

Farmersville General Plan

Part II

Community Profile

- 1. Human Environment**
- 2. Physical Environment**
- 3. Resources**

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CHAPTER 1 • HUMAN ENVIRONMENT

A. HISTORY

The site of Farmersville was first established by an early settler, Thomas G. Brundage who began a general store in the area. Brundage applied to the federal government to establish a post office in the community. Noting the increasing number of farms in the surrounding countryside, Brundage suggested the name “Farmersville” for the post office. The name was approved and in 1868, the name Farmersville was official.

By the 1870s Farmersville began to take on the appearance of a real town. In addition to a number of residences, the town’s center featured Brundage’s general store, the post office, a hotel, a blacksmith shop, a lumber yard, saloon, and a butcher shop. The remains of an early lumber operation are still visible on the northeast edge of the community where an old sawdust incinerator stands today.



The Brundage Store

As the community approached the turn of the twentieth century, Farmersville assumed its position as a trading center for the south central part of Tulare County, rooted in the economic base of agriculture. With significant investments in irrigation facilities and land tillage, the surrounding countryside bloomed with a variety of agricultural crops, including a variety of tree (walnuts, peaches, plums and nectarines) and field crops (corn, cotton, and alfalfa).

In the early 1900s Farmersville continued to grow, adding an elementary school. New commercial uses continued to spring up along the town’s main thoroughfares, Farmersville Boulevard and Visalia Road.

In 1960, the citizens of Farmersville voted to incorporate, becoming the eighth city in Tulare County. Incorporation

brought important community services such as water and sewer systems and police, under city control.

Growth has continued to the present time in Farmersville as new subdivisions, commercial and industrial development has occurred. In the late 1990's Farmersville voters approved the issuance of bonds and Farmersville High School became a reality. Farmersville's city offices completed a move to a new civic center on the west edge of the community, adding needed office space for city workers.

B. POPULATION

Farmersville's population has shown a steady (though fluctuating) pattern of growth during the 1990s, averaging about 3.4 percent per year. The population in 1990 stood at 6,235 persons, and has increased to an estimated 8,737 persons by 2000 - an increase of 2,502 persons in ten years. The city's population growth has been significantly higher during the 1990s than it was during the 1980's, as the table to the right illustrates. Growth was hampered in the 1980s for a number of reasons including high interest rates, a sluggish economy and in Farmersville, a sewer moratorium that stopped new development.

Population growth is one of the central factors for establishing policies and designating new areas for development. For the purposes of the General Plan, population projections were developed representing low and high estimates. By the year 2010, the estimates forecast a low population estimate of 11,628 , and a high population estimate of about 12,206 persons. By the year 2025, the estimates forecast a low population of 17,854, and a high population estimate of 20,155 persons.

At a Glance . . .

**Fast Facts on
Farmersville's
Population Growth**

Population in 2000:

8,373

Population in 1990:

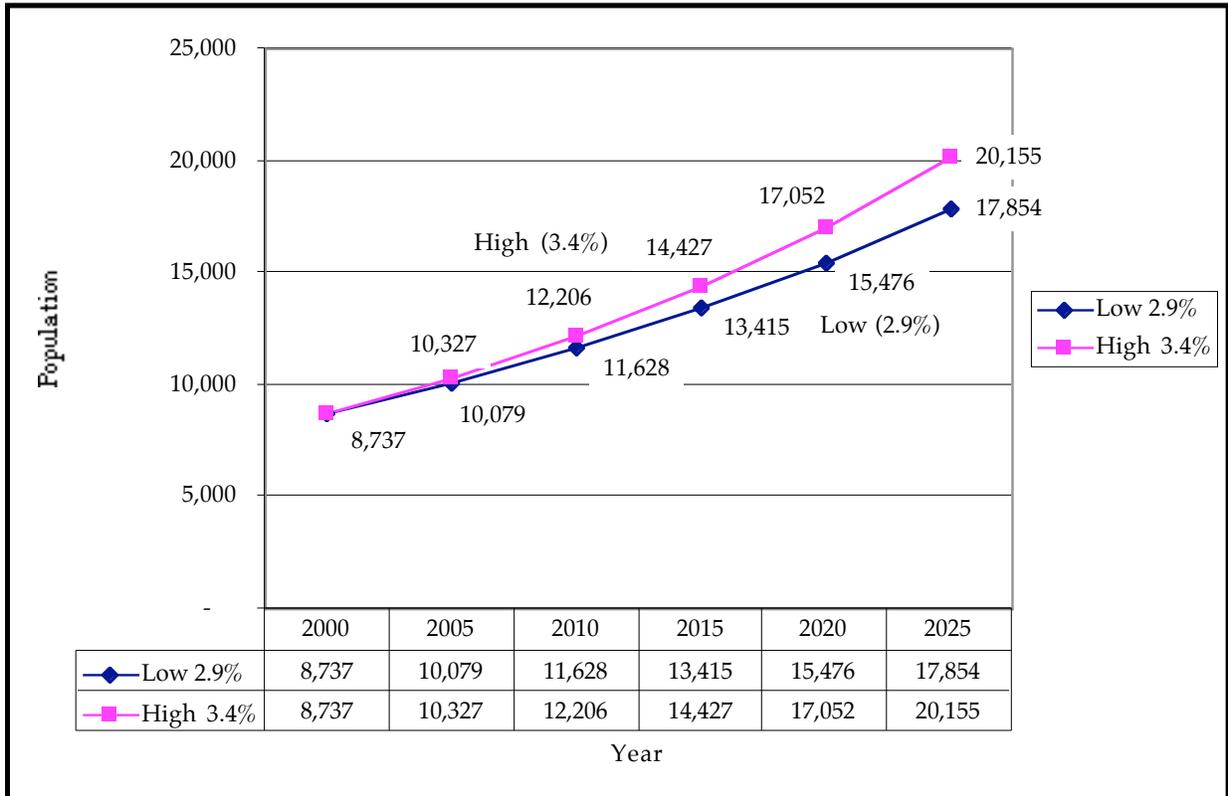
6,235

Average yearly population increase
during the 1990s:

214 persons

Growth during the 90s	Growth during the 80s	Growth since incorporation
3.4%	1.2%	4.1%

Chart 1-1
Population Estimates
2000 – 2025



Source: U.S. Census Bureau, California Department of Finance, Collins & Schoettler, 2000.

Table 1-1
Population Estimates
2000 – 2025

	<u>Low</u> 2.9%	<u>High</u> 3.4%
2000	8,737	8,737
2005	10,079	10,327
2010	11,628	12,206
2015	13,415	14,427
2020	15,476	17,052
2025	17,854	20,155

C. SOCIOECONOMIC CONDITIONS

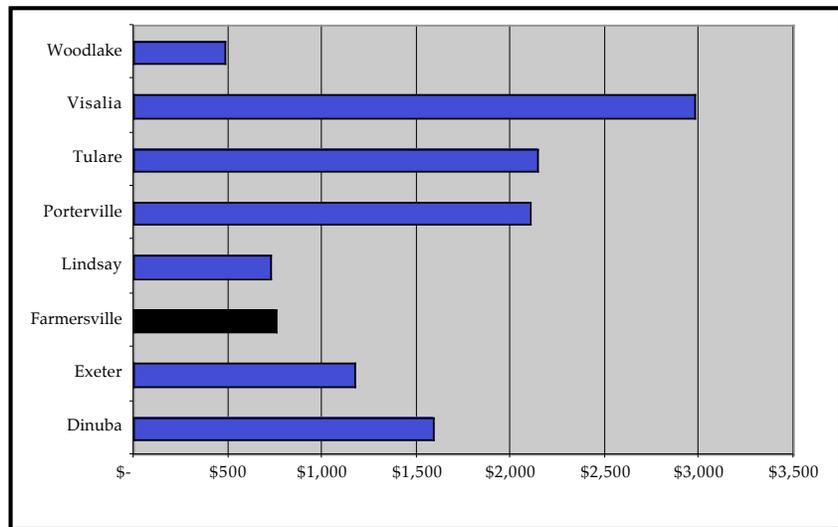
Income

The 1990 Census showed Farmersville's household median income at \$17,029. This compared to a median household income of \$24,450 for Tulare County and \$36,370 for the State of California. Among Tulare County's eight cities, Farmersville's median household income ranks eighth.

Retail Sales

Taxable retail sales in a city are a measure of that community's economic vitality. Generally, one percentage point of the sales tax is retained by the city in which the sale takes place. Chart 1-2 shows that Farmersville has the third lowest per capita sales rate among Tulare County cities.

Chart 1-2
 1999 First Quarter Per Capita Sales Tax for Tulare County Cities

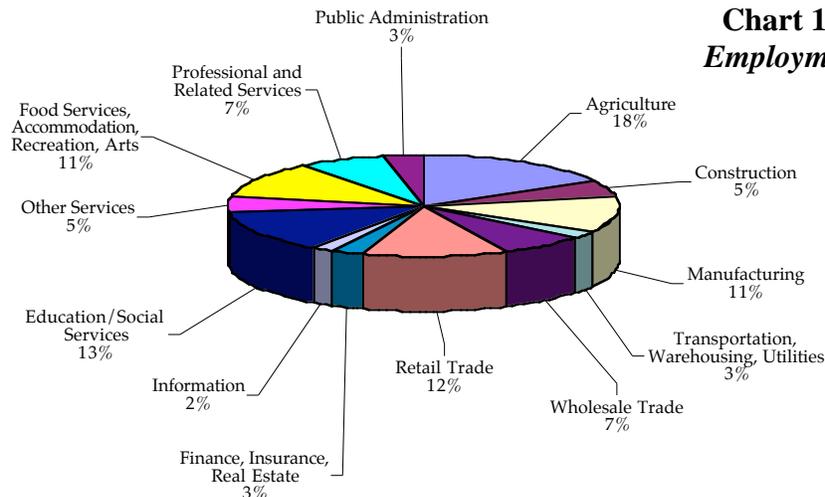


Source: State of California, Board of Equalization, 2000.

Employment

According to the most recent data (the 2000 U.S. Census) Farmersville's employment picture is dominated by agricultural-related. In 1990 about 18 percent

Chart 1-3
 Employment



Source: U.S. Census Bureau, 2000.

of Farmersville’s labor force was employed in various agricultural occupations. This is not surprising given the city’s location in the midst of one of the world’s most productive agricultural regions.

The next highest employment categories, according to the census, included Education and Social Services at 13 percent.

Manufacturing positions were at 11 percent while the Food Services / Accommodations / Recreation / Arts category stood at 11 percent. In the future, Farmersville will seek to further diversify its employment base so that its citizens are not so restricted to one type of income. Agricultural employment can be somewhat volatile as it is subject to a number of external forces, such as the weather, overseas imports, price supports and federal and state agricultural policies.

Chart 1-4
Unemployment Rates for
Farmersville and Tulare
County, 1990 - 2000

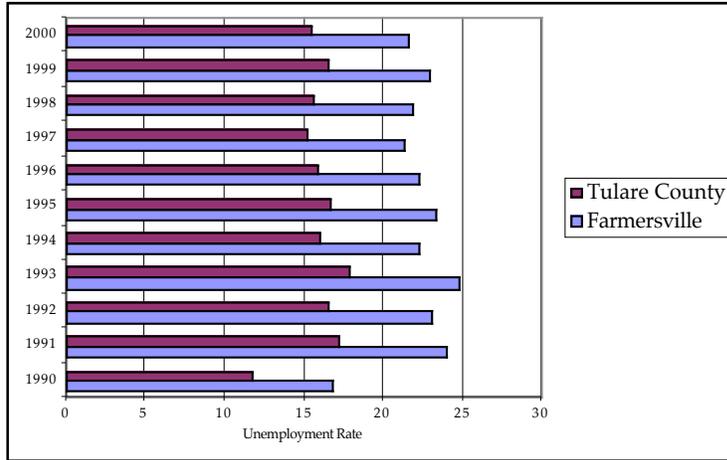


Chart 1-4 shows unemployment rates for Farmersville and Tulare County. Over the last decade the unemployment rate has averaged 22.2% for Farmersville and 15.9% for Tulare County as a whole. Farmersville has consistently had the highest unemployment rate of all eight cities in Tulare County for the past decade.

In terms of individual employers in Farmersville, the Farmersville Unified School District is the single largest employer. Table 1-2 identifies the city's major employers.

Table 1-2
Major Farmersville Employers

<u>Firm/Agency</u>	<u>Number of Employees</u>
Farmersville Unified School District	81
Windows Plus	30
Artesia Ready-Mix	27
City of Farmersville	26
Nickels Payless	25
Mercado de Valley	20-25
Kaweah Delta Water Conservation District	20
M&B Classic	14
National Builders Supply	9
La Mejor	9
Stockman’s Bank	5
The Stone Yard	4

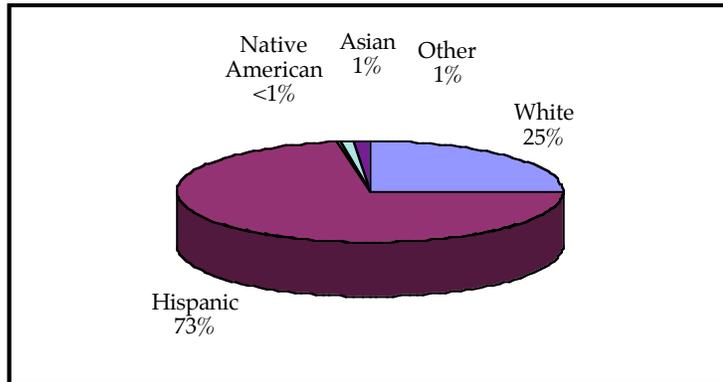
Source: City of Farmersville, 2001

Ethnicity

Farmersville's population is divided primarily between the Hispanic and white groups. Chart 1-5 shows the ethnic breakdown of the community's population

The percentage of Farmersville's Hispanic population has grown considerably - from 59 percent of the city's population in 1990 to about 73 percent in 2000. Correspondingly, the white population has dropped from 40 percent in 1990 to 25 percent of the population in 2000. Other ethnic groups accounted for less than three percent of Farmersville's population in the year 2000.

