation of the strategies with actual programs is the***

real key to air quality improvements" (p. 1-9). Land uses that "are supportive of walking, bicycling, and transit can achieve long range trip reduction of 8 to 10 percent on a regional basis and more than 20 percent on a project basis," assuming that new development will be served by an efficient transit system. Trip reductions equate roughly to emission reductions" (p. 1-9). The emphasis is on" local actions to reduce vehicle trips, reduce vehicle miles traveled, and increase average vehicle ridership" (p. 1-10).

As illustrated specifically throughout these comments, **the County has too often not responded to the necessity of writing firm, clear policies and concrete, measurable implementation measures with actual programs that will enable the County to make milestone progress on reducing its GHG emissions and improving its air quality.**

Existing Emission Sources (Background Report p. 6-10): It is misleading to state only the good news that emission levels in the valley have been decreasing overall since 1990 due to motor vehicle emission controls without mentioning the bad news that due to huge population growth since 1990 (Tulare County has added about 100,000 people since then) and the fact that increase in VMTs is proportionately exceeding increase in population, "this growth is overwhelming our hard-won progress and may cause overall mobile source emissions to begin increasing early in the next decade. This is unacceptable considering that the federal Clean Air Act mandates us to reduce emissions of ozone precursors by at least three percent per year until air quality standards are attained. Any slack created by increases in motor vehicle emissions must be made up from job-producing stationary sources, or we will face the consequences of federal actions to reduce emissions" (p. 1-4, SJVAPCD, "Air Quality Guidelines for General Plans"). In addition, AB32 requires us to further reduce emissions.

This information should be included in this section of the Background Report, to provide a better balanced view of this critical issue. Likewise, the next paragraph in this section of the BR states that our PM10 emissions decreased between 1975 and 1995 and has been relatively constant since 2000. **The County still exceeds the State standard for these dangerous particulates on an average of about 150 estimated days per year, as should be noted here.**

Air Quality Monitoring and Existing Emission Levels (BR p. 6-10): This mentions three monitoring stations in Sequoia National Park; it should be revised to note that the Lookout Point station is no longer active. It also should be noted that the Visalia Airport station is not a CARB site, and no data from it are available on the CARB website.

Table 6-2 – Selected Air Quality Monitoring Data (BR p. 6-10): This Table is defective and misleading. Please correct it per the comments above in the Overview section, near the top of this comment letter.

The Air Quality section of the Background Report is also defective in terms of providing sufficient background information because it does not provide information regarding the significance and consequences of the County's poor air quality. It addresses the health impacts of air quality in only the most cursory way

(in Table 6-1 on p. 6-5), saying nothing about the County's high asthma rates, its high hospitalization rates, its exceedance of the State PM10 standards on an estimated half the days of the year, its typically well over a 100 days per year (210 days in 2007) when its ozone pollution makes breathing its air unhealthy for sensitive groups (a very large percentage of the population – the young, the old, those with heart and lung problems). It never even mentions **global warming**. It doesn't address the **economic costs (beyond health care and emergencies) of our poor air quality**. It never talks about WHY we have all these organizations and regulations trying to deal with Air Quality: it has a gigantic impact on our quality of life (including shortening our lives) and if we don't substantially reduce our GHG emissions starting right away, we will face serious impacts from global warming.

The Background Report must disclose these facts as well, because it currently gives only a small part of the picture and doesn't give the reader a good understanding of the significance of the issue and a means to analyze what should be done in response to it.

The Air Quality section of the BR (pp. 6-15 – 6-17) describes three County Resolutions adopted in 2002 and 2004 in response to legislative requirements and designations. It does not state whether RACMs adopted were actually carried out and what effect they had on the air quality problem. Many of the RACMs are so vague that they cannot be measured or enforced. Several of them (e.g., "supporting," "exploring concepts of Livable Communities," "consideration of incentives") appear to have advanced little beyond the stage of being adopted, as they now are written just as vaguely as Implementation Measures in the current GPR. **The Background Report should not simply describe these Resolutions, but should analyze their effectiveness in terms of the results they have achieved, to enable the reader to better evaluate the likely effectiveness of the mitigation measures described in the DEIR.**

