

4. AGRICULTURE, RECREATION, AND OPEN SPACE

4.1 Introduction

This chapter of the Background Report describes how the agricultural, recreational and open space resources within Tulare County contribute to both the quality of life and economic well being of its residents. Current conditions regarding active and passive recreation, natural and developed open space, and farming practices, will be addressed. This chapter is divided into two sections:

- Recreation and Open Space (Section 4.2); and
- Agricultural Resources (Section 4.3).

4.2 Recreation and Open Space

Introduction

Tulare County contains several county, state, and federal parks. Aside from parks in the county, there are many open space areas as well. This section will highlight these various parks and open space areas and identify recreational opportunities within them.

Methods

The information contained in this section was compiled from a variety of sources including the California Department of Conservation-Farmland Mapping and Monitoring Program.

Key Terms

- **Open Space Land.** Open space land is any parcel, area, or waterway that is essentially unimproved and devoted to an open space use. Under Section 65560 of the California State Government Code, open-space land is broadly defined as land designated for the preservation of natural resources (i.e., lakeshore and watershed lands); managed production of resources (i.e., lands for agriculture, forestry, recharge of ground water basins); outdoor recreation (i.e., parks, scenic highway corridors, and areas with outstanding scenic, historic

and cultural values); and public health and safety (i.e., flood plains, unstable soil areas).

- **Recreational Area.** Any public or private space set aside or primarily oriented to recreational use. This includes both parks and community centers.

Regulatory Setting

- **Sections 65560 – 65568, State Government Code: Open-Space Lands.** This portion of California Planning Law defines open-space and requires every city and county to prepare open space plans as a required element of their General Plan. Building permits, subdivision approvals, and zoning ordinance approvals must be consistent with the local open space plan.

Existing Conditions

For the purposes of this section the existing facilities and programs will be broken down into county, state and federal parks and other recreational resources.

County Parks

There are a total of 13 parks that are owned and operated by Tulare County. The location, acreage and features of these parks are indicated in Table 4-1. Figure 4-1 shows the locations of parks located inside the county’s boundaries. According to the Tulare County Parks and Recreation Division, the county is currently (May 2004) not proposing any new parks due to budget restrictions for operation of the facilities.

Table 4-1. Recreational Areas in Tulare County

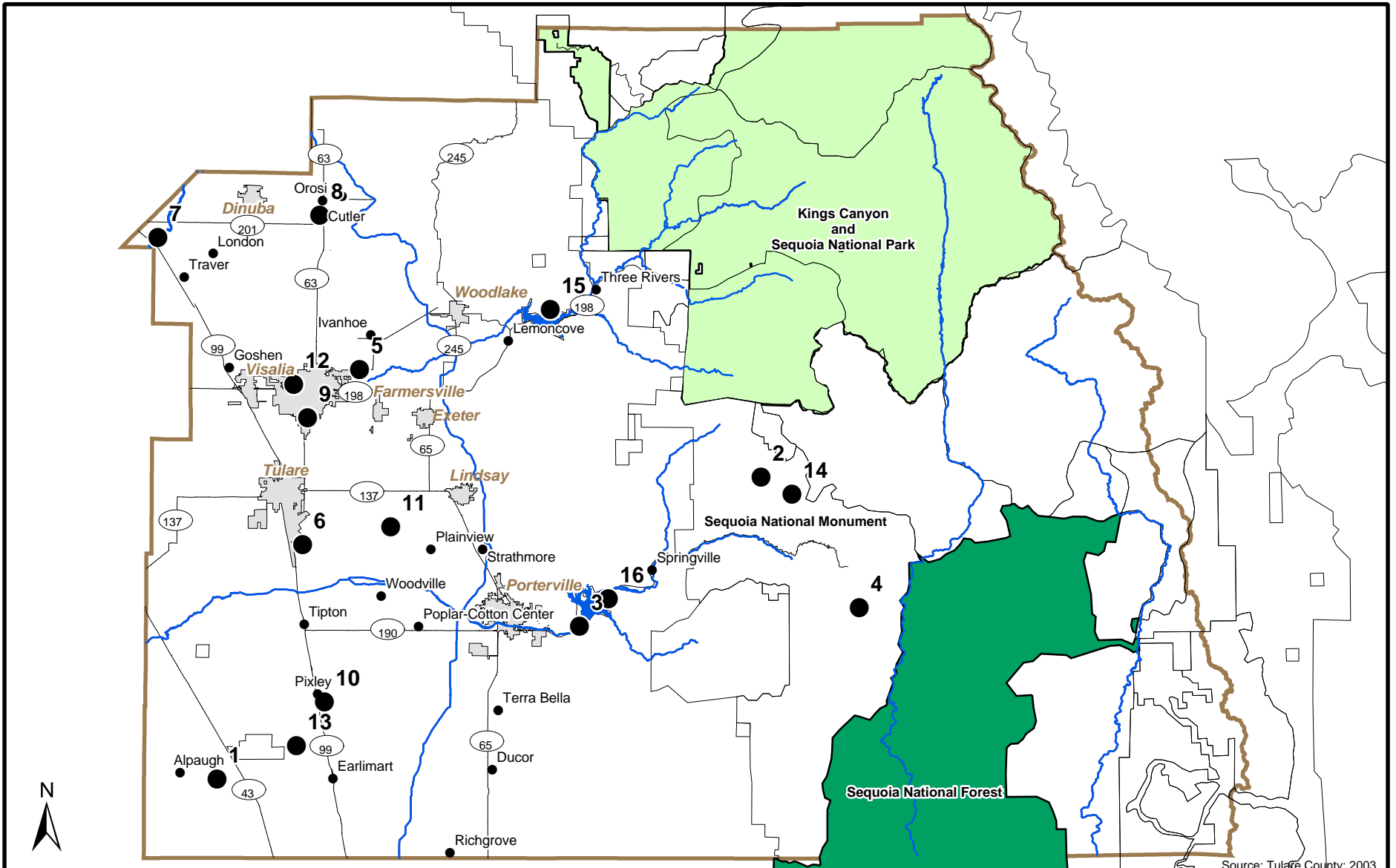
ID	Recreation Area	Location	Acres	Type of Use/Features
County				
1	Alpaugh Park	Located in Alpaugh on Road 40.	3.0	Reservations for picnic areas are taken. No entrance fee.
2	Balch Park Campgrounds	20 miles NE of Springville in the Sierras.	160.0	71 Campsites. No reservations taken; first come first serve basis. Entrance fee for vehicles.
3	Bartlett Park	8 miles east of Porterville on North Drive.	127.5	Reservations for picnic areas are taken. Entrance fee for vehicles.

4. Agriculture, Recreation, and Open Space

Table 4-1. Recreational Areas in Tulare County

ID	Recreation Area	Location	Acres	Type of Use/Features
4	Camp Cotyac	Near Ponderosa in Eastern Tulare County.	8.0	Cabins, lodge with kitchen, restrooms and showers.
5	Cutler Park	5 miles east of Visalia on Highway 216 to Ivanhoe.	50.0	Reservations for picnic areas are taken. Entrance fee for vehicles.
6	Elk Bayou Park	6 miles SE of Tulare on Avenue 200.	60.0	Reservations for picnic areas are taken. No fee for day use.
7	Kings River Nature Preserve	2 miles east of Highway 99 on Road 28	85.0	This park is only for school environmental programs.
8	Ledbetter Park	1 mile northwest of Cutler on Road 124/Hwy 63	11.0	Reservations for picnic areas are taken. No fee.
9	Mooney Grove Park	2 Miles south of Caldwell Avenue on Mooney Blvd. In South Visalia.	143.0	Reservations for picnic areas are taken. Paddle boats, playground, baseball diamonds. Home of the End Trail statue.
10	Pixley Park	1 mile NE of Pixley on Road 124.	22.0	Reservations for picnic areas are taken. No fee.
11	Tulare County Museum	In Mooney Grove Park, South Visalia.	8.5	Free admission with park fee. Museum is opened Thursday thru Monday (closed Tuesday and Wednesday).
12	Woodville Park	Located in Avenue 166 in Woodville.	10.0	Reservations for picnic areas are taken. Day use no entrance fee.
13	West Main Street Park	2 blocks west of County Courthouse on Main Street in Downtown Visalia.	5.0	Day use no entrance fee.
State				
14	Colonel Allensworth State Historic Park	7 miles west of Earlimart on County Road J22.	na	15 campsites, open year round.
15	Mountain Home State Forest	Located in Sequoia National Forest	na	No reservations taken for campgrounds.
Federal				
16	Lake Kaweah	25 miles east of Visalia on Highway 198.	2,558.0	Na
17	Lake Success	10 miles SE of Porterville on Highway 198.	2,450.0	Na
Total Acres				5,698

Source: Tulare County, Park and Recreation Inventory and Automobile Club of Southern California, Tulare County Map.



Source: Tulare County; 2003.

Tulare County General Plan Update

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LEGEND








-  Major Roads
 -  Rivers
 -  Lakes
 -  City Limits
 -  County Boundary
 -  Communities
 -  Recreational Areas in Tulare County
- See Table 4-1 for numerical references

FIGURE 4-1
Existing Parks

State Parks and Forests

The only State Park in Tulare County is Colonel Allensworth State Historic Park discussed in Section 9.3. The park contains a museum and a visitor center addressing the town's history, as well as camping facilities. Allensworth is the only California town to be founded, financed and governed by African Americans. The small farming community was founded in 1908 by Colonel Allen Allensworth and a group of others dedicated to improving the economic and social status of African Americans. Uncontrollable circumstances, including a drop in the area's water table, resulted in the town's demise. With continuing restoration and special events, the town is coming back to life as a state historic park. The park's visitor center features a film about the site. A yearly rededication ceremony reaffirms the vision of its pioneers.

Mountain Home State Forest. The Mountain Home State Forest is a State Forest managed by the California Department of Forestry and Fire Protection (CDF). The Forest consists of 4,807 acres of parkland containing a number of Giant Sequoias, and is located just east of Porterville. The Forest is a Demonstration Forest, which is considered timberland that is managed for forestry education, research, and recreation. Fishing ponds, hiking trails, and campsites are some of the amenities that can be found in the Forest.

Federal Recreation Areas

The two federal recreational areas in Tulare County are Lake Kaweah and Lake Success, which were operated by the U.S. Army Corps of Engineers (see Table 4-2).

Lake Kaweah. Lake Kaweah was formed after the construction of the Terminous Dam on the Kaweah River in 12962. The lake offers many recreational opportunities including fishing, camping, and boating.

Lake Success. Lake Success was formed by construction of the Success Dam on the Tule River in 1961. The lake offers many recreational activities including fishing, boating, waterskiing, and picnicking.

National Parks and National Forests

Most of the recreational opportunities in the county are located in Sequoia National Forest, and National Monument in Sequoia and Kings Canyon National Parks (SEKI). Although these parks span adjacent counties, they make a significant contribution to the recreational opportunities that Tulare County has to offer. See Table 4-2 for a list of campgrounds and their locations.

Table 4-2. National Park and Forest Facilities

Sequoia National Forest		
Recreation Area	Location	Camping Sites
Gray's Meadow	5 miles West of Independence on Onion Valley Road.	52 tent/RV sites
Oak Creek	4 ½ miles NW of Independence off Highway 395.	21 tent/RV sites
Onion Valley	14 miles West of Independence on Onion Valley Road.	29 tent/RV sites
Stoney Creek	14 miles SE of Grant Grove on Generals Highway.	49 tent/RV sites
Sunset	Kings Canyon, South of Grant Grove.	119 tent/RV sites
Whitney Portal	13 miles West of Lone Pine on Whitney Portal Road.	43 tent/RV sites
Total		311 sites
Kings Canyon and Sequoia National Park		
Recreation Area	Location	Camping Sites
Atwell Mill Campground	Sequoia, 19 miles from Highway 198 on Mineral King Road.	21 tent sites
Buckeye Flat	Sequoia, 11 miles South of Giant Forest of Generals Highway.	28 tent sites
Cold Springs	Sequoia, Mineral King Area.	25 tent sites
Crystal Springs	Kings Canyon, ½ mile North of Grant Grove.	67 tent/RV sites
Dorst Campground	Sequoia, 9 miles North of Lodgepole off Generals Highway.	210 tent/RV sites
Lodgepole	Sequoia, 4 miles NE of Cedar Grove.	214 tent/RV sites
Moraine	Kings Canyon, 1 mile East of Cedar Grove.	120 tent/RV sites
Potwisha	Sequoia, 4 miles NE of Ash Mountain entrance off Generals Highway.	44 tent/RV sites
Sheep Creek	Kings Canyon, 1/2-mile West of Cedar Grove.	111 tent/RV sites
South Fork	Sequoia, 13 miles on South Fork from Highway 198.	10 tent sites
Total		739 sites

Source: Tulare County, Park and Recreation Inventory and Automobile club of Southern California, Tulare County Map.

Sequoia National Forest. Sequoia National Forest takes its name from the Giant Sequoia, which is the world's largest tree. There are more than 30 groves of sequoias in the lower slopes of the park. The park includes over 1,500 miles of maintained roads, 1,000 miles of abandoned roads and 850 miles of trails for hikers, off-highway vehicle users and horseback riders. The Pacific Crest Trail connecting Canada and Mexico, crosses a portion of the forest, 78 miles of the total 2,600 miles of the entire trail. It is estimated that 10 to 13 million people visit the forest each year.

Giant Sequoia National Monument. The Giant Sequoia National Monument was created in 2000 by President Clinton in an effort to preserve 34 groves of ancient sequoias located in the Sequoia National Forest. The Monument includes a total of 327,769 acres of federal land, and provides various recreational opportunities, including camping, picnicking, fishing, and whitewater rafting. According to the Giant Sequoia National Monument Management Plan EIS, the Monument includes a total of 21 family campgrounds with 502 campsites and seven group campgrounds. In addition, there are approximately 160 miles of system trails, including 12 miles of the Summit National Recreation Trail.

Sequoia and Kings Canyon National Parks (SEKI). The U.S. Congress created the Kings Canyon National Park in 1940 and Sequoia National Park in 1890. Because they share many miles of common boundaries, they are managed as one park. The extreme large elevation ranges in the parks (from 1,500 to 14,491 feet above sea level), provide for a wide range of vegetative and wildlife habitats. This is witnessed from exploring Mt. Whitney, which rises to an elevation of 14,491 feet, and is the tallest mountain in the contiguous United States. During the summer months, park rangers lead walks through the parks, and tours of Crystal and Boyden Caves. During the winter, visitors explore the higher elevations of the parks via cross country skis or snowshoes, or hike the trails in the foothills. The SEKI also contains visitor lodges, the majority of which are open year round. According to the National Parks Conservation Association, a combined total of approximately 1.4 million people visit the two parks on an annual basis.

The SEKI is also home to the Sequoia Natural History Association (SNHA), which is located at the Beetle Rock Education Center inside the Park. The SNHA is a non-profit educational organization that provides services to SEKI otherwise not available through federal funding. Services that SHNA provides include conducting Crystal

Cave tours, operating the Beetle Rock Education Center, providing visitor information and nature center staff, and offering field seminar courses.

Other Recreational Resources

Lakes

Lake Kaweah. Lake Kaweah is located 20 miles east of Visalia on Highway 198 and was constructed by the U.S. Army Corps of Engineers for flood control and water conservation purposes. The lake has a maximum capacity to store 143,000 acre-feet of water. There are a total of 80 campsites at the lake's Horse Creek Campground, which contains toilets, showers and a playground. Campfire programs are also available. Aside from camping, boat ramps are provided at the Lemon Hill and Kaweah Recreation Areas. Both Kaweah and Horse Creek provide picnic areas, barbecue grills and piped water. Swimming is allowed in designated areas. In addition, there is a one-mile hiking trail between Slick Rock and Cobble Knoll, which is ideal for bird watching.

Lake Success. The U.S. Army Corps of Engineers constructed this reservoir in 1962 for both flood control and irrigation purposes. The lake has a capacity of 85,000 acre-feet of water. The lake is located eight miles east of Porterville in the Sierra Nevada foothills area. Recreational opportunities include ranger programs, camping at the Tule campground, which provides 104 sites, boating, fishing, picnic sites, playgrounds and a softball field. Seasonal hunting is also permitted in the 1,400-acre Wildlife Management Area.

Trails and Wilderness Areas

Pacific Crest Trail. The Pacific Crest Trail connects Canada and Mexico. A portion of the trail (78 miles) passes through eastern Tulare County. The U.S. Forest Service, Bureau of Land Management and the National Park Service administer the Pacific Crest Trail jointly. The Pacific Crest Trail was one of the first trails to be designated as a scenic trail in the National Trails System authorized by Congress in 1968. According to the Pacific Crest Trail Association, approximately 300 hikers use the trail. However, roughly 60% actually finish the entire trail.

South Sierra Wilderness Area. The South Sierra Wilderness Area borders both the Golden Trout Wilderness (on the northern

boundary) and Dome Land Wilderness (on its southern boundary). All three of these wilderness areas are located within the Sequoia National Forest. The entire South Sierra Wilderness Area is located within the South Fork of the Kern River Watershed within gentle terrain between forested ridges. This area covers 63,000 acres, with 53,400 acres (85 percent) located within Tulare County. The presences of over 25 miles of streams in this wilderness create ideal fishing conditions. In addition, the many trails enhance hiking and horseback riding opportunities. Hunting is also permitted under state regulations.

Dome Land Wilderness Area. Dome Land Wilderness Area is located at the southern end of the Kern Plateau approximately 70 miles northeast of Bakersfield. The South Fork of the Kern River drains the eastern portion of this wilderness area. Dome Land consists of about 95,000 acres of land. The unique features of this wilderness area are the granite dome landforms. There are also approximately 45 miles of hiking/horse trails within the area.

Golden Trout Wilderness Area. The Golden Trout Wilderness Area comprises over 303,000 acres and was designated by Congress in 1978. This area is named for the brightly colored native trout, which is also the California state fish. Cattle grazing has been one of the primary uses for this area for well over 100 years. Stockmen originally established many of the trails before the area was designated as a wilderness area. Recreation activities include backpacking, hiking, horseback riding, fishing, and hunting.

Other Recreational Facilities

International Agri-Center. The International Agri-Center located in Tulare is home to both the World Ag Expo and the California Antique Farm Equipment Show. The World Ag Expo is the largest agricultural exposition in the world. In 2004, there were a total of 79,000 attendees. Both of these shows draw many visitors outside Tulare County to the area. According to Agri-Marketing, the 2003 event had a \$1.2 billion impact on the regional economy. In addition to these shows, the International Agri-Center is also home to the Heritage Complex. This facility is an ideal location for parties, weddings, receptions, concerts and meetings.

Tulare County Fairgrounds. The Tulare County Fairgrounds host the annual Tulare County Fair, but there are also ongoing horse races, shows and exhibits. The facilities at the fairgrounds include a horse

track, barns and stables for animals, a milk house, BMX racing track, stadium area, and a number of buildings that can be rented for a variety of uses.

4.3 Agricultural Resources

Introduction

Agricultural production is the most important economic base in Tulare County, accounting for \$3.29 billion dollars in production value in 2003. In fact, according to the California Farm Bureau, Tulare County was ranked number one in agricultural production in the nation in 2001. Most of the county's crop agricultural activities take place in the western portion of the county due to the fact that a majority of the eastern part of the county consists of more mountainous terrain, most of which is publicly owned. The primary agricultural products produced in Tulare County include milk, oranges, grapes and cattle.

Methods

The information contained in this section was compiled from a variety of sources, including the California Department of Conservation-Farmland Mapping and Monitoring Program, and the Tulare County Agricultural Commissioner/Sealer.

Key Terms

- **Important Farmlands.** A collective term for farmlands designated as Prime, Unique, or as Farmlands of Statewide Importance under the Department of Conservation's Farmland Mapping and Monitoring Program.
- **Farmland Security Zone.** An area created within an agricultural preserve by a board of supervisors upon request by a landowner or group of landowners.
- **Soil Quality.** The capacity of a specific kind of soil to function, within natural or managed ecosystem boundaries, to sustain plant and animal productivity, maintain or enhance water and air quality, and support human health and habitation.

- **Williamson Act.** The most prevalent regulatory method of preserving farmland in the State of California, as well as Tulare County.
- **Williamson Act Contract – Active.** A contract between a landowner and a city or county to restrict land to agricultural or open space uses in return for reduced property tax assessments. The minimum term for a Williamson Act contract is 10 years. Since the term automatically renews on each anniversary date of the contract, the actual term can be indefinite.
- **Williamson Act Contract – Cancellation.** Under a set of specifically defined circumstances, a contract may be cancelled without completing the process of term non-renewal. Contract cancellation, however, involves a comprehensive review and approval process, and the payment of fees by the landowner equal to 12 percent of the full market value of the subject property.
- **Williamson Act Contract – Notice of Non-Renewal.** Contracts may be terminated at the option of the landowner or local government by initiating the process of term non-renewal. Under this process, the remaining contract term (nine years in the case of an original term of 10 years) is allowed to lapse, with the contract null and void at the end of the term. Property tax rates gradually increase during the nonrenewable period, until they reach normal (i.e., non-restricted) levels upon termination of the contract.
- **Williamson Act Contract – Expired.** Expired parcels are those parcels that have previously been subject to a Williamson Act contract, and have since been removed from the contract through non-renewal, cancellation or annexation.

Regulatory Setting

- **California Department of Conservation – Farmland Mapping and Monitoring Program.** The California Department of Conservation (DOC), under the Division of Land Resource Protection, has developed the Farmland Mapping and Monitoring Program (FMMP), which monitors the conversion of the state’s farmland to and from agricultural use. Data is collected at the county level to produce a series of maps

identifying eight land use classifications using a minimum mapping unit of 10 acres. The program also produces a biannual report on the amount of land converted from agricultural to non-agricultural use. The program maintains an inventory of state agricultural land and updates the “Important Farmland Series Maps” every two years (Department of Conservation, 2000).

- The **FMMP** is only an informational service and does not constitute state regulation of local land use decisions. Agricultural land is rated according to several variables including soil quality and irrigation status with Prime Farmland being considered the most optimal for agricultural production. Table 4-3 provides a summary of the rating categories used by the FMMP.

Table 4-3. Description of Farmland Designations

Farmland Designation	Description
Prime Farmland	Land that has the best combination of physical and chemical characteristics for the production of crops. It has the soil quality, growing season, and moisture supply needed to produce sustained yields of crops when treated and managed, including water management, according to current farming methods. It must have been used for the production of irrigated crops within the last three years. It does not include publicly owned lands for which there is a policy preventing agricultural use.
Farmland of Statewide Importance	Similar to Prime Farmland but with minor shortcomings, such as greater slopes or less ability to hold and store moisture. Considered to have an excellent combination of physical and chemical characteristics for the production of crops.
Unique Farmland	Land of lesser quality soils used for the production of specific high-economic value crops at some time during the monitoring program’s two update cycles prior to the mapping date. It has the special combination of soil quality, location and growing season, and moisture supply needed to produce sustained high quality or high yields of a specific crop when treated and managed according to current farming methods. Unique farmland is usually irrigated, but may include non-irrigated orchards or vineyards as found in some climatic zones in California.
Farmland of Local Importance	Farmlands not covered by the categories of Prime, Statewide, or Unique. They include lands zoned for agriculture by County Ordinance and the California Land Conservation Act as well as dry farmed lands, irrigated pasturelands, and other agricultural lands of significant economic importance to the county and include lands that have a potential for irrigation from Tulare County water supplies.
Grazing Land	Grazing Land is land on which the existing vegetation, whether grown naturally or through management, is suitable for grazing or browsing of livestock. The minimum mapping unit for Grazing Land is 40 acres.
Urban and Built-up Land	Land occupied by structures with a building density of at least 1 unit to 1.5 acres, or approximately 6 structures to a 10-acre parcel. This land is used for residential, industrial, commercial, construction, institutional, public administration, railroad and other transportation yards, cemeteries, airports, golf courses, sanitary landfills, sewage treatment, water control structures, and other developed purposes.

Table 4-3. Description of Farmland Designations

Farmland Designation	Description
Other Land	Land not included in any other mapping category. Common examples include: low density rural developments; brush; timber; wetland; and riparian areas not suitable for livestock grazing; confined livestock; poultry or aquaculture facilities; strip mines; borrow pits; and water bodies smaller than 40 acres. Vacant and nonagricultural land surrounded on all sides by urban development and greater than 40 acres is mapped as Other Land.
Water	Perennial water bodies with an extent of at least 40 acres.

Source: California Department of Conservation, 2000.

- Williamson Act** – California Land Conservation Act of 1965. The California Land Conservation Act (CLCA) of 1965, Sections 51200 et seq. of the California Government Code, commonly referred to as the “Williamson Act”, enables local governments to restrict the use of specific parcels of land to agricultural or related open space use. Landowners enter into contracts with participating cities and counties and agree to restrict their land to agriculture or open space use for a minimum of ten years. In return, landowners receive property tax assessments that are much lower than normal because they are based upon farming and open space uses as opposed to full market (speculative) value. Local governments receive an annual subvention of forgone property tax revenues from the state via the Open Space Subvention Act of 1971.

The DOC reports that the Land Conservation Act Program has remained stable and effective as a mechanism for protecting agricultural and open space land from premature conversion of land to urban uses. The DOC indicates that the program might have remained small if not for the addition of Article 28 (now part of Article 13) to the State of California Constitution. Article 13 declares the interest of the state in preserving open space land and provides a constitutional basis for valuing property according to its actual use. The amendment originated with groups interested in the preservation of open space land. Agricultural interests added their support after recognizing the importance of a constitutional backing for preferential tax assessments. Article 13 allows preferential assessments for recreational, scenic, and natural resource areas as well as areas devoted to the production of food and fiber.

Legislation Affecting the Williamson Act

- **Farmland Security Zones.** In August 1998, the Williamson Act's Farmland Security Zone (FSZ) provisions were enacted with the passage of Senate Bill 1182 (California Government Code Section 51296-51297.4). This sub-program, dubbed the "Super Williamson Act," enables agricultural landowners to enter into contracts with the county for 20-year increments with an additional 35 percent tax benefit over and above the standard Williamson Act contract.
- **Annexation of FSZ's is generally not allowed.** Section 56749 of the California Government Code requires Local Agency Formation Commissions (LAFCO's) to reject plans that would result in the annexation of FSZ territory into cities. However, FSZ annexation is permissible under certain circumstances including voter approval, necessary public improvements, and landowner consent.
- **Senate Bill 1835 and the Cortese-Knox Local Government Reorganization Act of 2000.** Senate Bill 1835 (Johnston, Chapter 690, Statutes of 1998) requires the LAFCO to determine whether a particular city is required to succeed to the rights, duties and powers of the county under the contract or whether the city may exercise an option to not succeed to the rights, duties and powers of the county.
- **Senate Bill 2227 and the Cortese-Knox Local Governmental Reorganization Act** (Monteith, Chapter 590, Statutes of 1998) added new requirements to the Cortese-Knox Local Governmental Reorganization Act regarding any proposed annexation of Williamson Act contract land. If the proposal would result in the annexation of land that is subject to the Williamson Act, then the petition shall state whether the city shall succeed to the contract or whether the city intends to exercise its option to not succeed to the contract.

Local Zoning for Agricultural Uses

- **A-1 Agricultural Zone.** Within Tulare County's A-1 Agricultural Zone, no subdivision may be created. Contiguous land units, which are owned by the same person or persons shall not be divided unless it complies with the ordinance. This zone has been grandfathered in.

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- **AE Exclusive Agricultural Zone.** This zone permits intensive agricultural uses of land, including field and orchard crops and the raising of livestock.
- **AF Foothill Agricultural Zone.** This zone specifies the types of structures that can be built in the zone. Some of these include residences, barns, windmills, silos etc. All types of commercial crops are allowed except for the growth of mushrooms (requires a special permit). Animal restrictions also apply to this zone.
- **Dairies/Feedlots.** The Tulare County Zoning Ordinance also permits dairies and feedlots (with more than 25 animals) in most agricultural zones through its Special Use Permit mechanism.

Existing Conditions

Agricultural Production

Agricultural products are one of Tulare County's most important resources. Between 1999 and 2003 gross agricultural production values for Tulare County increased steadily. As shown in Table 4-4, the gross production value during this period increased by approximately 218 million dollars. The majority of the increased value is focused on vegetable crop production.