Chart 1-5
Ethnicity



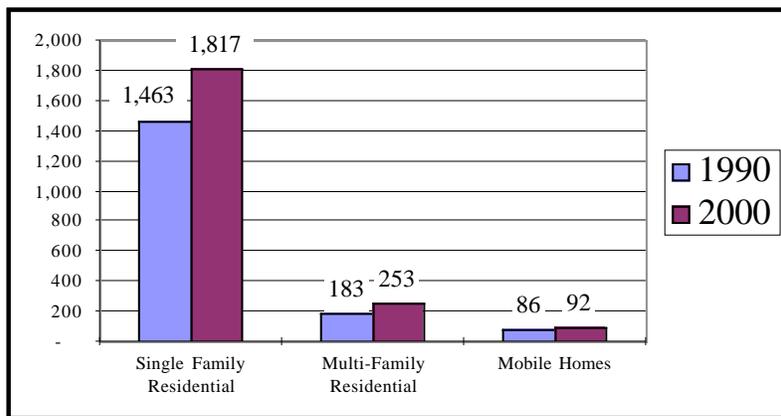
Source: U.S. Census Bureau, 2000.

D. HOUSING

Type

The number of housing units in Farmersville has increased by 430 units from 1990 to 2000. The number of single family dwellings increased as a percentage of all dwellings while the number of multiple family dwellings decreased. This has occurred as a result of a significant number of new subdivision lots created in Farmersville since 1990, along with a lackluster apartment economy witnessed during the decade. Growth in the number of mobile home units has been minimal during the 1990's. Specific information on the growth of dwelling units is shown in Chart 1-6.

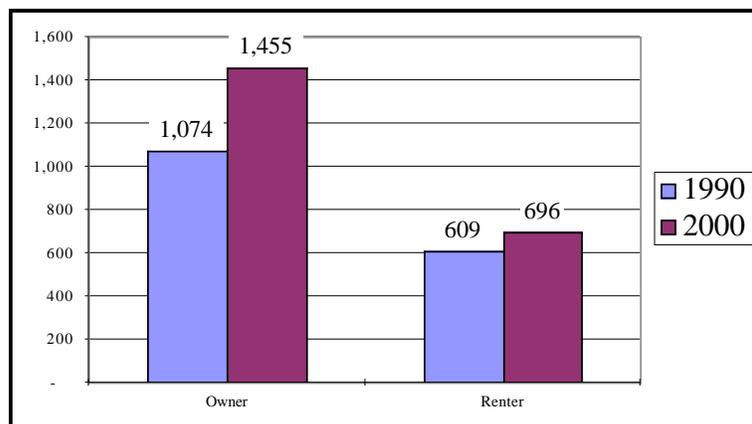
Chart 1-6
Dwelling Units by Type
 1990 - 2000



Tenure

Tenure refers to whether a dwelling is occupied by its owner or is rented out to another party. Knowledge of housing tenure is important for planning purposes so that a community can appropriately plan for adequate areas for owner and renter-occupied housing. According to the 2000 Census, the percentage of owner-occupied dwellings increased significantly from 1990 to 2000 while the number of renter-occupied units showed a minor increase. Chart 1-7 illustrates the change in tenure from 1990 to 2000.

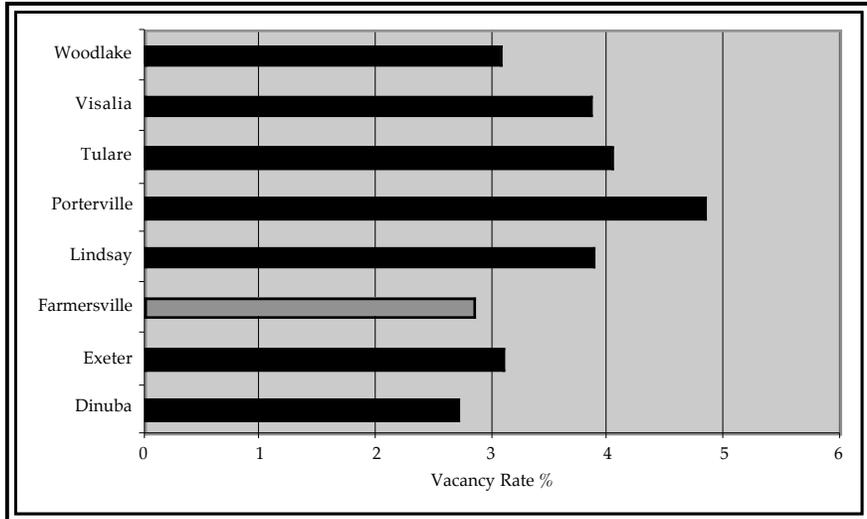
Chart 1-7
Owner vs. Renter Ratios
 1990 - 2000



Vacancy

Data maintained by the State Department of Finance show that Farmersville had a residential vacancy rate of 2.82% in 2000. This vacancy rate is relatively low compared to other cities in Tulare County and represents a fairly “tight” residential market - an indicator of a need for new housing in the community. Chart 1-8 shows residential vacancy rates for Farmersville and other Tulare County cities.

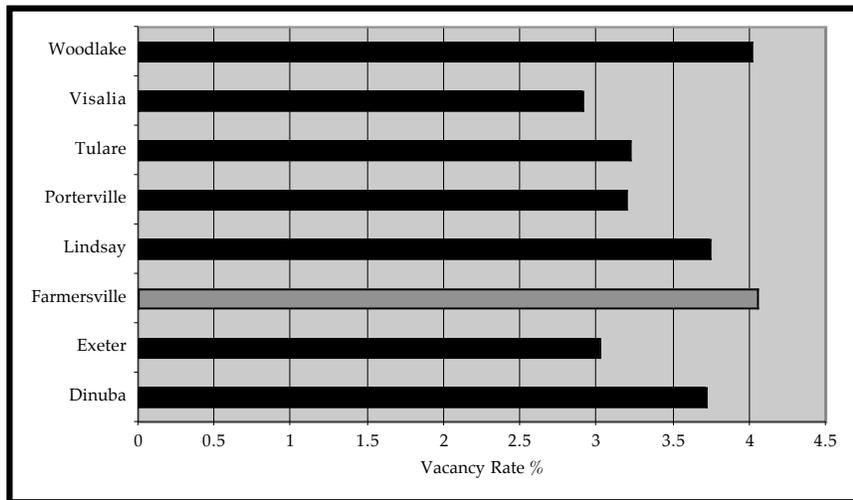
Chart 1-8
Tulare County Vacancy Rates



Overcrowding

Chart 1-9 shows the number of persons per dwelling unit, from the 1990 U.S. Census in Tulare County cities. The chart shows that Farmersville and Woodlake are nearly equal in this status. This measure is an indicator of overcrowding and represents a need for the development of affordable new housing for the community’s existing and future residents.

Chart 1-9
Tulare County
Persons per Dwelling



Housing Starts

Table 1-3 shows the number of residential units constructed from 1990 through 1999. Single family homes have been built at an average of 35 units per year - although the number of units has ranged from 75 in 1995 to only 6 in 1990. Production of new multiple family dwellings has been more erratic, ranging from years with no development, to 36 units in 1991. Installation of new mobile homes in Farmersville has been almost non-existent during the 1990's.

Table 1-3
Housing Starts
1990-2000

	<u>Single Family Residential</u>	<u>Multi-Family Units</u>	<u>Mobile Homes</u>
1990	6	0	2
1991	8	36	1
1992	24	0	0
1993	38	0	0
1994	49	22	0
1995	75	10	0
1996	63	0	0
1997	27	0	0
1998	24	2	0
1999	40	0	-3
2000			
TOTAL	354	70	0

Source: City of Farmersville, 2000

E. PUBLIC SERVICES

Fire Protection

The City of Farmersville operates a Fire Department out of headquarters at Farmersville Civic Center on West Visalia Road, at Virginia Street. The Department consists of one full-time fire fighter and a complement of 22 volunteer members. The station is equipped with three fire fighting vehicles.

The City also has a mutual-aid agreement with the Tulare County Fire Department/California Department of Forestry and the City of Exeter. Under the terms of this agreement, Farmersville, Exeter and County/CDF assist one other in emergencies within city limits and in unincorporated areas around Farmersville. Further, the City's Fire Department participates in a county-wide on-call program.

Interviews with fire department personnel indicate that all developed areas of the city are connected to the city's water system and water pressure is sufficient in all areas for fire fighting purposes. Pressure in most areas is about 65 pounds per square inch. The Insurance Service Office (ISO) rating for Farmersville is presently at 6. Areas immediately outside of city limits have a rating of six, ranging to eight and nine further from the City.

The Fire Captain has voiced the need to obtain newer engines, in order to maintain the department's effectiveness.

Police Protection

The Farmersville Police Department operates out of headquarters located at Farmersville Civic Center, on W. Visalia Road. The Department is manned by twelve sworn officers, including a chief, lieutenant, two sergeants, and nine additional officers. There are also eight reserve officers. Additional staff include clerical support personnel.

The current rate of sworn officers to population (2000 population of 8,737) is 1.37 officers per 1,000 residents. The City also has a mutual-aid agreement with Tulare County Sheriff's Department. The Department may also request assistance from the City of Visalia or the City of Exeter.

Farmersville Fire Department requests assistance on emergency calls from Tulare County Fire Department or Exeter Fire Department about 25% of the time.



Individuals taken into custody by the police department are transported to holding facilities operated by Tulare County Sheriff's Department in Visalia.

Data on calls for service for the past several years is shown in Table 1-4, to the right.

Medical Facilities

The closest hospital to Farmersville is Kaweah Delta Hospital in Visalia, about ten miles west of Farmersville. State Highway 198 affords rapid access to Kaweah Delta. There are several health care professionals operating in Farmersville, including several general practitioners, chiropractors and dentists. Emergency medical response is provided by Exeter Ambulance District, operating out of a station Exeter. Two medical personnel are on duty 24 hours per day at the station.

Solid Waste

Solid waste pickup and recycling service for Farmersville is provided by a private contractor, Allied Disposal. Solid waste is usually hauled to the Tulare County landfill near Woodville, south of Farmersville. Some waste is also hauled to the Visalia Landfill, north of Visalia on Road 80. Table 1-5 shows solid waste and solid waste diversion rates for the past several years.

The State of California requires that all cities and counties reduce the amount of waste going to landfills by 25% in 1995 and 50% by the year 2000. The State of California Integrated Waste Management Board indicated that Farmersville was diverting about 42% of its waste stream in 2000. This was achieved primarily by the city's green waste pickup program. Under this program, compostable yard waste is hauled separately to a waste processing center where it is composted and made available for landscaping uses.

Allied Disposal has recently begun a program of curbside recycling pick-ups in Farmersville's residential neighborhoods. Materials separated for recycling include paper, glass, metals and plastics. The City is hoping that this programs will help to achieve the required reduction in solid waste.

Year	Calls
1995	2049
1996	1,826
1997	1,954
1998	1,898
1999	2,223
2000	9,303
2001	10,520

Source: Farmersville Police Department, 2000.

2000: 5,179 tons (14.2 tons per day)
1999: 5,760 tons (15.8 tons per day)
1998: 5,181 tons (14.2 tons per day)
1997: 5,311 tons (14.6 tons per day)
1996: 5,469 tons (15.0 tons per day)
1995: 4,873 tons (13.4 tons per day)
Diversion Rates
1999: 1,714 tons
2000: 1,736 tons
Diversion occurred primarily through implementation of Farmersville's green waste program.

Schools

School age children in Farmersville attend schools within the Farmersville Unified School District (FUSD) and Visalia Unified School District (VUSD). FUSD operates two elementary schools, a junior high school and recently opened a new high school (which includes a continuation high school). The District's total enrollment in 2000 was 2,176 students.

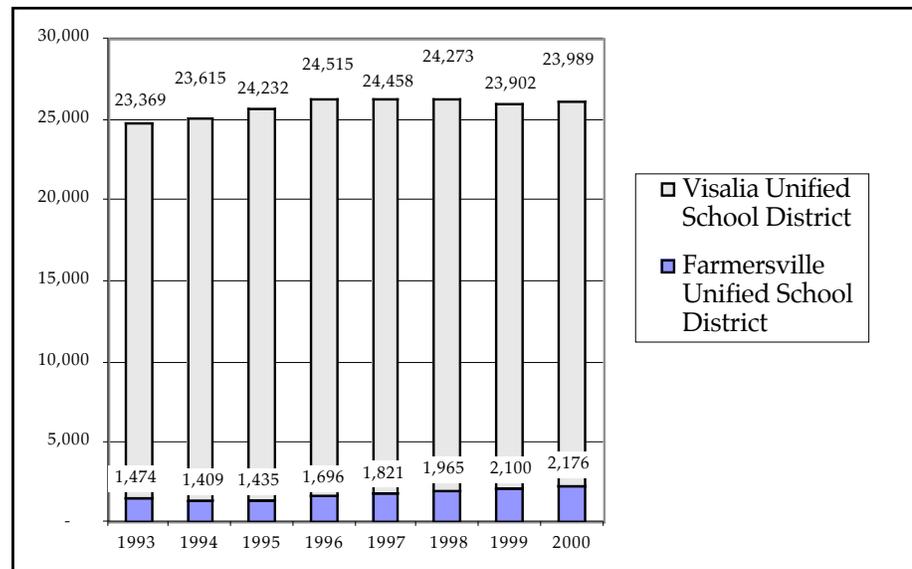
The high school opened in 2000 and occupies a site of approximately 43 acres on the south side of Walnut Avenue, east of Farmersville Boulevard. Three other campuses are occupied by Farmersville Unified School District. These include:

- Farmersville Junior High School on approximately 11.7 acres at Ash Street and Mathew Avenue;
- Hester Elementary, occupying 11 acres on Ash Street and Rose Avenue;
- Snowden Elementary on 9 acres on the east side of Farmersville Boulevard, north of Oakland Avenue.