Draft Environmental Impact Report (DEIR) Section 4.4 Air Quality and Global Climate Change (p. 4-43 ff): The DEIR is deficient, like the Goals and Policies Report and the Background Report, because it does not disclose and evaluate the effects of the County's air quality problems and GHG emissions on the physical and economic health of the County, nor does it disclose and evaluate the reasonably foreseeable effects of the build-out of the GP update in this area. It provides regulatory background on global warming, but very little directly applicable and relevant scientific information. It does not assess the project's contribution to climate change through an emissions inventory (the last page of the DEIR presents air quality data for mobile emissions, but provides no analysis or assessment of the data), nor does it assess the effect of climate change on the project and its impacts. **It does not provide the public and decision-makers with sufficient facts and clear analysis to confidently determine that the necessary relevant issues and their impacts have been covered.**

Methodology (p. 4-47): The first sentence states that **the GP Update "will allow planned development to occur within both developed and undeveloped portions of the County," and that the" buildout will ultimately be market driven."** The GP update will not only allow development to occur in undeveloped portions of the County,

the update currently urges such development by providing for new towns and new growth corridors in greenfield areas.

Market-driven development has produced the sprawling, resource-intensive, automobile-driven, highly polluting developed environment that we are living in today. This type of development cannot be sustained in Tulare County. It is also misleading to term it simply "**market-driven,**" in that those who profit from the market also drive the market through intense advertising and a reluctance to change. In order to meet the challenges of global warming and to provide for a sustainable future, we must shift the paradigm, and responsible, healthy growth policy must drive the market, steering it in the right direction until that becomes the norm. We already have more than enough inefficient development. **Now we must require development to be as resource-efficient as possible. The DEIR must present a Healthy Growth Project Alternative to address this need.** The first paragraph under Methodology (p. 4-47) states an assumption of a year 2030 buildout, but the fourth paragraph says that the dairy and feedlot associated emissions model assumes buildout by year 2020. **Please state how these are to be reconciled.**

AQ Impacts and Mitigation Measures (p. DEIR 4-49 ff)

Impact AQ -1 "The GP Update would result in a cumulatively considerable net increase of air pollutants. Future growth . . . would exceed the SJVAPCD thresholds for ROG and PM-10."

AQ-1 Impact Summary (DEIR p. 4-49): Incredibly, the Level of Significance Before Mitigation is rated as "Potentially Significant." Given that ALREADY the County's air quality is rated the worst or near the worst in the nation, and this is BEFORE we add the proposed 200,000 additional people and their vehicles and their energy consumption and the additional confined animal facilities, and all the new construction, and global warming impacts, **it is inevitable, unless drastic and immediate changes are made, that under the GP update buildout our air quality and GHG emissions will only become much worse.** Therefore, **please change this rating** to "*Without a Doubt Extremely* Significant" or whatever the appropriate rating is for that dire condition. **Please change** the Level of Significance After Mitigation to "*Extremely* Significant" also. **The DEIR provides no basis for evaluation and comparison of our baseline air quality situation, the situation as projected without mitigation, and the situation as projected with mitigation, leaving the reader to rely on common sense.**

Impact AQ-1 Construction (DEIR pp. 4-49 and 4-50): Please revise the first sentence to make it more accurate: "Construction activity that would occur over the next 23 years . . . would cause *emissions on at least five days per week every week during typically at least an eight hour period on each of those days of various air pollutants.*" Given that the County projects a population increase of well over 200,000 during the GP period, it is obvious that construction activity will be ongoing, causing much more than temporary, short-term emissions.

Impact AQ-1 Operation (DEIR, p. 4-50): The first sentence states that **operational impacts would primarily result from local and regional vehicle emissions generated by future population growth and dairy and feedlot**

development . . .." Two new Policies (AQ-4.6 and AQ-4.7 on DEIR p. 4-52 ff) have been declared to be required to address the dairy and feedlot operations. It is encouraging that the County is addressing the dairy/feedlot issues, which have become so extreme that concerned citizens groups have had to sue the County about them. However, astonishingly, this AQ chapter does not address vehicle emissions with new policies, even though they are the chief source of much of our air pollution and GHG. **The AQ Mitigation Measures are deficient because they do not strongly and specifically address vehicle emissions.**

Impact AQ-1 Table 4-2 Operational Emissions (DEIR pp. 4-50 and 4-51) This Table does not specifically address GHG emissions and the significance of their huge increase under the GP update.

Please include here a Table that specifically addresses this enormous impact. Furthermore, presenting the significance of the huge increases in the emissions listed fails to provide the information that the public and decision-makers need to meaningfully analyze the effect of the increases and the need to mitigate them.

Please include the necessary information regarding current impacts on human and environmental health, economic impacts, and global warming impacts, and then project these impacts based on the emissions increases shown (e.g., increase in asthma rates and other respiratory diseases, increase in number of days when exercising outdoors would be harmful, increase in health care costs, increase in crop losses, increase in number of days over 100, decrease in snowpack, etc.); this information could be presented in a Table also.