Table 4-4. Gross Production Values, 1999 and 2003

Commodity Type	1999 Gross Production Value	2003 Gross Production Value	Net Change
Fruit and Nut Products	\$1,314,938,000	\$1,355,787,000	\$40,849,000
Vegetable Crop	\$48,883,000	\$22,212,000	\$26,671,000
Field Crops	\$291,682,000	\$290,115,000	\$1,567,000
Nursery Products	\$69,682,000	\$66,775,000	\$2,907,000
Apiary Products*	\$12,214,000	\$34,589,000	\$22,375,000
Livestock & Poultry**	\$397,642,000	\$440,950,000	\$43,308,000
Livestock & Poultry Products***	\$938,273,000	\$1,082,556,000	\$144,283,000
Seed Crop	\$1,081,000	\$1,076,000	\$5,000
Industrial Crops	\$3,992,000	\$2,462,000	\$1,530,000
Total	\$3,078,387,000	\$3,296,522,000 *	\$218,135,000

Source: Tulare County 2000, and 2003 Annual Crop and Livestock Report, Tulare County Agricultural Commissioner/Sealer.

*This includes honey and beeswax.

** Includes dairy cattle.

*** Includes milk.

Unlike the gross production values between 1999 and 2002, the harvested acreage has only experienced slight fluctuations. Table 4-5 shows the harvested acreage for 1999 through 2002. The total harvested acreage has remained constant at approximately 1.5 million acres during this period, revealing that the value for the harvested crops is purely based on the crops, not acreage increases.

Table 4-5. Harvested Acreage for 1999-2002

Commodity Type	1999 Harvested Acreage	2000 Harvested Acreage	2001 Harvested Acreage	2002 Harvested Acreage
Fruit and Nut Products	339,665	326,567	312,881	310,454
Vegetable Crop	11,633	8,166	14,334	6,385
Field Crops	1,227,014	1,232,981	1,228,776	1,251,358
Seed Crop	640	194	62	687
Total	1,578,952	1,567,908	1,556,053	1,568,884

Source: Tulare County 2000, 2001 and 2002 Annual Crop and Live Stock Report

Crops and commodities vary annually on how they are ranked in Tulare County based on the amount of acreage dedicated to the commodity. Table 4-6 shows the rankings for the top 25 commodities over the 1999 to 2002 timeframe. Over the three-year period, milk has consistently ranked as the number one commodity in Tulare County. Oranges, grapes, cattle and calves, peaches, alfalfa, nectarines, plums, corn, and cotton have all retained in the top ten, even though their rankings have varied from year to year.

Table 4-6. Agricultural Commodity Values and Rankings for 1993-2003 for Tulare County

Commodity Type	1993	1998	2003	Net Change (1993-2003)	Ranking (1993)	Ranking (2002)
Milk	\$477,252,000	\$898,819,000	\$1,067,797,000	\$590,545,000	1	1
Oranges	\$356,053,000	\$478,498,000	\$442,504,000	\$86,451,000	3	2
Grapes	\$377,650,000	\$387,027,000	\$378,511,000	\$861,000	2	3
Cattle and Calves	\$237,974,000	\$271,096,000	\$372,863,000	\$134,889,000	4	4
Plums	\$96,910,000	\$66,718,000	\$85,500,000	\$11,410,000	6	5
Alfalfa Hay and silage	\$64,374,000	\$82,158,000	\$84,019,000	\$19,645,000	8	6
Peaches	\$53,112,000	\$56,146,000	\$70,092,000	\$16,980,000	9	7
Walnuts	\$65,534,000	\$39,006,000	\$68,970,000	\$3,436,000	7	8
Nectarines	\$51,120,000	\$56,454,000	\$66,474,000	\$15,354,000	10	9
Corn	\$32,306,000	\$64,151,000	\$66,008,000	\$33,702,000	11	10
Cotton	\$164,324,000	\$45,881,000	\$61,896,000	\$102,428,000	5	11
Almonds	\$28,572,000	\$39,632,000	\$21,935,000	\$6,637,000	13	12
Nursery (Trees and Shrubs)	\$8,155,000	\$39,617,000	\$42,844,000	\$34,689,000	25	13
Tangerines	\$8,795,000	\$11,356,000	\$32,779,000	\$23,984,000	23	14
Olives	\$25,909,000	\$26,590,000	\$26,565,000	\$656,000	15	15
Total	\$2,048,040,000	\$2,563,149,000	\$2,888,757,000	\$840,717,000		

Source: Tulare County 2000, 2001, and 2002 annual Crop and Live Stock Report/Tulare County Agricultural Commissioner/Sealer.

4. Agriculture, Recreation, and Open Space

Over the last twelve years, Tulare County has continued to increase its amount of harvested acreage and value of the crops. See Table 4-7 for harvested acreage and crop value for years 1990-2002.

Table 4-7. Tulare County Historical Agricultural Trends, 1990 and 2002

Year	Harvested Acreage	Percent Change	Value	Percent Change
1990	1,438,611	-	\$2,169,448,000	-
1991	1,457,212	1.3%	\$1,878,425,400	-13.4%
1992	1,490,976	2.3%	\$2,221,612,100	18.3%
1993	1,477,015	-0.9%	\$2,365,202,000	6.5%
1994	*	-	*	-
1995	1,537,583	4.1%	\$2,611,088,000	10.4%
1996	1,512,589	-1.6%	\$2,805,452,000	7.4%
1997	1,511,613	-0.1%	\$2,898,582,000	3.3%
1998	1,566,456	3.6%	\$2,924,235,800	0.9%
1999	1,578,952	0.8%	\$3,078,369,200	5.3%
2000	1,567,908	-0.7%	\$3,068,648,200	-0.3%
2001	1,556,053	-0.8%	\$3,201,084,900	13.3%
2002	1,568,884	0.8%	\$3,475,999,600**	7.9%
2003	1,604,658	2.3%	\$3,296,522,000	3.0%

Source: Tulare County 1991, 1993, 1996, 1998, 2000, 2001, 2002, and 2003 Annual Crop and Live Stock Report

* Data missing from reports.

** Adjusted from 2001 crop report

Timber Production

Timberlands that are available for harvesting are located in the eastern portion of Tulare County in the Sequoia National Forest. Hardwoods found in the Sequoia National Forest are occasionally harvested for fuel wood, in addition to use for timber production.

Since most of the timberlands are located in Sequoia National Forest, the U.S. Forest Service has principal jurisdiction, which encompasses over 3 million acres. The U.S. Forest Service leases these federal lands for timber harvests.

In 2000, President Bill Clinton designated 327,769 acres of federal land in the Sequoia National Forest as the Giant Sequoia National Monument to preserve 34 groves of ancient sequoias. The proclamation indicated that no portion of the Monument shall be considered to be suited for timber production. Furthermore, the Proclamation stated that tree removal would only be allowed for personal use for fuel wood, ecological restoration, or maintenance of public safety.

For private lands outside of the National Forest that are not regulated by the U.S. Forest Service, different regulations apply. First the county zones the land, and then the state approves a timber harvest plan. These harvest plans must be registered by a Professional Forester and submitted to the California Department of Forestry and Fire Protection for approval.

For U.S. Forest Service leases, which predominate the timberland harvests in the county, a portion of the revenue from the harvest is apportioned to the county in the form of a property tax. For private land, the county determines the parcel size for harvesting.

Overall, timber production has declined in the county in recent years partly due to increased federal restrictions on logging practices and the decline in lumber prices (see Table 4-8). However, timber production increased in 2003 due to changing market conditions according to the 2003 Tulare County Annual Crop and Livestock Report, the volume of timber harvested in the county from 2002 to 2003 increased by 49 percent.

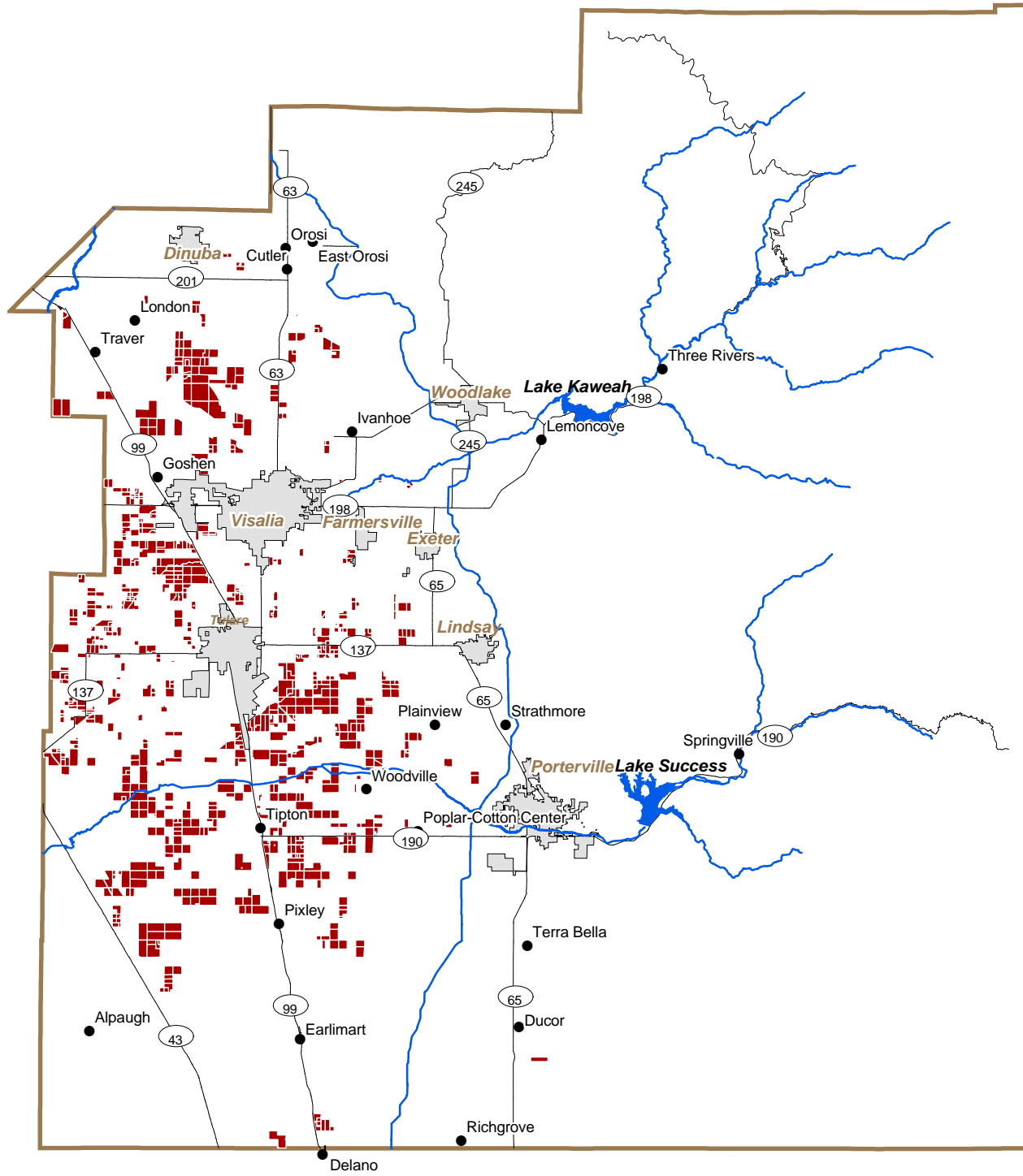
Table 4-8. Timber Harvested in Tulare County, 1993-2003

Year	Timber Harvested (board per foot)	Net Change
1993	43,472,000	-
1995	10,572,000	-32,900,000
1997	9,603,000	-969,000
1999	8,362,000	-1,241,000
2001	5,445,000	-2,917,000
2003	9,802,000	4,357,000

Source: Tulare County Annual Crop and Livestock Reports, 1993, 1996, 1998, 2000, 2001, 2003.

Dairy Production

Dairies are one of the most important aspects of Tulare County’s agricultural resources. In 2003, milk was the number one ranking agricultural commodity with over \$1 billion dollars in total value in Tulare County. (According to the University of California Agriculture and Natural Resources Department, there were a total of 303 dairies and 358,000 dairy cows in the county in 2003). As of 2004, approximately 23 new dairies and 47 dairy expansions are awaiting county approval for permits. Most of the dairies in Tulare County are family operated, and are located on the county’s valley floor area. Figure 4-2 shows the locations of existing dairies in the county.



Source: Animal Confinement Facilities Plan Phase 1 EIR; 2000.

Tulare County General Plan Update

LEGEND

- Major Roads
- Rivers
- Lakes
- City Limits
- County Boundary
- Communities
- Dairy Facilities

FIGURE 4-2
Existing Dairy
Production

There are several policies and standards that have been adopted to guide the development and operation of dairies in Tulare County. In 1974, the Tulare County Planning Commission approved the Animal Waste Management Element (AWME) that was prepared as part of the Environmental Resources Management Element of the Tulare County General Plan. However, since the AWME was never adopted, it was not incorporated into the County's General Plan. However, the Tulare Planning Commission has adopted the AWME standards by resolution to be used as guidelines when considering and approving use permits for new dairies.

In 1992, the Agricultural Advisory Committee (AAC) was activated by the Board of Supervisors (BOS) to update the AWME. Some of the specific issues that the BOS requested to be addressed included:

- Lack of tracking solid waste disposal;
- Existing dairies were increasing herd sizes without obtaining a special use permit; and
- Animal density standards in the county's guidelines were more permissive than the Central Valley Regional Water Quality Control Board requirements.

As a result of the AAC effort, in 2000, Phase I of the Animal Confinement Facilities Plan (ACFP) was prepared. The ACFP includes a set of recommended dairy and animal confinement facility policies which address the issues raised by the AAC, including location and animal density criteria for new bovine dairies and animal confinement facilities. A program EIR was prepared for the ACFP to identify potential environmental impacts that might result from its adoption and subsequent development of dairy facilities and other bovine animal confinement facilities. Since the ACFP was originally adopted as a policy document, the program EIR discusses the potential impacts and mitigation measures in a generalized fashion focusing on cumulative effects. The issues raised in the EIR included: degradation of surface water, groundwater and air quality; land use conflicts; potential health hazards; and loss of natural habitat. Since this was a program EIR that was prepared, when a specific project is proposed, a site-specific review will be conducted using a supplemental environmental checklist. In addition to this EIR, the county is currently preparing a Supplemental Program EIR to further examine cumulative air and water quality issues. Furthermore, a future phase

4. Agriculture, Recreation, and Open Space

of the ACFP (Phase II) will address animal confinement facilities for poultry, swine, and other types of animals.

Agricultural Land Use

The total amount of inventoried acreage for all of the farmland categories has increased substantially between the years 1996 and 1998 data available (see Table 4-9). This is due to the fact that more land was classified during this period than in previous years.

Table 4-9. Tulare County Agricultural Land by Category, 1994 - 2002

Farmland Category	Total Acres Inventoried				
	1994	1996	1998	2000	2002
Prime Farm Land	85,727	85,497	396,125	393,036	387,626
Farmland of State Wide Importance	28,272	28,529	357,221	351,689	347,294
Unique Farmland	6,854	6,913	11,792	11,749	11,4449
Farmland of Local Importance	70,852	70,543	110,042	117,741	133,474
Important Farmland Subtotal	191,705	191,482	875,180	874,215	879,843
Grazing Land	446,282	446,037	439,955	439,933	433,618
Total	637,987	637,519	1,315,135	1,314,148	1,313,461

Source: California Department of Conservation, Farmland Conversion Report, 1994 to 1996; Farmland Conversion Report, 1998 to 2000.

* The significant increase in the total acres inventoried for 1998 is due to new soil survey information that has been made available for Western Tulare County. This information was available during preparation of the previous reports.

Table 4-10 shows the net acreage change between 1994-1996, 1996-1998, and 2000-2002. Acreage has been consistently decreasing during the time shown on this table. Prime Farm Land and Farmland of Statewide Importance, the most productive of all the farmland use categories, have faced the most significant loss in acreage between 1994 and 2002. In particular, the loss of land in these categories from 1998 to 2002 was significantly higher than previous years.

Figure 4-3 shows existing farmland in Tulare County by farmland category.

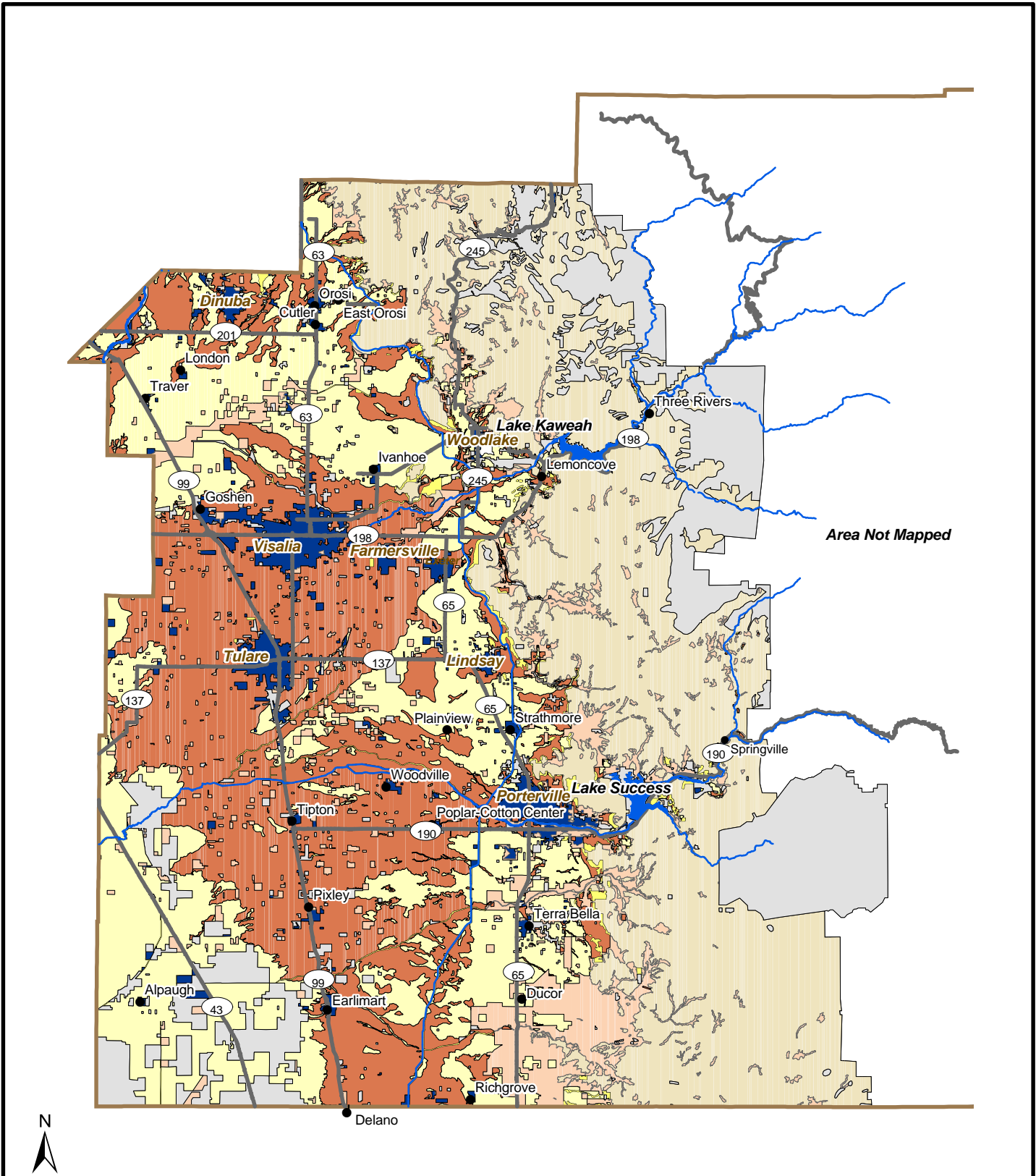
Table 4-10. Acreage Change for 1994-2002

	Acreage Change			
	1994-1996	1996-1998	1998-2000	2000-2002
Prime Farm Land	-233	-518	-3,089	-5,403
Farmland of State Wide Importance	240	-62	-5,532	-4,421
Unique Farmland	59	315	-43	-274
Farmland of Local Importance	-313	187	7,699	9,337
Important Farmland Subtotal	-247	-78	-965	-761
Grazing Land	-66	-904	-22	-429
Total	-313	-982	-987	-1,190

Source: California Department of Conservation, 2002

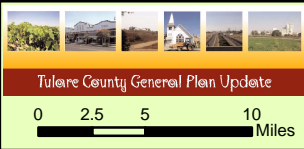
Williamson Act Lands

The California Land Conservation Act, also known as the Williamson Act, was enacted in 1965 by the State Legislature to encourage the preservation of agricultural lands. Landowners under this act who agree to keep their lands under agricultural production for a minimum of ten years received property tax adjustments. Agricultural lands to which the Williamson Act applies are assessed based on their agricultural value instead of their Proposition 13 market value. Non-renewal on contracts has been the reason why the net amount of land protected by the Williamson Act has been decreasing in recent years. According to the Farmland Conversion Report between the years of 2000 to 2002 more than 29,679 acres in Tulare County of agricultural land were converted to other uses and of that, 3,531 acres were converted into urban uses. Figure 4-4 shows existing county farmland that is under the Williamson Act.



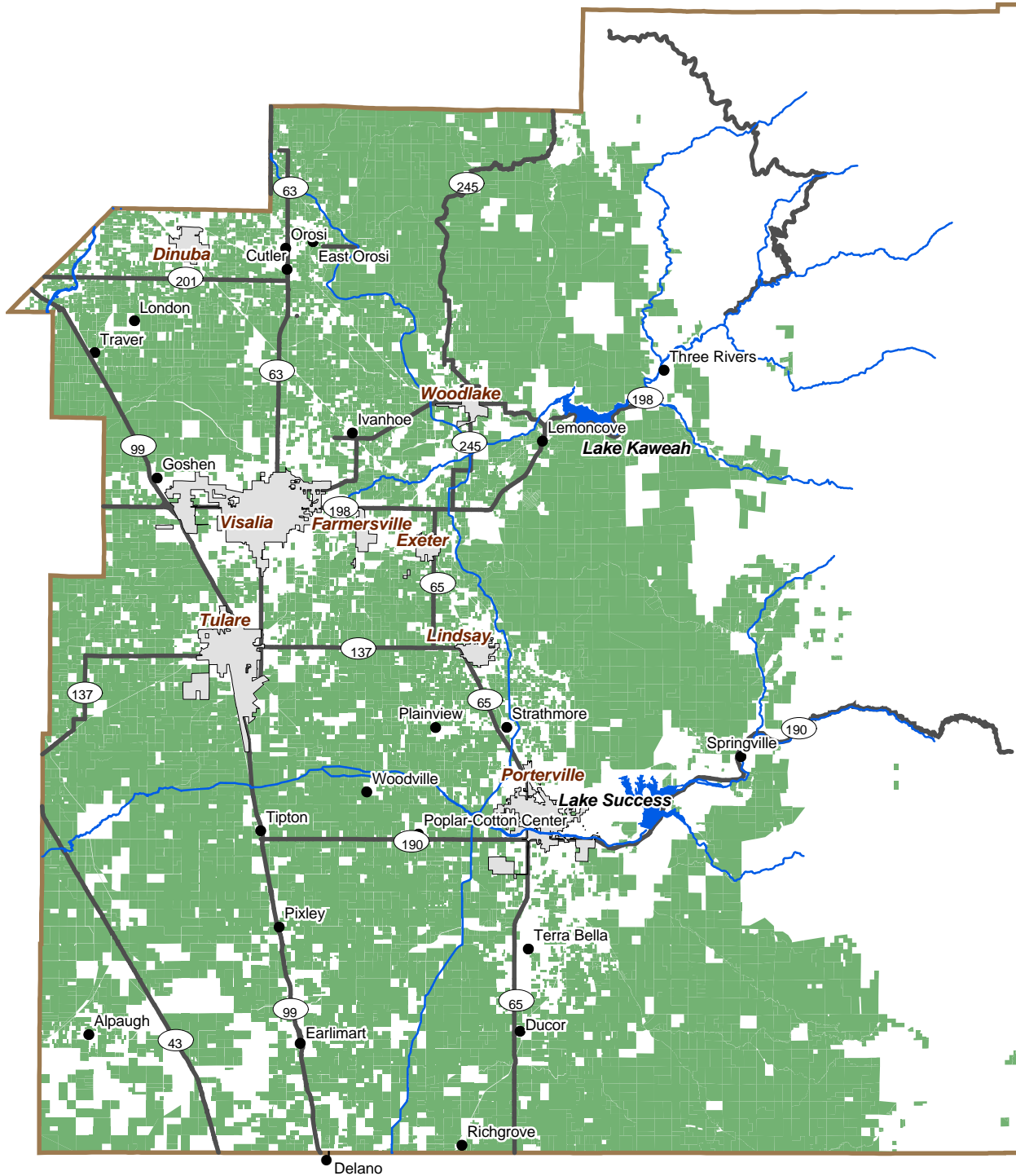
Note: Foothill areas are not mapped by the Farmland Mapping and Monitoring Program.

Source: California Department of Conservation; 2000.



LEGEND	
	Major Roads
	Rivers
	Lakes
	City Limits
	County Boundary
	Communities
	Prime Farmland
	Statewide Importance
	Unique Farmland
	Local Importance
	Grazing Land
	Other Land
	Urban Land

FIGURE 4-3
Important Farmland



Source: Tulare County; 2003.

Tulare County General Plan Update

LEGEND

- Major Roads
- Rivers
- Lakes
- City Limits
- County Boundary
- Communities
- Williamson Act Land

FIGURE 4-4
Williamson Act Land

5. TRANSPORTATION AND CIRCULATION

5.1 Introduction

Tulare County is located in the lower San Joaquin Valley in Central California and is served by a network of highway, bicycle, pedestrian, rail, and air systems. Many visitors are drawn to the area because of the extensive amount of public land in the eastern side of the county. Safe and efficient transport of people and goods within the county is of crucial importance to the well being of the residents. The mobility of people and goods will continue to be one of the important issues the county has to face in the future.

The purpose of this section is to provide a common understanding of existing transportation and circulation conditions in Tulare County considering each primary mode of transportation. It is important to define the existing transportation and circulation system in order to identify any existing deficiencies. Such deficiencies will be addressed during development of the planned transportation and circulation system as well as during development of the implementation program.

This chapter of the Background Report summarizes the current state of transportation and circulation within the county. Key terms that are relevant to this discussion and a summary of local, state and federal regulations that apply will be covered.

This chapter is divided into the following sections:

- Streets and Highways (Section 5.2);
- Funding (Section 5.3);
- Capital Road Improvement (Section 5.4);
- Road System Condition (Section 5.5);
- Air Quality (Section 5.6);
- Transportation System Management/Transportation Demand Management (Section 5.7);
- Rail Transport (Section 5.8);
- Aviation System (Section 5.9);
- Goods Movement (Section 5.10);

- Public Transportation (Section 5.11);
- Non Motorized Systems (Section 5.12);
- Commute Modes of Transportation (Section 5.13); and
- Major Trip Attractors (Section 5.14).

History and framework

The Tulare County General Plan was originally adopted in 1963. Since then there have been numerous elements adopted and revisions of those elements. Community Land Use Plans were prepared for the unincorporated communities of the county. The *Environmental Resource Management Element (ERME)* was adopted in 1972; *the Noise Element* was adopted in 1988; *the Housing Element* was originally adopted in 1971 with the most recent revision in 2003; *the Urban Boundaries Element* was adopted in 1971 with revisions in 1974 and amended in 1983, 1988, and 1996; *the Foothill Growth Management Plan* was adopted in 1981; *the County Circulation Element* was originally adopted in 1963; finally, *the Safety Element* was adopted in 1975.

Based upon the relationship between the 1963 General Plan and its amendments and the Regional Transportation Plan (RTP) are as follows:

- To improve the physical environment of the county and its communities;
- To guide and direct the development of urban land uses into urban areas of the country and to discourage or guide these urban land uses away from agricultural activities;
- To provide for sufficient, well located places for various land uses, including industry, recreation, residential development, commercial activity and agricultural uses;
- To improve the circulation and transportation routes;
- To provide for the provisions of public facilities for the redevelopment of many small communities areas in the county; and
- To encourage the advance acquisition and planned development of recreational facility.

In many ways, the 1963 Circulation Element and the Tulare County RTP have acquiesced into a way to incorporate the need for feasible transit, planning, a multimodal terminal facility, and the need to

preserve scenic corridors. Aviation and rail travel been a paramount discussion in these two documents with little changed between the two. Providing a backbone to transportation needs and solid planning for the future shows that these two documents parallel the same goals, although times and needs have changed.

Regulatory Setting

Government Code Section 65302(b): [The General Plan shall include] a Circulation Element consisting of the general location and extent of existing and proposed major thoroughfares, transportation routes, terminals, and other local public utilities and facilities, all correlated with the Land Use Element of the plan.