The northwest portion of Farmersville is located within VUSD's boundary. Students from this area attend Mountain View Elementary, Valley Oak Middle and Golden West High School.

Chart 1-10 shows enrollment rates and growth since 1993, in each district.

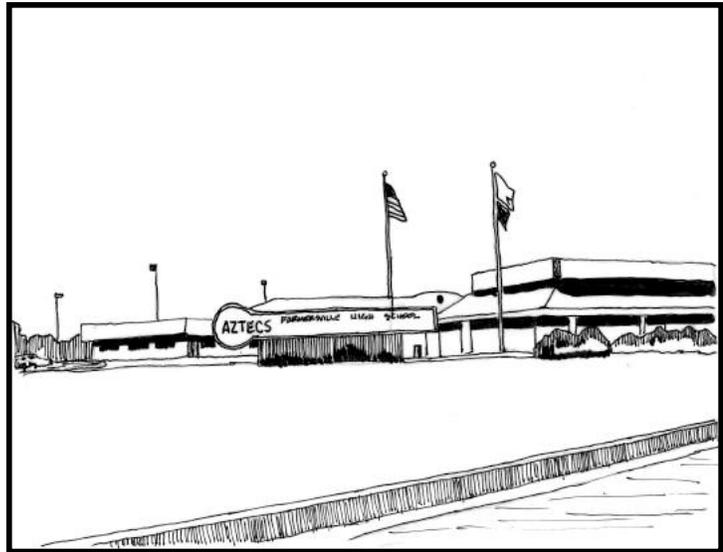
Table 1-10
Enrollment Rates
Farmersville and Visalia Unified
School Districts



Source: California Department of Education, 2001.

Schools in FUSD are currently operating at or near capacity. To offset impacts of new development, FUSD charges school impact fees against new residential, commercial and industrial development. The District has determined the need for an additional elementary school within the next five years. A site is reserved adjacent to the new high school for this campus.

Visalia Unified School District personnel also report that the three schools mentioned above are operating above capacity. VUSD's Board recently approved an increase in developer fees to the maximum permitted by State law. This is expected to reduce the impact of future growth on the District's facilities. Voters in the District also passed a bond issue in 1999 that will provide funding for new facilities and maintenance of existing campuses.



There has been a longstanding disagreement between the districts over the location of boundaries in Farmersville. The boundary between Farmersville and Visalia school districts runs through the northern portion of the planning area. As such, students in the northern portions of Farmersville find themselves attending Visalia schools. Farmersville officials maintain that it makes more sense for all students living in Farmersville to attend local schools.

F. LAND USE

Farmersville originally grew up around the railroad line that traverses the city from east to west. The city has grown from this original location since. In general, commercial uses have clustered along the city's two main thoroughfares, Farmersville Boulevard and Visalia Road. Residential neighborhoods have developed in all four quadrants of the community, with the bulk of development occurring in the northwest and northeast sectors. The most recent residential development has occurred in the northwest area of the community.

Multiple family residential development is located in all sectors of the community. The largest apartment complexes are located in the southerly portion of the city.

Some industrial development has occurred with the establishment of the Terry Avenue industrial park on the northwest edge of the community. “Islands” of industrial development exist on the east side of Farmersville Boulevard north of the railroad (walnut dehydrator).

Public properties include school campuses, parks, Civic Center, the wastewater treatment plant and water well sites.

Farmersville currently has six neighborhood parks. These are displayed in Table 1-6. The City most recently completed development of Liberty Park in the northwest part of the community, on approximately six acres on the north edge of the Sierra Woods.

The Farmersville Civic Center is located on the southeast corner of Visalia Road and Virginia Avenue. Farmersville’s wastewater treatment plant is located on 25 acres southwest of the urban area. The city currently has six water well sites scattered throughout the community.

Table 1-7 includes a breakdown of land use categories and their acreages within the Farmersville City limits and within the Urban Development Boundary and Urban Area Boundary. Chart 1-11 is a graphic representation of land uses within city limits. The chart shows that single family residential development occupies the greatest amount of land, with 35 percent. This is followed by agricultural land (16 percent), vacant land (15 percent) and right-of-way for streets and the railroad (13 percent).

Map 1-1 represents existing land uses within and around Farmersville. Map 1-1A is the same map on a smaller scale – showing a larger area around the City.

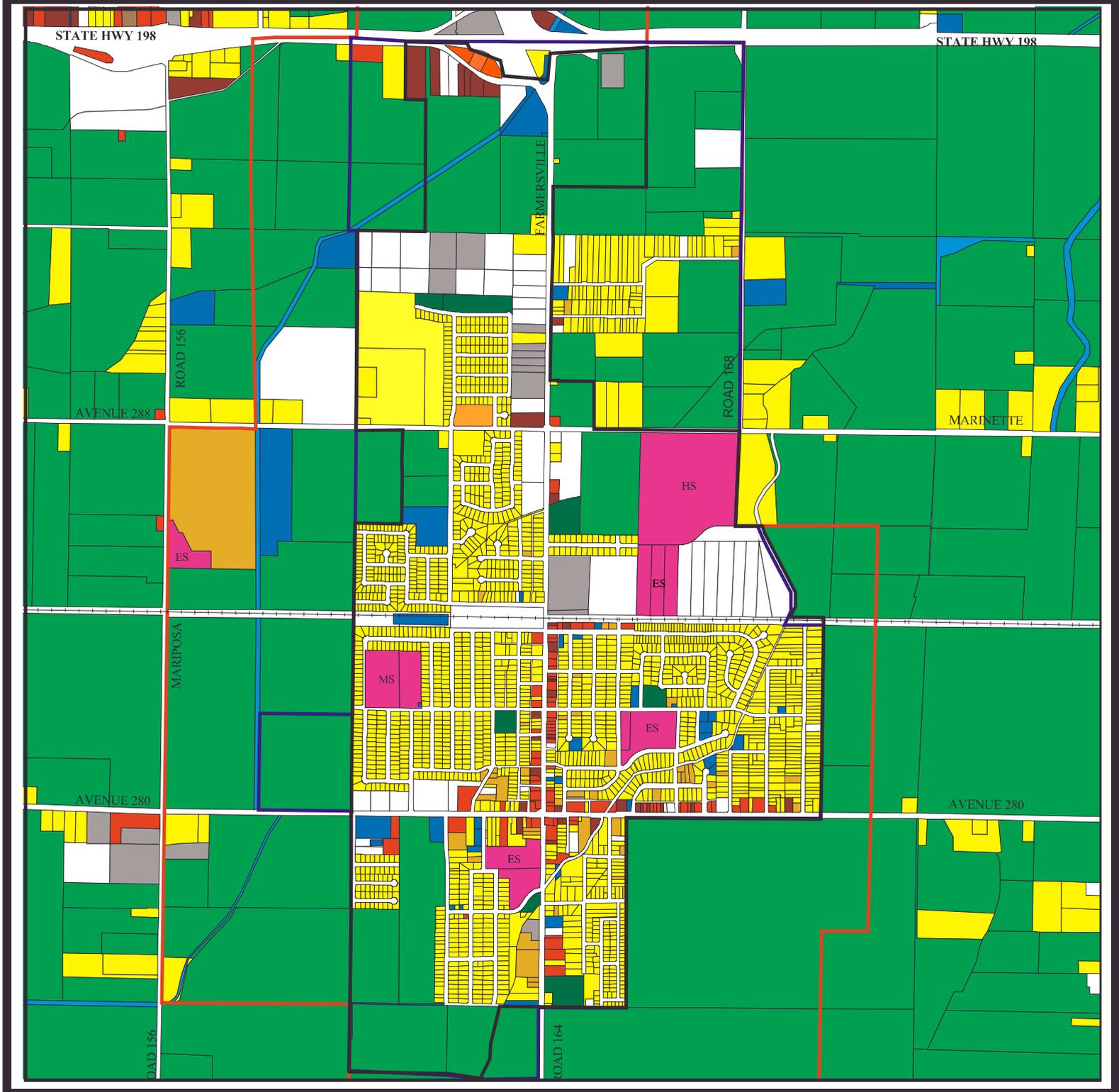
Table 1-6
Farmersville Parks

- Jennings Park on 2.1 acres on the southwest corner of Ash Street and Linnel Avenue;
- Lone Oak Park on 4.2 acres on the east side of Farmersville Blvd., north of Citrus Drive;
- Roy’s Park on 4.5 acres on the east side of Farmersville Blvd. At the edge of the southerly city limit boundary;
- Ash Street Park on 2.2 acres on the northeast corner of Ash Street and Avery Avenue
- Riverbank Park on 1/2 acre on the south side of Oakland Avenue, adjacent to Deep Creek;
- Liberty Park on 6 acres on the north side of Teddy Avenue at Ventura Avenue.

Table 1-7
Existing Land Use Acreage in Farmersville Planning Boundaries

	City Limits	Urban Development Boundary	Urban Area Boundary	Total
Single Family Residential	416	76	35	527
Multi-Family Residential	21.8	0.9	63.7	86
General Commercial	27.5	2.3	0	30
Service Commercial	16.1	0.4	1.4	18
Industrial	32.4	0	41.8	74
Agricultural	193.5	357	924	1,474
Parks	14.4	0	0	14
Public/ Quasi-Public	62.5	31	35.9	129
Schools	76.9	0	5.2	82
Waterways	7.4	0	16.4	24
Vacant	185.8	13.8	14.9	215
Right-of-Way	151	150	283	
Total	1,205	631	1,421	
Total acreage in Planning Boundary	1,205	1,686	2,957	

Source: Collins & Schoettler, 2002



Existing Land Use Map 2002

Legend

Land Use Designations

- Railroads
- Road 164 Streets
- City Limits
- Urban Development Boundary
- Urban Area Boundary

- Industrial (IND)
- General Commercial (GC)
- Service Commercial (SC)
- Single Family Residential (SFR)
- Multi-Family Residential (MFR)
- Mobile Home Park (MHP)
- Agricultural (AG)
- Park (PAR)
- Public/Quasi-Public (PQP)
- School (SCH)
- Water (WAT)
- Vacant (VAC)

Farmersville General Plan

Map 1-1



500 0 500 1000 Feet

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Basic data provided by Tulare County (Updated on 2/18/12) by Stephanie A. Kivhall
For reference only. Not drawn to engineering standards.

Williamson Act Lands

The Williamson Act, passed by the state legislature in the early 1970's, was designed to prevent the premature urbanization of agricultural land. The act authorizes owners of agricultural land to enter into a contract with the County, which results in a reduced property tax rate in exchange for the land being maintained in agriculture. Upon approval, the contract runs for a period of ten years.

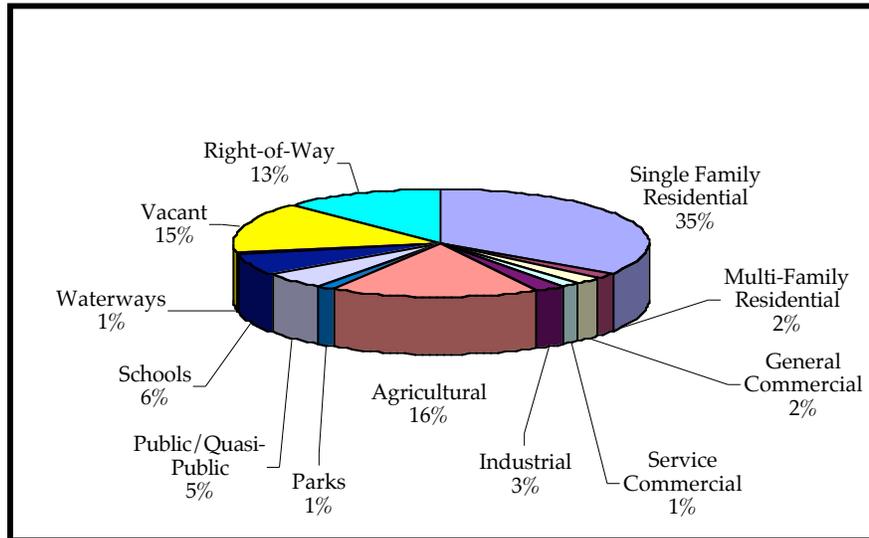
The contract can be terminated in one of two ways. The owner of the property can file a Notice of Non-Renewal, which means that the owner will not renew the contract at the end of the ten year period, or the owner can remove the land immediately from the Williamson Act, however, the owner must pay the back taxes they were exempted from during the contract.