Table 4-2 footnote b (DEIR p. 4-51): These emission factors "assume a cleaner mix of vehicles as older, more polluting vehicles are retired" and thus "calculated reductions in future year emissions." However, given that **VMTs are expected to increase at a much greater rate than population increase, the increased VMTs are predicted to wipe out the gains made by lower emissions per vehicle.**

The policies that would minimize the cumulatively considerable net increase of air pollutants (DEIR p. 4-51) are discussed in more detail above, individually and in general. Please incorporate those comments by reference to this section. As written, **these policies and their implementation measures are likely to do very little to minimize this impact, as they consist mostly of policies too vague to be meaningful ("support," "promote," "encourage," "study," "consider"). Many of them have no implementation measures at all. The implementation measures that exist are generally not concrete or measurable, and are often "ongoing."**

Given our air quality problems and the advent of global warming and the necessity to comply with AB32, **these policies and their implementation measures will not suffice to mitigate this impact, and they must be clarified, strengthened, and made measurably enforceable and effective.** The statement on DEIR p. 4-51 that even with the policies' implementation, this impact is considered "potentially significant" seems preposterous, since most of these policies' implementation measures are stated to be "ongoing" and our air quality is terrible. Therefore, **please delete the "potentially"** from the "potentially significant."

Impact AQ-1 Required Mitigation Measures (DEIR p. 4-52): This section includes a list of **AQ-4.6 PM-10 and PM-2.5 Reduction Measures for Dairy and Feedlot Operations,** which "are required" to address this impact. Please explain how these "required" measures will be added to the GPR. None of these appear in the current GPR. The **introduction states that the new measures will have to be implemented as part of "all dairy operations." However, the first bullet states that the FDECP has to be submitted only with applications for "new or expanded" dairies and feedlots.** Please clarify this information. If only new or expanded operations have to comply with SJVAPCD fugitive dust emissions control requirements via a FDECP, please state **what will regulate this problem on existing dairies and feedlots.** Likewise, the last bullet requires only new or expanded dairy/feedlot applications to conduct AERMOD dispersion analysis using the referenced threshold. Please explain how analysis will be conducted on existing dairies/feedlots. Also, this bullet addresses apparently only PM-10 analysis, but PM-2.5 is even more dangerous. **Please explain the provision for PM-2.5 analysis.**

This section also discusses **AQ-4.7 ROG Reduction Measures for Dairy and Feedlot Operations (DEIR p. 4-53).** The first sentence states that "the County shall ensure that dairy operators implement the . . . measures as part of all dairy operations." Certainly these measures should apply to all dairies. However, the first bullet refers to compliance with SJVAPCD Rule 4570; this Rule appears to be applicable only to dairies with over 1000 milking cows and only to feedlots that have over 3500 beef cattle (per the SJVAPCD website). **Please clarify whether the County will ensure that ALL dairy operators (and feedlot operators and all operators of confined animal facilities) will be required to implement the listed measures.** Furthermore, no **implementation measures** are provided to state when and how the County will enforce these two new policies. **Please include these implementation measures, so that the efficacy of the proposed mitigation measures can be evaluated.** Some of these measures have been available for several years (e.g., feeding in accordance with NRC guidelines of 2001, fugitive dust emissions rules adopted in 2001 and subsequently amended, lagoon regulations since 2003). **Please explain whether their efficacy as mitigation measures has been assessed, and what impact they are expected to have.**

The last bullet on this page states that "**Manure water shall be either injected subsurface or placed on the surface in thin layers, blending such manure water with irrigation water . . . .**" Given Tulare County's impending crisis in water supply and its many problems with water quality, which will be exacerbated by global warming, **this mitigation measure for ROG would seem to worsen our water problems.** Tulare County should carefully analyze the complete long-range costs and benefits of permitting any more dairies; **trying to solve our air quality problems by worsening our water problems doesn't make sense.** Page 4-54 (first paragraph) states that these new policies "shall be implemented . . . under all future dairy or feedlot development projects," but does not say how or when. **Please clarify this and also state what will be done to address air quality issues on existing dairy and feedlot operations, since Tulare County, as of 2006, already had over 835,763 dairy cows and 334 dairies.**

Recommendation: The County should implement a moratorium on permitting any new dairies or expansions of existing dairies until it can verify whether implementation of these new policies will sufficiently mitigate the problems with air and water quality being caused by confined animal facility operations. The County should also consider the impact of these operations on the County's soil resources. For health and sustainability, the County should permit new dairies only under the condition that they must achieve and maintain organic certification. Failure to comply will revoke the permit.