Government Code Section 65303: The General Plan may address any other subjects, which in the judgment of the legislative body, relate to the physical development of the county or city.

Transportation Equity Act for the 21st Century (TEA-21): On June 9, 1998, the Clinton Administration signed into law PL 105-178 authorizing highway, highway safety, transit, and other surface transportation programs for the next six years. TEA-21 builds on the initiatives established in the Intermodal Surface Transportation Efficiency Act (ISTEA) of 1991, which was the previous major authorizing legislation for surface transportation.

Safe, Accountable, Flexible and Efficient Transportation Equity: A Legacy for Users (SAFETEA-LU): The Bush Administration's transportation bill is intended to make our highways safer. Enactment of this bill is an important step in reducing highway fatalities and injuries, and provides greater flexibility to State and local governments to use these funds consistent with a comprehensive strategic highway safety plan. SAFETEA-LU provides funding for highway and safety programs and for public transportation programs from fiscal year 2004 through fiscal year 2009.

TRANSPORTATION CONTROL MEASURES

Transportation Control Measures (TCM) are designed to reduce vehicle miles traveled, vehicle idling, and/or traffic congestion in order to reduce vehicle emissions. Currently, Tulare County is a non-attainment region under the Federal Clean Air Act (CAA) and the California Clean Air Act (CCAA). Both of these acts require

implementation of TCMs that will be identified in following sections. These TCMs for Tulare County are as follows:

- Rideshare Programs;
- Park and Ride Lots;
- Alternate Work Schedules;
- Bicycle Facilities;
- Public Transit;
- Traffic Flow Improvement; and
- Passenger Rail and Support Facilities.

EXISTING CONDITIONS

Implementation of the Tulare County General Plan Circulation Element will improve the existing regional transportation and circulation systems. Such improvements are intended to fulfill existing and future circulation needs. Implementation of planned improvements to the street and highway network, improvement to county airports, provision of mass transportation services and facilities, identification of additional bikeways and pedestrian improvements, and improved transportation systems that accommodate existing and future goods movement, will have beneficial effects on a localized and region-wide basis.

Tulare County's transportation system is composed of several State Routes, including three freeways, multiple highways, as well as numerous county and city routes. The county's public transit system also includes two common carriers (Greyhound and Orange Belt Stages), the AMTRAK Service Link, other local agency transit and paratransit services, general aviation, limited passenger air service and freight rail service.

Travel within Tulare County is a function of the size and spatial distribution of its population, economic activity, and the relationship to other major activity centers within the Central Valley (such as Fresno and Bakersfield) as well as more distant urban centers such as Los Angeles, Sacramento, and the Bay Area. In addition, there is considerable travel between the northwest portions of Tulare County and southern Fresno County and travel to/from Kings County to the west. Due to the interrelationship between urban and rural activities (employment, housing, services, etc.) and the low average density/

intensity of land uses, the private automobile is the dominant mode of travel for residents in Tulare County.

Transit-dependent populations within the county include the elderly, students, low-income residents, and the physically handicapped. These segments of the population generally have limited access to automobiles.

The agricultural economy of the county depends upon the safe and efficient movement of goods. Tulare County is responsible for maintaining an extensive network of low to moderate volume farm-to-market roadways in sparsely settled areas to service its significant agricultural industry. Large trucks and vanpools are the primary means of transporting such goods and labor.

Non-motorized forms of transportation are also available in Tulare County including numerous bikeways, pedestrian facilities, and non-designated equestrian trails. The equestrian trails are located on farms, ranches, in the foothills, and in parks and forests.

The sprawling pattern commonly associated with California transportation networks provides fewer modal options to commuters. Multimodal efforts in the county are focused on enhancing existing conditions and creating environmentally favorable patterns of travel. One approach involves enhancement of park-and-ride facilities and transit services.

5.2 Streets and Highways



INTRODUCTION

This section identifies the regional street and highway setting as it pertains to streets, highways, freeways, etc. In addition, this section

provides a description of the county's federal functional classification, identifies existing roadway operations, describes the number of lanes, and provides daily traffic count data.

Methods

Existing traffic count data was obtained from a variety of sources, including the following:

- Caltrans website for State Route information;
- Tulare County Resource Management Agency (RMA) Transportation Services Division;
- 2007 Tulare County Association of Governments (TCAG) Regional Transportation Plan (RTP);
- TCAG Regional Transportation Monitoring Program (2004-07); and
- Recently prepared Traffic Impact Studies and Environmental Impact Reports.

In order to evaluate roadway facilities, the latest methodologies from the Highway Capacity Manual (HCM) were utilized.

Key Terms

- **Functional Classification System.** Functional Classification System identifies existing roadway classification based upon number of lanes, capacity, location, etc. Typically, functional classification refers to local roads, collectors, arterials, expressways, and freeways.
- **Level of Service (LOS).** LOS is used to measure the operating conditions of an intersection or a roadway segment by considering many factors including traffic volume and capacity. LOS is a qualitative measure of traffic operating conditions, whereby a letter grade "A" through "F" is assigned to an intersection or roadway segment representing progressively worsening traffic conditions.
- **Highway Capacity Manual 2000 (HCM).** The Transportation Research Board's (TRB) HCM provides a collection of state-of-the-art techniques for estimating the capacity and determining the LOS for transportation facilities for intersections, roads, public transit, etc. TCAG has adopted a LOS threshold for roads.

- **Average Daily Traffic (ADT) or Average Annual Daily Traffic (AADT).** ADT volume is based upon traffic counts that record the number of vehicles (cars and trucks) that travel on the roadway on a typical weekday (Tuesday, Wednesday, or Thursday). These counts are typically conducted by using “hose” or “tube” counts, but can also be collected utilizing more advanced sensor devices. Both of these methods have the ability to collect heavy-duty vehicle classification counts and directional information. In this report, the total ADT is used for the LOS analysis. It should be noted that in the transportation industry ADT is an acronym that is interchangeable with AADT, or the annual average daily traffic.
- **Peak hour.** That hour during which the maximum amount of travel occurs. It is typically specified as the peak one hour of traffic experience during the morning peak hour (between 7:00 and 9:00 a.m.) and/or the afternoon peak hour (between 4:00 and 6:00 p.m.). In some of the agricultural areas in the county, the peak hour may be earlier than the times above due to seasonal factors such as harvesting, picking, etc. Peak hour roadway counts are usually used in analyzing intersections and interchanges.
- **Farm to Market.** Generally refers to heavy vehicle trips from agricultural related purposes with impacts to the county’s road system.
- **State Route (SR).** State Routes that are owned and operated by the State of California Department of Transportation (Caltrans).
- **Department of Finance (DOF).** Federal and State departments that, among other things, develop population projections.

EXISTING CONDITIONS

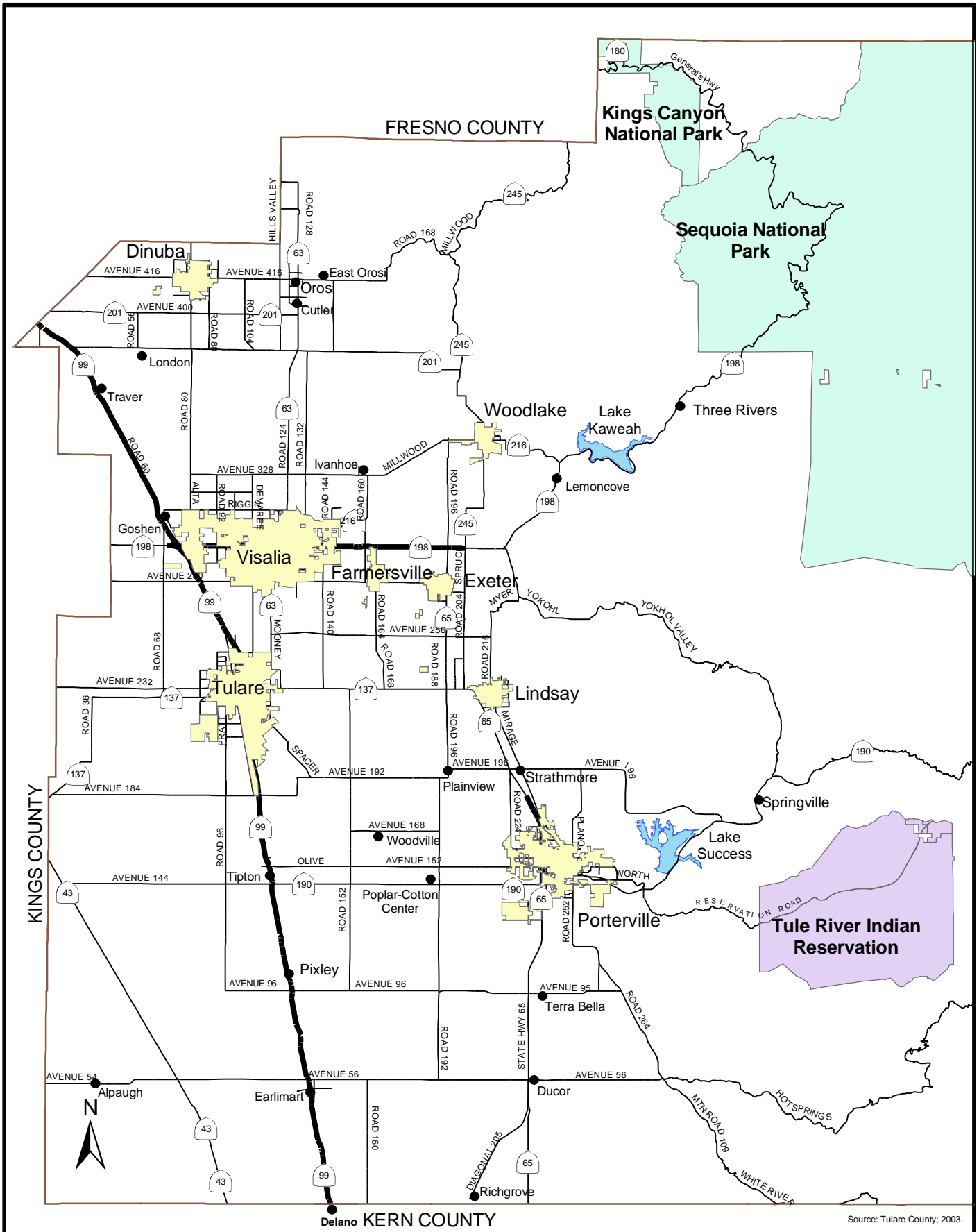
Regional Setting

Figure 5-1 shows Tulare County's relationship to the State Route system, nearby counties, cities and communities. Figure 5-2 identifies the designated street and highway network contained in the existing Circulation Element adopted by the county in 1963. It provides a definition of roads of significance throughout the county. The

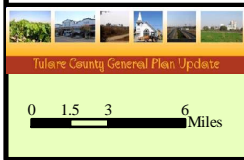
county's State Route network, which lies primarily west of the Sierra Nevada Mountains, includes State Routes 43, 63, 65, 99, 137, 180, 190, 198, 201, 216, and 245.

Some prominent county roadways include, but are not limited to, Alta Avenue (Road 80), Caldwell Avenue/Visalia Road (Avenue 280), Demaree Road/Hillman Street (Road 108), Tulare Avenue (Avenue 232), Olive Avenue (Avenue 152), Spruce Road (Road 204), El Monte Way (Avenue 416), Paige Avenue (Avenue 216), Farmersville Boulevard (Road 164), Road 192, and Road 152. Additionally, the highway system includes numerous county-maintained local roads, as well as local streets and highways within each of the eight cities and several unincorporated communities.

The county is linked to Fresno County and Kern County principally by State Route 99. This route provides the only continuous north-south route through the county and is heavily used for regional travel. The entire length of State Route 99 in Tulare County and State Route 198 through Visalia and a portion of State Route 65 in Porterville are constructed to freeway standards.

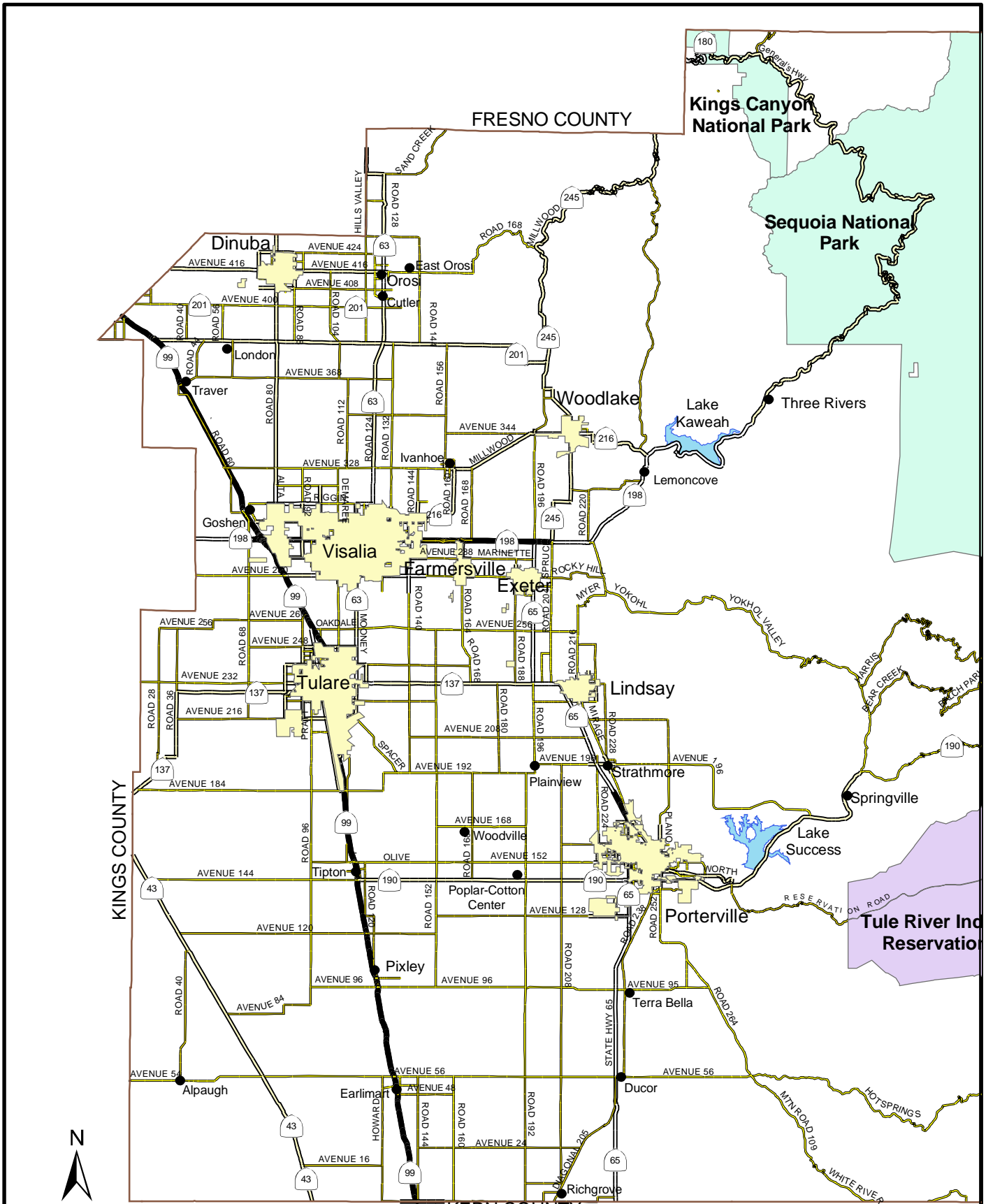


Source: Tulare County; 2003.

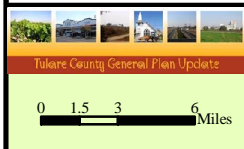


Freeways	County Boundary	Unincorporated Communities
Major Roads	National Parks	Tule River Indian Reservation
State Highway	City Limits	
Lakes		

FIGURE 5-1
Regional Highway Network



Source: Tulare County; 2003.



LEGEND	
	Freeways
	Arterial (Major)
	Arterial (Minor)
	Collector (Major)
	Collector (Minor)
	County Boundary
	National Parks
	Tule River Indian Reservation
	City Limits
	Unincorporated Communities
	Lakes
	State Highway

FIGURE 5-2
Functional Classification

Functional Classification System

Functional classification is the process by which streets and highways are grouped into classes, or systems, according to the type of service they are intended to provide. Fundamental to this process is the recognition that individual streets and highways do not serve travel independently in any major way; most travel involves movement through a network of streets and roads.

The following sections define roadway classification systems currently used by the Federal Highways Administration (FHWA), the county and local agencies. Since issues related to the classification of roadways range from funding to operational considerations, each agency has its own classification system. These sections define and clarify the role of each system, and present the classification system used in this Element. A description of how the county roadway classification system relates to the others is also provided in this section.

It is necessary to determine how travel can be directed along the street and highway system in a logical and efficient manner. Functional classifications define the channeling process by defining the area that a particular street or highway should service through a circulation network. Table 5-1 defines the functional classes in the urban portion of Tulare County and Table 5-2 defines functional classes in the rural portion of the roadway system.

Federal Functional Classifications

Federal functional classifications, designated for both the rural and urban areas, are as follows:

<i>Rural</i>	<i>Urban</i>
Interstate	Interstate
Principal Arterial	Freeways and Expressways
Minor Arterials	Other Principal Arterials
Major Collectors	Minor Arterials
Minor Collectors	Collectors

Table 5-1. Urban Functional Classification System-Definitions

Classification	Primary Function	Direct Land Access	Speed Limit	Parking
Freeway/ Expressway	Traffic Movement	None	45-70	Prohibited
Major Arterial	Traffic Movement/Land Access	Limited	35-55	Generally Prohibited
Other Arterial	Traffic Movement/Land Access	Restricted	30-35	Limited
Collector	Distribute Traffic Between Local Streets & Arterials	Safety Controls, Limited Regulation	25-30	Limited
Local	Land Access	Safety Controls Only	25	Permitted

Table 5-2. Rural Functional Classification System-Definitions

Classification	Primary Function	Direct Land Access*	Speed Limit**	Parking***
Fwy/Exprwy	Traffic Movement	Safety Controls	70	Prohibited
Major & Other Arterial	Traffic Movement/ Land Access	Safety Controls	55	Permitted
Collector	Distribute Traffic Between Local Streets & Arterials	Safety Controls	55	Permitted
Local	Land Access	Safety Controls	55	Permitted

* Access to arterials is generally limited or restricted if it provides access to a land subdivision or an industrial, commercial or multi-family use. Access is granted on a controlled basis to parcels fronting on expressways where there is not a frontage road or access to another road;

** All county roads have a 55 mph operating speed unless otherwise indicated;

*** Parking is permitted on all county roads unless otherwise indicated.

Functional Classifications Used in This Element

In order to identify roadway infrastructure needs for the county to the Year 2025 and beyond, several broad roadway classifications have been identified. These roadway classifications, though not as detailed or specific as those used for some urban areas in the county, are sufficient to identify roadway infrastructure needs from the county's

perspective. Typical cross sections for the valley and mountainous areas, as per the Tulare County Improvement Standards, are referenced in the Appendix. The roadway classifications used in this document are as follows:

Freeways: a freeway is a divided, limited access highway (access is provided at grade separated interchanges and vehicular crossing of these facilities is provided at grade separations). Freeways are designed to carry large volumes of traffic traveling long distances, although localized use of freeways in urban areas is considerable.

Caltrans designs and constructs all freeways to federal and State design standards. Alignments and key design details, such as interchange locations, are determined in consultation with local and federal authorities when involved. Nothing actually precludes local jurisdictions from building their own freeways. However, Caltrans' State Highway System contains virtually all candidate routes for freeways. The high cost of freeways has historically made it impractical for any agency other than Caltrans to construct new freeways.

Expressways: these are highways that carry large volumes of traffic relatively long distances within or through an urban or rural area. They also often serve considerable local traffic traveling short distances. Intersections along these expressways can be at grade to accommodate traffic entering and exiting the roadway. Expressways should be continuous through the urban or rural community they serve and link to arterial routes. The designated right-of-way for expressways varies dependant upon the needs of the specific facility. Additional right-of-way may be required at some intersections.

Major Urban Arterials: these are highways within Urban Area Boundaries (UAB) or Urban Development Boundaries (UDB) that carry large volumes of traffic traveling relatively long distances within or through an urban area. They also serve considerable local traffic traveling short distances. Along these facilities, priority is placed on through traffic mobility rather than access to fronting property; direct access to individual fronting parcels is discouraged. A major arterial with fully controlled frontage access is an expressway. Major Urban Arterials should be continuous through the urban community they serve and link to arterial routes in adjacent communities or the rural areas.

Major Rural Arterials: these are highway routes outside of the UAB or UDB that are intended to link urban areas with one another as well as serving through traffic movements across the county.

Other Urban Arterials: these are highways within the UAB or UDB that can carry moderately high volumes of long distance and local traffic. Although access to abutting property is permitted, priority is given to through traffic mobility.

Other Rural Arterials: these are highways outside the UAB or UDB that complement the Major Rural Arterial system. They normally link smaller communities and may be continuous over shorter distances than major rural arterials.

Urban Collectors: these are highways within the UAB or UDB that are intended to carry local traffic between the local street system and the arterial highway system. In urban areas, collectors may serve average daily volumes in excess of 10,000 although volumes are normally less. The right-of-way standard for these facilities is 60 feet, and additional right-of-way may be required at some intersections.

Rural Collectors: these highways are located outside the UAB or UDB and provide access to adjacent property. These facilities also provide for traffic movement to and from the arterial system. Rural collectors generally serve less than 10,000 AADT.

Urban Local Roads these roads provide access to abutting property and link properties to the collector system.

Rural Local Roads: these roads provide access to property and activity nodes in sparsely settled areas of the county. All roads not shown on the Circulation Element Map are considered standard local roads.

The intent of the functional classification system used in this Element and in city and community circulation elements is to describe the intensity and character of traffic using each type of facility, the character of adjacent uses, the priority placed on access to adjacent property versus through traffic mobility, and roadway right-of-way standards. The intent of the Federal Functional Classification System described previously, is to identify what types of federal funding each type of facility is eligible to receive. The intent is not to characterize usage, adjacent development and right-of-way standards.

Existing Improvement Standards

Improvement standards for local roads are broken into several classes; the standards vary depending on the minimum parcel sizes in the area and the number of parcels to be served by the roadway. The improvement standards also are dependent upon where the roadway is located in valley or mountainous areas. The typical cross sections for each class of local roadway are shown in the Appendix. These illustrations are shown as reference only; however, it closely follows the Federal Road Functional Classification.

FREEWAYS AND EXPRESSWAYS

State Route 99

Currently, State Route 99 is a 4/5 lane divided freeway with a landscaped median. The northbound segment between Betty Drive in Goshen to Avenue 384 south of Kingsburg (Fresno County) contains three travel lanes; the remainder of State Route 99 in Tulare County contains two northbound and two southbound travel lanes. With 55,000 daily trips near Avenue 264 (Tagus), State Route 99 is the second most traveled roadway in the county. In addition, it is estimated that 28% of these trips are trucks.

The City of Tulare, western Visalia, and the communities of Earlimart, Teviston, Pixley, Tipton, Goshen, and Traver are located on State Route 99 and are directly impacted by this freeway. Specifically, positive economic impacts are realized along this corridor for highway commercial type uses, such as fast food restaurants, service stations, and motels. During this General Plan Update, alternative land uses will be explored and impacts related to economics and traffic will be identified.

According to the State Route 99 Corridor Plan, traffic volumes beyond 2025 show a need for an eight-lane freeway. In some locations there may also be a need for high occupancy vehicle (HOV) lanes and auxiliary lanes in urban areas.

State Routes 65 and 198

The two other freeway segments in Tulare County are State Route 65 in Porterville and State Route 198 in Visalia. State Route 65 in Porterville that is constructed to freeway standards is from just south of State Route 190 to just north of Henderson Avenue. State Route 65 also provides a connection to Bakersfield for south county residents in

the Strathmore, Terra Bella, Ducor, and Lindsay areas. State Route 65 carries 26,000 daily vehicles near State Route 190.

The segment of State Route 198 is constructed to freeway standards between State Route 99 and Road 180. The last major construction project on a State Route in Tulare County was on State Route 198 through the City of Visalia where four at grade intersections were eliminated. The \$100 million plus project was completed in 2001. To the west in Kings County, State Route 198 links to Interstate 5. To the east, State Route 198 provides direct access to the unincorporated communities of Lind Cove, Lemon Cove and Three Rivers as well as to Sequoia National Park where State Route 198 terminates and continues on as the General's Highway. With 64,000 daily trips in central Visalia, State Route 198 is the most traveled roadway in Tulare County.

State Routes 137 and 190

Both of these expressways are at grade and offer major transit thoroughways for southern Tulare County in an east west direction. State Route 137 starts at Waukena, west of Tulare, where it eventually turns into Tulare Avenue and heads east where it merges with State Route 65 near Lindsay. Average daily trips on State Route 137 reach 22,100 in central Tulare. State Route 190 begins at State Route 99 heading east as a typical two lane county road, until the road crosses State Route 65 into Porterville where it changes into an at grade expressway through town, eventually turning into a two lane mountainous roadway where it ends in Ponderosa. State Route 190 carries 25,100 daily trips near State Route 65. In the future these state routes are planned as four lane roadways.

Avenue 416

Avenue 416 is a four-lane expressway between the City of Dinuba and Cutler/Orosi. The County of Tulare primarily maintains this east-west roadway.

SCENIC HIGHWAYS

Many state highways are located in areas of outstanding natural beauty. California's Scenic Highway Program was created by the Legislature in 1963. Its purpose is to preserve and protect scenic highway corridors from change, which would diminish the aesthetic value of lands adjacent to highways. The state laws governing the

Scenic Highway Program are found in the Streets and Highways Code, Section 260 et seq.

A highway may be designated scenic depending upon how much of the natural landscape can be seen by travelers, the scenic quality of the landscape, and the extent to which development intrudes upon the traveler's enjoyment of the view.

The State Scenic Highway System includes a list of highways that are either eligible for designation as scenic highways or have been so designated. These highways are identified in Section 263 of the Streets and Highways Code. A list of California's scenic highways and map showing their locations may be obtained from Caltrans' Scenic Highway Coordinators.

There are minimum requirements for scenic corridor protection:

- Regulation of land use and density of development;
- Detailed land and site planning;
- Control of outdoor advertising (including a ban on billboards);
- Careful attention to and control of earthmoving and landscaping; and
- Careful attention to design and appearance of structures and equipment.

A scenic highway can create a positive image for a community, preserve and protect environmental assets and encourage tourism.

Although there is no official list of county highways eligible for scenic designation, county highways that are believed to have outstanding scenic qualities are considered eligible. To receive official designation, the county must follow the same process required for official designation of state scenic highways.

Tulare County currently does not have an officially designated state scenic highway. However, in Tulare County two State Routes are eligible to be on the list of California's scenic highway list. These include State Route 190 from State Route 65 near Porterville to State Route 127 near Death Valley Junction and State Route 198 from State Route 99 to the Sequoia and Kings Canyon National Park boundary.

Most travelers only know the communities of a scenic corridor from what they see from the highway. Communities that put forth an appealing image to drivers along the corridor are more likely to draw drivers off the highway and into local businesses and tourist attractions. To address the corridor as a special and distinct area of the community, that image should be developed thoughtfully.

Within the zoning ordinances, communities along a corridor may use overlay zones to protect particular natural or cultural features, such as historical districts, scenic views, agricultural areas, or watersheds. An overlay zone would build on the underlying zoning, by establishing additional or stricter standards and criteria that apply in addition to the standards of the underlying zone districts. Overlaying zoning can be an effective tool for communities to use in protecting specific resources from development pressures or to encourage a selective mix of development pressures or to encourage a selective mix of development that is in keeping with community goals along a scenic corridor.

INTERCHANGES

No single design feature has a greater impact on the urban corridor than the interchange. An interchange is a high volume intersection characterized by a grade separation between the highway and the cross street that is accessed by a ramp. The ability to accommodate high volumes of traffic safely and efficiently through the interchanges depends largely on the type of ramp, ramp volumes, and the conditions between the ramp connections and local roads. Today, the state owned right of way and local development limits simple modifications to existing interchanges on State Route 99. Spot congestion or bottlenecks are becoming more common as traffic volumes increase.

Many interchanges in Tulare County have limited room for vehicles waiting to enter or exit the highway. They also have short acceleration and deceleration lengths. This creates congestion when high volumes of traffic back up on ramps, when drivers must slow down on the freeway or when slow moving trucks interrupt the flow of traffic.