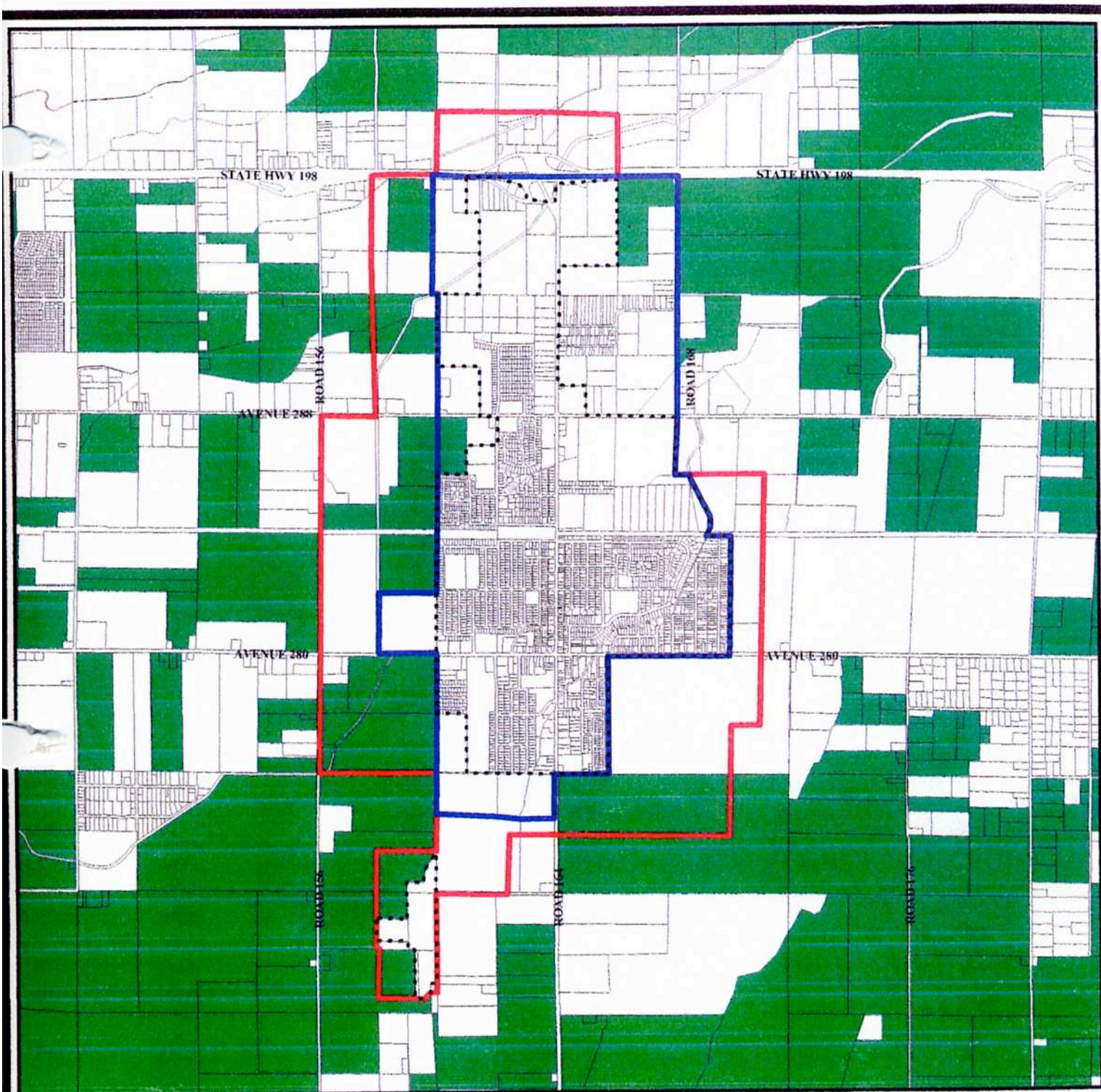
In 1999, the State of California authorized a new version of the Williamson Act, known as the Super Williamson Act. This legislation creates a new ag preserve contract (known as the Farmland Security Zone) that runs for twenty years and which cannot be canceled before the end of that period (except in very limited cases). The Super Williamson Act is designed to strengthen the preservation of ag lands, through a longer preservation period and strict cancellation requirements. To date, no landowners in the Farmersville area have entered into a Super Williamson Act contract.

Termination of agricultural preserve contracts must be approved by the County Board of Supervisors and can be challenged by the City.

The location of Williamson Act Lands is important in land planning. Typically, new development should be steered away from these lands. There are no properties within the City of Farmersville currently under an agricultural preserve contract. However, there are two parcels within the city's Urban Development Boundary,

Chart 1-11
*Existing Land Uses as a part of
 Farmersville City Limits*





Williamson Act Agricultural Preserve Areas

Legend

-  City Limits
-  Urban Development Boundary
-  Urban Area Boundary
-  Major Roads

Parcels Identified with a Williamson Act Number and Classified as an Agricultural Preserve.

-  Ag Preserve Parcels
-  Non Ag Preserve Parcels

Farmersville General Plan

Map # 1-2



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Data was provided by Tulare County. Created on 1/11/02 by Benjamin A. Eissel.
 For reference only. Not drawn to engineering standards.

totalling 59 acres. Within the Urban Area Boundary there are 12 parcels in ag preserve contracts, totalling 388 acres. The location of these parcels are shown on Map 1-2.

G. INFRASTRUCTURE

SANITARY SEWER SYSTEM

The City of Farmersville provides sewer service to developed properties within its city limits. The existing system consists of a network of 6- and 8-inch collection lines that connect to 10- and 12-inch mains. These in turn connect to an 18 inch trunk line that terminates at the city's wastewater treatment plant (WWTP), located southwest of the urban area.

The WWTP is designed to accommodate a daily maximum flow of 1.5 million gallons per day (mgd). However, the California Regional Water Quality Control Board permits the plant only a 1.125 mgd flow. The reason is that the water table in the vicinity of the plant is very shallow, thereby reducing the soils' capacity for percolation, and also increasing the possibility of groundwater contamination.

Sewer System Master Plan

The City adopted a Sanitary Sewer Master Plan in 1984 for the orderly development of the sewage system. The plan is reasonably consistent with Farmersville's current Urban Area Boundary, and contains about 1,945 acres. The Plan identifies improvements that will be necessary to accommodate a future population of about 17,000 people. It should be noted, however, that the Master Plan extends north only to a point that coincides with the north edge of the Cameron Creek Colony. Land within the city's Urban Development Boundary north of Cameron Creek Colony is not within the planning boundaries of the Master Plan.

WATER SUPPLY SYSTEM

The City of Farmersville provides water service to developed properties within its city limits. The city pumps groundwater from six wells located in the community. The depth of the wells range from 240 to 400 feet.



Aeration pond at Farmersville's wastewater treatment plant

The Public Works supervisor reports the groundwater table is currently about 40 feet below ground level. The system has a peak production capacity of about 4,600 gallons per minute (gpm) or 6.62 million gallons per day (mgd). Average actual production has ranged from about 0.9 mgd in winter months to 4 mgd in summer months. The water supplied by the City historically has been of good quality.

Water System Master Plan

The City adopted a Water System Master Plan in 1993. The Plan identifies improvements that will be necessary to serve an expected year 2013 population of 10,035 persons. The plan further establishes groundwork for planning for a future buildout of the Urban Area Boundary, containing 22,000 persons. The Plan also established a criterion that the "firm capacity" of the water system must be able to deliver the peak-hour demand or the peak day demand plus a 1,500 gallons per minute fire flow, whichever is greater.



Municipal water well and pump, located on Front Street.

STORM DRAINAGE SYSTEM

Storm drainage within the community is provided by the City of Farmersville. The City is divided into 26 individual drainage sub-areas. Most of these sub areas discharge drainage water into one of the canals or creeks running through the city. Several discharge into retention basins. Others have no discharge facilities and ponding may occur on streets or undeveloped property.

Storm Drainage Master Plan

The City adopted a Storm Drainage Master Plan in 1989. The plan identifies improvements that will be necessary to serve areas proposed for development under the 1984 General Plan. The ultimate service area delineated by the Master Plan roughly coincides with the city's existing Urban Area Boundary. Lands within the Urban Development Boundary north of the Cameron Creek Colony are not included in the Storm Drainage Master Plan.

H. CIRCULATION SYSTEM

Farmersville is served by a network of roadways generally oriented east/west and north/south. Regional access is provided by State Route 198, an east/west highway that crosses central California. It begins at U.S. 101 in the central coast area and runs east through the central valley to the Sierra Nevada mountains where it provides access as a federal roadway into Sequoia National Park.

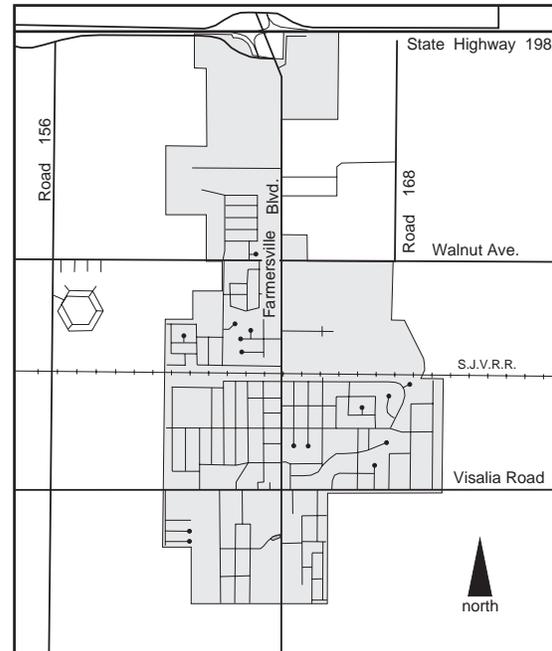
The freeway glances past the north edge of Farmersville. The community gains access to the freeway at the intersection of Farmersville Boulevard. This intersection is fully constructed and allows ingress/egress at two points along frontage roads. In the immediate area, State Route 198 provides access to Visalia and State Route 99 to the west, and to Kaweah Lake, Three Rivers and Sequoia National Park to the east.

Circulation in Farmersville is mainly served by two roadways. Farmersville Boulevard runs north/south while Visalia Road runs east/west. From the southerly city limits to Walnut Avenue, Farmersville Blvd. includes two travel lanes in each direction. South of the city limits and north of Walnut Avenue, the road tapers to one lane in each direction.

Visalia Road provides access west to the City of Visalia. East of Farmersville, Visalia Road runs to the City of Exeter. Within Farmersville, Visalia Road is improved with two lanes in each direction. Outside of the City, Visalia Road (also known as Avenue 280) tapers to one lane in each direction. The intersection of Visalia Road and Farmersville Blvd. is controlled with a four-way traffic signal.

Other significant east/west roadways include Ash Street, Front Street, Walnut Avenue (Avenue 288) and Noble Avenue, which serves as a frontage road along S.R. 198. Significant north/south streets include Virginia, Ventura Avenue, Rose Avenue and Brundage Avenue. A traffic signal has recently been installed at the intersection of Farmersville Boulevard and Walnut Avenue. Signalization of this intersection became necessary with construction of Farmersville High School to the east, along with other urban development in this area of Farmersville.

Map 1-3
Circulation System



Farmersville's circulation system, 2002.

***Additional information on
Farmersville's circulation system is
found in the Circulation Element of
the General Plan***

CHAPTER 2 • PHYSICAL ENVIRONMENT

A. CLIMATE

The climate of the Farmersville area is described as Mediterranean, which is typified by hot, dry summers and mild winters. Temperatures recorded at Visalia, located 10 miles west of Farmersville, show the mean monthly high temperature for July to be 96° F, while the mean low temperature for January is 37° F. It is not uncommon for maximum temperatures to exceed 100 degrees during the summer months; nor for temperatures to drop below freezing in the winter.

During the summer, a high pressure ridge develops over California blocking the penetration of moist air from the Pacific. This high pressure system tends to weaken during the winter months thereby opening the door to Pacific storms. Approximately 90 percent of all rainfall in Farmersville occurs between November and April. Average rainfall measured in Visalia is 10.15 inches. Precipitation totals increase rapidly in the Sierra Nevada Mountains, east of Farmersville.

Air movement through the San Joaquin Valley is usually in a northwest to southeast direction, although this pattern frequently reverses in the morning or during stormy periods. Wind enters the Valley over the passes east of the Pacific coast and exits through mountain passes at the southern end of the San Joaquin Valley, principally Tehachapi.

The prevailing wind direction in the Farmersville area is from the north and north-northwest, except in December and January, when the winds blow from the southeast or east-southeast. Wind speeds are generally highest during the spring or when storms are passing through central California.

Table 2-1
30-Year Farmersville Weather Summary

Month	Avg. High Temp.	Avg. Low Temp.	Avg. Monthly Precip.
Jan.	53.8	37.0	1.77 in.
Feb.	61.5	41.2	1.80
March	66.9	44.6	1.63
April	73.8	48.4	0.99
May	82.7	54.1	0.28
June	90.6	60.3	0.07
July	96.0	64.7	0.01
Aug.	94.3	63.3	0.02
Sept.	88.5	58.8	0.22
Oct.	79.3	51.5	0.59
Nov.	64.9	42.8	1.33
Dec.	53.8	36.6	1.44
Yearly Average	75.5	50.3	10.15

Source: U.S. National Weather Service, 2002.
Note: Data are from Visalia Weather Station

B. TOPOGRAPHY

The Farmersville planning area is located on topography that is relatively level, falling from the northeast towards the southwest. Farmersville's elevations range from approximately 365' above sea level near the intersection of State Route 198 and Road 165 to about 350' near the city's wastewater treatment plant (see Map 2-1).

C. SOILS

The soils in the Farmersville area are described by the Soil Survey of Central Tulare County, prepared by the Soil Conservation Service, Department of Agriculture (see Map 2-2). The Soil Survey identifies three specific soils in the planning area. They are

- Grangeville sandy loam, drained, 0 - 2 % slopes;
- Nord fine sandy loam, 0 - 2% slopes;
- Tagus loam, 0 - 2% slopes.