The first paragraph on DEIR p. 4-54 states that AQ-4.6 and AQ-4.7 will be implemented; **please state when these policies will be implemented and provide them with enforceable, measurable implementation measures.** The next sentence states that "depending on the feasibility and level of implementation as applied to individual projects . . . the inclusion of additional trip reduction measures would help to further reduce vehicle-related emissions." **What additional trip reduction measures?** Given that vehicle emissions are the leading source of GHG emissions, the County should implement every feasible trip reduction measure available and should vigorously apply these measures to the degree that they can be applied to all projects.

NOTE: The measures outlined in AQ-4.6 PM-10 and PM-2.5 'Reduction Measures for Dairy and Feedlot Operations" (DEIR pp. 4-52-53) and AQ-4.7 "ROG Reduction Measures for Dairy and Feedlot Operations" (DEIR pp. 4-53-54) include most of the **measures outlined in the Draft supplemental Program EIR – Phase I Animal Confinement Facilities Plan (pp. 2-6 and 2-7), but seven of the new recommended policies in the DSPEIR are NOT included** in the GPU DEIR or GPR. **Please explain why those seven recommended policies have been omitted, and please include them in the form of one or more new policies (as in the case of AQ-4.6 and AQ-4.7):**

1. Idling time of onsite project farming and dairy operations equipment shall be minimized.
2. All onsite equipment shall be properly tuned and maintained in accord with manufacturer's specifications.
3. Whenever feasible, alternative-fueled or electrical onsite equipment shall be utilized.
4. Minimum practicable onsite engine sizes shall be used.
5. Onsite gasoline-powered equipment shall be equipped with catalytic converters.
6. Employees will be encouraged to carpool to and from the project site.
7. Trees shall be planted around the dairy facilities site.

Please explain why in the DEIR (p. 4-52) these new policies (AQ-4.6 and AS-4.7) are described under the heading "*Required Mitigation Measures*" when the DSPEIR (p. 2-6) states that "The following new recommended policies, if adopted by the County and included with the existing policies of the ACFP will become regulatory requirements. . . . *These requirements are not considered mitigation measures* . . . ." **Please see also and incorporate** by reference in this section the comments above regarding Goal AG-3 "Animal Confinement" (GPR p. 4-6).

Impact AQ-2 The GP update would not conflict with or obstruct implementation of an applicable air quality plan (DEIR p. 4-54 ff)

AQ-2 Impact Analysis (DEIR p. 4-55): This page lists over 30 policies in the GPR that would minimize the impact, and states that even with their implementation, the impact is considered "potentially" significant. Please see our specific comments on these policies and their implementation measures above in this document and incorporate them by reference in this section. Again, **almost all of these policies and their implementation measures (where there are any) are vague and weak; they must be clarified and strengthened so as to be enforceable and produce measurable results that will produce mitigation. Even with their implementation, this impact must be considered "*indisputably* significant," NOT "potentially" significant.**

Impact AQ-2 Required Mitigation Measures (DEIR p. 4-55): These measures are exactly the same as for Impact AQ-1; **our comments for AQ-2 are therefore the same as the comments on AQ-1; please incorporate them here by reference.**

Impact AQ-3: The GP Update would expose sensitive receptors to substantial pollutant concentrations (DEIR p. 4-57 ff). Most of the above comments on the preceding AQ Impacts and policies and implementation measures and required mitigation measures apply equally to this one and are incorporated in this section by reference.

AQ-3 Impact Analysis (DEIR p. 4-58): This analysis raises additional concerns (over and above those noted per the preceding paragraph) because not only will the GP update produce a huge increase in traffic on existing County roads, but it is urging extensive new development areas directly beside highway corridors, where emissions of Toxic Air Contaminants (TACs) such as diesel particulate matter are concentrated, thereby promoting exposure of residents and visitors to these TACs. People working in the businesses to be located next to the highways will be chronically exposed to DPM, risking carcinogenic and non-carcinogenic health effects.

Recommendation: The County should limit new development to within existing development boundaries and should not implement highway growth corridors.

Impact AQ-4 Objectionable Odors (DEIR pp. 4-61 ff)

For policies cited in this section, **please see our detailed comments above on these policies and their implementation** measures in the GPR, incorporated by reference to this section. **Please incorporate** by reference herein our comments already made on AQ-4.7.