Limited spacing between interchanges has a negative impact on the flow of traffic. This is evident in urban areas during peak commute periods when the traffic is forced to slow because of the traffic entering and exiting the highway. Whenever possible, spacing

between interchanges needs to be increased to reduce congestion. In the future, this may result in closing some interchanges to improve spacing. Based upon Caltrans Highway Design Manual, interchanges in urban areas should have a minimum of one mile spacing; in rural areas, the minimum spacing should be no less than two miles.

Changes to existing interchanges, however, are limited by the development next to the freeway, environmental issues, and cost. Minor changes to the existing geometry have provided some improvements, but more congestion will likely occur unless modifications are made.

Table 5-3 provides a list of all the current interchanges and their respected geometries. On State Route 198 some of the interchanges, especially in Visalia, are fairly new and have been built accordingly for the present and the near future. Sections of State Route 65, 190, and 198 pass through rural lands and do not always have the volumes to warrant an interchange. On State Route 99, many of the interchanges are antiquated, have capacity problems, and subsequently safety hazards associated with them.

Table 5-3. Interchange Designs

Freeway	Interchange	Interchange Design
SR 65	State Route 190	Cloverleaf
	Pioneer Avenue	Hook Ramps
	Henderson Street	Diamond
	Olive Avenue	Diamond
	Linda Vista Avenue	At Grade EB / Hook Ramps WB
SR 99	Avenue 16	SB Hooks / NB Diamond
	Avenue 24	Tight Diamond
	Avenue 48 (Armstrong Avenue)	SB Off Hook/NB Diamond
	Avenue 56 (Sierra Avenue)	Tight Diamond
	Avenue 72	SB Diamond / NB Off

Table 5-3. Interchange Designs

Freeway	Interchange	Interchange Design
	Avenue 80	NB On / SB Off
SR 99 (cont.)	Avenue 96	NB Diamond / SB Off Hook
	Avenue 100	SB Off / NB Off
	Avenue 104 (Orrland Avenue)	NB Hook
	Avenue 120 (Hesse Avenue)	NB Hook / SB Diamond
	Avenue 144 (State Route 190)	NB Hook /T on SB
	Avenue 152	Tight Diamond
	Rest Area (near Avenue 176)	NB and SB On/Off
	Avenue 184	Hook Ramps
	Avenue 200	Hook Ramps
	Paige Avenue	Hook Ramps
	Bardsley Avenue	Tight Diamond
	State Route 137 (Tulare Avenue)	Hook-NB/SB On/Diagonal NB/SB Off
	Prosperity/Blackstone	NB On/SB Off/SB On @ Blackstone
	Cartmill Avenue	Diamond to the South/NB on @ Frontage Road/SB Off to North
	Avenue 264	NB Hook / SB Diamond
	Avenue 280 (Caldwell)	NB Hook / SB Diamond
	State Route 198	Cloverleaf
	Avenue 304 (Goshen Avenue)	Hook Ramps
	Avenue 308 (Betty Drive)	Tight Diamond
	Avenue 368	Tight Diamond
	Avenue 384	Diamond plus additional NB Diamond

SR 198	Road 80 (Plaza Drive)	Diamond
	Road 92 (Shirk Road)	Diamond
	Road 100 (Akers)	Diamond
	Road 108 (Demaree Avenue)	Diamond
	State Route 63 (Mooney Boulevard)	Diamond
	Central Visalia Exit	Diamond
	Ben Maddox Way	Diamond
	Lovers Lane	Diamond
	Road 256 (Ivanhoe)	Diamond
	Farmersville Boulevard	EB Off hook / Diamond on WB

Source: 2007 Regional Transportation Plan, Tulare County Regional Traffic Model

Given some of the problems facing the interchanges on major transportation corridors, many of the deficiencies have been analyzed and are in the process or already have sought funds for major construction of new interchanges or to modify current freeway access. Table 5-4 provides a list of major improvements planned to decrease congestion on State Routes in the county. Interchanges and widening of these freeways and expressways are the major improvements planned in the future with the proper funding documents to pay for these improvements and the approximate year started and completed provided.

Table 5-4. Roadway/Interchange Construction

	Segment / Interchange	Improvement	Funding Document	Target Dates- Begin/End
SR 65	North Grand Avenue (Interchange)	New Interchange	2007 RTP/RIP/ Measure R	2025
	Kern Co. Line - State Route 190	2C to 4E	TCRP/2007RTP/STIP	2006/2015
	Hermosa - State Route 198	2C to 4E	STIP/2007 RTP/ Measure R	2015/2021
	Scranton Avenue	2C to 4C	2007 RTP/City/ Measure R	2005/2008

	Segment / Interchange	Improvement	Funding Document	Target Dates- Begin/End
SR 99	Goshen OH – Fresno County	4 to 6 Lanes	STIP/RTP/Earmark	2008/2013
	Prosperity Avenue – Goshen OH	4 to 6 Lanes	RIP/1B/RIP	2008/2013
	Ave 200 – Prosperity Avenue	4 to 6 Lanes	RTP/IIP	2008/2013
	South of Tipton – Avenue 200	4 to 6 Lanes	RTP/IIP	2008/2013
	Kern County – South of Tipton	4 to 6 Lanes	RTP/IIP	2008/2013
	Commercial Avenue (Agri Center)	Construct Interchange	RTP/RIP/ Measure R	2018
	Betty Drive	Interchange Improvements	RIP/R/RTP	2012
	Caldwell Avenue	Widen on/off ramps	RIP/R/RTP	2015
	Cartmill Avenue	Widen on/off ramps and bridge	RIP/R/RTP	2012
	Paige Avenue	Widen on/off ramps and bridge	RIP/R/RTP	2022
	South County Interchanges	Minor widening/ Safety improvements	RIP/Measure R/ SHOPP	2015
	SR 190	State Route 99 - State Route 65	Passing Lanes	RIP/RTP
State Route 99 - State Route 65		4 to 6 Lanes	RIP/RTP/ Measure R	2030
Main Street		Widen on/off ramps and bridge	RIP/RTP/ Measure R	2025
SR 198	State Route 99 – State Route 43	2C to 4E	RIP/IIP/TCRP/ RTP/1B	2013
	Road 80 at Plaza Drive	Modify Interchange	RIP/RTP	2011
	Shirk Street	Widen on/off ramps and bridge	RIP/RTP/ Measure R	2018
	Akers Street	Minor widening/ Safety improvements	RIP/RTP/ Measure R	2018
	Downtown Visalia Corridor	Widen on/off ramps and bridge	RIP/RTP/ Measure R	2018
	Lovers Lane	Widen on/off ramps and bridge	RIP/RTP/ Measure R	2018
	Avenue 148	Widen on/off ramps and bridge	RIP/RTP/ Measure R	2025
Source: Caltrans Transportation Concept Reports and 2007 Regional Transportation Plan (RTP)				

Existing Conditions Analysis (Street and Highway Level of Service)

The first step toward the development of a functional street and highway system is to evaluate existing traffic operating conditions. To accomplish this task, an existing roadway segment level of service (LOS) analysis was conducted. LOS standards are used by Tulare County, TCAG, Caltrans, and local agencies to quantitatively assess the street and highway system's performance. In order to determine the type and number of transportation projects that may be necessary to accommodate Tulare County's projected growth, freeway, expressway, arterial, and collector facility LOS was assessed. These roadways were selected based upon review of the RTP, federal functional classification maps, and adopted circulation elements.

According to the HCM, LOS is categorized by two parameters of traffic: uninterrupted and interrupted flow. Uninterrupted flow facilities do not have fixed elements such as traffic signals that impede traffic flow. Examples of such facilities would be freeways, including State Routes 65 in Porterville, State Route 99 throughout the entire county, and State Route 198 in Visalia. Interrupted flow facilities have fixed elements that cause an interruption in the flow of traffic, such as stop signs and signalized intersections along arterial roads. The LOS threshold volumes for roadway segments are defined in Table 5-5.

Table 5-5. Street and Highway Level of Service Threshold Volumes

Roadway Type	Total Average Daily Traffic (Both Directions) ADT				
	Level of Service A	Level of Service B	Level of Service C	Level of Service D	Level of Service E
6-Lane Freeway	36,900	61,100	85,300	103,600	115,300
4-Lane Freeway	23,800	39,600	55,200	67,100	74,600
6-Lane Arterial	7,300	44,700	52,100	53,500	----
4-Lane Arterial	4,800	29,300	34,700	35,700	----
2-Lane Collector	----	4,200	13,800	16,400	16,900

Notes:

Based on Florida DOT Tables (2000 HCM).

All volumes are approximate and assume ideal roadway characteristics. Actual threshold volumes for each LOS listed above may vary depending on a number of factors including curvature and grade, intersection or interchange spacing, percentage of trucks and other heavy vehicles, lane widths, signal timing, on-street parking, amount of cross traffic and pedestrians, driveway spacing, etc.

ADT = Average Daily Traffic

An important goal is to maintain an acceptable LOS on the highway, street, and road networks. To accomplish this, the county, Caltrans, and local agencies adopt minimum LOS standards in an attempt to manage congestion that may result as new development occurs.

LOS standards vary throughout the county and its eight incorporated cities. The *1995 Tulare County Congestion Management Program (CMP)*, prepared by TCAG, identified that the “minimum” LOS standard within the county shall be no lower than LOS “E” for urban areas and LOS “D” for rural areas. However, each local agency that owns and operates transportation facilities may select a LOS standard more stringent than the minimum LOS standards identified in the CMP. Although TCAG rescinded the CMP, it kept some of the components of the program including the LOS threshold, review of traffic impact studies, and the monitoring of intersections throughout the county. For purposes of this report, LOS of “D” is taken as the threshold for acceptable traffic operations for the Tulare County street and state highway system.

To determine the existing LOS for each segment of the street and highway network, segment LOS was identified from information referenced in the existing Regional Transportation Plan (RTP), and from data provided by TCAG from their annual transportation monitoring program. LOS was also estimated using the Modified HCM-Based LOS Tables (Florida Tables). These tables consider the capacity of individual street and highway segments based on numerous roadway variables (freeway design speed, signalized intersections per mile, number of lanes, saturation flow, etc.). These variables were identified and applied to reflect existing traffic LOS conditions in Tulare County. The variables are consistent with HCM variables referenced above in Table 5-5.

Existing Traffic Counts and Roadway Geometrics

Traffic volumes used to determine LOS were obtained from Caltrans, TCAG, and various local agencies, including Tulare County. Traffic volumes were available from these agencies from year 2000 through 2007. On roadways where recent traffic counts were not available (within three years), traffic counts were adjusted by 3% per year. The percentage increase applied is consistent with historical annual growth rates for vehicle trips in Tulare County.

As shown in Table 5-6, all of the roadway segments, except for State Route 63 (Mooney Boulevard) from Caldwell Avenue to State Route

198, State Route 65 from State Route 137 to Hermosa Avenue, and State Route 198 from the Kings County line to State Route 99, are currently operating at acceptable (LOS "D") conditions or better. Improvements, including widening this roadway, are in the planning stages. Based upon current information from TCAG and Caltrans, this project is expected to be constructed within five to seven years.

Another roadway segment that experiences unacceptable LOS is the one-mile segment of. This roadway transitions from a 4-lane expressway north of Lindsay to a two-lane facility resulting in traffic congestion.

Although this volume to capacity (V/C) analysis generally shows that roadways within the county currently operate at acceptable levels of service, other factors should be considered. For instance, road conditions are not considered in the V/C analysis. Deteriorating roads that are narrow or do not have adequate shoulders are not factored in this analysis. Therefore, other factors should be taken into consideration when discussing existing conditions. A subsequent Section 5.5 of this chapter describes road conditions in Tulare County and outlines maintenance needs related to road repair.

Table 5-6. Annual Average Daily Traffic Volumes and Levels of Service (2006)

Roadway Segment	Limits	No. of Lanes	Facility Type	AADT	LOS
State Route 43	Kern Co. Line - Kings Co. Line	2	Arterial	4,600	C
State Route 63	Fresno Co. Line - Avenue 419	2	Arterial	2,600	B
State Route 63	Avenue 419 - Avenue 416 (El Monte)	4	Arterial	7,500	B
State Route 63	Avenue 416 (El Monte) - Avenue 402	4	Arterial	13,300	B
State Route 63	Avenue 402 - Avenue 400	2	Arterial	8,500	C
State Route 63	Avenue 400 - Avenue 384	2	Arterial	9,600	C
State Route 63	Avenue 384 - Avenue 328	2	Arterial	7,600	C
State Route 63	Avenue 328 - Ferguson	2	Arterial	7,200	C
State Route 63	Ferguson - Houston	4	Arterial	15,400	B
State Route 63 (Court/Locust)	Houston - Oak	4	Arterial	11,300	B
State Route 63 (Court/Locust)	Oak - State Route 198	4	Arterial	15,200	B
State Route 63 (Mooney)	State Route 198 - Walnut	4/5	Divided Arterial	36,000	F
State Route 63 (Mooney)	Walnut - Caldwell	4/5	Divided Arterial	36,000	F
State Route 63 (Mooney)	Caldwell - Avenue 264	4	Divided Arterial	29,500	C
State Route 63 (Mooney)	Avenue 264 - Avenue 248	4	Divided Arterial	22,400	B
State Route 63 (Mooney)	Avenue 248 - State Route 137	4	Divided Arterial	16,500	B
State Route 65	State Route 198 - Pine	2	Arterial	12,600	C
State Route 65 (Kaweah)	Pine - D Street	2	Arterial	8,300	C
State Route 65	D Street - State Route 137 (West)	2	Arterial	4,700	C
State Route 65	State Route 137 (West) - Hermosa	2	Arterial	18,000	F
State Route 65	Hermosa - Grand	4	Expressway	20,500	B
State Route 65	Grand - Porterville S. Limits	4	Freeway	25,000	B
State Route 65	Porterville S. Limits - Avenue 96	2	Arterial	12,000	C
State Route 65	Avenue 96 - Kern Co. Line	2	Arterial	9,400	C
State Route 99	Fresno Co. Line - Avenue 368	4	Freeway	51,000	C
State Route 99	Avenue 368 - State Route 198	5	Freeway	52,000	C
State Route 99	State Route 198 - State Route 137	4	Freeway	54,000	C
State Route 99	State Route 137 - State Route 190	4	Freeway	53,000	C
State Route 99	State Route 190 - Kern Co. Line	4	Freeway	42,000	C
State Route 137	Kings Co. Line - Road 68	2	Arterial	3,350	B
State Route 137	Road 68 - West	2	Arterial	8,500	C
State Route 137	West - J Street	2	Arterial	13,000	C
State Route 137	J Street - Kern	4	Arterial	7,500	B
State Route 137	Kern - Blackstone	4	Arterial	22,100	B
State Route 137	Blackstone - State Route 63	4	Divided Arterial	19,800	B
State Route 137	State Route 63 - State Route 65	2	Arterial	11,200	C
State Route 190	State Route 99 - Newcomb	2	Arterial	5,800	C
State Route 190	Newcomb - Road 265	4	Divided Arterial	25,000	B
State Route 190	Road 265 - Sequoia Nat'l Forest	2	Arterial	11,700	C
State Route 198	Kings Co. Line - State Route 99	2	Arterial	24,100	F
State Route 198	State Route 99 - Akers	4	Freeway	54,000	C
State Route 198	Akers - State Route 63 (south)	4	Freeway	62,000	D
State Route 198	State Route 63 (south) - Road 168	4	Freeway	37,500	B
State Route 198	Road 168 - Spruce	4	Expressway	13,800	A
State Route 198	Spruce - State Route 216	2	Arterial	9,500	C
State Route 198	State Route 216 - North Fork	2	Arterial	4,000	B
State Route 198	North Fork - Mineral King	2	Arterial	3,800	B
State Route 198	Mineral King - Sequoia Nat'l Park	2	Arterial	1,500	B
State Route 201	Fresno Co. Line - State Route 63	2	Arterial	5,200	C
State Route 201	State Route 63 - State Route 245	2	Arterial	4,800	C
State Route 216	State Route 198 (Visalia) - Houston	4	Divided Arterial	24,000	B
State Route 216	Houston - Road 144	2	Arterial	11,200	C
State Route 216	Road 144 - Road 158	2	Arterial	5,200	C
State Route 216	Road. 158 - Avenue. 344	2	Arterial	5,900	C
State Route 216	Road 196 - Castlerock	2	Arterial	5,400	C
State Route 216	Castlerock - State Route 198 (Lemon Cove)	2	Arterial	1,700	B
State Route 245	Fresno Co. Line - State Route 201	2	Arterial	670	B

Table 5-6. Annual Average Daily Traffic Volumes and Levels of Service (2006)

Roadway Segment	Limits	No. of Lanes	Facility Type	AADT	LOS
State Route 245	State Route 201 - Avenue 352 (Cajon)	2	Arterial	2,050	B
State Route 245	Avenue 352 (Cajon) - Woodlake S. Limits	2	Arterial	2,450	B
State Route 245	Woodlake S. Limits - State Route 198	2	Arterial	3,050	B
Avenue 54	Kings Co. Line - State Route 43	2	Arterial	650	B
Avenue 56	State Route 43 - State Route 99	2	Arterial	5,560	C
Avenue 56	State Route 99 - Road 192	2	Arterial	1,910	B
Avenue 56	Road 192 - State Route 65	2	Arterial	880	B
Avenue 56/M56	State Route 65 - Old Stage Road	2	Arterial	1,100	B
Avenue 56/M56	Old Stage Road - Sequoia National Forest	2	Arterial	980	B
Avenue 96	Road 96 - State Route 99	2	Arterial	1,360	B
Avenue 96	State Route 99 - Road 192	2	Arterial	1,960	B
Avenue 96	Road 192 - State Route 65	2	Arterial	2,800	B
Avenue 96	State Route 65 - M109	2	Arterial	1,290	B
Avenue 152	State Route 99 - Road 192	2	Arterial	3,350	B
Avenue 152	Road 192 - Road 222	2	Arterial	4,800	C
Avenue 152 (Olive)	Road 222 - State Route 65	4	Divided Arterial	5,180	B
Avenue 152 (Olive)	State Route 65 - Road 252 (Plano)	4	Divided Arterial	19,800	C
Avenue 184	Road 28 - Road 96	2	Collector	3,870	B
Avenue 196	Road 196 - State Route 65	2	Arterial	2,250	B
Avenue 196	State Route 65 - Road 236	2	Arterial	4,500	C
Avenue 196	Road 236 - State Route 190	2	Arterial	2,000	B
Hermosa	State Route 65 - Mirage	2	Arterial	1,910	B
Avenue 216	Road 84 - K Street.	2	Arterial	1,680	B
Avenue 216	K Street - State Route 99	2	Arterial	8,280	C
Avenue 232	Kings Co. Line - Road 92	2	Arterial	10,000	B
Avenue 232 (Tulare Avenue)	Road 92 - (West) - I Street	2	Arterial	3,020	B
Avenue 256	State Route 99 - Road 216	2	Arterial	2,210	B
Avenue 280 (Caldwell)	Kings Co. Line - State Route 99	2	Arterial	4,110	B
Avenue 280	State Route 99 - Akers	2	Arterial	9,610	C
Avenue 280 (Caldwell)	Akers - Shady	4	Arterial	14,950	B
Avenue 280 (Caldwell)	Shady - Fairway	6	Arterial	25,800	B
Avenue 280 (Caldwell)	Fairway - Lovers Lane	4	Arterial	21,940	B
Avenue 280	Lovers Lane - Stevens	2	Arterial	8,700	C
Avenue 280	Stevens - Brundage	4	Arterial	12,640	B
Avenue 280	Brundage - Road 180	2	Arterial	8,090	C
Avenue 280	Road 180 - Elberta	3	Arterial	13,900	D
Avenue 280	Elberta - Belmont	4	Arterial	12,590	B
Pine Street	G Street - Kaweah	2	Arterial	3,530	B
Avenue 304	State Route 99 - Road 76	2	Arterial	5,760	B
Avenue 304 (Goshen)	Road 76 - Road 80	2	Arterial	7,610	C
Avenue 304 (Goshen)	Road 80 - Shirk	4	Arterial	9,590	B
Avenue 304 (Goshen)	Shirk - Giddings	4	Arterial	15,400	B
Avenue 304 (Murray)	Giddings - Locust	2	Arterial	12,500	B
Avenue 312 (Riggin)	Road 80 - State Route 63	2	Arterial	3,060	B
Avenue 328	State Route 99 - State Route 63	2	Arterial	2,130	B
Avenue 328	State Route 63 - Road 132	2	Arterial	4,870	C
Avenue 328	Road 132 - State Route 216	2	Arterial	5,020	C
Avenue 384	State Route 99 - Road 80	2	Arterial	4,100	B
Avenue 384	Road 80 - State Route 63	2	Arterial	3,530	B
Avenue 416	Fresno Co. Line - Road 72	4	Divided Arterial	9,830	B
Avenue 416 (El Monte)	Road 72 - Euclid	4	Divided Arterial	8,610	B
Avenue 416 (El Monte)	Euclid - Nichols	4	Divided Arterial	9,160	B
Avenue 416 (El Monte)	Nichols - Perry	4	Divided Arterial	6,320	B
Avenue 416 (El Monte)	Perry - Road 92	4	Expressway	17,100	B
Avenue 416	Road 92 - Road 120	4	Expressway	12,320	B
Avenue 416	Road 120 - State Route 63	2	Arterial	930	B
Avenue 416/Boyd Dr	State Route 63 - State Route 245	2	Arterial	4,220	B

Table 5-6. Annual Average Daily Traffic Volumes and Levels of Service (2006)

Roadway Segment	Limits	No. of Lanes	Facility Type	AADT	LOS
Road 56	Avenue 384 - Fresno Co. Line	2	Arterial	2,690	B
Road 68	State Route 99 - State Route 198	2	Arterial	4,360	B
Road 68	State Route 198 - State Route 137	2	Arterial	8,490	C
Road 80	Avenue 384 - Goshen	2	Arterial	17,000	B
Road 80 (Plaza)	Goshen - Neeley Street	2	Arterial	13,750	C
Road 80 (Plaza)	Neeley Street - State Route 198	2	Arterial	9,370	C
Road 92	Avenue 320 - Avenue 280	2	Arterial	4,860	C
Road 92	Avenue. 280 - State Route 198	2	Arterial	9,160	C
Road 92	State Route 198 - Avenue 320	2	Arterial	1,810	B
Road 96	State Route 137 - Avenue 96	2	Arterial	3,920	B
Road 108 (Demaree)	Avenue 328 - Riggins	2	Collector	5,560	B
Road 108 (Demaree)	Riggins - Houston	2	Collector	7,630	B
Road 108 (Demaree)	Houston - Goshen	2	Collector	13,950	B
Road 108 (Demaree)	Goshen - State Route 198	4	Arterial	15,140	B
Road 108 (Demaree)	State Route 198 - Walnut	4	Arterial	17,220	B
Road 108 (Demaree)	Walnut - Caldwell	4	Arterial	12,990	C
Road 108	Caldwell - Cartmill	2	Collector	8,450	B
Road 108 (Hillman)	Cartmill - Leland	6	Arterial	10,100	B
Road 108 (Hillman)	Leland - Prosperity	6	Arterial	3,640	B
Road 132	State Route 201 - Avenue 328	2	Arterial	7,400	B
Road 132	Avenue 328 - Saint John's Pkwy	2	Arterial	11,340	B
Road 132 (Ben Maddox)	Saint John's Pkwy - Houston	4	Arterial	20,340	B
Road 132 (Ben Maddox)	Houston - State Route 198	4	Arterial	19,510	B
Road 140 (Lovers Lane)	State Route 216 - State Route 198	4	Divided Arterial	11,660	B
Road 140 (Lovers Lane)	State Route 198 - Caldwell	4	Divided Arterial	8,610	C
Road 140	Caldwell - Avenue 272	2	Arterial	8,200	C
Road 140	Caldwell - State Route 137	2	Arterial	3,800	B
Road 152	State Route 137 - Avenue 192	2	Arterial	2,300	B
Road 152	Avenue 192 - State Route 190	2	Arterial	1,850	B
Road 152	State Route 190 - Avenue 96	2	Arterial	1,740	B
Road 160	Avenue 56 - Kern Co. Line	2	Arterial	7,650	C
Road 164 (Farmersville Blvd)	State Route 198 - Walnut	2	Arterial	7,950	C
Road 164 (Farmersville Blvd)	Walnut - Visalia Road	2	Arterial	5,960	C
Road 164 / Road 168	Visalia Road - State Route 137	2	Arterial	2,050	B
Road 192	Avenue 196 - Avenue 152	2	Arterial	2,700	B
Road 192	Avenue 152 - Avenue 56	2	Arterial	5,600	B
Road 196	State Route 216 - State Route 198	2	Arterial	8,900	C
Road 204 (Spruce)	State Route 198 - State Route 65	2	Arterial	1,090	B
Road 216/ Avenue 272	Avenue 232 - M296	2	Arterial	14,700	C
Mooney Boulevard	State Route 137 - Laspina in Tulare	4	Arterial	12,100	C
Main Street (Porterville)	State Route 190 - Olive	4	Divided Arterial	8,670	C
Main Street	Olive - Morton	4	Collector	7,980	C
Main Street	Morton - Henderson	4	Divided Arterial	8,210	C
Main Street	Henderson - Grand	2	Divided Arterial	3,270	B
Mirage	Hermosa - Lindmore	2	Collector	4,850	C
Diagonal 242 (Orangebelt)	Avenue 220 - Avenue 196	2	Arterial	6,320	B
Diagonal 242 (Orangebelt)	Avenue 196 - Avenue 194	4	Arterial	5,180	C
Diagonal 242 (Orangebelt)	Avenue 194 - Grand	2	Arterial	3,910	B
Road 256/Diagonal 252/Plano	Avenue 196 - State Route 190	2-4	Arterial	185	B
Road 264	Avenue 95 - Avenue 56	2	Collector	2,300	B
Reservation Road	Worth Road - Tule River Indian Reservation Border	2	Collector	10,900	C
Plano/Avenue 116/M109	State Route 190 - Avenue 56	2	Arterial	470	B
Yokohl Valley Road	State Route 198 - Balch Park	2	Collector	2,750	B
Avenue 304	Kings Co. Line - State Route 99	2	Arterial	4,600	C

5.3 Funding

INTRODUCTION

This section discusses the type of funding and financing alternatives to fund county transportation projects.

Methods

The Regional Transportation Plan (RTP) and websites from TCAG, Caltrans, California Transportation Commission (CTC), Federal Highway Administration (FHWA), and Federal Transit Administration (FTA) were used to collect data.

Key Terms

Congestion Mitigation and Air Quality (CMAQ)

Interregional Improvement Program (IIP)

Intermodal State Transportation Equity Act (ISTEA)

Local Transportation Sales Tax (Measure R)

Regional Improvement Program (RIP)

Regional Transportation Plan (RTP)

State Transportation Improvement Programs (STIP)

Surface Transportation Program (STP)

Safe Accountable Flexible Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU)

Traffic Impact Fee (TIF)

Transportation Equity Act for the 21st Century (TEA-21)

EXISTING CONDITIONS

With the increasing costs of providing streets and roads to new developments, combined with increased congestion and deterioration of existing roadways, the county has begun to use other funding mechanisms. Tulare County recently passed Measure R (dedicated half cent sales tax measure) to have a dedicated source of transportation funding for 30 years.

Currently, the majority of available funds are generated from federal and state gas taxes and distributed through various grants. Another means of collecting revenue for transportation improvements is through development impact fees. Such impact fees may be imposed on new development to recoup a proportionate share of the costs required to accommodate such development. These costs may include such improvements as street widening, signalization, turn lane construction, and air quality improvements. Tulare County is currently going through the process of developing a Traffic Impact Fee.

Another alternative funding mechanism is Assessment District financing, which involves the formation of one or more districts where specific needed capital improvements have been identified. All the property owners in the district are assessed a proportionate share of the costs of the improvements and only projects within the district are eligible for funding. Finally there are several state and federal programs to fund some of the transportation improvements of Tulare County. Considering all of the different improvements that the county currently has (we need to document improvements first), the county uses all three of these methods to achieve its transportation goals.

For the current STIP 2006 based upon the RTP, there is deficit of approximately \$13.6 million; this has resulted in postponing several project funds until the 2008 STIP. Funding environmental and design services on State Route 99, State Route 198, State Route 63, State Route 65, and Road 80 will continue for this STIP cycle. Although funds are limited, TCAG proposes programming the many improvements to regional roads and State Highways.

Many requested projects will not be funded through the 2007 RTP because of lack of funding; this includes approximately \$250 million in deferred maintenance in the unincorporated roads in the county and over \$20 million in deferred maintenance on the Tulare County Regional Road System. In addition, a third of the total maintenance costs for the Caltrans road system is under-funded.