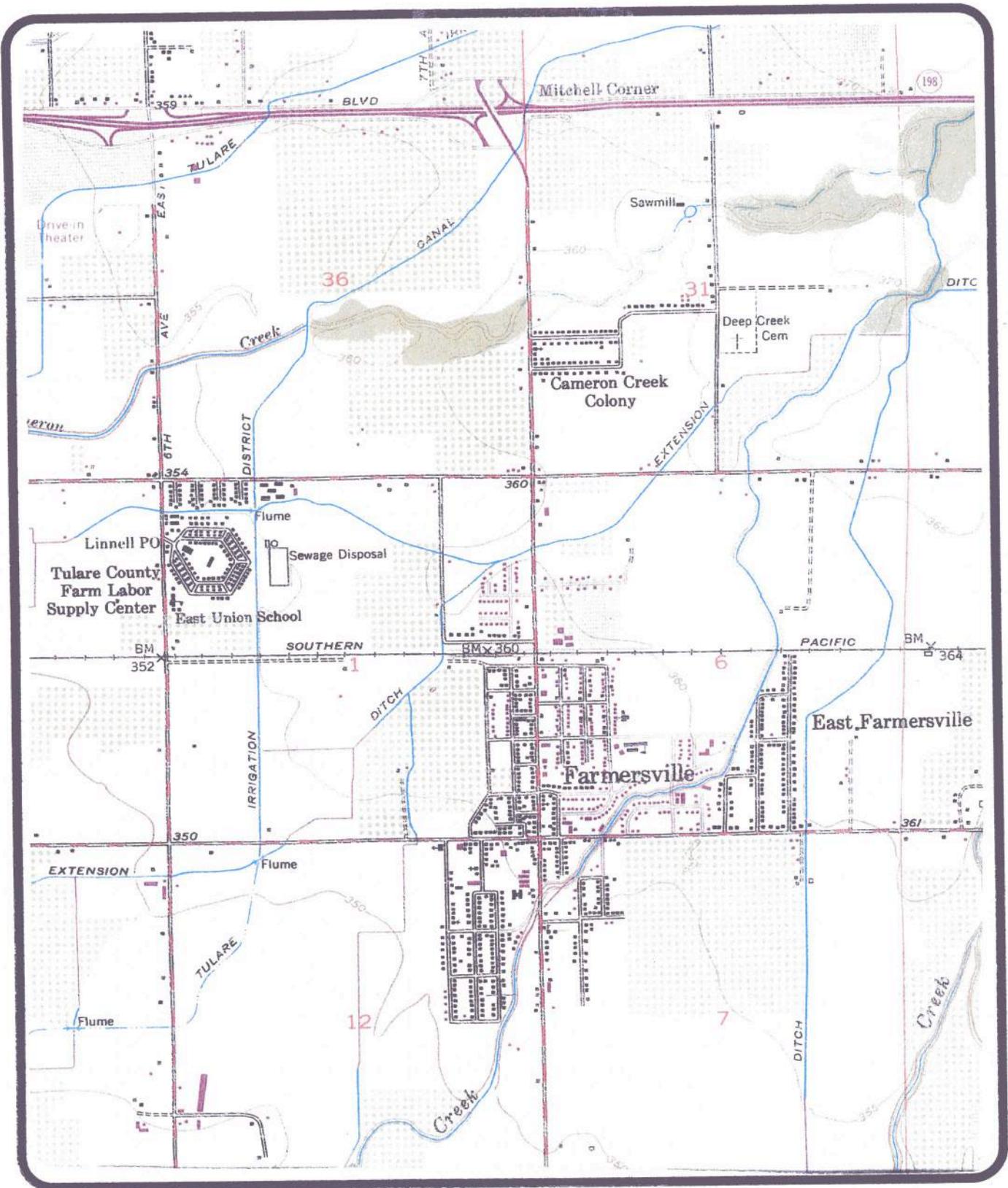
Table 2-2
 Farmersville Area Soil Properties

	Grangeville sandy loam (0 - 2% slopes)	Nord fine sandy loam (0 - 2% slopes)	Tagus loam, (0 - 2% slopes)
Shrink/Swell Potential	Low	Low	Low
Depth Class	Very Deep	Very Deep	Very Deep
Permeability	Mod. rapid	Moderate	Moderate
Available Water Capacity	Moderate	Moderate	High
Surface runoff	Slow	Slow	Slow
Prime Farmland	Yes	Yes	Yes
Class	Class I (irrigated) subclass IV (Non-irrigated)	Class I (irrigated) subclass IVc (Non-irrigated)	Class I (irrigated) subclass IVc (Non-irrigated)
MLRA	17	17	17

Grangeville sandy loam (0 - 2% slopes) is found on alluvial fans and floodplains and is composed of alluvium derived mainly from granitic rock sources. In its undisturbed condition it is considered to be somewhat poorly drained, however numerous drainage and irrigation installations in the area have improved this situation. For the purposes of urban development, the soil has few limitations, although it exhibits high corrosivity for steel. This can be mitigated by using corrosion-resistant coatings. Because of its superior physical characteristics, this soil is considered to be prime farmland soil.

Nord fine sandy loam (0 - 2% slopes) is found on alluvial fans and floodplains. It is composed of mixed alluvium derived mainly from granitic rock sources. Similar to the previously discussed Grangeville soil, there are few limitations for urban development except for

Source: USDA Soil Conservation Service, 2002.



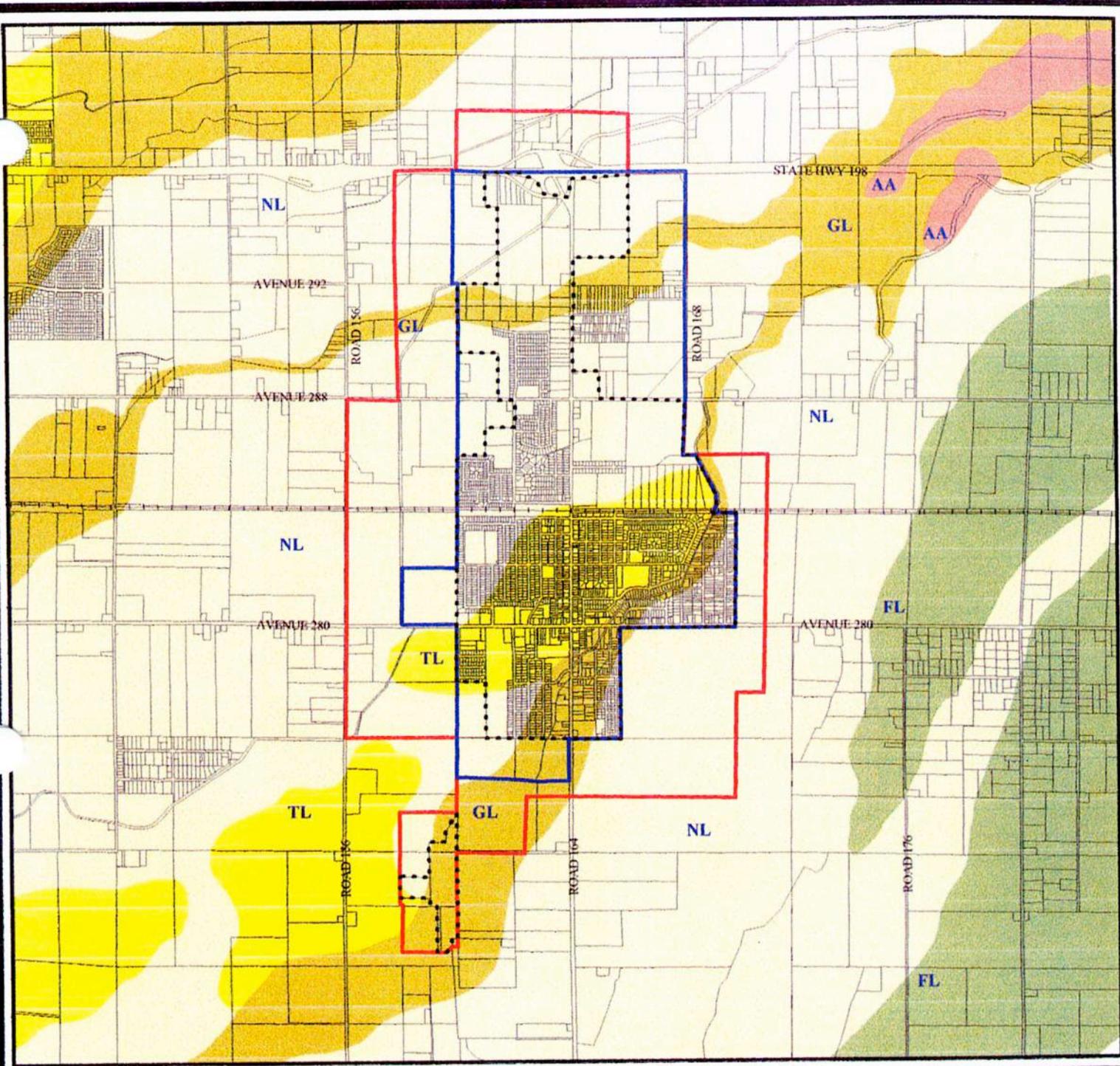
MAP
2-1

FARMERSVILLE GENERAL PLAN
TOPOGRAPHY
SOURCE: United States Geological Survey - Exeter Quadrangle, 1969.

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NORTH

SCALE: 1" = 2,000 FEET



Area Soils

Legend

- City Limits
- Urban Development Boundary
- Urban Area Boundary
- Ave 180 Streets
- Railroads
- Parcels

Soil Types

- AA Akers-Akers
- GL Grangeville Sandy Loam
- TL Tagus Loam
- NL Nord Fine Sandy Loam
- FL Flamen Loam

Farmersville General Plan

Map # 2-2



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Map prepared for Public Hearing - Passed on 2/1/02. Created by computer & printed. - Urban Form, GIS Database
This Map also is for reference only to be used only for engineering studies. It is not to be used for legal action or litigation.

corrosivity to steel. This problem can be corrected by the use of special coatings or substitution of materials other than steel. This soil is considered to be prime farmland soil.

Tagus loam (0 - 2% slopes) is found on alluvial fan terraces and is composed of alluvium derived from granitic rock sources. The only significant concern for urban development is high corrosivity to steel, which can be mitigated by using protective coatings. Finally, this soil is considered to be prime farmland soil.

D. GEOLOGY

Farmersville is located near the eastern edge of the Great Valley of California, a nearly flat northwest-southeast trending basin approximately 450 miles long by 50 miles wide. The basin is bordered by Mesozoic plutonic, volcanic, and metamorphic rocks of the Sierra Nevada mountains on the east, and by Mesozoic and Cenozoic metamorphic and sedimentary rocks of the Coast Ranges on the west.

The San Joaquin Valley is known geologically as a syncline - a trough-shaped fold in the earth's crust. Sediments that fill the valley trough may reach a maximum thickness of 28,000 feet. In the Farmersville area, unconsolidated sediments extend to a depth of about 1,000 feet. These sediments originated in the surrounding Sierra Nevada foothills and mountains.

Specifically, the geology of the Farmersville area is created by the low alluvial fans of the Kaweah River system, which includes a number of lesser distributary creeks that fan out across the valley floor.

Before the creation of flood control structures and the channelling of natural creeks, the Farmersville area was subject to periodic inundations due which deposited layers of sediment. These sediments make up the productive agricultural soils that virtually surround the Farmersville planning area.

E. SEISMICITY

The Farmersville area is subject to ground shaking from earthquakes generated by California's numerous faults. The closest known faults likely to affect the community are the Owens Valley fault, located about 65 miles to the east along the base of the Sierra Nevada in the Owens Valley, and the San Andreas fault located about 70 miles to the southwest in the coastal range.

According to the Five County Seismic Safety Element (FCSSE), Farmersville is located in the V-1 zone, defined as an area "of hard rock alluvium on valley floors." The FCSSE further states that, "The distance to either of the faults expected to be a source of shaking is sufficiently great that shaking should be minimal and the requirements of the Uniform Building Code Zone II should be adequate for normal facilities.

This area is expected to be at less risk than other portions of Tulare County to the east (in the Sierra Nevada which are closer to active faults. However, the risk of damage from earthquakes is still present. Farmersville experienced significant shaking from the 1983 earthquake that caused serious damage to Coalinga. It is likely that Farmersville will experience an earthquake that could cause some damage in the future. As such, the community must remain ready to respond to such an event.

F. WATER

The 1999 Water Supply Report published by the United States Bureau of Reclamation indicates the depth to groundwater in the vicinity of Farmersville has been at a depth of 40 feet in recent years. Contour lines of equal elevation of groundwater indicate the the water table generally falls to the southwest on a gradient of 20 feet per mile.

Groundwater is the only source of drinking water in the City of Farmersville. Water moving down gradient from the floodplains of Sierra Nevada streams and rivers is the major source of groundwater recharge in this area. Seepage from irrigation canals and over-application of imported irrigation water within the Tulare Irrigation District is another source of groundwater recharge. Rainfall in the Farmersville area is about ten inches annually and provides only a minor percentage of total groundwater recharge in the area.

G. FLOODING

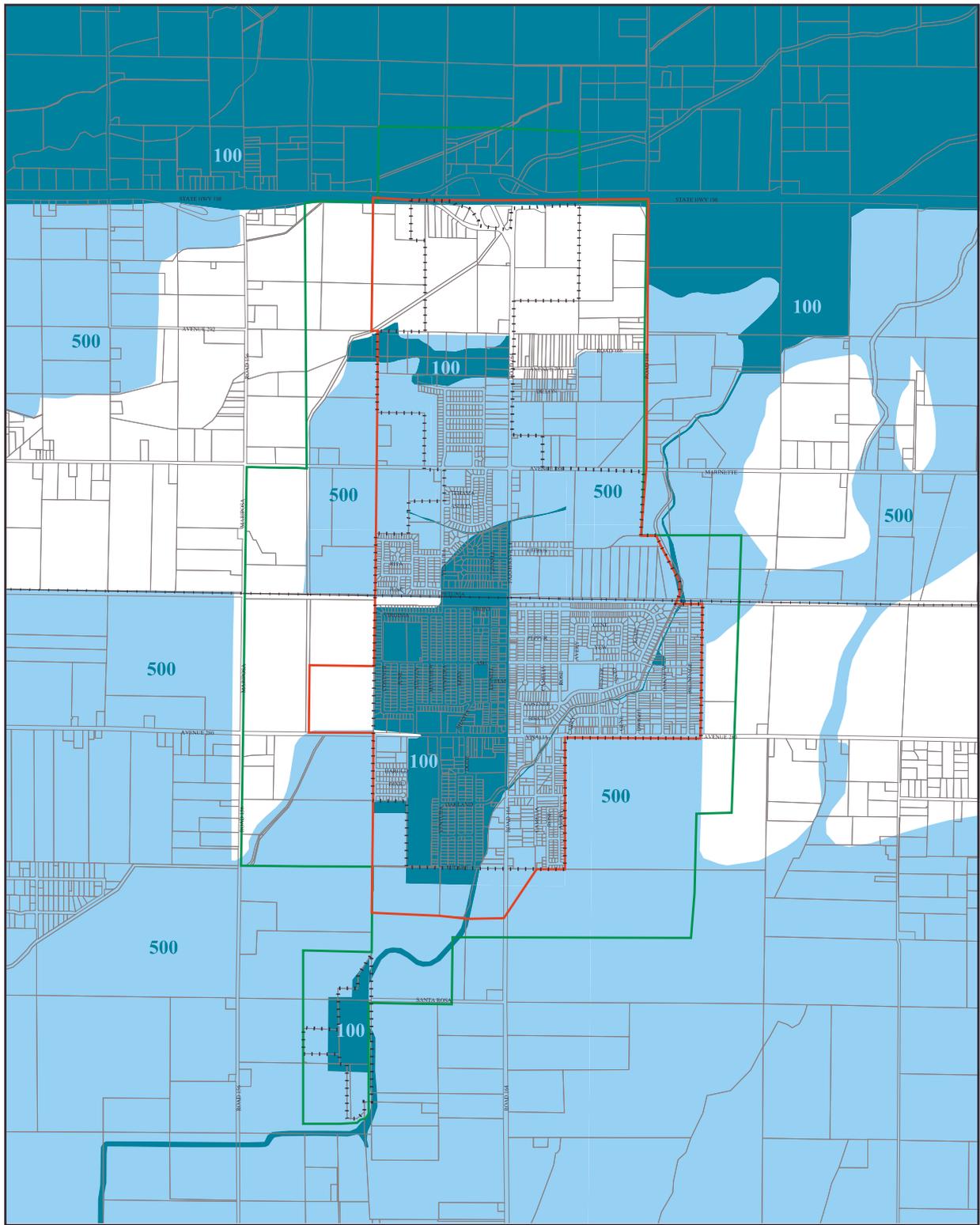
Large portions of Farmersville and the surrounding area lie within the 100- and 500-year flood zones as defined by the Flood Insurance Rate Maps prepared by the Federal Emergency Management Agency (see Map 2-3).