AQ-4.8 Odor Management Plan (DEIR p. 4-64): This policy does not appear in the GPR. **Please explain how and when this policy will be implemented.** The Policy applies only to new or expanded dairy or feedlot operations. There are already well over 350 existing dairies and feedlots in the County. **Please explain how odor will be**

required to be managed on these existing operations. This policy singles out dairy and feedlot operations. **Please explain how odor will be required to be managed on other confined animal facilities in the County.** No implementation measure is provided for this new policy.

Please provide a specific, measurable implementation measure with a short timeline for its effectuation, so that this new policy can go into effect promptly. This section of the DEIR should **explain how odor impacts are currently measured and then describe how the proposed mitigation measures will affect those impacts.** For example, if one measure of adverse odor impacts is the number of complaints received per year, how much would these be likely to be reduced by implementation of this policy?

Impact AQ-5 Conflict with Implementation of State Goals for Reducing GHG and Negative Effect on Global Climate Change (DIER pp. 4-64 ff)

Impact AQ-5 Impact Summary (DEIR p. 4-65): Please change the Level of Significance Before Mitigation to "*Definitely* Significant," or a similar indication, because the level is extremely significant now and will surely increase as, under the GP, the County's population, confined animal operations, and vehicle miles traveled increase and are mitigated only by policies as weak and unenforceable as those listed on DEIR p. 4-65 and 4-66. Please incorporate by reference herein the detailed comments above on these policies and their implementation measures as they appear in the GPR. Please also incorporate into this section by reference the detailed comments above on AQ-4.7.

AQ-4.9 Greenhouse Gas Emissions Reduction Plan (DEIR p. 4-67 and p. 4-68): Please state when the County will develop its GHG Reduction Plan. The Plan should also project the GHG emissions level for the project build-out year of 2030. AB32 was enacted in 2006, requiring California to reduce its levels of GHG emissions to 1990 levels by 2020. To do its part in meeting this urgently important requirement, **Tulare County should commit to reducing its GHG emission levels to 1990 levels by 2020.** The County has done little in its GPU documents to uncover, analyze, and fully disclose the reasonably foreseeable effects on the environment of the GP project.

The DEIR contains some statistical tables (Table 4-2, DEIR p. 4-50*; Table AQ-1, DEIR p. D-1; and Table AQ-2, DEIR p. D-2), but they are incomplete, covering only mobile onroad vehicle emissions and dairy and feedlot emissions. **They must be expanded to include current and projected data for offroad mobile vehicles and for the multitude of stationary sources beyond dairies and feedlots** (e.g., industrial, residential, landfills, other agricultural, etc.).

The **DEIR should discuss and analyze what the projected emissions increases will mean to quality of life, health, and the economy in Tulare County.** The **EIR has failed to comply with AB32** because it has failed to prepare a GHG Emissions Reduction Plan as part of the GP update and it has failed to adopt all feasible measures to mitigate the adverse impacts of the GP update. The mitigation measures presented in the DEIR to mitigate air impacts include measures already required by the SJVAPCD (e.g., SJVAPCD Rule 4570 regarding confined animal facilities).

Far too many of the County's policies addressing air quality are vague and unenforceable ("encourage," "support," "consider") and their implementation measures are too often absent or else not concrete or measurable, as discussed in detail above. **We urge the County to expeditiously develop and implement a strong plan to reduce its GHG emissions; time is of the essence.**

NOTE: Table 4-2 (DEIR pp. 4-50 and 4-51) states that its "Dairy and feedlot emissions are from the Tulare County Draft Phase I Animal Confinement Facilities Plan Supplemental Program EIR (Jones and Stokes, 2006)." However, **the figures in Table 4-2 do not match those in Table 3-7a Summary of Existing and Future Emission Rates from Tulare County Dairies or Table 3-7b Summary of Existing and Future Emission Rates from Tulare Dairy Feedlots** (DSPEIR, following p. 3-24), **nor those in Table 3-13a San Joaquin Valley Air Basin Existing Dairy Emissions or Table 3-13b** San Joaquin Valley Existing Beef Cattle Emissions (DSPEIR, following p. 3-52), nor in Table 6 Tulare County Dairies: Summary of Existing and Future Emission Rates (following DSPEIR p. D-6), nor Tables 8, 9, 10, or 11 (immediately following).

Please clarify exactly where in the DSPEIR the figures come from, and reconcile any discrepancies between the information in the GPU DEIR and the DSPEIR for the ACFP.