Since publication of the original Background Report in 2004, several major funding decisions have been made. First, federal transportation legislation (SAFETEA-LU) was passed; the state of California passed several infrastructure bonds; and a local half cent sales tax measure (Measure R) was passed by voters in Tulare County.

Although the funding picture still looks bleak, Tulare County is better equipped to handle increasing congestion and continued maintenance.

TCAG Involvement in Funding

TCAG is involved in the process of procuring federal and state funds for the member agencies based on needs. TCAG is responsible for overseeing transportation planning and helps member agencies receive federal assistance. TCAG also acts as a clearinghouse for projects requiring state or federal funding. The purpose is to provide a forum for coordination of governmental activities that require long-term planning.

STATE FUNDING

Propositions 1A and 1B

In November of 2006, California voters passed several statewide propositions that will ensure funding for major transportation projects. *Proposition 1A: Transportation Funding Protection:* Proposition 1A restricts state authority to reduce major local tax revenues, however its restrictions apply to future state actions only, and would allow the planned \$1.3 billion property tax shifts to take place in 2004-05 and 2005-06. In future budgets Proposition 1A allows for limited, short-term shifting of local property taxes. The state must repay local governments for these property tax losses within five years.

Proposition 1B: Highway Safety, Traffic Reduction, Air Quality and Port Security Bond: would authorize nearly authorize nearly \$20 billion in bonds for transportation project throughout the state. The bond would provide \$11.3 billion for capacity, \$4.0 billion for public transit, \$3.0 billion for goods movement, \$1.5 billion for security and \$200 million for school bus retrofit. The passage of Proposition 1B will most likely result in the widening of State Route 198 between Hanford and State Route 99. The State Route 198 widening project is expected to use \$90 million in bond funding. Another project that may be funded with bond revenue includes the State Route 99 widening (6 lane freeway) from Prosperity Avenue to Goshen Avenue. Over \$108 million will be needed for the widening.

State Transportation Improvement Program (STIP)

State law requires the California Transportation Commission (CTC) to adopt a STIP every two years. Previously, the STIP allocated anticipated State and federal funding to projects over a seven-year

period, but since SB 45 has passed this process has changed. TCAG is responsible for preparing the Regional Transportation Improvement Programs (RTIP) for the County of Tulare.

The STIP is a document that programs State and federal gas tax funding for highway and mass transit projects, including intercity, commuter, urban, and light rail projects. The STIP allocates anticipated State and federal funding to projects over multiple years. The STIP considers projects that are submitted in each agency's RTIP.

Interregional Improvement Program (IIP)

IIP funds the previously known Interregional Road System (IRRS). The IIP is a state funded program for projects identified as providing the most adequate interregional road system to all economic centers in the state. The projects are submitted by Caltrans through the Interregional Transportation Improvement Program (ITIP) process for programming in the STIP. Currently, State Routes 63, 65, 99, 190, and 198 are the only eligible IRRS facilities. State Route 99, which is planned to be widened from a four to six lane freeway from Kern County to Fresno County, is an IIP project in Tulare County. Another IIP funded project is State Route 198 widening project from two to four lanes between Hanford in Kings County to State Route 99 in Tulare County.

The IIP deals with identified projects that would be beneficial to the IRRS, leading to all economic centers throughout the State. Funding for this program is equal to 25% of all funds allocated through the SB 45 process. Local agencies can nominate candidate projects if they can show more cost effective use of funds. Caltrans submits the projects through the State Transportation Improvement Program (STIP) to be scheduled within the program. The IIP is a program based on the current adopted STIP and the most recent Project Delivery Report. It may include additional schedule changes and/or cost changes, plus new projects that Caltrans proposed for the interregional road system, as well as the intercity rail program, mass transit guide way, and grade separation programs.

Regional Improvement Program (RIP)

The RIP funds are available to regional transportation planning agencies (RTPAs) for a broad range of transportation improvements. These include State Route improvements, but also grade separation projects, transportation demand management (TDM), sound walls, rail transit projects, local street and road projects, intermodal facilities,

and pedestrian and bicycle facilities. The projects selected by the region must be included in the RTIP.

These regional choice funds represent approximately 75% of the funds available in the State Highway Account (SHA). The funds are programmed by the Transportation Authorities in their RTIPs for inclusion into the STIP. The RIP deals with identified projects that provide a benefit to the regional road system of all economic centers throughout the State. The projects are submitted through their RTIP process to program into the STIP. Currently, all State Routes and other regional facilities are eligible for RIP funding. TCAG has scheduled projects using this type of funding that ranges from pavement rehabilitation to major capital improvement projects.

Pursuant to SB 45, allocations of these funds are known as County Shares and replace the previous County Minimums. Eligible projects include:

- Local Roads;
- Public transit;
- Intercity transit;
- Pedestrian and bikeway facilities;
- State highway improvements;
- Grade separations;
- Inter modal facilities;
- Safety projects; and
- Transportation System Management projects.

State Highway Operation and Protection Program (SHOPP)

State legislation created the SHOPP for Caltrans to be responsible for state highway safety and rehabilitation projects, seismic retrofit projects, land and building projects, landscaping, operational improvements, bridge replacement, and the minor program. Local streets and road projects are not eligible. Unlike STIP projects, SHOPP projects may not increase roadway capacity; SHOPP is a four-year program of projects, adopted separately from the STIP cycle. The majority of the funds for this project come from the “old” nine-cent state gas tax from federal funds, but a portion is also funded through the recent State gas tax increase.

Transportation Development Act

The Transportation Development Act (TDA) is California law that provides funding for transit through Local Transportation Funds (LTF) and State Transit Assistance Funds (STAF). These funds are California State sales tax funds that are available for transit operations and street and road purposes. The LTF has been in existence since 1972 and is derived from 1/4 cent of retail sales tax collected in the State of California. STAF has been in existence since 1980 and is generated by a gasoline sales tax revenue. The LTF is distributed to each city and the unincorporated areas based upon population. In Tulare County, the LTF may be used for transit, street, and road purposes as long as all unmet transit needs are addressed, whereas STAF must be used for transit purposes only.

Table 5-7 below shows the State Transit Assistance Funds (STAF) to be allocated in Tulare County for the next 25 years.

Table 5-7. STAF 25 Year Projections for Tulare County (x1000)

06/07	07/08	08/09	09/10	10/11	11/12	12/13	13/14	14/15	15/16	16/17	17/18	Short-Term
917	935	954	973	993	1,012	1,033	1,053	1,074	1,096	1,118	1,140	\$ 12,229
18/19	19/20	21/22	23/24	24/25	25/26	27/28	28/29	29/30	30/31	31/32	32/33	Long-Term
1,163	1,186	1,210	1,234	1,259	1,284	1,310	1,336	1,363	1,390	1,418	1,446	\$ 27,897
											Total	\$ 27,897

Note: Based on FY 2005/06 actual STAF using a straight-line projection of gasoline tax with a 2% inflation factor.

Source: Regional Transportation Plan 2007

FEDERAL FUNDING

Transportation Equity Act for the 21st Century

TEA-21, also known as “federal reauthorization,” was passed by Congress in December of 1998 that provides for a major restructuring of the highway program. TEA-21 was adopted to provide funding for highways, highway safety, and mass transportation for six years to improve air quality and congestion and has been a very successful program since its inception. Similar legislation will continue to be a contributor to Tulare County transportation improvements. Key components of this Act include a great flexibility in the programming of projects, leveling the playing field between highway and transit

projects with a consistent 80/20 matching ratio, ties to the Federal Clean Air Act and Americans with Disabilities Act and earmarked construction projects. The TEA-21 program consists of programs designed to provide funds to special projects that must qualify through the Federal Transportation Improvement Program (FTIP) before they receive funds.

TEA-21 as well as the Clean Air Act Amendment (CAAA) is changing the way transportation planning is accomplished in California. The 1998 Tulare County FTIP fulfills each of the TEA-21 requirements and conforms to the RTP and other regional plans.

TEA-21 replaced the Intermodal Surface Transportation Efficiency Act (ISTEA), which was adopted in June 1991, has provided funding for highways, highway safety, and mass transportation for an additional six years to improve air quality and congestion. The House, Senate and President renewed TEA-21 under SAFETEA-LU on August 10, 2005. The TEA program has been successful throughout California.

The TEA program continues to be a contributor to Tulare County transportation improvements. In 2004/05 there was \$3.8 million per year with a small increase each year, available to Tulare County for CMAQ projects. These programs are designed to provide funds to special projects that must qualify through the FTIP before they receive funds. TEA Program, as well as the CAAA, has changed the way transportation planning is accomplished in California. The Tulare County FTIP fulfills each TEA requirement and conforms to the RTP and other regional plans.

TEA Reauthorization

On the final day of fiscal year 2004, the U.S. Congress passed an eight-month extension of TEA-21. The legislation will keep the program running through May 31, 2005. Funding for the program is based on levels to be included in the fiscal year 2005 Transportation-Treasury Appropriations Bill; approximately \$24.5 billion for highways and \$5.2 billion for transit funding is anticipated.

The extension was a straight continuation of the last extension. It includes language to ensure that for at least one year, the 2.5-cent per gallon ethanol tax that had been deposited in the General Fund prior to the extension will go to the Highway Trust Fund. The bill also included language to ensure that states continue to receive the 90.5% minimum guarantee that extends the highways and transit budgetary firewalls.

A compromise was reached on the remaining \$2 billion in the fiscal year 2004/05 highway funds that have been withheld in previous extensions. The Senate recommended distribution of the funds by the current highway formula and the House recommended that the funding cover earmarked projects; the House eventually conceded on this issue.

Safe Accountable Flexible Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU)

SAFETEA-LU (August 10, 2005) replaced the TEA-21 that continues to fund transportation improvements throughout the United States. Funds are directed toward projects and programs for a broad variety of highway and transit work through several funding components, which include the STP, CMAQ, TE, Safety Program, Rail Programs and Emergency Relief Programs.

The law established funding levels and policies for the federal government's highway, highway safety, transit, motor carrier and some rail programs administered by the U.S. Department of Transportation (DOT). SAFETEA-LU allocates \$286 billion for these projects over a six year period, including \$228 billion for the FHWA as well as nearly \$53 billion for transit.

Surface Transportation Program (STP)

The STP provides flexible funding that may be used by States and localities for projects on any Federal Aid Highway, including the National Highway System (NHS), bridge projects on any public road,

transit capital projects, and intercity bus terminals and facilities. A portion of funds reserved for rural areas may be spent on rural minor collectors.

The STP (exchange) program provides flexible funding that may be used by states and localities for projects on any federal aid highway, including the National Highway System, bridge projects on any public road, transit capital projects, public bus terminals and facilities, infra-structure based intelligent transportation systems, capital improvements and a host of additional categories. The STP program is the most flexible of the federal programs.

STP funds are typically used for highway construction and are handled by the state highway department. Beginning under ISTEA, and now with TEA-21, STP funds may be used for any capital project including transit. Nationally, 4% to 5% of STP funds are used for transit projects such as bus procurement or transit facilities, with the vast majority going to highway projects. This use of STP funds for anything other than highways was infrequent at the beginning of ISTEA in the early 1990s, but has been steadily increasing since, a trend that will continue with SAFETEA-LU.

Local governments may use the STP funds for projects on any Federal-aid highway system. The Act also allows STP funds to be used for improvements to the NHS, bridge projects on any public roads, and transit capital projects. Federal legislation requires the STP funds to be spent as follows:

- Highway projects;
- Bridges (including construction, reconstruction, seismic retrofit and painting) on all public roads;
- Transit capital improvements;
- Carpool, bicycle and pedestrian facilities;
- Safety improvements and hazard elimination;
- Planning; and
- Transportation enhancement activities and control measures.

By funding safety improvements and bridge replacement projects on local roads and rural minor collectors, some projects in Tulare County have used this funding for local bridges.

5. Transportation and Circulation

While the Department of Transportation (DOT) has administrative authority over the STP funds, these funds are distributed to urban areas with a population greater than 200,000, metropolitan planning organizations (MPO), and regional planning affiliations through agreements between local authorities and the DOT. Under the agreement, the local authorities are responsible for determining the highway programming priorities on the federal-aid system within their jurisdictions.

Table 5-8 shows the STP apportionment projections for Tulare County through 2016 (short term) and through 2029 (long term). The county road improvement shows small increases in budget during this time and primarily focused on infrastructure improvements within Tulare County's cities.

Table 5-8. Surface Transportation Program (STP) Apportionment Projections for Tulare County (x1000)

	04/05	05/06	06/07	07/08	08/09	09/10	10/11	11/12	12/13	13/14	14/15	15/16	Short-Term
Cities/County	3,197	3,278	3,362	3,446	3,533	3,621	3,711	3,803	3,896	3,992	4,089	4,189	\$44,117
County	877	877	877	877	877	877	877	877	877	877	877	877	\$10,524
	16/17	17/18	18/19	19/20	20/21	21/22	22/23	23/24	24/25	26/27	27/28	28/29	Long-Term
Cities/County	4,290	4,393	4,499	4,606	4,716	4,828	4,942	5,058	5,177	5,298	5,421	5,547	\$102,890
County	877	877	877	877	877	877	877	877	877	877	877	877	\$21,048
												Total \$123,938,668	

Note: These figures are an estimate based on a 2% increase per year for STIP allocations.
 Tulare County Apportionment does not change (Pre ISTEA old FAS Rules Calculating Road in a county).
 Source: Regional Transportation Plan 2007

Transportation Enhancement Program

Transportation Enhancements (TE) are transportation-related activities that are designed to strengthen the cultural, aesthetic, and environmental aspects of the Nation's intermodal transportation system. The TE program is a competitive grant program in which public agencies submit TE project applications for scoring and regional prioritization based on a bid target determined by the CTC.

Projects must have a direct relationship to the intermodal transportation system by function, proximity, or impact. Also projects must be over and above the required project environmental mitigation and fall within established categories for project eligibility. Eligible projects include:

- Facilities for pedestrians and bicycles
- Acquisition of scenic or historic easements and scenic or historic sites
- Scenic or historic highway programs
- Landscaping and other scenic beautification
- Historic preservation
- Rehabilitation and operation of historic transportation building, structures, or facilities
- Preservation of abandoned railway corridors (including conversion and use as pedestrian or bicycle trails)
- Control and removal of outdoor advertising
- Archaeological planning and research
- Mitigation of water pollution caused by highway runoff

Table 5-9 shows the funding apportionment for Tulare County by year concerning the TE Program for the next 25 years.

Table 5-9. Transportation Enhancement Year Apportionment Projections for Tulare County (x1000)

06/07	07/08	08/09	09/10	10/11	11/12	12/13	13/14	14/15	15/16	16/17	17/18	Short-Term
529	2,218	309	832	908	1,908	1,946	1,985	2,025	2,065	2,107	2,149	\$18,981
18/19	19/20	21/22	23/24	24/25	25/26	27/28	28/29	29/30	30/31	31/32	32/33	Long-Term
2,192	2,236	2,280	2,326	2,372	2,420	2,468	2,518	2,568	2,619	2,672	2,725	\$48,376
											Total	\$48,376,786

Note: These figures are an estimate based on previous increases in TE allocations with a 2% increase after FY 2011.

Source: Regional Transportation Plan 2007

LOCAL FUNDING

Local contribution to State Highways and regional roadway system in Tulare County is optional by the cities. In Tulare County, Measure R was passed that will generate at least \$650 million (30 years) to fund local transportation improvements. These projects may advance projects in the RTP and providing more funds for interchanges and road maintenance. The Measure R expenditure plan can be found on TCAG’s website (www.tularecog.org).

Another means of collecting revenue for local streets and roads is through impact and developer fees. Each of the cities and Tulare County has the responsibility and authority to enact and collect these fees in order to make transportation improvements. Tulare County is in the process of creating a Traffic Impact Fee for improvements on county roadway facilities. This Traffic Impact Fee is expected to be implemented following adoption of the General Plan and related EIR.

According to the RTP, several cities will be spending local funds to implement road improvements within their city limits on the regional road system. The county and the major cities will or have developed a Traffic Impact Fee program that will supplement other funding opportunities to reduce current congestion levels and maintenance conditions on local streets and roads.

FAIR SHARE ALLOWANCE

Fair share allowance of cost will be determined consistent with the requirements of Government Section Code 66000 (AB1600) so that new development can pay a fee for their fair share of mitigation costs for the traffic impacts that will be created. In addition, improvement of local transportation projects can be considered under this program.

5.4 Capital Road Improvements

Methods

TCAG, STIP, FTIP, and RTP.

Key Terms

None.

EXISTING CONDITIONS

Regional streets and highways funds are fully programmed through the STIP. As part of the RTP, various transportation modes are discussed and analyzed. The transportation modes include highways, mass transportation, railroad, bicycle, pedestrian, and aviation facilities. The following is a brief summary by transportation mode of proposed action and expected deficiencies.

Over the next thirty years, approximately \$615 million in federal and state funding will be available for construction of major road improvements. Over the same time period, approximately \$650 million will be available from Measure R sales tax revenue. The following is a summary of major STIP funded projects included as part of the constrained list of projects with the anticipated construction year(s). The list of projects includes a list similar to the 2004 RTP. No new major projects were added to the 2007 RTP due to the budget crisis and project cost increases to approved STIP projects. With the passage of Measure R in 2006; most of the major projects will be on time or advanced. Table 5-10 shows the funding stage and source for various road improvement projects in Tulare County.

Table 5-10. Funding Description and Source for Tulare County Roads

Year	Project	Function	Funding Stage	Funding Amount (X 1000)/Source
City of Dinuba				
2007	Ventura Street	New 2-lane roadway	RTP	\$450 / RDA
2007	Saginaw Street	New 2-lane roadway	RTP	\$800 / RDA – Private
2008	Road 72	New 2-lane roadway	RTP	\$600 / RDA
2007	East Crawford	New 2-lane roadway	RTP	\$90 / Private
2007	Nebraska	New 2-lane roadway	RTP	\$300 / Private
2007	West Crawford	New 2-lane roadway	RTP	\$90 / Private
2007	Crawford	New 2-lane roadway	RTP	\$200 / Private
2008	Kamm Avenue	New 2-lane roadway	RTP	\$200 / Private
City of Farmersville				
2010	Farmersville Boulevard	Widen to 4 Lanes	RTP	\$900 / Measure R
2015	Farmersville Industrial Park	New 2-lane roadway	RTP	\$400 / Private – RDA
2010	Hacienda Avenue	Railroad crossing	RTP	\$125 / Private – RDA
City of Porterville				
2009	Westwood Street	Widen to 4 Lanes	RTP	\$1,100 / Local
2008	Jaye Street – near Gibbons	New 2-lane roadway	RTP	\$1,500 / Local
2010	Main Street – near Westwood	Widen to 4 Lanes	RTP	\$1,400 / Local
2008	Jaye Street – near SR190	Widen to 4 Lanes	RTP	\$1,300 / Local
2010	Gibbons Avenue	Widen to 4 Lanes	RTP	\$1,000 / Local
2011	Main Street – near Yates	Widen to 4 Lanes	RTP	\$400 / Local
City of Tulare				
2015	Blackstone Drive	Widen to 4 Lanes	RTP	\$700 / Local
2025	Bardsley Street	Railroad crossing	RTP	\$400 / Local
2025	Bardsley Street	Widen to 4 Lanes	RTP	\$1,840 / Local

Table 5-10. Funding Description and Source for Tulare County Roads

Year	Project	Function	Funding Stage	Funding Amount (X 1000)/Source
Year	Project	Function	Funding Stage	Funding Amount (X 1000)/Source
City of Tulare				
2025	Cross Avenue	Widen to 4 Lanes	RTP	\$1,415 / Local
2025	Cross Avenue	New 2-lane roadway	RTP	\$270 / Local
2025	Prosperity Avenue	Widen to 4 Lanes	RTP	\$5,595 / Local
2025	Cartmill Avenue	Widen to 4 Lanes	RTP	\$3,300 / Local
2025	Paige Avenue	Widen to 4 Lanes	RTP	\$2,600 / Local
2025	Foster Drive	Widen to 4 Lanes	RTP	\$870 / Local
2025	West Street	Widen to 4 Lanes	RTP	\$3,200 / Local
2025	E Street	Widen to 4 Lanes	RTP	\$1,700 / Local
2025	K Street	Widen to 4 Lanes	RTP	\$550 / Local
2025	J Street	Widen to 4 Lanes	RTP	\$570 / Local
2025	M Street	Widen to 4 Lanes	RTP	\$1,800 / Local
2025	O street	Widen to 4 Lanes	RTP	\$110 / Local
2015	Blackstone Street	Widen to 4 Lanes	RTP	\$220 / Local
2015	Laspina Street	Widen to 4 Lanes	RTP	\$145 / Local
2025	Laspina Street	Widen to 4 Lanes	RTP	\$245 / Local
2015	Mooney Boulevard	Widen to 4 Lanes	RTP	\$2,700 / Local
2015	Turner Drive	Widen to 4 Lanes	RTP	\$2,030 / Local
2025	Levin Avenue	New construction	RTP	\$750 / Local
2025	Tulare Avenue	Widen to 4 Lanes	RTP	\$870 / Local
2025	State Route 137	Rehabilitation	RTP	\$700 / Local
2025	Elk Bayou	Widen to 4 Lanes	RTP	\$320 / Local
2025	Eastgate Avenue / canal	New construction	RTP	\$80 / Local
2025	Alpine Avenue / canal	New construction	RTP	\$80 / Local

Table 5-10. Funding Description and Source for Tulare County Roads

Year	Project	Function	Funding Stage	Funding Amount (X 1000)/Source
2025	Levin Avenue / canal	New construction	RTP	\$80 / Local
City of Tulare				
2025	Paige Avenue / canal	Widen to 4 Lanes	RTP	\$80 / Local
2025	Cartmill Avenue	Widen to 4 Lanes	RTP	\$2,100 / Local
2025	Enterprise Street	Widen to 4 Lanes	RTP	\$1,850 / Local
2025	West Street	Widen to 4 Lanes	RTP	\$1,380 / Local
2025	Blackstone Street	Widen to 4 Lanes	RTP	\$1,140 / Local
2025	Bardsley Avenue	Widen to 4 Lanes	RTP	\$1,500 / Local
2025	Cartmill Avenue	SPRR Overcrossing	RTP	\$5,500 / Local
2025	Pleasant Avenue	New Construction	RTP	\$300 / Local
2025	Pratt Street	Widen to 4 Lanes	RTP	\$1,200 / Local
2025	Bardsley Avenue	Grade Separation	RTP	\$4,856 / Local
2025	Cartmill Avenue	Grade Separation	RTP	\$5,315 / Local
2015	Cartmill Avenue	Interchange improvements	RTP	\$30,000 / Local
2020	Agri Center Drive	New interchange	RTP	\$25,000 / Local
2020	Paige Avenue	Interchange improvements	RTP	\$30,000 / Local
Tulare County				
2009	State Route 63	Widen to 6 Lanes	ROW	\$27,900 / RIP
2015	State Route 65	Widen to 4 Lanes	RTP	\$93,000 / RIP, TCRP
2021	State Route 65 (Spruce)	4 Lane Expressway	RTP	\$100,000 / RIP, R
2013 - 2026	State Route 99	Widen to 6 Lanes	Various	\$608,000 / IIP, Bonds, Earmark
2030	State Route 190	Passing lanes, Widen to 4	RTP	\$70,000 / RIP, R, SHOPP
2013	State Route 198	Widen to 4 Lanes	ROW	\$91,000 / RIP, IIP, TCRP, 1B
2013	State Route 216	Widen to 4 Lanes	RTP	\$15,000 / RIP
2012	Road 80	Widen to 4 Lanes	PA&ED	\$100,900 / RIP, R

Table 5-10. Funding Description and Source for Tulare County Roads

Year	Project	Function	Funding Stage	Funding Amount (X 1000)/Source
2010	Road 108	Widen to 4 Lanes	PA&ED	\$22,000 / RIP, R
2014	Avenue 416	Widen to 4 Lanes	RTP	\$51,000 / RIP, R
2015	Avenue 280	Widen to 4 Lanes	RTP	\$55,000 / RIP, R
Tulare County				
2009	Betty Drive	New Bridge	RTP	\$15,000 / RIP, R. Local
2015	Betty Drive	Widen to 4 Lanes	RTP	\$8,000 / RIP, R
City of Visalia				
2010	Ben Maddox Way	Widen to 4 lanes	RTP	\$5,380 / Local
2010	Houston Avenue	Widen to 4 lanes	RTP	\$1,530 / Local
2007	Houston Avenue	Widen to 4 lanes	RTP	\$1,500 / Local
2010	Hurley Avenue	Widen to 4 lanes	RTP	\$884 / Local
2010	Murray Avenue	Widen to 4 lanes	RTP	\$1,500 / Local
2010	Santa Fe Street	Widen to 4 lanes	RTP	\$2,000 / Local
2010	Santa Fe Street	Widen to 4 lanes	RTP	\$5,680 / Local
2010	Tulare Avenue	Widen to 4 lanes	RTP	\$750 / Local
2007	Walnut Avenue	Widen to 4 lanes	RTP	\$2,660 / Local
2010	Caldwell Avenue	Widen to 4 lanes	RTP	\$1,220 / Local
2007	Caldwell Avenue	Widen to 4 lanes	RTP	\$1,680 / Local
2010	Court Street	Widen to 4 lanes	RTP	\$1,000 / Local
2010	Ferguson Avenue	Widen to 4 lanes	RTP	\$570 / Local
2007	Houston Avenue	Widen to 4 lanes	RTP	\$1,280 / Local
2010	Houston Avenue	Widen to 4 lanes	RTP	\$3,000 / Local
2008	McAuliff Street	Widen to 4 lanes	RTP	\$1,080 / Local
2010	Mooney Boulevard	Widen to 4 lanes	RTP	\$690 / Local
2007	Demaree Street	Widen to 4 lanes	RTP	\$1,450 / Local
2015	Hurley Avenue	Widen to 4 lanes	RTP	\$1,200 / Local

Table 5-10. Funding Description and Source for Tulare County Roads

Year	Project	Function	Funding Stage	Funding Amount (X 1000)/Source
2015	Tulare Avenue	Widen to 4 lanes	RTP	\$500 / Local
2025	Demaree Avenue	Widen to 4 lanes	RTP	\$1,630 / Local
2025	Goshen Avenue	Widen to 4 lanes	RTP	\$1,980 / Local
2025	McAuliff Street	Widen to 4 lanes	RTP	\$1,760 / Local
City of Visalia				
2010	Shirk Road	Widen to 4 lanes	RTP	\$3,000 / Local
2015	Shirk Road	Widen to 4 lanes	RTP	\$4,000 / Local
2020	Akers Road	Widen to 4 lanes	RTP	\$1,800 / Local
2020	Shirk Road	Widen to 4 lanes	RTP	\$1,600 / Local
2015	Santa Fe Street	Widen to 4 lanes	RTP	\$2,000 / Local

Source: Regional Transportation Plan 2007

5.5 Road System Condition



INTRODUCTION

This section addresses the status of the county’s rural roads. The current physical status of the county roadways is noteworthy. Due to a significant reduction of available funding for road maintenance over the past two decades, the county has not been able to adequately maintain its roadway system. This is critical for the agricultural industry that uses these roads for farm-to-market trips and also significantly contributes to road deterioration.

Methods

Information for this section was primarily gathered from the Tulare County RMA.

Key Terms

Pavement Management System (PMS)

EXISTING CONDITIONS

Currently, rural road conditions are deteriorating at an accelerated rate. These county roads are increasingly used by the agricultural and dairy industries to haul their product to market. Large potholes, alligator cracking, and deterioration of the asphalt exist on county roads.

From a capacity standpoint, widening of county roads may not be necessary; however, maintenance to these facilities is critical. Heavy-duty vehicles associated with the agricultural and dairy industries use the roads regularly and are the primary factor for the roads increased deterioration. The increase in dairy and other agricultural activities has exceeded original loading capacities of these rural roads. For over three decades, the increased use of county roads and limited funding for repairs has left many miles of these roads in poor condition.

Heavy duty trucks contribute to the damage of roads much faster than do automobiles. According to the American Association of State Highway and Transportation Officials (AASHTO), a fully loaded truck (80,000 pounds) has an impact on roads equal to the passage of approximately 9,000 cars. In addition, deferred maintenance and water intrusion in the roadbed results in further degradation of roadways.

Understanding that agriculture is the region's economic base, Tulare County strives to maintain and improve the transportation infrastructure that is essential to this industry. For years it has been increasingly difficult to keep pace with necessary maintenance on existing facilities due to financial constraints. In some cases deferred maintenance has become evident. According to Tulare County RMA, deferred maintenance for these poorly maintained roads is estimated to be at least \$250 million dollars. The diffused movement of farm to market and other truck dependent industries result in high maintenance costs that restrict funds that otherwise would be used for much needed expansion.