The map shows that Highway 198 is an impediment to the flow of runoff from the foothills. In flooding events water tends to back up behind the highway, but penetrates across into the urban area through various creeks and canals, including Deep Creek and Cameron Creek. at culverts and roadways. Within Farmersville, the elevated bed of the railroad also acts as an impediment that can back up floodwaters.

The major source of flood threat in Farmersville is Deep Creek which is a distributary of the Kaweah/St. Johns River system northeast of the community. Deep Creek was originally a natural creek with a defined waterway and a floodplain. The creek has since been channelized and straightened to facilitate agricultural irrigation and cultivation. With the development of agricultural and urban uses in the former floodplain, these uses are now subject to flooding. Deep Creek's flood plain widens as it progresses to the southwest - as such, wider areas are subject to flooding to the southwest of the urbanized area.

The Cameron Creek flood channel also affects northern portions of the planning area, particularly the industrial area along Terry Avenue.

In order to minimize the hazards of flooding from these channels, new development within the flood zone is required to be constructed with a floor elevation at least one foot above the known 100-year flood elevation. Other techniques such as minimizing structural flood flow impediments and anchoring buildings and other objects, can be employed.



Flood Plain Map

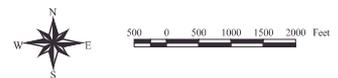
Legend

- Flood Plains
- 100 Yr Flood
 - 500 Yr Flood
 - No Flood

- Ave 180
- Streets
- Railroads
- City Limits
- Urban Development Boundary
- Urban Area Boundary
- Parcels

Farmersville General Plan

Map No. 2-3



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CHAPTER 3 • RESOURCES**A. SCENIC RESOURCES**

The scenic qualities of a community are composed of a mixture of natural and man-made features. The value or importance of these features to the public is dependent upon the visual quality of the view.

The rating of a view is a subjective process; however, the U.S. Forest Service has devised a rating system for classifying different views within a planning area. Originally, this classification system was used by the Forest Service to classify views that contained primarily natural features.

The Consultant has modified this classification system to include the urban landscape. To evaluate scenic resources within the planning area, the Consultant has utilized this rating system to classify views along travel corridors through the planning area. Table 3-1 contains the rating guidelines used by the Consultant.

The Consultant conducted a scenic resources survey in October of 2001. Major travel corridors through the Farmersville planning area were rated. The results of this survey are displayed in Map 3-1.

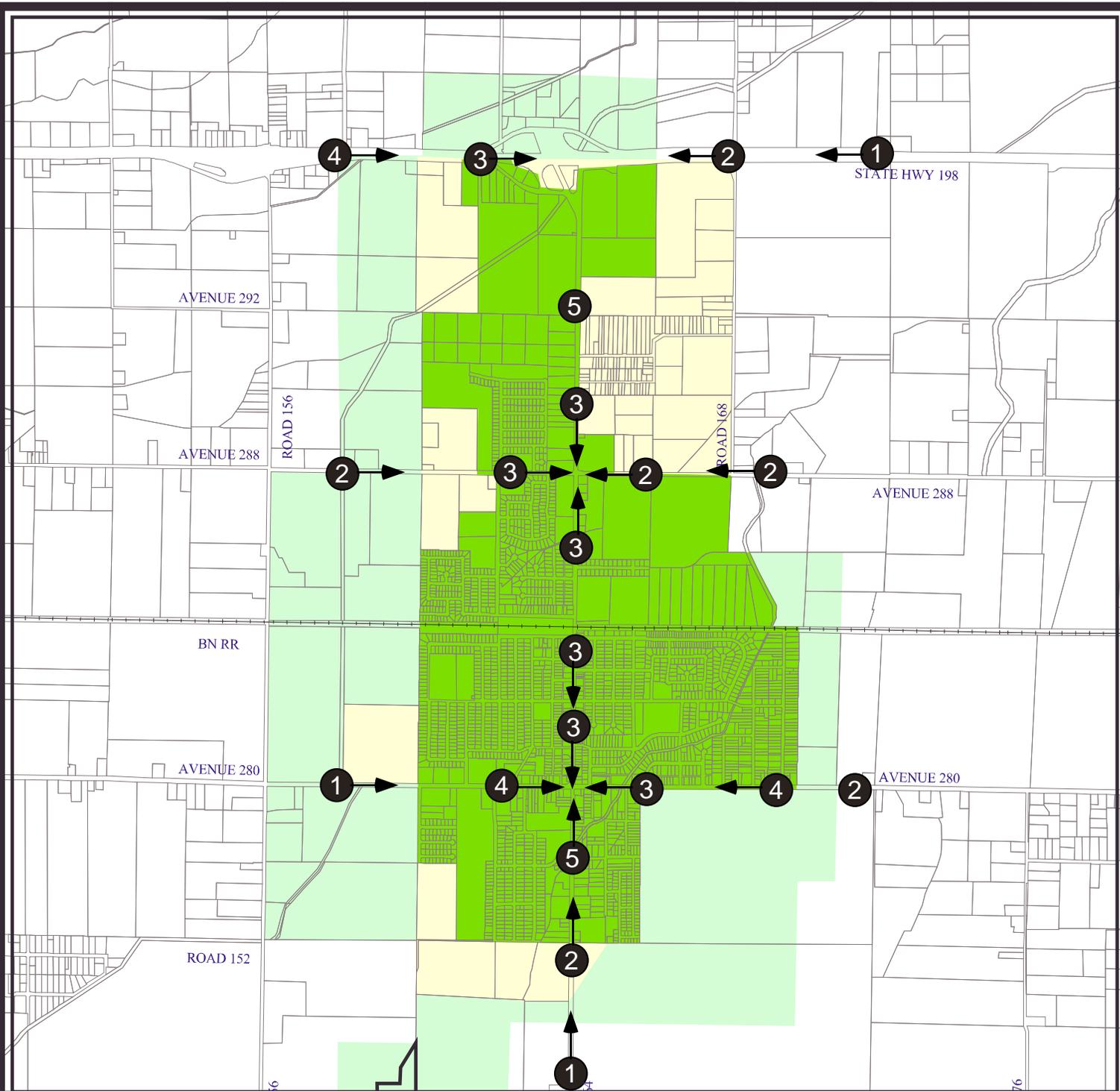
The Highway 198 travel corridor was evaluated, approaching the Farmersville Boulevard interchange from both directions, (eastbound and westbound). Entering the planning area from the west on the freeway, the view was rated “4” with a variety of county-permitted service commercial businesses with little landscaping, abundant signs, overhead utility lines, unlandscaped parking lots and unscreened storage of materials. Continuing east the view improved to “3” with newer service commercial development with some landscaping, and orchards in the background. Overhead utilities were also present.

Entering Farmersville from the east on Highway 198, the view rated “1” with attractive agricultural orchards and fields, punctuated by rural residences. Closing in on the Farmersville Boulevard interchange the view was rated “2” with some service commercial uses visible but the scene still was dominated by agricultural landscapes.

Table 3-1
Visual Rating Guidelines

Rating	Guidelines
1	All features within the field of view appear to be characteristic of the region - open native grassland, an agricultural field, or vineyard or orchard. Few, if any, man-made features are evident.
2	Most features within the field of view appear to be characteristic of the region - open native grassland, an agricultural field, or vineyard or orchard. Man-made features are more evident and may attract attention but are visually subordinate to inherent features. Man-made features may include agricultural buildings, residential dwellings, or billboards.
3	Man-made features dominate the field of view. These views are urbanized areas. They exhibit well-maintained and well-designed urban areas - proper setbacks, appealing landscaping, compatible land uses and continuity in terms of building scale.
4	Man-made features appear incongruous and dominate the field of view. These views are considered urbanized areas. They exhibit unmaintained buildings, minimal landscaping, a mixture of land uses and lack of continuity in terms of building scale.
5	Man-made features dominate the field of view. These views are considered urbanized. These urban views are dominated by deteriorating or dilapidated buildings, little or no landscaping, mixture of incompatible land uses, streets are unpaved or in poor condition, curb and gutter is lacking.

Source: U.S. Forest Service, 1974; modified by Collins & Schoettler, 2001

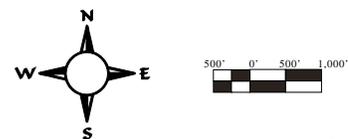


Visual Resources

- ① All features within view appear to be characteristic of the region. Strong visual harmony
- ② Some incongruous elements present, but they do not heavily impact the visual image.
- ③ Increased number of incongruous visual elements competing for attention.
- ④ Uncharacteristic visual features begin to dominate the view.
- ⑤ Visual chaos. No dominating visual theme or character.

Farmersville General Plan

Map 3-1



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Entering the city from the north on Farmersville Boulevard, immediately south of Highway 198, the view was rated “2” with the attractive grounds of Kaweah Delta Water Conservation District, agricultural landscapes and rural residential development visible. Continuing south, the view at Terry Avenue was rated “5”. Elements visible included unscreened storage of equipment and materials, inoperable vehicles, little landscaping and overhead utilities.

Continuing south on Farmersville Blvd. at Walnut Avenue, the view rated “3” with orchards, vacant land, overhead utilities and scattered residential dwellings. Further south, the view at Farmersville and Ash Avenue rated “3” with commercial development, some landscaping and overhead utilities. At Visalia Road the view rated “4” with vacant lots, trash scattered about, large signs and little landscaping.

Travelling into Farmersville from the south along Farmersville Boulevard, the view outside city limits rated “1”, dominated by orchards and other agricultural scenes. Proceeding into city limits the view rated “2” with Lone Oak Park visible, along with other landscaping and fairly well maintained properties. The view at Visalia Road looking north rated “5” with an abundance of commercial properties with large signs, garrish colors, little or no landscaping and overhead utilities prominent.

Entering Farmersville on Visalia Road from the east, the view outside city limits was rated “2” with orchards, field crops, rural residential and overhead utilities visible. Proceeding west, the view inside city limits was rated “4” with unlandscaped service commercial businesses, frequently with unscreened equipment visible, along with overhead utilities. Continuing west the view at Deep Creek was rated “3” with several large oak trees and landscaped businesses dominating the view.

Entering Farmersville on Visalia Road from the west, the view at the Tulare Irrigation Canal was rated “1” with agricultural lands and rural residences visible. Proceeding east, the view was rated “2” with well-designed and landscaped properties such as Stockman’s Bank and Sierra Vista Plaza visible. Nearing Farmersville Boulevard, the view dropped to a “4” with businesses featuring little landscaping, large signs and barren parking lots. Overhead utilities were also present.



View looking north on Farmersville Boulevard, at Visalia Road.

Views were also evaluated on Walnut Avenue east and west of Farmersville Boulevard. Entering the planning area from the east, the view at Road 168 rated “2” with the new high school, agricultural land and rural residences visible. Nearing Farmersville Boulevard, the view was rated “2” with agricultural land, vacant lots and rural residential visible.

Entering the planning area from the west on Walnut, the view was rated “2” with rural residential and agricultural lands visible. Continuing east into city limits the view dropped to a “3” with overhead power lines, newer subdivisions, walls and some landscaping visible.

In conclusion, the visual environment of the planning area is dominated by two themes: rural agricultural views dominated by crops and orchards; and urban landscapes composed of streets and various types of development, including residential, commercial, industrial and public uses. The rural scenes received consistently high ratings with strong visual themes of attractive orchards, single lane roads and foothill vistas in the distance.

In the urban area ratings were widely varied. Positive ratings were given for areas with well-maintained buildings and properties, abundance of landscaping, street trees and uniform development standards. Negative ratings were given where the view featured poorly maintained properties, weed-covered vacant lots, commercial/industrial development with little or no landscaping, a proliferation of advertising signs, barren parking lots and where overhead utilities dominated the view.

B. AGRICULTURE

Agricultural land is a non-renewable natural resource. Consumption of this resource is considered to be an irreversible environmental impact. Conversion of prime agricultural land to non-agricultural uses or impairment of its productivity is considered a significant environmental impact under the California Environmental Quality Act (CEQA).

The economy of the Farmersville area is very dependent upon agriculture and agriculturally-related industries. An analysis of land use within the planning area reflects this



View looking east on Visalia Road at Farmersville Boulevard.



reliance. Almost one-half (1,474 acres) of the 2,957 acres in Farmersville's Sphere of Influence is currently used for intensive agricultural purposes (permanent crops and irrigated field crops).