10. HEALTH AND SAFETY

p. 10-1: The introduction to this Element should note under **Existing Conditions** that **air quality and water quality are also sources of significant health concerns in Tulare County** and that these are addressed in Element 9 – Air Quality and Element 11 – Water Resources.

p. 10-2, 2nd paragraph in discussion of flooding: This paragraph should **include the information** that in 1998 Earlimart was flooded and Highway 99 was closed; the flooding that occurred in 2006 in Cutler-Orosi, which the Governor declared an extreme emergency, was due to levee failures.

p. 10-2, 3rd paragraph: This paragraph should **include the following information** from the Background Report: **"Vegetation fires comprise the majority of fires in Tulare County; most are caused by human activities involving motor vehicles and equipment, smoking, arson, and debris burning.** Communities are increasingly concerned about wildfire safety as increased development occurs in the foothills and mountain areas, and subsequent fire control measures have affected the natural cycle of the ecosystem.

The creation of residential parcels in these areas has compounded the potential for property damage from fires and has significantly complicated firefighting responsibilities in the area. Foothill and mountain subdivisions have also virtually eliminated prescribed burning as a means of fire suppression. Conditions of the County's 16 fire stations range 'from excellent to poor,' with **many identified as inadequate for housing fire equipment, and response times have increased due to rapid growth without a correspondent growth in fire protection facilities and staffing. Therefore, as the County continues to grow, the risks of injury, loss of life, and property damage will also increase. Lack of funding is the main obstacle to improving fire protection."**

[Please implement developer impact and mitigation fees ASAP; here's another example of why they're so much needed.]

HS-1.3 Hazardous Lands (p. 10-2): Please clarify and explain: should this Hazardous Lands designation apply to all riparian areas and the areas subject to flooding from levee failures, such as Levee Districts I and II on the St. Johns River?

HS-1.12 Addressing (p. 10-3): This important safety policy is too vague to be meaningful (how will the County "**seek to expand**" this Ordinance?) and its Implementation Measure (IM #7, p. 10-11) is too far in the future (2010-2015). **Please modify this Policy and IM accordingly.**

HS-2.3 Hillside Development (p. 10-3): This is a good new policy, important for soil conservation, aesthetics, habitat, and lessening runoff and erosion. **Please change "discourage" to "prohibit" and add an Implementation Measure** so that this Policy will be enforceable.

HS-2.6 Seismic Standards for Dams (p. 10-3): Please clarify this Policy; "shall continue to address" is too vague to be meaningful. **Please provide an Implementation Measure** for this Policy to make it measurable and enforceable. The Background Report (pp. 8-14 and 8-15) states that **two major dams and many smaller dams throughout the county would cause flooding in the event of their failing. "However, a comprehensive analysis of the potential for dam failure and possible downstream effects for these upstream dams has not been undertaken." Please add a clear Policy and concrete Implementation Measure to address this critical issue.** Please make the Policy and IM effective in time to censure that such a comprehensive analysis will be required prior to the approval of any new dam construction in the County (such as the one proposed to be built at the proposed Yokohl Ranch development).

HS-4.1 Hazardous Materials (p. 10-4): Please clarify this Policy; "strive to ensure" does not indicate who, what, when, where, or how. The Background Report states (BR p. 8-30) that **Tulare County has no facilities authorized to store or dispose of hazardous waste, but that over 1600 tons of hazardous waste originated in the County in 2002 and were transported, mainly on State Routes 43, 63, 65, 99, 198, and 201 (BR p. 8-31). It states that the County had almost 150 cases of leaking underground storage tanks (p. 8-33) and five sites on the federal National Priorities List (in 1988) and nine sites on the California Department of Substances Control Hazardous Waste and Substances Site List in 2004 (BR p. 8-34).** Given this level of hazardous waste, **please move up the date of the Implementation Measure** (#12 on p. 10-12) for this Policy; **2015-2030 is much too far in the future** to begin addressing this problem, which is contaminating our air, water, and soil.

HS-4.2 Establishment of Procedures to Transport Hazardous Wastes (p. 10-4): Please clarify this vague Policy (if the County shall "continue" to cooperate with CHP on establishing procedures, how can the corresponding IM have a timeline starting in 2015?), and **please move up the timeline for the Implementation Measure** for this Policy (#IM #12, p. 10-12); 2015-2030 is too far in the future to address this hazardous activity (especially as traffic volumes and congestion constantly increase).

HS-4.3 Incompatible Land Uses (p. 10-4): Please provide earlier dates for beginning work on the Implementation Measures (#12 and #13, p. 10-12) for these important Policies; 2015-2030 is much too far in the future, especially given the County's very rapid population growth and rapidly increasing areas of development.