Maintenance for the county's 3,072 miles of roads is provided by four road yards located in Dinuba, Visalia, Porterville, and Terra Bella. Services include road repair projects, pothole patching, snow removal, debris removal, and road drainage. Traffic operations are centralized in Visalia and perform duties including installing and replacing traffic control signs, traffic signal maintenance, and roadway striping. The Operations Division of the Tulare County RMA oversees contract administration, bridge maintenance, road use investigations, materials testing, and coordinates road yard activities. The Project Coordination Division is also responsible for road funding and the Road Pavement Management system.

The Tulare County road system assets have a replacement value of \$1.075 billion. That's \$844 billion for 3,072 miles of roads, \$209 billion for 390 bridges, and \$950 billion for 18,000 acres of right of way (*Tulare County Infrastructure Valuation Report – June 2005*). The conditions of Tulare County roads were rated as either in good, fair, or poor quality. 54.0% of the roads are in good condition, while 36% are in fair condition, and 10% are in poor condition. Gravel roads are rated as being in poor condition.

In the past 30 years there has been an overall increase in road costs. Motor grader has increased by five times and construction maintenance worker labor has increased 3.5 times. In 1966, road oil prices were approximately \$22.00 dollars per ton; 40 years later, the cost has now been raised to ten times that at \$220.00 dollars per ton.

According to the American Public Works Association (APWA), there has been a significant increase in truck traffic. There has been a steady increase of truck and commodity growth in Tulare County. 30 years ago there were 150,000 trucks with 4,000,000 in tonnage; now, there are 550,000 trucks with 14,000,000 in tonnage.

In Tulare County there is an increase in costs and reduced buying power. For example, in 1970 nearly three times more roadwork was completed than in 2003 (689 miles vs. 250 miles). If the 1970 work was done in 2003, it would have costs nearly five times more than what was available for 2003 (\$42 million vs. \$9 million). The Pavement Management System Policy that was adopted January 12, 1999, is as follows:

“Adopted the Pavement Management system that includes a strategy of first priority to funding road repairs serving the greatest number of users and that can be preserved by cost effective preventative maintenance procedures.”

The findings of the Pavement Management System are:

- Deferred road repairs have resulted in \$254 million of immediate needs to restore the road system;
- Predicts that some roads with low traffic volumes will revert to gravel roads over the next ten years;
- By implementing a strategy of prioritized funding, the overall deterioration of the road system can be slowed but not halted;
- Present funding is inadequate to allow pavement repairs to keep up with the rate of deterioration; and
- Surface deterioration has advanced to the point of needing costly reconstruction in many cases and is the result of deferred maintenance over many years.

Maintenance to Bridges

The widening of any type of roadway often takes into account the high amount of funding that goes along with replacing a bridge for modification to the new roadway system. With Tulare County's abundance of irrigation canals and rivers from the Sierra Nevada mountain range and freeway over crossings, bridge maintenance is a concern.

The Safe Accountable Flexible Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU) provides bridge funding with the Highway Bridge Replacement and Rehabilitation Program (HBRRP). Locally, Caltrans Headquarters oversees this program in Tulare County. The purpose of this program is to replace or rehabilitate public highway bridges over waterways, other topographical barriers, other highways, or railroads when the State and FHWA determine that a bridge is significantly important and is unsafe because of structural deficiencies, physical deterioration, or functional obsolescence.

Bridge replacement project candidates selected for the HBRR program shall be structurally deficient or functionally obsolete, have a sufficiency rating below 50, and shall be selected from bridges shown on the federal eligible bridge list (EBL). The EBL is available from the Caltrans District Local Assistance Engineer. Bridge rehabilitation project candidates selected shall be deficient or functionally obsolete, have a sufficiency rating less than or equal to 80, and shall be selected from bridges shown on the EBL.

Reimbursable scopes of work include replacement, rehabilitation, painting, scour countermeasure, bridge approach barrier and railing replacement, low water crossing replacement, and ferry service replacement.

In Tulare County, bridges cross rivers, creeks, canals, ditches, and sloughs. The EBL includes 79 such bridges in Tulare County. Currently, all but one of the 79 bridges are eligible for rehabilitation (a sufficiency rating less than or equal to 80) and 19 bridges (25%) are eligible for bridge replacement (a sufficiency rating below 50).

RURAL ROAD FUNDING

Population instead of road miles apportions monetary funding of roads. Tulare County has nearly 3,100 miles of county maintained roads but proportionally the county has a small population compared other counties in the state. Tulare County has as many as 50 miles of road scheduled for improvements.

The Tulare County RMA receives approximately \$6.8 million per year for maintenance with an estimated need of \$16.4 million to maintain county roads. Due to this shortage, the county pursues other funding sources to address the unprogrammed needs. Local Transportation Funds (LTF) available for transit can also be utilized for maintenance of local streets and roads, only if there are no unmet transit needs determined.

As stated throughout this document, given the overall increase in sources of local, state, and federal funds that have materialized over the previous decades, the current transportation funding situation for regional and local agencies has resulted in a revenue shortfall both in the areas of capital improvement projects, maintenance and rehabilitation. It is anticipated that revenue shortfalls will continue because the revenues that support the maintenance and improvement of the transportation network are not increasing enough to keep pace with inflation. However, it should be noted that Measure R will lessen that shortfall.

5.6 Air Quality



INTRODUCTION

This section provides a discussion of air quality issues that are related to transportation-related air quality impacts that affect Tulare County. Mobile source emissions contribute to emissions that are generated in Tulare County and the San Joaquin Valley that contribute to air pollution. This section provides a description of the types of pollutants that are present in Tulare County and discusses plans and programs that are being undertaken and implemented by local agencies to mitigate these impacts.

Methods

Information from TCAG, San Joaquin Valley Air Pollution Control District (SJVAPCD), California Air Resources Board (CARB), legislation from the California Clean Air Act (CCAA), California Environmental Protection Agency (CEPA), Federal Highway Administration (FHWA), and the United States Environmental Protection Agency (EPA) was used to present the data in this section.

Key Terms

Volatile Organic Compounds (VOC)

Nitrogen Oxides (NO_x)

Sulfur Oxides (SO_x)

Carbon Monoxide (CO)

Ozone (O₃)

Particulate Matter (PM₁₀ & PM_{2.5})

EXISTING CONDITIONS

Tulare County is centrally located in the southern section of the San Joaquin Valley. The San Joaquin Valley contains eight counties: San Joaquin, Stanislaus, Merced, Madera, Fresno, Kings, Tulare, and the western portion of Kern. These counties represent approximately 16% of California's geographic area. The Valley is surrounded by the Coastal Mountain Range on the west; the Sierra Nevadas on the east; the Tehachapi Mountains on the south; and the Sacramento Valley in the north. For many years, this basin has been the subject of concern for air quality.

High-pressure cells are common to the San Joaquin Valley Air Basin (SJVAB) and create periods of poor ventilation and air stagnation. Due to the Basin's light wind patterns and surrounding mountains, air quality problems occur during any time of the year, especially during the hot summer months. The topography and climate support poor air quality in the Basin. These conditions, coupled with the continuing increase in population, congestion, existing agricultural production, and the high percentage of mobile source emissions has led to significant air quality problems.

In the SJVAB poor air quality can be traced to a number of factors. Major contributors to the deterioration of air quality include: ambient air from coastal air basins; agricultural industry; industrial factors; and vehicle travel characteristics throughout the SJVAB. Concentrations of gaseous pollutants are largely generated by identified mobile and stationary sources. These pollutants include: photochemical oxidants; carbon monoxide; nitrogen dioxide; sulfur dioxide; and hydrocarbons.

There are several pollutants that have been identified in the Basin as contributors to ozone that result in air quality deterioration. Major elements that contribute to the Valley's non-attainment of air quality standards include: Volatile Organic Compounds (VOC), Nitrogen Oxides (NO_x), Sulfur Oxides (SO_x), Carbon Monoxide (CO), Ozone (O₃), Particulate Matter (PM₁₀) and Particulate Matter (PM_{2.5}). Pursuant to federal law, the EPA has designated the entire Valley a non-attainment area for ozone and particulate matter.

Particulate matter can be traced to agricultural activities, mining, planned and unplanned fires, and unpaved and entrained road dust (i.e., car brakes and side road dust). Fuel combustion, solvent use, industrial processes, waste burning, petroleum process, landfills, and pesticides cause ozone. These factors generate significant levels of

ROG and NO_x that react in the presence of sunlight to create ozone. This ozone is one of the major air pollutants found in the Valley.

Federal and State Legislation

The Federal Clean Air Act, coupled with TEA 21 and SAFETEA-LU, requires that the RTP integrate transportation and air quality during the planning process. The 1990 California Clean Air Act (CCAA) Amendment requires the following stipulations in order to receive federal funding:

- Establish a permitting program that achieves no net increase in stationary source emissions;
- Develop a strategy to reduce vehicle trips, use and miles traveled;
- Increase average vehicle ridership to 1.5 persons per vehicle during commute hours;
- Establish Best Available Retrofit Control Technology (BARCT) requirements for all permitted sources; and
- Development of indirect and area source programs.

Failure to meet Federal and State requirements of the CCAA may result in the following disciplinary actions:

- Limitations on the use of federal funds for highway construction;
- Cut off of federal grants for construction of sewage treatment plants; and
- Prohibition of development of new stationary sources of air pollution.

Air Quality Standards

The ARB has created a Pollution Standard Index (PSI) based on research related to pollutant levels. This PSI is used to both measure air quality and set air quality standards. The PSI in simplest terms is a scale from zero to 500 designed to measure air pollution episode levels. Any measurement on the PSI that is greater than 100 are considered non-attainment for California and federal clean air standards. The PSI also measures first through third stage smog alerts from 200 up to 500 on the index. The PSI measurement provides a method of quantifying pollution levels.

The SJVAB topography and climate are two factors that create poor air quality conditions. When an upper layer of warm air forms over the Valley, it traps cooler air along with pollutants at ground level within this natural basin creating a temperature inversion. When there are long periods of stable air, temperature inversions form at elevations between 2,500 and 3,000 feet. Pollutants that are trapped under these inversions cannot rise and subsequently cannot be removed from the Valley through upper air circulation. Thus they remain near the Valley floor continuing to build.

The conditions described above cause the Central Valley to have some of the worst air quality in the nation. Cloudless, hot, dry Valley summers create conditions for the build-up of ozone causing pollutants. Stagnant air in the winter also allows for the build-up of carbon monoxide (CO), PM₁₀ and PM_{2.5}. As population levels continue to grow in the San Joaquin Valley, increased air pollution is also expected.

Due to the air quality conditions of the San Joaquin Valley, the SJVAPCD was created to aid in dealing with these conditions by reducing industrial and vehicle emissions. The SJVAPCD has implemented goals and regulations to reduce the most damaging pollutants threatening agricultural and human health in the San Joaquin Valley.

There are primarily five pollutants found in increasing amounts within SJVAB that are of concern to the SJVAPCD. These pollutants are Ozone (O₃), PM₁₀, PM_{2.5} and Carbon Monoxide. Ozone is a colorless, toxic gas produced by a photochemical reaction of volatile organic compounds (VOCs) and nitrogen oxides (NO_x) in the presence of sunlight. It is the primary component of smog and is formed from an airborne chemical reaction with two other pollutants, hydrocarbons, and nitrogen oxides. In Tulare County peak ozone levels occur in the mid-afternoon and can be the cause of a variety of health problems, crop, and even material damage.

Particulate matter less than 10 microns (PM₁₀) and 2.5 microns (PM_{2.5}) in size and are other pollution hazards found in increasing amounts in SJVAB. These particles may be either in liquid or solid form and include particles of sulfur, nitrogen, carbon or any other variety of combinations of materials. PM₁₀ is formed from a variety of sources, including agricultural and mining activities and vehicle traffic, and its effects include reduction in visibility. Because of the individual particle's size, it can cause respiratory problems.

Carbon monoxide and nitrogen oxides are two gasses produced through agricultural burning and vehicle emissions that have been found in the SJVAB. Carbon monoxide is a poisonous gas that, because its primary source is the automobile, can reach peak levels during heavy traffic episodes. Nitrogen oxides are formed by an airborne chemical reaction between nitrogen and oxygen. The primary problem NO_x poses to Valley air quality is the role it plays in the formation of ozone. Primarily vehicle emissions and agricultural burning in Tulare County produce nitrogen oxides.

AIR QUALITY FUNDING

According to TCAG's RTP, over the next thirty years approximately \$131.7 million in Congestion Mitigation and Air Quality (CMAQ) funds are projected to be available for air quality improvement projects. CMAQ funding maybe used for projects that improve air quality. Examples include: low emission vehicles such as hybrid cars, heavy-duty engine replacement, alternative fuel vehicles, alternative fueling stations, sidewalk and shoulder stabilization, bike facilities, paving of unpaved roads, and PM_{10} street sweepers. One possible commitment would dedicate a given percentage or funding level of CMAQ funds to be used for one or more of the following categories:

- Alternative fueling facilities – regional alternative fueling facilities lead to a reduction of emission and encourage multiple agencies to use alternative fuels;
- PM_{10} street sweepers (requires consideration as part of the adoption of the RTP);
- Paving unpaved roads (requires consideration as part of the adoption of the RTP); and
- Heavy-duty engine replacement or retrofit.

The primary purpose of the CMAQ program is to fund projects and programs that reduce transportation related emissions in air quality non-attainment and maintenance areas for ozone, carbon monoxide (CO), and small particulate matter (PM_{10}). Local agencies in the county submit applications for eligible projects when funds are available. Projects are eligible for CMAQ funding are those, which will contribute to attainment of National Ambient Air Quality Standards (NAAQS) with a focus on the above pollutants. Typical projects are:

- Public transit improvements

- Highway occupancy vehicle (HOV) lanes
- Employer-based transportation management plans and incentives
- Traffic flow improvement programs (signal coordination)
- Fringe parking facilities serving multiple occupancy vehicles
- Bicycle and pedestrian facilities
- Flexible work-hour programs
- “PM₁₀” projects under certain conditions
- Passenger Rail and Support Facilities

Current population levels are listed in Table 5-11.

Dinuba	20,002
Exeter	10,730
Farmersville	10,446
Lindsay	11,174
Porterville	51,467
Tulare	55,935
Visalia	117,744
Woodlake	7,394
Unincorporated	144,094
TOTAL	429,006

Source: California Department of Finance (2007)

All of these measures will be summarized in subsequent sections of this report. On Table 5-12, the 25-year funding plan is shown for improved CMAQ measures in Tulare County.

Table 5-12. CMAQ 25 Year Apportionment Projections for Tulare County (x1000)

06/07	07/08	08/09	09/10	10/11	11/12	12/13	13/14	14/15	15/16	16/17	17/18	Short-Term
4,000	4,300	4,200	5,100	5,100	5,100	5,100	5,300	5,300	5,300	5,300	5,300	\$59,400
18/19	19/20	20/21	21/22	22/23	23/24	24/25	25/26	26/27	27/28	28/29	29/30	Long-Term
5,300	5,500	5,500	5,500	6,000	6,000	6,000	6,500	6,500	6,500	6,500	6,500	\$72,300
											Total \$131,700,000	

Note: These figures are an estimate based on historic increases in CMAQ allocations (2005-2007)
 Source: Regional Transportation Plan 2007

5.7 Transportation System Management/Transportation Demand Management

INTRODUCTION

This section discusses strategies to increase roadway capacity without relying on major construction improvements.

Methods

The TCAG RTP was used to obtain data regarding Transportation Systems Management and Transportation Demand Management programs in Tulare County.

Key Terms

Transportation Systems Management (TSM)

Transportation Demand Management (TDM)

Traffic Signal Synchronization. Coordinating traffic signals (more than one) that are within a close proximity in order to enhance vehicular progression on roadways, minimize delay and continual starts/stops.

EXISTING CONDITIONS

TSM provides for short-range transportation strategies designed to improve the movement of people, goods, and the operational efficiency of the existing transportation system at minimal cost. The TSM strategies that are currently implemented in the cities within Tulare County on an on-going basis include traffic signal synchronization, provision of left-turn channelization, parking and access management, and similar traffic engineering techniques that maximize the use of existing streets and roads without major construction. These improvements have increased the overall capacity of the highway system in Tulare County without the provision of major capital expenditures.

Transportation Demand Management

TDM consists of managing behavior regarding how, when, and where people travel. TDM strategies are designed to reduce vehicular trips during peak hours by shifting trips to other modes of transportation and reduce trips by providing employment and housing balance. TDMs are specifically targeted at the work force that generates the

majority of peak hour traffic. Tulare County participates in the Central Valley Ridesharing outreach program, which is designed to educate employers and employees toward the benefits of TDMs. Some of the TDM strategies include the following techniques:

- Rideshare programs
- Transit usage
- Flex hours
- Vanpools
- Bicycling & walking
- Telecommuting
- Mixed land uses

Through education, TDM strategies can be implemented and utilized in the circulation system. However, in order to change peoples traveling habits, employers must suggest transportation alternatives such as encouraging employees to reduce single occupant vehicle trips.

Applicable Regions

In Tulare County, the areas with the most severe traffic congestion and which are potential candidates for TDM strategies include the Cities of Visalia, Tulare and Porterville. The City of Visalia, with a population of 117,744, has the highest peak hour congestion in the county. The City of Tulare has a population of 55,935. Trips generated between industries and employment in Visalia and Tulare contribute to the congestion on the State Route 63 (Mooney Boulevard), the Demaree Street/Hillman Street/Road 108, and State Route 137 (Tulare Avenue) corridors during peak hours. In addition, interchanges on State Route 99 in Tulare and State Route 198 in Visalia also experience peak hour congestion.

The City of Porterville, with a population of 51,467, is also showing signs of congestion on portions of its primary street network, i.e., the Olive Avenue, Henderson Avenue, Jaye Street, State Route 190 corridors. Dinuba, with a population of 20,002, experiences peak hour congestion on the Alta Avenue and El Monte Way corridors. These regions in the county have the highest potential to experience severe traffic congestion and are prime candidates to utilize TDM strategies. TCAG currently encourages these cities to study TDM strategies and take advantage of available programs to implement such strategies in their communities.

Strategies

A valuable TDM resource is available to the county and cities. TCAG actively educates and encourages employers to inform their employees about alternatives for transportation. TCAG provides its member agency with TDM programs such as the Central Valley Rideshare outreach program that matches compatible commuters within and beyond Tulare County. TCAG also educates the public through informational flyers and booths at local events and fairs. As a tool to reduce congestion and environmental improvements the SJVAPCD, TCAG, and local agencies endorse TDM strategies. Employers are encouraged to endorse the following TDM strategies:

- Economic incentives
- Regulatory parking spaces; locker rooms and showers (for pedestrians and bikers)
- Satellite work stations
- Institute flexible work hours
- Subsidize transit cost
- Form a Transportation Management Agency (TMA)

5.8 Rail Transportation

INTRODUCTION

This section provides a description of three existing railroad operators and shows a map of existing railroads in the county. There is also a discussion regarding AMTRAK services that are provided to county residents in neighboring Kings County.

Methods

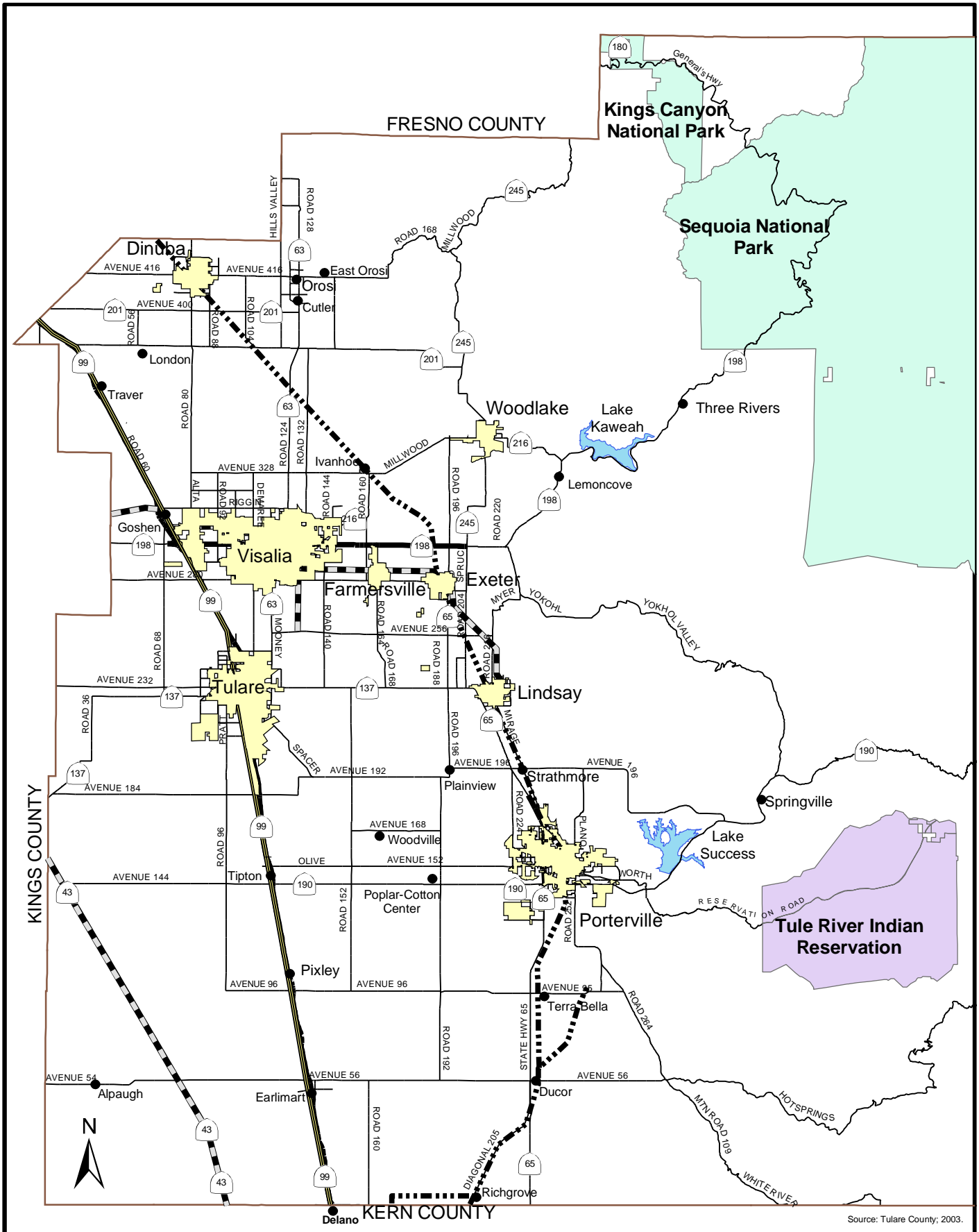
In order to obtain information related to rail transportation, the websites of Burlington Northern & Santa Fe Rail Road (BN&SF), Union Pacific Railroad (UP), San Joaquin Valley Railroad (SJVRR), and AMTRAK were utilized as the primary source of information. This information included maps, passenger/freight information, and schedule of routes (if known). In addition, information from the 2007 TCAG RTP was used.

Key Terms

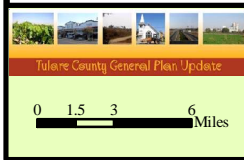
None.

EXISTING CONDITIONS

UP, BN&SF, and SJVRR provide freight service in Tulare County, connecting the county with major markets within California (Oakland/San Francisco/San Jose, Sacramento, and Los Angeles) and to other destinations. Routes of principal rail lines in the county are identified in Figure 5-4. Freight terminals and service to specific industries are located throughout the county. Though the railroads are reluctant to provide information on the amount of freight originating in the county, it is likely that the predominant mode for freight movements in the county will continue to be by truck in the foreseeable future. Grain/ethanol plants have been proposed in Goshen, Pixley, and Dinuba that have rail transport as a common denominator in their project sites; these railroads would allow corn and other feedstock to be transported to/from the plant efficiently.



Source: Tulare County; 2003.



LEGEND					
	Freeways		County Boundary		Burlington Northern Railroad
	Major Roads		National Parks		San Joaquin Valley Railroad
	State Highway		City Limits		Union Pacific Railroad
	Lakes		Unincorporated Communities		

FIGURE 5-4
Existing Rail
Transportation System

Passenger rail service (six round trips daily) in the county is provided by AMTRAK on its San Joaquin service, with the nearest rail station facility located in the City of Hanford (Kings County). AMTRAK provides bus connections to and from Visalia (twice daily) and Goshen Junction (two times daily) to the Hanford station. Either Orange Belt Stages or Greyhound provides service to AMTRAK from downtown Visalia.

Cross Valley Rail Project

In 1994 the conception of upgrading and renovating the 44-mile east-west San Joaquin Valley Rail line from Huron (Fresno County) to Visalia was proposed. This plan has potentially profound benefits to the following:

- Increased opportunities for industrial development, which would improve the economic viability of communities along the corridor;
- Improved air quality as a pair of locomotives can pull the equivalent of 225 trucks;
- Reduction in road maintenance costs because of decreased truck traffic; and
- Improved safety on rural roads with less truck traffic.

Cross Valley Rail Improvements

The Cross Valley Rail improvement project was completed in 2003. It cost approximately \$14 million for the 44-mile track improvement project between Huron and Visalia. The project is designed to allow food processing and industrial businesses to ship by rail as opposed to heavy-duty trucks. Funding was made possible through funds from public and private entities, including CMAQ funds from Tulare, Kings, and Fresno County Council of Governments (COFCG), contributions from the Los Gatos Tomato Company, and SJVAPCD.

High Speed Rail

The California High Speed Rail Authority is currently in the process of implementing a high-speed rail system that would provide passenger transportation and goods movement services throughout much of California. Through the EIR process, the preferred alignment and stations have been identified. Although the alignment travels through the southwest portion of Tulare County, the nearest stations are located in Fresno and Bakersfield. The board acknowledged that routing the rail through Hanford would save significantly on EIR's

and noise issues. Having a stop between Fresno and Bakersfield adds time to the trip and was considered a determining factor.

The purpose of the High Speed Rail system is to provide a reliable mode of travel that links the major metropolitan areas of the state and delivers predictable and consistent travel times. According to the Authority, high-speed rail is projected to carry as many as 117 million passengers annually by 2030 with estimated revenue of \$3.9 billion.

Further objectives of the High Speed Rail system are to provide an interface with commercial airports, mass transit, and the highway network, and to relieve vehicular capacity constraints of the existing transportation system as intercity travel demand in California increases. Given that the highest growth rate in California's future is in the Central Valley, the need for improved intercity transportation is demonstrated by the insufficient capacity of the existing vehicular transportation system to meet current and expected future travel demand. The need is also reflected in the poor air quality, impaired travel reliability, and increased travel congestion and longer travel times. According to the Authority, in most instances the High Speed Rail is an alternative that would improve the travel options available in the Central Valley and other areas of the state when compared to limited bus, rail, and air service for intercity trips that exist today.

According to the Authority, the cost of this project is estimated to be between \$40 billion and \$66 billion (2006 dollars), depending upon the alignment and the station options selected. The cost estimate includes right-of-way track, guide way, tunneling, stations, and mitigation. The right-of-way requirements for expansion of the freeways in the Central Valley would potentially impact 609 acres of farmlands. The high-speed rail, based on the system wide application of a 100-foot right of way, could potentially impact a maximum of 2,096 to 3,002 acres. By reducing the right-of-way to 50 feet this could potentially reduce the acquisition of farmland taken for right-of-way in the valley. Funding for this project may occur in November of 2008 in the form of a ballot measure.

After completing the EIRs, if the State of California decides to proceed with the development of the proposed High Speed Rail system, an initial implementation phase of the project would include preliminary engineering and project level environmental review to the extent needed to assess potential environmental impacts not already addressed. Project level environmental review would focus on a portion or portions of the proposed high speed rail system and would provide further analysis of potential impacts and issues at an

appropriate level of detail in order to obtain needed permits and to proceed with the project.

RAILROAD FUNDING

In 2003, major improvements were completed to the Cross Valley Rail. The project was funded with a number of financial sources including CMAQ funding. Phase II of the Cross Valley rail will consider the provision of passenger service from Visalia to Lemoore Naval Air Station (NAS). CMAQ funding may be used for rail improvements that demonstrate a reduction of pollutants. Other areas related to rail is the preservation of abandoned rail corridors for future improvements or conversion to bike/pedestrian facilities.

The High Speed Rail Program EIR has been released for public review. The preferred alignment through the San Joaquin Valley has been selected. Following this selection, regional access will be evaluated including adjacent land uses, transit, and road capacity. Capital funding for the High Speed Rail would have to be approved by voters and would appear as a bond measure.