Prime farmland is defined as land having the best combination of soil quality, growing season, and water supply. Prime farmland is generally characterized as agricultural land having soils with a Capability Class of I or II, and a Storie Index greater than 85. Farmland of "Statewide importance" is land other than prime farmland with a good combination of physical and chemical characteristics for the production of crops. According to Map 3-2, virtually all of the soils in the Farmersville area are considered to be prime.

Water supply is the other key factor in rating the quality of farmland. Prime farmland and farmland of statewide importance must have a constant, reliable source of water. All of the agricultural land within the planning area is within the Tulare Irrigation District (TID) delivery area. Water supplied by TID comes from the Kaweah River.

The primary crops grown in the Farmersville area include walnuts, pecans, plums, corn, alfalfa and cotton. Average yields and gross incomes per acre for these crops are presented in Table 3-2.

Virtually all recent growth in Farmersville (and most valley cities) has consumed land that is under row crop or orchard production.

A recent report released by the State Department of Conservation indicated that between the years 1996 to 1998 (the most recent years for which data is available), Tulare County ranked sixth in the state in the number of acres of irrigated farmland converted to urban uses, and seventh among the state's counties for loss of net acres of irrigated farmland. On a larger scale, the report also notes that among California's eight agricultural regions, the San Joaquin Valley ranks second to southern California in conversion of agricultural land to urban uses, but first in conversion of irrigated farmland to urban development.

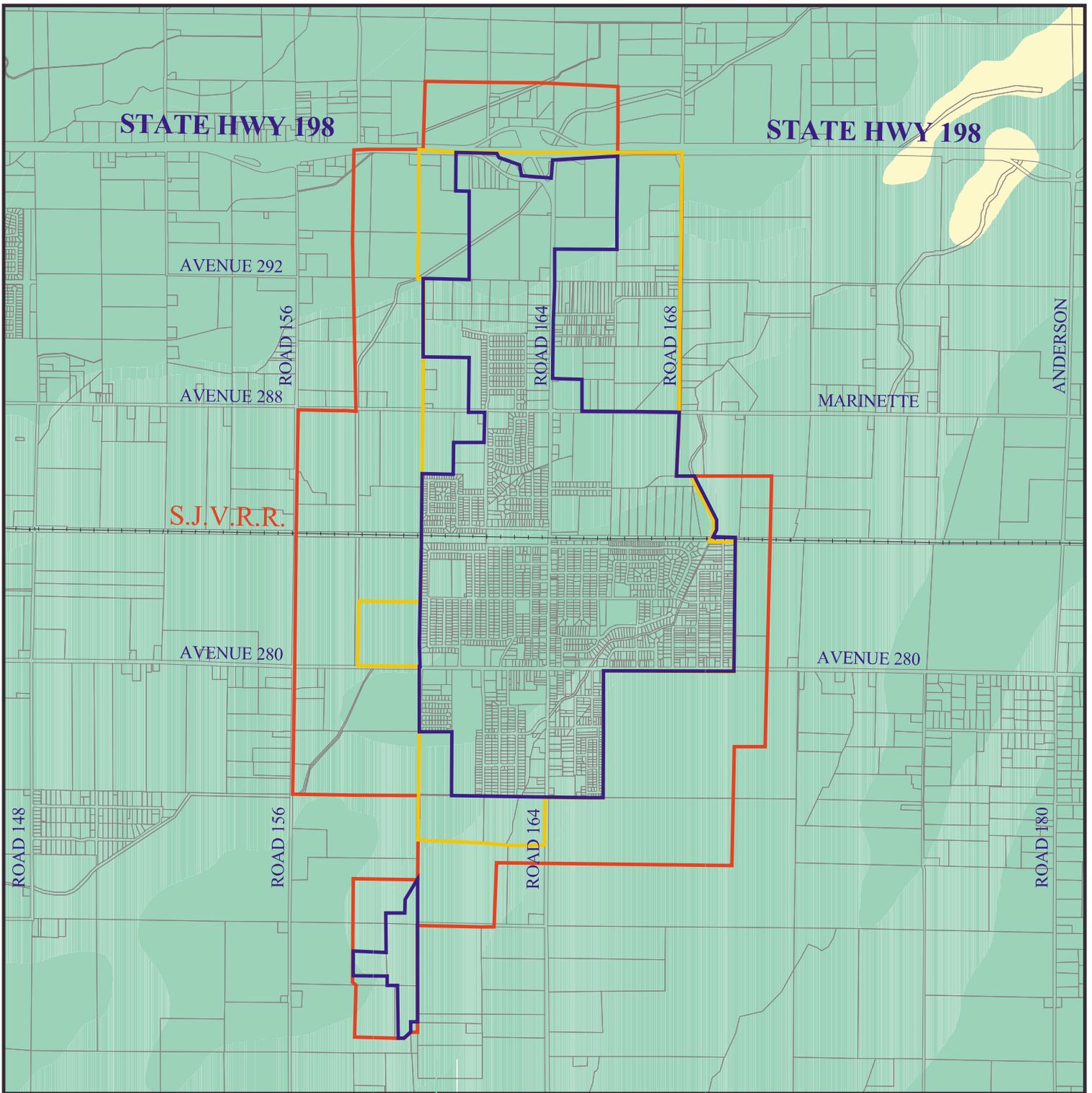
On a regional scale, the report "Farming on the Edge" by the American Farmland Trust studied the nation's most valuable farming regions and their vulnerability to the pressures of converting land from agriculture to urban

Almost one-half (1,474 acres) of the 2,957 acres in Farmersville's Sphere of Influence is currently used for intensive agricultural purposes

**Table 3-2
 Tulare County Crop Yields
 and Values, 2001**

<u>Crop</u>	<u>Yield</u>	<u>Value Per Unit</u>
Walnuts	1.44 tons/acre	\$900/ton
Plums	6.9 tons/acre	\$887/ton
Pecans	0.75 tons/acre	\$2,200/ton
Corn	25 tons/acre	\$18/ton
Cotton	1,370 bales/acre	\$81/bale
Alfalfa	8.7 tons/acre	\$88/ton

Source: Tulare County Agricultural Commissioner, 2001.



Prime Farmland Map

Legend

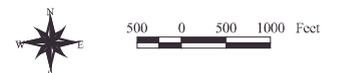
Prime Farm Land

- P1 Very Prime
- P2 Somewhat Prime

- City Limits
- Urban Development Boundary
- Urban Area Boundary
- Railroads
- Ave 168 Streets
- Parcels

Farmersville General Plan

Map # 3-2



Collins & Schoettler
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Base data provided by Tulare County. Created on 2/12/02 by Benjamin A. Kimball

development. This study identified the San Joaquin and Sacramento Valley region as the agricultural area *most* threatened by conversion of farmland to urban uses in the entire nation!

Williamson Act

The Williamson Act was legislated by the State of California in 1967 in an effort to slow the loss of prime agricultural land to urban land uses. The Act provides property tax incentives for landowners who make a commitment to maintain their land in agricultural preserve contracts for a period of ten years. Williamson Act contracts are automatically renewed on an annual basis unless a Notice of Non-renewal is filed with the Tulare County Assessor. After filing a Notice of Non-renewal, a landowner must still wait a period of ten years before converting the land to non-agricultural uses.

City and County governments may immediately cancel Williamson Act Contracts only after making mandatory findings concerning the availability of alternate lands, the effect on adjacent agricultural lands, and the public need for the land. These findings are set forth in Section 51282 of the Government Code. Government Code Section 51284 states that no contract may be canceled without holding a duly noticed public hearing on the matter.

Approximately 60 acres within Farmersville's Urban Development Boundary are in agricultural preserves under Williamson Act contracts (see Map 1-2). Almost all of the annexations within the City of Farmersville over the last 20 years have been contiguous to existing urban development and only on an "as needed" basis to provide land for additional urban growth. If necessary, Williamson Act contracts have been canceled during the annexation process as to provide additional land for urban development.

C. BIOTIC RESOURCES**Natural Communities**

Biotic resources are plants and animals that exist within a given area. In planning, the concern is particularly with plants and animals that are identified as rare and endangered. Of course an animal or plant does not exist by itself - it lives within an area known as habitat. Therefore, protection of rare and endangered species must also consider the protection of their habitat.

For the Farmersville area a list of sensitive species was selected based upon the list of species identified by a search of the Exeter Quadrangle in the California Natural Diversity Database, and discussions with local wildlife experts familiar with the area. A list of the plant and wildlife species addressed by field surveys is presented in Table 3-3. A total of 8 special status animal species could potentially occur in the Farmersville area. Two of the eight species are listed as threatened or endangered by the U.S. Fish and Wildlife Service or the California Department of Fish and Game. The remaining six species are candidates for federal listing or listed species of special concern by the State of California. No special status plant species are likely to occur in the planning area.

Almost all of the land within the Farmersville planning area has been altered from its natural state by urban, agricultural and other types of land development. The only natural plant communities in the area are small areas along Deep Creek, land along the north side of the Union Pacific Railroad west of Road 168, uncultivated land adjacent to rural residential development, an abandoned lumber yard near Road 168, south of State Route 198 and a small area of fallow land east of Road 156 between Avenue 288 and State Route 198.

Non-native grasslands are dominated by introduced annual Mediterranean grasses and native herbs and are the most common natural plant community found in the area. This plant community is found in fallow agricultural fields and dry pastures in rural residential subdivisions. These areas have been heavily disturbed by human activities in the past and have a very low likelihood of supporting sensitive plant species. These grassland habitats have the greatest potential to support sensitive

Table 3-3
Sensitive Species Potentially Occurring
in the Farmersville Area

Common Name	Scientific Name	Listing Status	
		Federal	State
<u>Mammals</u>			
San Joaquin Kit Fox	<i>Vulpes macrotis mutica</i>	E	
<u>Birds</u>			
Cooper's Hawk	<i>Accipiter cooperi</i>	-	CSC
Sharp-shinned Hawk	<i>Accipiter striatus</i>	-	CSC
Great Blue Heron	<i>Ardea herodias</i>	-	CSC
Burrowing Owl	<i>Athene cunicularia</i>	-	CSC
Great Egret	<i>Casmerodius albus</i>	-	CSC
Black-shouldered kite	<i>Elanus caeruleus</i>	-	CSC
<u>Invertebrates</u>			
Valley Elderberry Longhorn Beetle	<i>Desmocerus californicus dimorphus</i>		T

Notes:

- E Federal/State endangered;
- T Federal/State threatened;
- R Federal/State rare
- C1 Federal candidate (sufficient data to support listing)
- C2 Federal candidate (insufficient data to support listing)
- CSC California Species of Concern

wildlife species such as San Joaquin kit fox and burrowing owl - although the chance of their occurrence in the planning area remains low.

Riparian vegetation occurs along streamsides where there is an abundant source of water. Unlike grassland or desert communities, riparian habitat cannot survive if supplied only with the precipitation that falls in the immediate area. Riparian habitat in the Central Valley, for example, flourishes only along stream channels that carry runoff from melting snow that has fallen many miles to the east in the Sierra Nevada.

Mature riparian forest, often described as a gallery forest, consists of vegetation in different layers; tree canopy, shrub understory, and herbaceous ground cover. Climbing vines create links with vegetation in every strata. When this kind of forest reaches a mature stage, the canopy may be dominated by valley oak, sycamore, or cottonwood. The shrub understory consists of elderberry and blackberry with mule fat, buttonfish, Oregon ash and shrubby willows growing nearest the streams. The herbaceous understory consists of wildrye, mugwort, ragweed, goldenrod, sedge, and nettle.

In the arid Central Valley, water-rich riparian communities provide ideal conditions for a flora rich in species. By growing in layers, riparian plants provide cooling and reduced moisture-loss for all other vegetation growing in their shade. The diversity of plants creates a range of temperature and humidity which affords cover and food for a myriad of plant-eating animals including insects and small mammals. This abundant plant and animal food sustains a tremendous variety of birds as well. Riparian habitat supports a higher species diversity of birds and greater bird populations than any other habitat in California.

A small area of Great Valley oak riparian forest occurs along Deep Creek near the railroad line. A healthy understory including blue elderberry, wild grape, and willow species is present along the bank of the creek and the railroad tracks, however, the canopy of mature valley oaks appears to have been cleared away at some point in the past. Immature oak trees were observed growing up through the understory and will eventually restore the forest canopy if left undisturbed. Recovering valley oak riparian forest was also observed at the abandoned lumber

Learn About . . .

The Endangered Species Act

Originally adopted in 1973, the Endangered Species Act's (ESA) framers envisioned a law which would protect species believed to be on the brink of extinction. When the law was enacted, there were 109 species listed for protection. Today, there are roughly 1,300 on the list, with 250 species considered as "Candidates" for listing, and nearly 4,000 species designated as "Species of Concern"

What is the difference between an endangered species and a threatened species?

Under the ESA, certain species of plants and animals (both vertebrate and invertebrate) are listed as either "**endangered**" or "**threatened**" according to assessments of the risk of their extinction. Once a species is listed, powerful legal tools are brought to bear to enforce the recovery of the species and protection of its habitat. A species may be classified for protection as "**endangered**" when it is in danger of extinction within the foreseeable future throughout all or a significant portion of its range. A "**threatened**" classification is provided to those animals and plants likely to become endangered within the foreseeable future throughout all or a significant portion of their ranges.

What is a species?

A species includes any species or subspecies of fish, wildlife, or plant; any variety of plant; and any distinct population segment of any vertebrate species that interbreeds when mature. Excluded is any species of the Class Insecta determined by the Secretary to constitute a pest whose protection under the provisions of the Act would present an overwhelming and overriding risk to man.

How does a species get listed?

The government relies largely upon petitions, surveys conducted by the Fish and Wildlife Service and other agencies' surveys, and other substantiated reports on field studies. Anyone may petition the Service to have a species listed or reclassified as endangered or threatened, or removed from the list.

Continued . . .

mill on Road 168. A total of 17 large specimen valley oaks are scattered along ditch banks and field margins and in rural farmsteads. These trees indicate the historic presence of valley oak riparian forest; however, the understory component has been entirely cleared away. Farmersville has also preserved some specimen valley oaks in Lone Oak Park and Roy Park.