HS-4.4 Contamination Prevention (p. 10-4): Please clarify this very vague Policy and give it an Implementation Measure; explain how reviewing the proposals will ensure protection from contamination. **Please include GHG emissions specifically as a contaminant.**

HS-4.5 Increase Public Awareness (p. 10-4): Please clarify this very vague Policy and give it an Implementation Measure.

HS-4.6 Pesticide Control (p. 10-4) It was suggested in the Matrix (p. 222) with regard to this Policy that, for the health and safety of its citizens and of its soil, air, water, and wildlife, the County require the use of natural methods of pest control and IPM practices to reduce the use of toxic and long-lived pesticides wherever possible. RMA responded that it would be illegal for the County to ban the use of pesticides, per Section 11501.1 of the Food and Agricultural Code. Having researched this, we see that the County cannot regulate the use of pesticides in general in the County; however, the County is allowed to pass an ordinance that regulates or restricts pesticide use in its own operations.

Therefore, **please add to Policy HS-4.6: "The County shall require the use of natural methods of pest control and IPM practices to avoid or reduce the use of toxic and/or long-lived pesticides wherever possible in its own operations.** Also, **please add an Implementation Measure for HS-4.6 to clarify who will require mitigation of effects and what such mitigation will be and when this will be implemented**; please make this a concrete and measurable implementation measure. It should be noted that **many of the County's contaminated sites are associated with pesticide manufacturing/processing** (DEIR p. 4-78).

NOTE: The DEIR (pp. 4-77 and 4-78) states that **the GPU "will establish development guidelines against which future projects will be judged for consistency,"** developed from Appendix G of the CEQA Guidelines and "based on the professional judgment of the County and its consultants." The criteria are listed on DEIR p. 4-78. **These criteria should be stated as a Policy in the GPR.**

DEIR p. 4-79 lists **policies that will minimize hazardous materials impacts. Five of these have no Implementation Measures at all; four of them have Implementation Measures scheduled to be worked on sometime between 2015-2030.** They are discussed in more detail above. The GPR's first Value Statement is that the **County will protect** and enhance the beauty of the County and **the health and safety of its residents.** Please revise the above Policies and Implementation Measures so that they march to that tune.

DEIR p. 4-79 also states that the **County's "lack of designated routes for hazardous materials transportation could expose County residents to unnecessary risk"** and that **"if development is proposed for known hazardous materials sites an extra layer of analysis is required for the safety of people and the environment."** It states that two new policies, HS-4.8 "Designated Routes for Hazardous Materials Transport" and HS-49 "Hazardous Materials Studies" are required. **These new Policies are detailed on DEIR p. 4-80, but they do not appear in the GPR.** Please explain how they will get there. NOTE that **HS-4.8 makes no sense as it is written:** "The County **shall continue to encourage the transportation of hazardous materials within the County to routes that have been designated for such transport"** if DEIR p. 4-79 is correct, as quoted above (the County lacks designated routes). Page 8-31 of the Background Report states that **"There are no designated routes within Tulare County for the transportation of inhalation hazards . . . or radioactive materials" per two sections of the Vehicle Code,** although apparently it has routes for some materials. Please **strengthen and clarify HS-4.8** because "encourage" is much too vague.

10.5 Flood Hazards (p. 10-4):

The Flood Hazards section discusses floodplains and dams, but it does not **specifically address the flood hazards associated with Tulare County's Levee Districts' unmaintained levees and channels.** According to the 2005-06 County Grand Jury report and the response of the Board of Supervisors (sitting as the Tulare County Flood Control District Board), the **Board of Supervisors has not transferred general fund monies to the TCFCD for channel clearing since the winter of 1997-98,** renewal of liability **insurance held by District I was denied due to the age and condition of the levee, the Corps of Engineers will not certify the levees** within the two levee districts, the **levees are not constructed to FEMA standards,** and the **Board of Supervisors will not fund the TCFCD for regular inspection and maintenance because it is not feasible under the County's current fiscal circumstances.**

In 2006, the Governor declared the flooding in Cutler-Orosi due to a levee failure an extreme emergency. The Background Report states (p. 8-14) that **"The flood carrying capacity in rivers and streams has decreased as trees, vegetation, and structures . . . have increased** along the Kaweah, Kings, and Tule Rivers. . . . **Confined floodplains can result in significantly higher water elevations and higher flow rates** during high runoff and 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. 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 DEIR (p. 4-86) states that "Recent flood events, including Hurricane Katrina, have brought . . . a heightened awareness of the **dangers of levee failure** . . . and increased public scrutiny of new development projects that are located in floodplain areas protected by levees." DEIR p. 4-87 states disingenuously that the "County has no jurisdiction and is limited in terms of alternatives to mitigate for the identified risks."