5.9 Aviation System

INTRODUCTION

In this section, the existing airport facilities within the county are described. This section includes a discussion of airport types and locations.

Methods

The Tulare County Aviation Element and Airport System Plan, Central California Aviation System Plan (CCASP), 2007 TCAG RTP, and local circulation elements were obtained in order to reference existing conditions. In addition, data was obtained from the Visalia Airport.

Key Terms

Public Airport. Airports owned by public agencies, such as a city or county.

Public Airport with Special Use. Publicly owned airports that allow special uses such as crop dusting activities.

Private Airport. Privately owned and operated airport.

EXISTING CONDITIONS

The Tulare County Board of Supervisors adopted the Tulare County Aviation Element and Airport System Plan in April 1985, as part of the Tulare County Circulation Element. The element addresses the aviation needs within the county as shown in Figure 5-5. There are eight airports in the county. The public owned airports are Visalia Municipal, Porterville Municipal, Woodlake, Mefford Field and Sequoia Field. Two of the airports are private airports open to public use (Eckert and Thunderhawk). There are also a number of privately owned, special use airports. According to Tulare County, Harmond Field (Pixley) and Alta airports are currently closed.

Only Visalia, Porterville, and Mefford Field (City of Tulare) airports generate significant air traffic for the county’s circulation system. The only passenger air service within the county is provided at the Visalia Municipal Airport (VIS). This service is a daily circuit from VIS to Las Vegas (LAS) with connections to other destinations.

AVIATION FUNDING

On March 8, 2007, the TCAG Board adopted the 2007 Regional Transportation Plan (RTP). The RTP included the Tulare County Aeronautics Capital Improvement Plan (CIP). The CIP identifies a list of potential public-use, aeronautical projects for the next tens years. The projects listed are eligible for funding from the State Aeronautics Account, including the State portion of the local match for the FAA Airport Improvement projects (AIP). The CIP lists of projects totals approximately \$17.8 million. The City of Visalia Airport identifies \$19.4 million in improvements over the next twenty years.

On Table 5-13, The Long Range and Short Range Budget Plan for the Visalia Airport for the next 25 years is shown below.

Table 5-13. City of Visalia Long Range and Short Range Improvement Plans (Costs in 1,000's)

Short Range Projects (Within 5 Years)		Total	Federal	City
1	Construct T-Hangar	730	80	650
2	Construct hangar taxiway	270	243	27
3	Property acquisition (fee simple)	560	504	56
4	Reconstruct commercial apron	650	585	65
5	Overlay transient apron	250	225	25
6	Construct south side parallel taxiway (south half)	2500	2250	250
7	Reconstruct east apron	385	270	115
8	Install fire station vehicle exhaust system	25	0	25

Table 5-13. City of Visalia Long Range and Short Range Improvement Plans (Costs in 1,000's)

9	Purchase new tractor	26.4	0	26.4
10	Paint trim on nine T-Hangar buildings	19.9	0	18.9
11	Extend sewer and water to south side	60	0	60
12	Construct John Jay Inn storm sewer improvements	20	0	20
13	Replace 10 runway / taxiway signs	25.5	0	25.5
14	Purchase aircraft towing vehicle (replacement)	22.5	0	22.5
15	South side safety area drainage	385	346.5	38.5
16	Construct airport maintenance facility	65.4	0	65.4
17	Replace commercial ramp	615	553.5	61.5
18	Overlay slurry seal east hangar area and access taxiway	200	135	65
19	Purchase 4WD sport utility vehicle (replacement)	30	0	30
20	Terminal and baggage claim remodel	80	40	40
Subtotal		6919.7	5232	1686.7

Mid-Range Projects (approximately 5 to 10 Years)		Total	Federal	City
1	Construct hangar taxi lane	250	225	25
2	Construct T-Hangar	650	0	650
3	Property acquisition (fee simple)	570	513	57
4	Reconstruct based aircraft tie down apron	750	540	210
5	Seal cargo apron, west & central hangar & taxiways A and B	150	135	15
6	Seal Taxiway D, north connector taxiways, south apron, south apron taxiway	225	202.5	22.5
Subtotal		2595	1615.5	979.5

Long-Range Projects (approximately 10 to 20 Years)		Total	Federal	City
1	Construct runway and parallel taxiway extension	6200	5580	620
2	Seal tiedown and hangar pavements	350	270	80
3	Property acquisition (fee simple & approach protection easement)	1500	1350	150
Subtotal		8050	7200	850

Very Long-Range Projects (beyond 20 Years)		Total	Federal	City
1	Construct south side parallel taxiway north half	1800	1620	180
Subtotal		1800	1620	180
Total		\$19,365	\$15,668	\$3,696

Source: City of Visalia 2004, Shutt Moen Associates (May 2000)

Central California Aviation Systems Plan (CCASP)

The most recent CCASP update was completed in 1997. The purpose of the CCASP is to develop an integrated aviation plan for the Central Valley. The plan displays a summary of current aviation activity, establishes goals, and objectives for improving the present aviation systems, and forecasts future needs and courses of action for each county. The CCASP is a direct result of a legislative mandate

5. Transportation and Circulation

requiring the State of California to have a comprehensive aviation system plan. The CCASP is integrated into the California Aviation System Plan (CASP), fulfilling the mandate. The CCASP encompasses the counties of Yuba, Sutter, Placer, Yolo, Sacramento, San Joaquin, Stanislaus, Merced, Madera, Fresno, Kings, Kern, and Tulare.

On Table 5-14 funding is broken down by the open airports in the county, the capital expenditures involved, and where the funding is derived from.

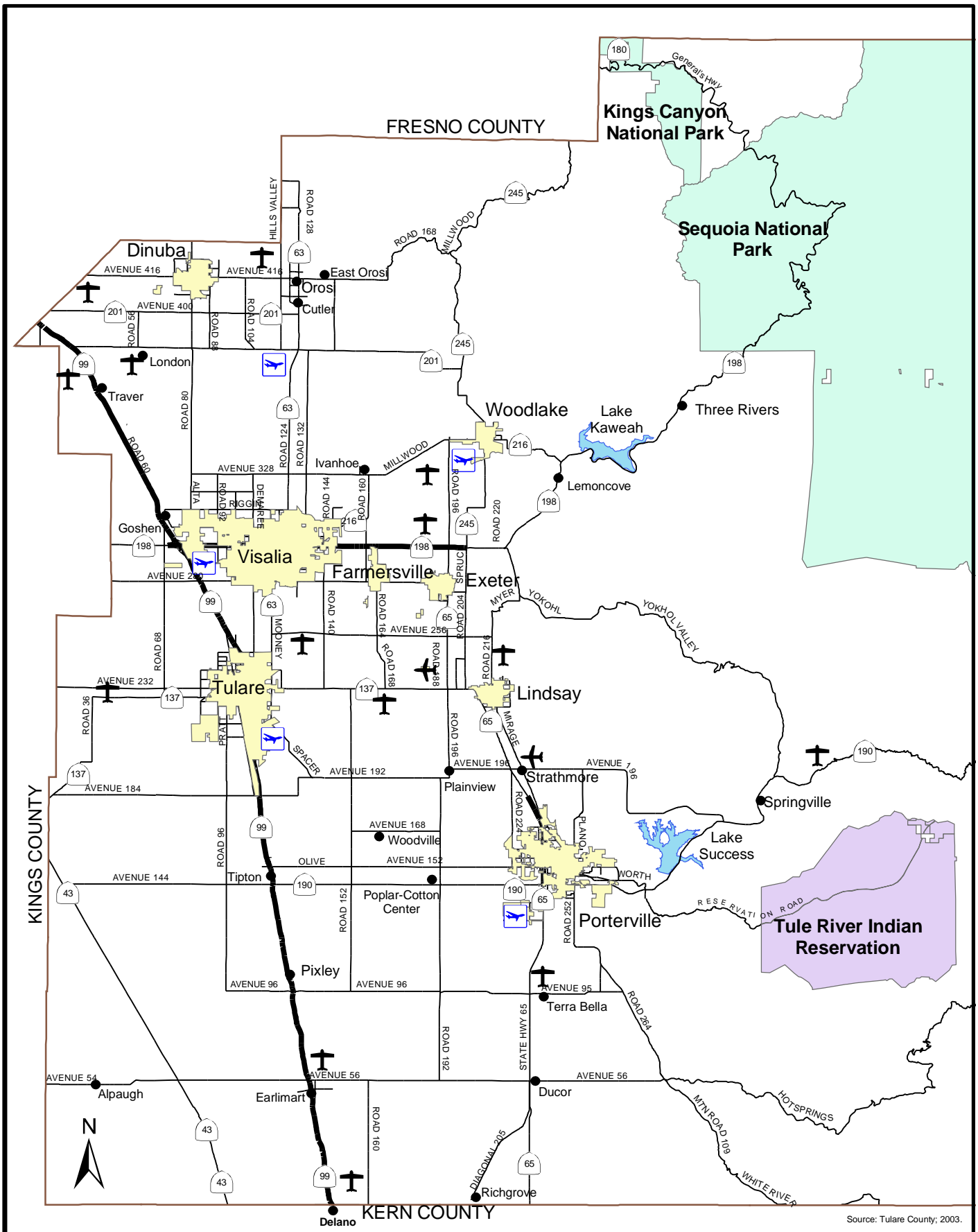
Table 5-14. Central California Aviation System Plan (CCASP) Capital Improvement Program (CIP)

	PROJECT DESCRIPTION	COST	Funding		Year Requested
			State	FAA	
Mefford Field					
	Environmental assessment	\$157,900	X	X	2006
	Purchase & install AWOS – extend power	\$360,000	X	X	2006
	Land Exchange & fencing	\$75,000	X	X	2007
	Land Exchange & fencing	\$276,000	X	X	2008
	Water and sewer infrastructure – well	\$569,000	X	X	2009
	Relocation of Dale Fry Road	\$300,000	X	X	2010
		\$2,627,425			
Porterville Municipal Airport					
	Airport Master Plan update	\$150,000	X	X	2006
	Environmental documentation	\$150,000	X	X	2006
	Construct ramp & compass calibration apron	\$199,500	X	X	2007
	Rehabilitate TWY (Convert Abandoned Runway)	\$2,161,250	X	X	2008
	Land acquisition	\$0	X	X	2010
		2,660,750			
Sequoia Field Airport					
	Runway improvements & new MIRL system	\$760,000	X	X	2006
	Reconstruct parallel & connecting taxiways	\$712,500	X	X	2006
	Airport master plan update	\$150,005	X	X	2010
	Reconstruct portion of apron	\$475,000	X	X	2007
	Environmental assessment	\$150,005	X	X	2008
	Airfield grading & drainage	\$332,500	X	X	2009
		\$2,580,010			
Visalia Municipal Airport					
	Construct south side taxiway – phase III	\$981,667	X	X	2006
	Engineering design – project 3 thru 9	\$160,000	X	X	2006
	New electrical service to East tee hangers	\$100,000	X	X	2006
	Replace existing VASI with new 2-box PAPI on runway 30	\$65,000	X	X	2006
	Construct 10 unit nested tee hanger	\$500,000	X	X	2006
	West side hanger development	\$1,072,000	X	X	2007

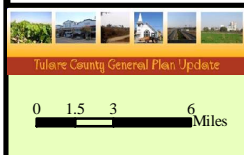
Table 5-14. Central California Aviation System Plan (CCASP) Capital Improvement Program (CIP)

	PROJECT DESCRIPTION	COST	Funding		Year Requested
			State	FAA	
	Construct service road to ARFF building	\$78,000	X	X	2007
	East side access road	\$216,000	X	X	2007
	Commercial ramp replacement	\$952,000	X	X	2008
	Engineering design	\$250,000	X	X	2008
	Airport layout plan update	\$300,000	X	X	2009
	Terminal expansion – 30% increase	\$625,000	X	X	2009
	Taxiway & apron to golf course	\$423,000	X	X	2009
	Runway 12-30 extension, blast pad, relocate MALSF	\$3,076,000	X	X	2010
	Environmental assessment	\$350,000	X	X	2010
	Visalia Total	\$9,148,667			
Woodlake Airport					
	Apron	\$136,563	X	X	2008
	Hanger TWY	\$91,852	X	X	2008
	T-hangers (8 units)	\$237,500	X	X	2008
	Access road	\$33,447	X	X	2010
	Auto parking	\$50,630	X	X	2010
	Apron	\$136,563	X	X	2010
	RWY, TWY and apron seal coat / markings	\$120,974	X	X	2010
		\$807,529			

Source: Regional Transportation Plan 2007



Source: Tulare County; 2003.



LEGEND	
	Freeways
	Major Roads
	State Highway
	Lakes
	County Boundary
	National Parks
	City Limits
	Unincorporated Communities
	Private - Public Use
	Private - Special Use
	Publicly Owned & Operated

FIGURE 5-5
Existing Airports

5.10 Goods Movement



INTRODUCTION

This section discusses typical ways in which goods are transported in Tulare County. Heavy-duty trucks account for the majority of goods movement in Tulare County with rail providing the regional shipment mode.

Methods

The 2007 TCAG RTP was the primary source used to obtain data related to goods movement in Tulare County. In addition, the Caltrans and California Trucking Association (CTA) websites were researched.

Key Terms

Surface Transportation Assistance Act (1982) (STAA). This act established a National Network of long haul truck routes. These routes are also called Terminal Access Routes.

Heavy Duty Truck. Any truck that has a gross vehicle weight more than 8,500 pounds.

EXISTING CONDITIONS

Agricultural, commercial, and industrial land uses are the principal generators of truck traffic in the county. Since agriculture is the largest industry in the county, overall truck traffic generated by agricultural uses should remain stable in the future. However, relocation and replacement of individual agricultural processing plants and other new industries can significantly alter regional and localized traffic patterns. The concentration of truck traffic within cities and unincorporated communities is also a concern. As

continued industrial growth is expected to increase within the county, the scale of industrial-related truck traffic will continue to increase.

Several state highway facilities in Tulare County are designated STAA routes or terminal access routes. Many State highways within the county, including State Routes 43, 63, 65, 99, 137, 190, 198, 201, 216, and 245 are included in the state truck network. STAA routes permit a single trailer with a 48-foot maximum length or double trailers with a maximum length of 28 ½ feet (each trailer).

Portions of State Routes 190 (2 miles east of Springville), 198 (Three Rivers post office), and 245 (north of Woodlake), which are predominantly mountain corridor areas, are designated as STAA California Legal Advisory Routes. This designation means that travel is not advised for trailers longer than 38 feet. In Sequoia and Kings Canyon National Park, trucks longer than 22 feet are restricted. In general, city streets and county roads are not included in the STAA network.

According to Caltrans, the percentage of heavy-duty trucks on State highways ranges by location. For instance, the vehicle composition on State Routes 65 and 198 generally contain approximately 16% heavy-duty trucks; and State Route 99 contains 26 to 28% heavy-duty trucks, which is well above the normal percentage for a major transportation facility. These high percentages make transportation in Tulare County potentially more hazardous and pollution adds to the growing air quality problem in the area. Many of the truck trips on State Route 99 are not generated by trucks in Tulare County; rather they are inter-regional with origins and destinations generally north and south of Tulare County. Intrastate travel in California traverses State Route 99 and Interstate 5 to bring goods movement to the urban centers to the north, south and in-between.

Types and locations of freight terminals in Tulare County are as diverse as the commodities that are produced here. Many of the terminals are agriculture based in the form of packing and processing plants. These facilities are spread throughout the county. There are citrus-related facilities in the eastern and northern portion of the Valley floor in the county and many of these are located along rail lines or spurs. There are cotton gins and other grain facilities located in western Tulare County. The Porterville vicinity has these types of facilities, as well as others. One notable facility in Porterville is the Wal-Mart distribution center. This facility was planned for exclusive truck delivery and distribution, and generates and attracts several hundred-truck trips each day to and from the Porterville area.

Regardless of the type of terminal, there is always a trip to the facility for every trip from the facility (i.e., trip end). Economics dictate the most efficient use of trucks, but cooperation and communication between operators, terminals, trucking associations, and transportation planners ensures the most efficient use of resources.

Cooperative efforts between the trucking industries, the driving public, and local officials are made to assess the impacts that trucks have on local streets, and to create regulatory guidelines for trucks in urban areas. Alternative transportation modes for long haul movement of goods should be explored. These include improved intermodal freight transfer facilities and access at major airports and rail terminals.

As a result of surveys conducted for the San Joaquin Valley Goods Movement Study, several significant truck operational issues were found. These trucking issues include congestion, railroad crossings, roadway geometry, parking rest area problems, route restrictions, and signal timing. These issues should be considered throughout the transportation planning process.

NAFTA Cross Border Trucking Regulations

According to the General Accounting Office, cross-border traffic has soared 170% since NAFTA went into effect, with more than 4.2 million truck crossings in 1999 alone.

This corridor has shown a dramatic growth in vehicle traffic since NAFTA was implemented in 1994. In 2005, there were nearly 12 million truck crossings into the United States from Canada and Mexico. With this tremendous increase in traffic, existing facilities and infrastructure have been overwhelmed, resulting in lengthy delays for vehicles waiting to clear customs and inspection.

Trucks, which are heavy emitters of nitrogen oxides and particulates, can idle for hours while waiting to cross the border. Moreover, once they do so, their sheer numbers are severely congesting the roadways in California and Mexico, further exacerbating air quality problems.

More than 4 million trucks enter the United States from Mexico every year, but they were required to stay within 20 miles of the border. The federal government estimates the latest U.S. Supreme Court decision would allow up to 34,000 more Mexican Trucks to enter the United States and travel farther into the country, possibly traveling on State Route 99 to get to their desired destination.

Although it is careful to assume that most destinations will conclude in the greater Los Angeles Basin and that long haul trucks from Mexico have the latest in emission standards, this may not always be the case; all trucks entering the country did not have emission standards until 1993 and destinations were throughout California and the United States. In every case lawmakers concede pros and cons with the latest NAFTA ruling, the pros being a cheaper product for the consumer and the cons being congestion and unsatisfactory emission standards that can have a negative effect on air quality in Tulare County.

5.11 Public Transportation



INTRODUCTION

This section describes the existing transit service providers in the county and its eight incorporated cities. It also provides transit ridership data for Fixed Route and Dial-a-Ride services. A discussion is also included regarding the county's common carriers.

Methods

In order to collect transit and common carrier information, every transit provider in Tulare County was contacted. Tulare County and cities that provide transit services – Exeter, Dinuba, Porterville, Tulare, Woodlake, and Visalia – submitted ridership numbers and information related to schedules and fares. TCAG also provided data related to the annual unmet transit needs meeting.

Key Terms

FTA. Federal Transit Administration.

TCaT. Tulare County Area Transit.

Fixed Route. Regularly scheduled routes that operate on set days and times. Transit riders are able to obtain route maps that show pick-up and drop-off times and bus stop locations.

Dial-a-Ride. This service picks up and drops off passengers anywhere within the designated jurisdiction. Elderly and handicapped passengers generally use this service.

Common Carrier. A privately owned bus or charter service that provides service to destinations beyond the county, i.e., Orange Belt Stages, Greyhound Bus Lines, and Eagle Mountain Casino Shuttle.

EXISTING CONDITIONS

The cities of Dinuba, Woodlake and Porterville provide either dial-a-ride service or fixed-route transit service. The Tulare (fixed route service annual ridership of 346,343 and a Dial-a-Ride service annual ridership of 34,328), and Visalia (total ridership of 1,460,000) operate their own public transportation services and intermodal transit centers to diversify travel linkage.

Short and Long Term Transit Plans

The City of Visalia has completed both short and long-range transit plans. The Cities of Porterville, Tulare, Dinuba, Woodlake and the incorporated areas of Tulare County have completed short-range transit plans in the form of five year Transit Development Plan (TDP) funded through Federal Transit Administration (FTA) grant assistance programs.

TDPs serve as a short-range transit plan that is to be updated every five years for cities that operate fixed route transit or demand responsive service. The incorporated City of Lindsay is a small rural community that does not operate transit; however, the County provides these cities with transit service. Visalia City Coach (VCC) currently offers transit service to the City of Farmersville, City of Exeter and Sequoia National Park. The following is a summary of Tulare County's public transit system including a brief overview of the operations, fares, schedules, and long and short-range transportation development plans.

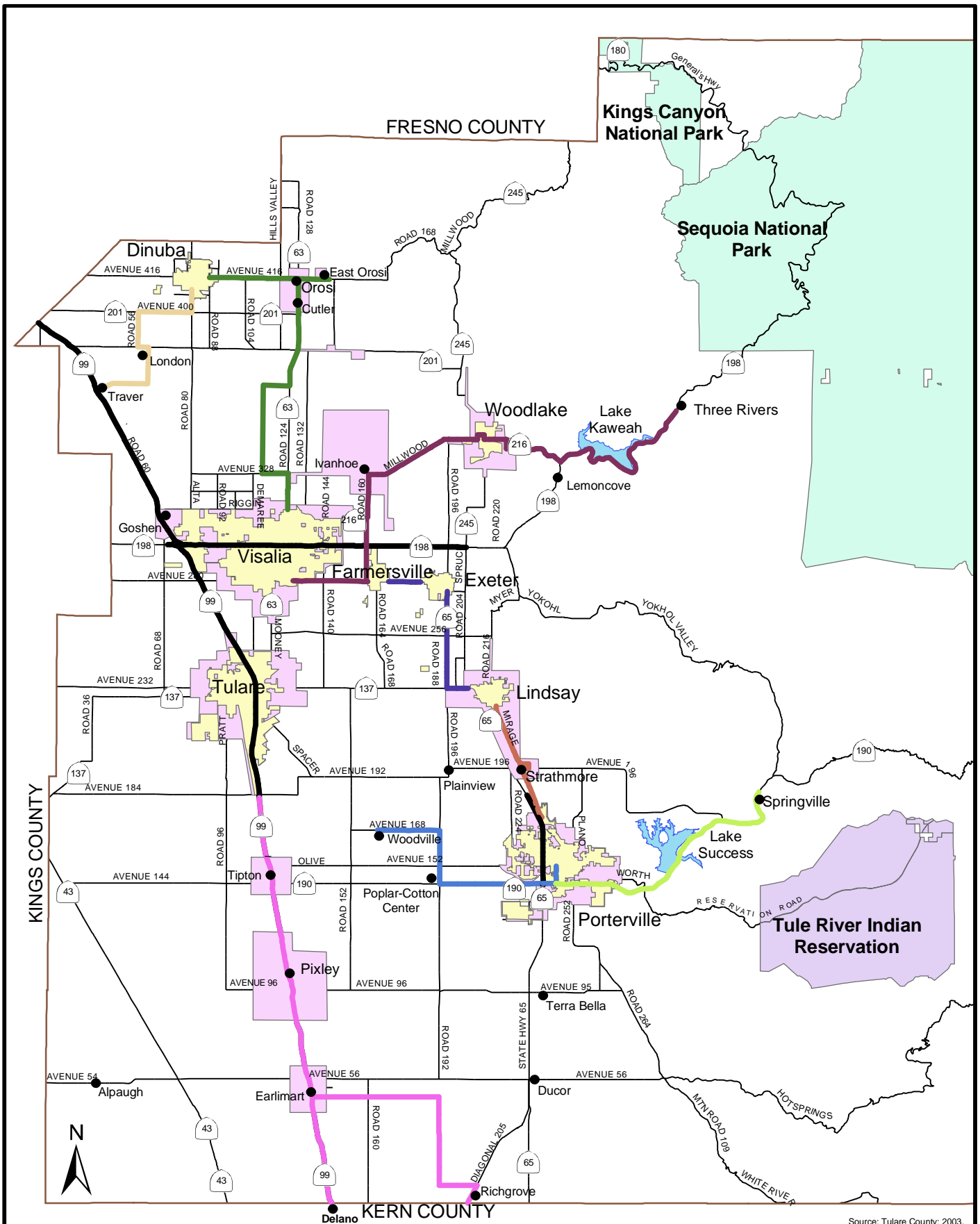
Tulare County Area Transit (TCaT) has been providing rural route service between various cities and towns since 1981. Trans West Specialists has been the contractor and operator of TCaT since its inception. TCaT provides both rural route service and local demand responsive service in and around various County communities. TCaT

operates 8 different fixed route services and provides a local dial a ride program between communities.

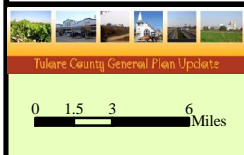
TCaT offers bus service between cities and communities in the county via eight routes:

- The North County route serves Visalia, north Visalia, Yettam, Seville, Cutler, Oroshi, Sultana, and Dinuba (Monday through Friday);
- The South County route includes Delano (Kern County), Richgrove, Earlimart, Teviston, Pixley, Tipton, Matheny Tract, and Tulare (Monday through Friday);
- The Northeast County route includes Visalia, Three Rivers, Woodlake, Ivanhoe, and Lemon Cove (Monday through Friday);
- The Southeast County route includes Visalia, Farmersville, Exeter, Lindsay, Strathmore, Porterville, and Linnel Camp (Monday through Friday);
- The Lindsay-Plainview-Strathmore-Plainview-Porterville route runs Monday through Friday;
- The Woodville-Poplar-Porterville route, which serves Woodville, Cotton Center, Poplar, and Porterville (Monday through Friday);
- The Dinuba-London-Traver-Delft Colony Route that serves Delft Colony, London, Dinuba, and Traver (Monday through Friday);
- Porterville-Springville route runs Tuesday and Thursday only and Porterville-Terra Bella route runs Monday and Wednesday only.

For TCaT the fare for an adult one-way ticket is \$1.50 and Dial-a-Ride is \$0.75. Children six (6) years of age and younger can ride for free when accompanied by a fare-paying adult. TCaT also provides monthly passes for \$45.00. In addition, discounts are available on purchases of 10 or more passes. Figure 5-6 identifies existing TCaT transit routes and also shows city and community transit service areas.



Source: Tulare County; 2003.



LEGEND

- North County Route
- South County Route
- Poplar Route
- Springville Route
- Northeast County Route
- Southeast County Route
- Lindsay-Strathmore-Porterville Route
- Deft Colony-London-Traver Route
- Dial-A-Ride

FIGURE 5-6
Existing Tulare County
Transit Routes and
Service Areas

TCaT is the primary transportation outlet linking Tulare County's rural and unincorporated communities to other communities within the region. Consisting of several routes from Three Rivers to Delano to Dinuba, TCaT interconnects the counties transportation needs in relation to the rural composition of the area.

Operating Monday through Friday, with a fare of \$1.50 one-way, TCaT begins at 5:30 am and ends at 7:30 p.m., making numerous stops per day. However, some rural communities are underserved compared with other similar areas. The Porterville-Springville and the Porterville-Terra Bella routes offer limited services on alternating days and do not operate on Fridays.

VCC is the main public transportation link within the City of Visalia as well as several surrounding cities. VCC operates seven days a week, with a one-way fare of \$1.00 (\$0.75 for handicapped and disabled). An all day ride pass is offered for \$2.00. On weekdays service is provided from 6:00 am to 9:30 p.m., on Saturdays service is provided between 9:00 a.m. to 6:30 p.m., and on Sundays from 8:00 a.m. to 3:30 p.m. VCC offers many stops within Visalia and provides transit service to the downtown transit center to better provide the community with a variety of transportation options throughout the county.

Since 1997, City Owned Local Transit (COLT) has been the fixed route provider for the City of Porterville. COLT service provides seven routes within the City of Porterville, running Monday through Friday from 7:00 a.m. to 7:00 p.m. and from 9:00 a.m. to 5:00 p.m. on Saturdays. These routes link to a downtown transit center and the general public can ride on a one-way trip for \$1.00. According to the Triennial Performance Audit, fixed route ridership has increased since COLT's debut, while Dial-a-Ride's ridership has decreased. Dial-a-ride is offered from 7:00 a.m. to 8:00 p.m. with a cost of \$1.50 per ride.

The City of Dinuba does provide both fixed route service and dial-a-ride service for the residents. Dinuba is under contract MV Transportation to provide transit service until 2009. Two fixed routes are provided; one is for citywide movements and the second provides a commercial route that serves major retail locations throughout the city. The citywide route operates from 9:00 a.m. to 3:30 p.m. with a fare of \$0.25. The commercial route operates from 9:00 a.m. to 6:00 p.m. Monday – Thursday and 9:00 a.m. to 9:00 p.m. Friday – Saturday. The commercial route is free for all riders. The dial-a-ride is offered from 7:30 a.m. to 4:30 p.m. with a cost of \$1.50 per ride.