Per the Grand Jury report, as agreed to by the Board of Supervisors, "**The State of California Legislature formed the Tulare County Flood Control District (TCFCD) in 1972. . . . 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 FEMA's National Flood Insurance Program, provides flood zone information, and performs flood control investigations.

TCFCD is funded by Tulare County property taxes. It receives approximately $350,000 per year. There are no active programs for levee maintenance or channel inspections within Tulare County."

The Grand Jury report identifies Ventura County as a good example of a well-managed flood control model, with both flood control and watershed protection elements including ground water recharge; funding is supported by numerous benefit assessment districts.

DEIR . 4-87 states that the "**structural integrity of existing levees is an unknown.** Therefore, this impact is considered **potentially significant." Please include strong, clear, enforceable Policies and Implementation Measures in this section that will directly address the levee and channel flooding hazards. Please do not permit new residential development in these areas.**

HS-5.1 Development Compliance with Federal, State, and Local Regulations (p. 10-4): Please put the County Flood Damage Prevention Ordinance online for easy accessibility. The Implementation Measure for this Policy is **IM #14 (p. 10-12)**, which **relies on FEMA floodplain maps for evaluation of projects**; BR p. 8-14 says that the **FEMA maps "probably do not reflect the true extent and risk of flooding hazards in Tulare County." Please include a Policy to require regular and periodic channel analysis and update, with a concrete corresponding Implementation Measure.**

HS-5.2 Development in Floodplain Zones (p. 10-5): This Policy appears to allow residential subdivisions to be developed in the 100-year floodplain zones. Is this correct? Is this why these subdivisions shall be developed to ensure safe access and evacuation during flood conditions? Who will pay for these evacuations? Please do not permit residential subdivisions in areas likely to be flooded. The Implementation Measure for this Policy is **IM #14 (p. 10-12)**, which **relies on FEMA floodplain maps for evaluation of projects**; BR p. 8-14 says that the **FEMA maps "probably do not reflect the true extent and risk of flooding hazards in Tulare County." Please include a Policy to require regular and periodic channel analysis and update, with a concrete corresponding I.M.**

NOTE: We cannot find the **Tulare County Flood Control Master Plan online. Please put it online,** so that it will be readily available.

HS-5.4 Multi-Purpose Flood Control Measures: Please clarify and strengthen this welcome Policy and **provide it with a concrete Implementation Measure.**

HS-5.10 Flood Control Design (p. 10-5): Please strengthen this Policy and give it a concrete, enforceable Implementation Measure. To say that the County shall avoid channeling, straightening, and lining waterways only until it has "studied" alternatives provides far too little direction for doing the right thing. Please ensure that channeling, straightening, and lining waterways shall be an absolute last resort.

HS-5.11 Natural Design (p. 10-5): Please strengthen this Policy and give it a concrete, enforceable Implementation Measure. "Encourage" is far too vague.

HS-6.4 Encourage Cluster Development (p. 10-6): Please strengthen this Policy and give it a concrete, enforceable Implementation Measure. "Encourage" is far too vague.

HS-6.6 Wildland Fire Management Plans (p. 10-6): Please clarify what these management plans must include, when and where they must be filed, how the plans' required actions will be funded and carried out, and how they will be monitored and enforced; please **provide a concrete Implementation Measure** for this Policy. Will these plans be required for *all* projects?

HS-6.9 Fuel Modification Programs (p. 10-6): Please **clarify how the County shall "support"** these programs, and please **provide a concrete Implementation Measure** for this Policy.

HS-6.12 Weed Abatement (p. 10-7): Please **clarify how the County shall "encourage"** these programs and **provide a concrete Implementation Measure for doing so.**

HS-6.13 Restoration of Disturbed Land (p. 10-7): Please **clarify how the County shall "support"** this restoration and **provide a concrete Implementation Measure for doing so.**

HS-8.11 Peak Noise Generators (p. 10-8): This welcome new Policy states that the County shall limit noise generating activities to normal business hours and not allow peak noise activities outside of normal business hours without County approval. Turning to the Implementation Measure to see how this will be enforced, we find **IM #22 (p. 10-13)** stating that the County "*should* develop and adopt a peak noise standards ordinance," with a timeline of 2007-2010. **Does this mean that the County presently has no peak noise standards ordinance, meaning that**