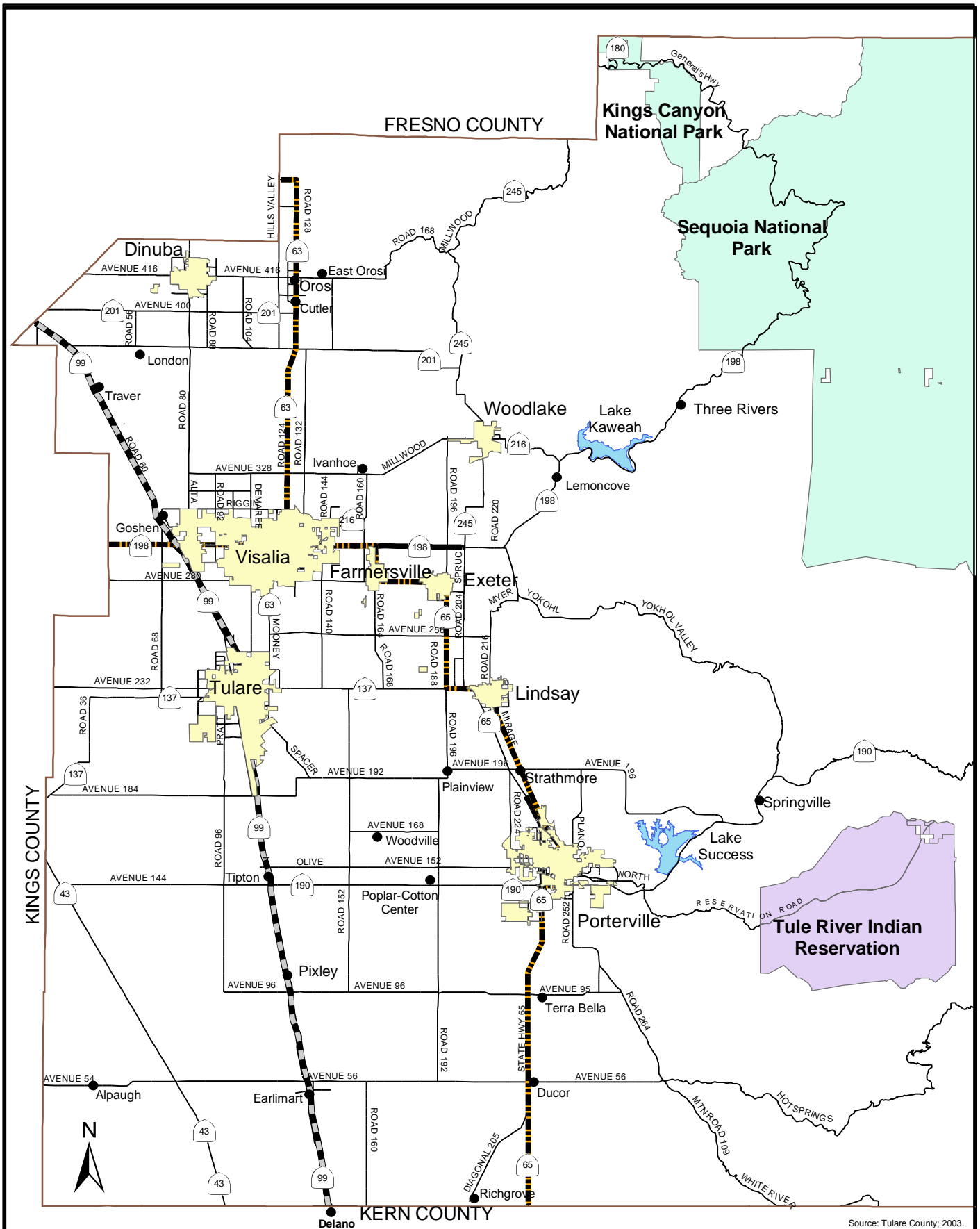
Tulare Transit Express (TTE) has been city operated since 1992; currently, the routes have increased in number to the present day of six within the city limits. The fares for the general public are \$0.75 with links to TCAT, VCC, and Greyhound's and Orange Belt's services. Services run from 6:30 a.m. to 6:00 p.m. Monday through Friday and 9:00 a.m. to 5:30 p.m. on Saturdays.

County of Tulare Dial-a-Ride offers service in most of the major communities of Tulare County. Dial-a-Ride service offers curb-to-curb service within the city limits of most of Tulare County. This service operates on weekdays from 6:00 a.m. to 6:00 p.m. and on Saturdays 7:00 a.m. to 6:00 p.m. Currently, fares range from \$0.75 to \$2.50 for adults and pick-up is usually made within one hour of the phoned-in request. Punch passes (\$13.00) and Monthly passes (\$45.00) are also available for purchase. Dial-a-Ride also provides these services in Tulare County:

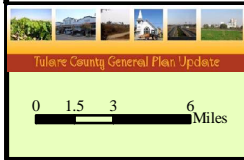
- Rural Dinuba/Sultana/Monson/Cutler/Orosi;
- Lindsay/Tonyville;
- Pixley/Tipton/Earlimart; and
- Rural Tulare.

Kings County also provides transit service in Tulare County. Kings Area Rural Transit (KART) brings transit riders into Visalia from the Hanford Area and primarily provides service to Visalia schools, including the College of the Sequoias (COS), Chapman College, Galen College, and the COS Agriculture Center. This route operates three times a day Monday through Saturday.

Two common carriers (Greyhound and Orange Belt Stages) also provide private transit services within the county, linking with other regions in the San Joaquin Valley and California (reference Figure 5-7). Orange Belt Stages also offers daily trips to Las Vegas and to areas along the Central Coast, while Greyhound arrives/departs from the community of Goshen west of Visalia. Finally, TCaT and each of the city transit service providers coordinate their respective schedules and transfer stops to provide for enhanced and effective transit service.



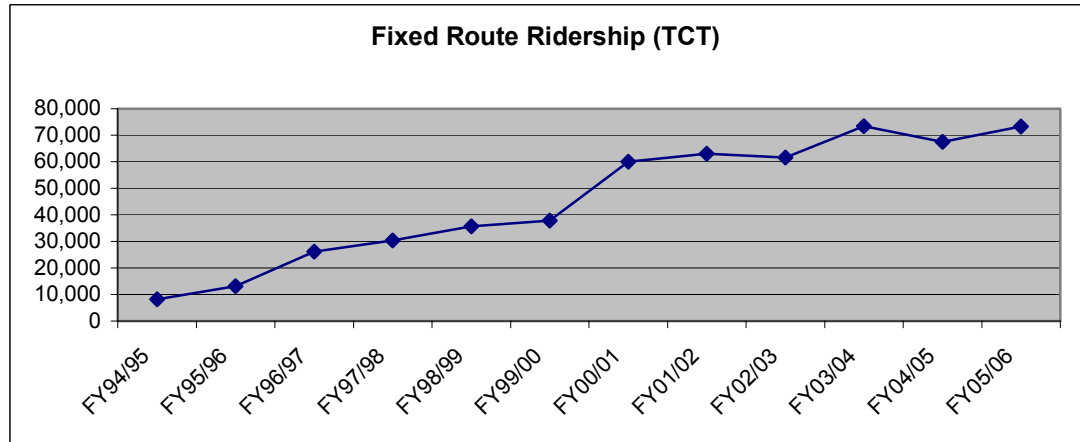
Source: Tulare County; 2003.



LEGEND			
	Freeways		Orange Belt Stages
	Major Roads		National Parks
	State Highway		City Limits
	Lakes		Unincorporated Communities
	County Boundary		
	Greyhound		

FIGURE 5-7
Existing Common Carriers

As shown in the graph below, TCaT service has steadily increased in recent years. Over the past couple of years, more routes have been added to accommodate the rural unincorporated communities.



Source: Tulare County Transit, 2007

The general increase in ridership points to positive policy choices and investment of limited funds. With population growth in the county, increased ridership has also continued. Trends show that ridership is increasing with expanded services in certain cities in Tulare County. In reference to the Triennial Performance Audit, all major communities in Tulare County experienced fixed route ridership increases with the expansion of transit routes.

Unmet Transit Needs Process

TCAG holds an unmet transit needs hearing every March. A public notice is prepared and published in newspapers and posted thirty days prior to the hearing and comments regarding transit needs in Tulare County are submitted. In May, the Social Service Technical Advisory Committee (SSTAC) reviews the unmet transit needs expressed in the hearing. The advisory committee makes recommendations that are submitted to TCAG’s Board; if any unmet transit needs are identified by the TCAG Board of Governors, they must be addressed before approving street and road funding. If an unmet transit need is found to be unreasonable to accomplish, it is noted and documented.

In Tulare County, typical unmet needs are generally related to the number of routes per day, operating times, weekend and holiday service, etc. The results of the unmet needs process assists local transit agencies as they plan for future transit services.

TRANSIT FUNDING

Member agencies supply TCAG with their short-term capital needs for operating their transit systems. Federal funding is available for capital improvements. FTA Section 5311 funding is received annually for rural agencies such as the county, Lindsay, Dinuba, and Woodlake. Based upon the requests from member agencies, funding is available for short-term bus replacements.

Through the Local Transportation Fund (LTF), funding is available for the operations of the various transit systems in Tulare County. Currently, the cities of Visalia and Tulare expend all of the LTF funds on transit; other future funding may be required for routes. There is potential federal funding available for new transit routes. As new routes are developed, new capital requirements could arise. CMAQ funds are also available for transit capital purchases. As new routes are generated, an evaluation of capital is conducted to determine if additional funding is required.

5.12 Non-Motorized Systems

INTRODUCTION

This section identifies non-motorized modes of transportation including bicycle, pedestrian, and equestrian facilities available to Tulare County residents.

Methods

Data was obtained from the 2007 TCAG RTP, TCAG Regional Bike Plan, and the Final Visalia Bikeway Plan Update.

Key Terms

Bicycle Facilities. Class I (separate path); Class II (striped lane that shares roadway); or Class III (non-striped path on roadway) bicycle routes.

Pedestrian Facilities. Sidewalks, paths, and over-crossings built for pedestrians.

Equestrian Facilities. Paths reserved for horseback riding.

SR2S. Safe Routes to School.

EXISTING CONDITIONS

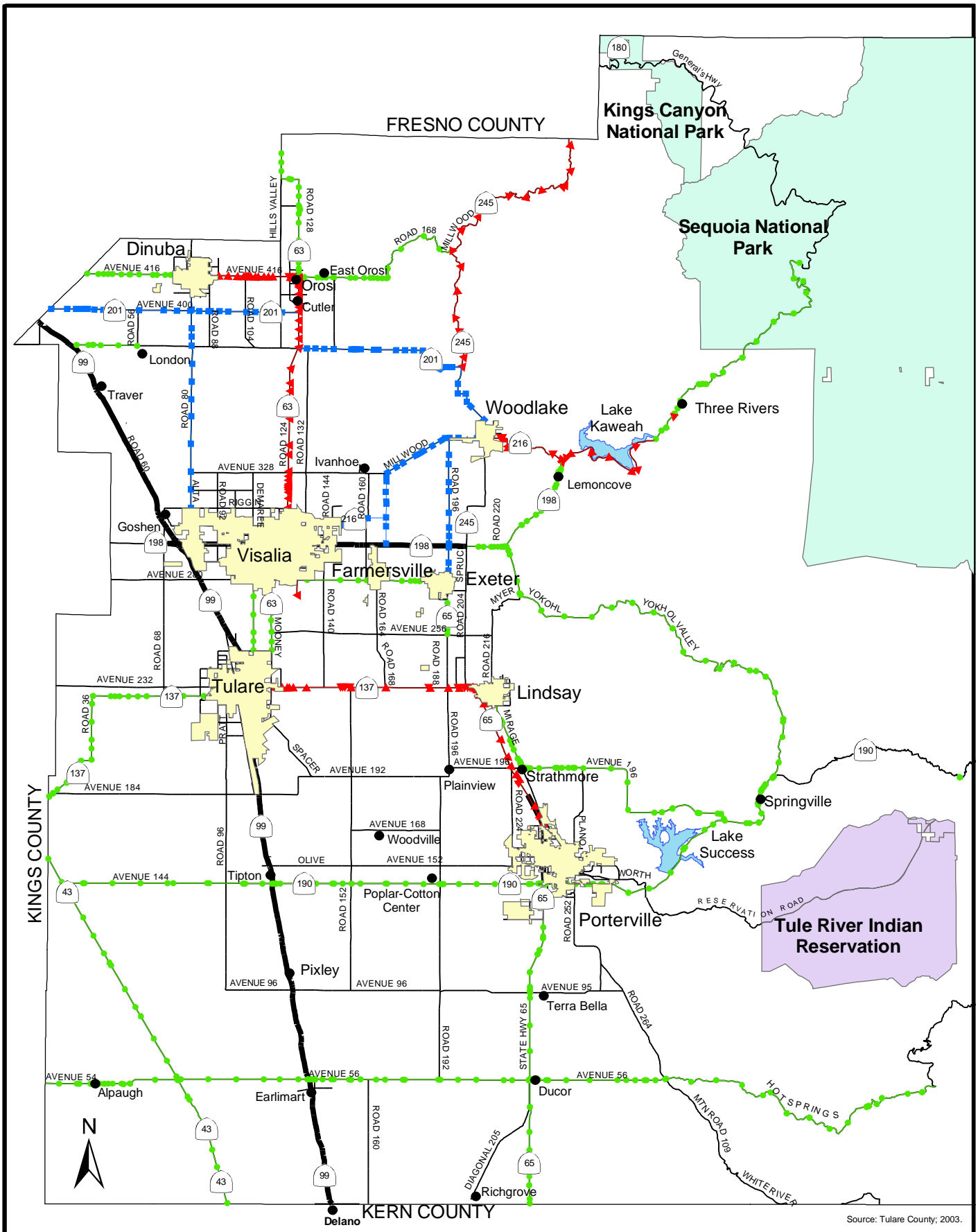
As part of the RTP, TCAG plans to adopt the Tulare County Regional Bike Plan (as shown on Figure 5-8) at the end of 2007. This Plan provides for connections between major urban and recreational facilities within the county. The Cities of Visalia and Tulare have recently updated their Bikeway Plan, which identify various phases of planning and the implementation of bikeway facilities. Exeter and Porterville have received grant funds to construct bikeways. Other local agencies are currently developing bicycle plans with help from TCAG to finance these plans through State Bicycle Transportation Account (BTA).

Along with bike routes in cities, transit carriers provide bike racks on their buses. In addition, pedestrian over crossings and recreational walkways are examples of some of the options in Tulare County that induce non-motorized behavior in the transportation element.

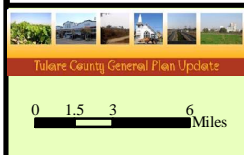


State Route 198 Pedestrian Over Crossing

Pedestrian over crossings are seen as an effective way in which to facilitate walking in a safe environment over major roadways. These over crossings are a result of safe pedestrian travel by school children over busy roads. Existing pedestrian crossings in the county are found over State Route 198 near Mineral King School; Giddings Street near Redwood High School and over State Route 99 near Goshen. These are examples of capital improvements to walkways and a safe route to school.



Source: Tulare County; 2003.



LEGEND					
	Freeways		County Boundary		Class I
	Major Roads		National Parks		Class II or III
	State Highway		City Limit		Class III
	Lakes		Unincorporated Communities		

FIGURE 5-8
Tulare County
Regional Bicycle Plan

Recreational Walkways

Tulare County has historically developed walkways for recreational and practical purposes. The Mill Creek Trail, St. John's Trail, and the Tule River Trail are examples of a recreational walkways located in Tulare County. The Mill Creek Trail and St. John's Trail are located in the City of Visalia and the Tule River Trail is located in the City of Porterville. The Mill Creek Trail is a signed route that is intended for pedestrians while the St. John's Trail is paved and used by pedestrians and bicyclist. These facilities provide people the incentive to walk to places of interest while enjoying a preserved route.

The Tule River Trail is a continuous two-mile bike and pedestrian trail that is constructed along an existing railroad right-of-way. When developed fully, the trail will extend from one of the city's busiest east-west arterials to the city's busiest north-south arterial terminating at the proposed Tule River Parkway. Along its route, the trail connects portions of the city's industrial sector, the county courthouse, Porterville Community College, an elementary school, a senior housing complex, a senior community center, the city fairgrounds and ballpark, a shopping center, and the Tule River Parkway.

Pedestrian facilities within the immediate vicinity of schools, recreational facilities, and retail and neighborhood service centers are also important components of the non-motorized transportation system. Pedestrian circulation facilities within and around school and recreational areas, in the form of county standard sidewalks, and are provided where appropriate and enhance the safety of those who choose to use these facilities.

Safe Routes to School

Safe Routes to Schools (SR2S) projects encourage and enable children to walk and cycle to school through a combined package of practical and educational measures.

The SR2S projects also:

- Improve road safety and reduce child casualties;
- Improve children's health and development; and
- Reduce traffic congestion and pollution.

SR2S projects involve:

- The whole school community;
- Local residents;
- Local authorities;
- Health and education workers; and
- Police.

Successful SR2S projects are child-centered to raise awareness, change travel behavior, and benefit the community by helping to create a safer environment. SR2S is a national program encouraging the use of active modes of transportation to and from school.

The benefits include:

- Increased physical activity for children and youth;
- A healthier lifestyle for the whole family;
- Less traffic congestion around schools;
- Safer, calmer streets and neighborhoods; and
- Improved air quality and a cleaner environment.



In Tulare County, cities, communities, school districts, and other agencies are eligible to apply for SR2S funding. All projects must be within two miles of the said school.

Bicycle Paths

With the onset of air quality attainment strategies and congestion management concerns, bicycling is considered an effective alternative mode of transportation. Bicycling can help improve air quality and reduce the number of vehicles traveling along roadway facilities

within cities and communities. Tulare County offers a relatively level topography that allows for the opportunity to utilize bicycle facilities.



The Rails to Trails program has been proactive in turning abandoned railroad tracks into pedestrian/bicycling thruways. Recently, the City of Tulare has converted an old railway line into a biking trail that bisects most of the city. Similar efforts in Visalia have been implemented along Goshen Avenue and plans for a bike path on Santa Fe Road are being considered. In addition, the City of Visalia is acquiring a 100-foot wide right-of-way north of Houston Avenue. This path would parallel the St. Johns River with room for a new road and a separate bike path. The Cross Valley Rail Project is also looking to implement a bike path to Hanford.

Bicycle Accidents

Although the fatalities and injuries throughout the county are relatively low compared to the statewide average, agencies within Tulare County should ensure that bike routes are safe for the rider. This could be achieved by designating certain bike paths or routes; however, the city and/or county undertake a certain amount of liability. Bike routes are developed based upon the amount of safety a bicyclist can achieve. Table 5-15 identifies accident data for the eight cities and unincorporated communities in Tulare County.

Table 5-15. Statewide Integrated Traffic Records System Bicycle Accident Data 2003-2006

Jurisdiction	# of Bicycle Involved Collisions (Year)								Avg./Year	2007 Population
	2003-04		2004-05		2005-06		Totals			
	FAT	INJ	FAT	INJ	FAT	INJ	FAT	INJ		
Dinuba	0	4	0	3	0	2	0	9	3.00	20,002
Exeter	0	2	0	0	0	1	0	3	1.00	10,730
Farmersville	0	4	0	9	0	2	0	15	5.00	10,466
Lindsay	0	4	0	1	0	2	0	7	2.33	11,174
Porterville	0	22	0	20	0	9	0	51	17.00	51,467
Tulare	1	9	0	12	0	8	1	29	10.00	55,935
Visalia	0	22	1	52	0	32	1	121	40.66	117,744
Woodlake	0	2	0	0	0	0	0	2	0.67	7,394
Unincorporated	2	20	1	22	1	6	4	48	17.33	144,094
Totals	3	89	2	119	1	62	6	285	97.00	429,006

FAT indicates Fatalities; INJ indicates Injuries

Source: TCAG Countywide Bicycle Transportation Plan: SWITRS accident data in 2003-2006.

As shown in Table 5-15, six fatal accidents occurred during the three-year period within the Cities of Tulare (1) and Visalia (1) and unincorporated communities (4), accounting for all of the fatalities. Trends indicate that the number of injury accidents have seen a reduction as have the fatalities during the three-year period analyzed. The County of Tulare recognizes the positive trend in bicycle accidents and implement policies to continue to reduce accidents.

Equestrian Trails

Due to the nature of the topographical surroundings of Tulare County, horseback riding is found primarily in the foothill communities and on farmlands located on the Valley floor. Most of the recreational horseback riding occurs on private property in these areas. The federal lands in eastern Tulare County have designated trails that provide for packing trips into the Sequoias and Sierras. In short, equestrian travel composes a small amount of trips in Tulare County.

BICYCLE PATH AND PEDESTRIAN FUNDING

In 2003, the TCAG Board adopted the Regional Transportation Bicycle Transportation Plan. TCAG has indicated that they plan to update the Bicycle Plan in the late 2007. The Plan identified both short-term and long-term projects for potential implementation in Tulare County. In the current Plan, the total cost of constructing all of the bicycle projects was estimated at \$31.2 million. To address this need, several state and federal funding sources exist to fund bicycle projects. The TE program and Measure R are potential funding sources. TCAG will continue to encourage member agencies to adopt transportation bicycle plans and apply for state Bike Transportation Account (BTA) funding. CMAQ funds may also be used for the implementation of bike projects such as bike paths.

In recent years, the biggest source of funds for pedestrian and bicycle improvements has been the TE program, which requires States to spend 10% of their STP funds on a specific list of eligible projects. This list includes the development of pedestrian and bicycle facilities and the conversion of abandoned railroad corridors to trails. More than half of the funds available under this program have been used for these two activities. Pedestrian projects designed to improve the accessibility of a sidewalk or trail are also eligible for TE funding.

5.13 Commute Modes of Transportation

INTRODUCTION

The purpose of this section is to provide information related to commuter patterns throughout the county. Specific information is provided for cities; however, information pertaining to unincorporated communities is not as detailed. Overall, a general commute pattern between the cities within Tulare County is summarized.

Methods

The information presented is based upon US Census Data from year 2000.

Key Terms

None.

Table 5-16. Transportation to Work in Tulare County

Mode Choice	
% Car, truck or van to work	91.1
% Public transportation to work	0.5
% Other transportation to work	4.0
% Work at home	4.4
Travel Time	
% Travel time less than 15 minutes	49.3
% Travel time 15-29 minutes	31.5
% Travel time 30-59 minutes	15.7
% Travel time 60+ minutes	3.5

Source: 2000 Census

EXISTING CONDITIONS

Table 5-16 shows the mode choice of commuters in Tulare County based upon the 2000 US Census. This table also identifies the duration of travel to work times.

As shown in Table 5-16, the majority of commuter trips are vehicular in nature. Public transportation only makes up for one-half of one percent for commuters. Table 5-16 also indicates that over 80% of commuters spend less than 29 minutes to travel to/from work. Only 3.5% have travel times greater than an hour; these are likely jobs outside of the county. On average the Tulare County worker spends 19.9 minutes commuting, which is one of the lowest times in the state, according to the U.S. Census Supplemental Surveys.

Park and Ride Lots



Park and ride facilities are used primarily by carpoolers, vanpoolers and transit riders for the daily commute, usually for free. Park and ride facilities in the county are open 24 hours a day, seven days a week. Currently, there are park and ride facilities in Porterville on Jaye Street near the Tule River Parkway (30 parking spaces) and another on the southwest corner of the State Route 198/State Route 65 intersection (eight parking spaces). Bicycle lockers and stalls are not located at these facilities. An additional park and ride lot next to a proposed Sequoia/Kings Canyon visitor center is being planned in Visalia, likely near the transit center.

Jobs to Housing Ratio

During the last decade, traffic congestion, housing costs, and the fiscal impacts on local governments have raised the issue of the relationship of jobs to housing. While commonly referred to as “jobs-housing balance,” it actually focuses on the ratio of jobs to workers in the community. According to the State Economic Development Department (EDD) in May of 2007, the county had 177,000 people employed, out of 195,500 eligible, leaving 18,500 unemployed.

In an ideal situation, there would be one local job for every employed resident. This balance between workers and jobs would, in theory, allow residents the opportunity to work in their community, thereby reducing long-distance commuting. Incorporated cities in the county would likely have a higher job to housing ratio than the unincorporated communities in the area based solely upon the employment opportunities provided. A more involved measure of jobs-housing balance would examine the types and wages of jobs available in a community versus the skills of workers and housing costs.

5.14 Major Trip Attractors

INTRODUCTIONS

This section provides the latest information pertaining to large employers in Tulare County. Generally, major employers are located in cities that contain employers. However, the employees must utilize county roads to travel between jurisdictions. Therefore, Tulare County must work with the cities to accommodate for commuter traffic patterns.

Methods

Data was collected through the US Census Bureau and local chambers of commerce.

Key Terms

None.

EXISTING CONDITIONS

Table 5-17 shows Tulare County's top employers by jurisdiction. As shown in Table 5-17, many of these industries are agricultural related, with other large employers related to government, schools, and hospitals.

Table 5-17. Tulare County Top Employers

City of Exeter	# Of Employees
Sequoia Orange	125
Exeter/Ivanhoe Citrus	75-120
Lo-Bue Bros. Inc.	420
Bowsmith, Inc.	84
Exeter Engineering	50
City of Dinuba	# Of Employees
Ruiz Food Products	1,100
Best Buy (West Coast Distribution Center)	405
Dinuba Public Schools	314
Giannini Packing Company	200
APIO Produce	150
Odwalla Juice	150

Table 5-17. Tulare County Top Employers

Sadoian Bros.	95
Surabian Bros.	80
K Mart	80
Retail Grocers	80
City of Lindsay	# Of Employees
Citrus Packing Houses (10)	1,800
Lindsay Unified School District	475
Lindsay District Hospital	300
National Diversified Sales	200
HIT Products	195
Vita-Pakt Citrus Products	150
Champion Home Builders	135
Tulare County	125
Lindsay Gardens	104
Friant Water Users Authority	75
City of Porterville	# Of Employees
Porterville Development Center	2,077
Wal-Mart Distribution	1,527
Sierra View Hospital	518
Citrus Packing Facilities	358
Royalty Carpet Mills	286
Beckman-Coulter, Inc.	245
Foster Farms	247
Bank of the Sierra	185
Mervyns	111
Target	106
National Vitamin	92
Pro Document Solutions	80
City of Tulare	# Of Employees
Dairyman's Cooperative Creamery / Land O' Lakes	650
Haagen Dazs / Ice Cream Partners USA, LLC	300
Wal Mart	280
Golden Valley Dairy Products	215
Southern California Edison	200

Table 5-17. Tulare County Top Employers

Cheese and Protein International	170
Morris Levin & Son Hardware	170
Saputo Cheese	150
Kings County Truck Lines	150
Kraft USA South	130
City of Visalia	
County of Tulare	4,320
Kaweah Delta District Hospital	2,540
CIGNA	1,000
Jostens Printing and Publishing	720
College of Sequoias	1,106
City of Visalia	520
Visalia Medical Clinic	360
Wal-Mart	230
Kraft	350
City of Woodlake	
Monrovia Nursery	600
Golden State Citrus Packer	85

Source: Tulare County Economic Development Corporation 2007 and Central Valley City websites.

As shown in Table 5-17, major employers in Tulare County range from retail department stores to major corporate companies. Many industrial companies also employ hundreds of Tulare County's residents.

Recreational Travel

Many highways in Tulare County experience the highest traffic volumes on weekends, particularly in the summer, as a result of recreational travel. Vehicular travel is likely to continue since major recreation facilities are located within the county, including:

- Sequoia and Kings Canyon National Parks
- Sequoia National Monument
- Golden Trout Wilderness
- Sequoia National Forest
- Lake Kaweah

- Lake Success

Roadway segments likely to experience significant weekend congestion during summer months include State Route 190 and 198 in the foothill areas. Maximum traffic volumes on summer weekends are projected to exceed average weekday volumes by factors ranging from 15 to 20%.

According to recent park service studies, Sequoia and Kings Canyon National Parks receive about 1.5 million visitors annually; however that visitation is expected to increase 23% by 2010. Sequoia and Kings Canyon National Parks now offers convenient transit connections.

Shuttle service is now provided by the Visalia City Coach in conjunction with TCAG and Tulare County. The new shuttle service provides 4 round trip routes from the Visalia Transit Terminal to the Park Visitors center with stops in Three Rivers. The shuttle service connects to an internal Park shuttle that provides service to the General Sherman Tree in Giant Forest, Moro Rock, Lodge Pole, etc. The Park Service indicates 68% of summer visitors come to Sequoia for one day or less and many of them use State Route 198; these new shuttle services are expected to ease congestion and enhance the experience of visiting the Sequoia National Park system.