D. CULTURAL AND HISTORICAL RESOURCES

Human presence in the southern San Joaquin Valley probably dates back as far as 10,000 - 12,000 years. Artifacts found along the southern shore of Tulare Lake are similar to the Clovis points associated with the big game hunters of the Great Plains. Excavations of a site at Buena Vista Lake in Kern County indicate that it may have been continuously occupied for more than 8,000 years. These cultures may represent the penetration of Penutian speaking people into Central California.

The Yokuts Indians occupied the entire San Joaquin Valley at the time of European contact. The Tachi tribe of the Southern Valley Yokuts occupied the northern and western shores of Tulare Lake and probably ranged as far as the eastern edge of the coast ranges. The Southern Valley Yokuts subsisted on fish, waterfowl, and mollusks gathered in the wetlands formed by Tulare, Buena Vista and Kern Lakes.

A search of the California Archaeological Inventory database revealed that no known archaeological sites are located within the planning area or on adjacent properties. However, the database generally reflects the findings of surveys conducted in a given area. The possibility that cultural artifacts exist underground in the planning areas is a possibility and perhaps even a likelihood. State law provides that in the event that artifacts are uncovered (which would typically occur during construction activities), all activity in the vicinity of the "find" must be stopped and a qualified archaeologist should be consulted to determine appropriate mitigation measures.

Endangered Species Act (continued)

Findings are required before any proposal is published in the *Federal Register*.

- * Within 90 days of receiving a petition, the Service must make a finding as to whether the petition presents substantial information that the listing may be warranted.
- * Within 1 year of receipt, a finding is required that the listing is either *warranted* or *not warranted*.
- * A finding of *warranted* must lead directly to an immediate (less than 30 days) proposed listing, or the

Service can find that such an immediate proposal is precluded by other listing activities such that the proposal may not be made for several additional weeks, months or even years. In order to make this secondary finding of *warranted but precluded* the Service must also be making expeditious progress in its overall listing program (e.g., candidates of higher priority are taken first).

- * Any warranted but precluded finding must be re-examined on each successive anniversary of the petition's receipt until the listing is either proposed or the petition is turned down as not warranted.

What is the criteria for listing?

A species is only determined to be an endangered species or a threatened species because of any one or more of the following factors (economics or others not listed here are not permissible under the Act):

- * the present or threatened destruction, modification, or curtailment of its habitat or range;
- * overutilization for commercial, recreational, scientific, or educational purposes;
- * disease or predation;
- * the inadequacy of existing regulatory mechanisms; or
- other natural or man-made factors affecting its continued existence.

• • • •

E. AIR QUALITY

Air pollution adversely affects human health, degrades natural and built environments, causes agricultural losses, and may influence the earth's climate. Air quality is a global problem that must be addressed by all levels of government. For a local government agency like Farmersville, air pollution can be addressed in several ways:

- **Land use planning** - the way various land uses - neighborhoods, businesses and industries, are arranged can influence air pollution. For example, a well-designed community can reduce the need for automobile use, thereby reducing air pollution
- **Specific project development** - This pertains to decisions whether to permit certain types of projects that may adversely affect air quality.
- **Construction activities** - When projects are under construction they can generate significant amounts of dust. Appropriate dust control measures should be enforced to preclude high amounts of dust.

For the purposes of this Farmersville General Plan update, land use planning mechanisms that protect and improve air quality are critical.

The planning area lies within the San Joaquin Valley Air Basin. This air basin has been designated as a non-attainment area for failing to meet National Ambient Air Quality Standards (NAAQS) for two pollutants: ozone and particulates.

Air basins are geographic areas sharing a common "air shed". The air basin is surrounded by the Sierra Nevada Mountains on the east, the Coastal Range on the west, the Tehachapi Mountains on the south, and open to the Sacramento Valley Air Basin to the north. The San Joaquin Valley Unified Air Pollution Control District (SJVUAPCD) monitors and regulates air quality in the Valley.

Wind patterns are created by marine air flowing in from the San Joaquin River Delta to the north of the valley. These winds are generally prevented from leaving the Valley by the mountain ranges on the east, west, and south. The mountain ranges, 4,500 to 14,492 feet in elevation, are also generally higher than the normal height

of summer inversion layers, which occur between 1,500 to 3,000 feet. These topographic features result in weak air flow that becomes restricted vertically by high barometric pressure over the Valley. This weak air flow makes the Valley highly susceptible to pollutant accumulation over time.

AIR QUALITY STANDARDS

Federal Regulations

The Clean Air Act of 1970 was the first major piece of federal air quality regulation. Amended in 1977 and 1990, the Clean Air Act required the U.S. Environmental Protection Agency (EPA) to establish primary and secondary national ambient air quality standards (NAAQS) for several pollutants. The primary standards are by law set at a level that protects public health and welfare, with an adequate margin of safety. Secondary standards are set to protect the public welfare from non-health-related adverse effects such as visibility reduction. Primary NAAQS are set for the following air pollutants:

- Carbon monoxide (CO)
- Ozone (O₃)
- Respirable particulate matter 10 microns or less (PM-10)
- Fine particulate matter 2.5 microns or less (PM-2.5)
- Nitrogen dioxide (NO₂)
- Sulfur dioxide (SO₂)
- Lead

Areas exceeding the federal standards for any one of these pollutants more than two times per year are designated "nonattainment" areas under the Clean Air Act, and as such, are subject to more stringent planning and pollution control requirements. Table 3-4 lists both the NAAQS and the California Ambient Air Quality Standards (CAAQS). For environmental purposes, the applicable standard is the more stringent of either the federal or state standards.

Table 3-4
National and California
Ambient Air Quality Standards

Air Pollutant	Averaging Time	Units	CAAQS ^{(a),(b)}	NAAQS ^{(a),(c)}	
			Standards	Primary Standards	Secondary Standards
Ozone	8 hour ^c	ppm	—	0.08	(j)
	1-hour ^d	ppm	0.09	0.12	(j)
Carbon Monoxide	8 hour	ppm	9	9	(j)
	1 hour	ppm	20	35	(j)
Nitrogen Dioxide	Annual Average	ppm	—	0.053	(j)
	1 hour	ppm	0.25	—	—
Sulfur Dioxide	Annual Average	ppm	—	0.03	—
	24 hours	ppm	0.04	0.14	—
	1 hour	ppm	0.25	—	—
PM-2.5 (Fine)	Annual Average ^e	µg/m ³	—	15	(j)
	24 hours ^f	µg/m ³	—	65	(j)
PM-10	Annual ^g	µg/m ³	30	50	(j)
	24 hours ^h	µg/m ³	50	150	(j)
Lead	30 Day Average	µg/m ³	1.5	—	—
	Calendar Quarter	µg/m ³	—	1.5	(j)
Sulfates	24 hour	µg/m ³	25	—	—
Visibility Reducing Particulates	8 hour	—	(i)	—	—
Vinyl Chloride (chloroethane)	24 hour	ppm	0.01	—	—
Hydrogen Sulfide (H ₂ S)	1 hour	ppm	0.03	—	—

Notes:

- (a) Concentration expressed in the following units: ppm refers to parts per million by volume, and µ/m³ is micrograms per cubic meter.
- (b) California standards for ozone, CO, SO₂ (1-hour averaging period), NO₂ and PM-10 are not to be exceeded.
- (c) The standard is evaluated on the 4th highest (daily maximum) 8-hour average per year, averaged over 3 years.
- (d) The standard is attained when the expected number of days per calendar year with maximum hourly average concentrations above 0.12 ppm is equal to or less than 1. Once attained this standard will no longer be in effect.
- (e) The annual standard will be met when the 3-year average of the annual arithmetic mean PM-2.5 concentration is less than or equal to 15 µg/m³.
- (g) The PM-10 annual standard is attained when the expected annual arithmetic mean concentration is less than or equal to 50 µg/m³.
- (h) The 24-hour PM-10 standard is based on the 99th percentile concentration averaged over 3 years.
- (i) In sufficient amount to produce an extinction coefficient of 0.23 per kilometer due to particles when the relative humidity is less than 70 percent.
- (j) Same as primary standard.

Under the 1990 Clean Air Act amendments, nonattainment areas are divided into five categories depending on future dates identified for meeting the standards. "Marginal" or "moderate" violators only slightly exceed the NAAQS, whereas "serious," "severe," or "extreme" violators exceed the standards by a much higher margin. "Marginal" areas are required to do little beyond what they are already doing to attain clean air, but areas designated "moderate" through "extreme" must

adopt gradually tighter regulations. Table 3-5 lists both the federal and state designations and classifications for the San Joaquin Valley Air Basin.

Table 3-5
San Joaquin Valley Air Basin
Designations and Classifications

CRITERIA POLLUTANT	DESIGNATION/CLASSIFICATION	
	FEDERAL	STATE
Ozone (O ₃) – one hour	Nonattainment/Serious	Nonattainment/Severe
Ozone (O ₃) – eight hour	Designation to be determined	No State Standard
Carbon Monoxide (CO)		
- Fresno Urbanized Area	Attainment ¹	Nonattainment ² /Moderate
- Remainder of Fresno County	Unclassified/Attainment	Attainment
- Merced, Madera, and Kings Counties	Unclassified/Attainment ¹	Unclassified
- Kern (SJVAB portion), Tulare, Stanislaus, and San Joaquin	Unclassified/Attainment ¹	Attainment
Particulate Matter (PM-10)	Nonattainment/Serious	Nonattainment
Particulate Matter (PM-2.5)	Designation to be determined	No State Standard
Nitrogen Dioxide (NO ₂)	Unclassified/Attainment	Attainment
Sulfur Dioxide (SO ₂)		
- Kern County	Attainment	Attainment
- all other Counties	Unclassified	Attainment
Sulfates(SO ₄)	No Federal Standard	Attainment
Lead-Particulate	No Designation	Attainment
Hydrogen Sulfide (H ₂ S)	No Federal Standard	Unclassified
Visibility Reducing Particles	No Federal Standard	Unclassified
Sulfates	No Federal Standard	Attainment

Source: Guide for Assessing and Mitigating Air Quality Impacts - Technical Document, San Joaquin Valley Unified Air Pollution Control District, June 1, 1999.

- 1 40 CFR Parts 52 and 81 in Fresno Urbanized Area, Bakersfield Metropolitan Area, Stockton Urbanized Area, and Modesto Urbanized Area redesignated attainment on March 31, 1998, effective June 1, 1998.
- 2 Area has reached attainment status. The request for redesignation was approved by the ARB Board on September 24, 1998; awaiting Office of Administrative Law action for final redesignation.

The Clean Air Act requires development of an air quality control plan referred to as the State Implementation Plan (SIP). The SIP contains the strategies and control measures California will use to attain the NAAQS. States with areas in violation of the NAAQS are required to routinely update their SIPs to incorporate additional control measures to reduce air pollution. As such, the SIP is periodically modified to reflect the latest emissions

inventories, planning documents, and rules and regulations of the various Air Basins. The EPA reviews SIPs to determine if they conform to Clean Air Act amendment mandates and will achieve air quality goals when implemented. If the EPA determines a SIP is inadequate, it may prepare a Federal Implementation Plan (FIP) for the nonattainment area and may impose additional control measures.

Attainment Deadlines

Ozone (O3) - One Hour

Because of its "serious" designation under the Clean Air Act, as shown in Table 3-5, the Valley was required to attain the 1-hour ozone standard by 1999. The Valley failed to attain the standard on schedule and is now in the process of being redesignated to the next higher level, which is "severe" nonattainment. The proposal to redesignate the Valley to "severe" was published in the Federal Register on June 19, 2000. The SJVUAPCD will have 18 months to prepare a new attainment plan that demonstrates attainment by 2005.

As the monitoring data in Table 3-5 indicates, the Valley's new ozone plan will require substantial reductions to bring ambient levels down to within standards. Failure to submit an adequate plan to EPA or to implement control measures within the plan can result in sanctions applied to stationary emission sources (two for one offsets) and loss of federal highway funding. Development projects that increase emissions in the region will make it even more difficult to achieve the new deadline.

Carbon Monoxide (CO)

Designated attainment as of June, 1998.

Particulate Matter (PM-10)

The Valley must attain the federal PM-10 standard by 2006.

State Regulations

In 1988, the California Clean Air Act (CCAA - AB 2595) was passed. The CAAQS contained in the CCAA are more stringent than are the national standards. The California Air Resources Board (CARB) is the agency responsible for coordination and oversight of state and local air pollution control programs in California and for implementing the CCAA. The CCAA classifies nonattainment areas either as "moderate", "serious", "severe", or "extreme" depending on the severity of the state ambient air quality standard violation. Again, Table 3-4, shown previously, identifies the CAAQS as well as the NAAQS.

San Joaquin Valley Unified Air Pollution Control District (SJVUAPCD)

The SJVUAPCD was organized in 1991 by a Joint Powers Agreement of eight Valley counties and has jurisdiction over air quality matters in the valley. It is the local lead agency for formulating Federal and State Air Quality plans, promulgating rules that affect a variety of air pollution sources, and reviewing local governments' land use plans and development proposals in order to estimate projected air quality impacts. The SJVUAPCD can also make recommendations on methods to reduce projected air quality impacts. Its headquarters are located in Fresno with regional offices located in Bakersfield and Modesto.

As shown in Table 3-5, the Valley is classified federally as a "Serious Nonattainment" area for both ozone and PM-10, and either an "Attainment" or an "Unclassified/attainment" area for carbon monoxide (CO). The state classifies the Valley as "Severe Nonattainment" for ozone, "Nonattainment" for PM-10, and either "Nonattainment", "Attainment" or "Unclassified" for CO. The SJVUAPCD has adopted four federal air quality plans in response to the nonattainment designations. The current applicable plans and their purpose are shown in Table 3-6.

Table 3-6
SJVUAPCD Air Quality Plans

PLAN	PLAN PURPOSE
1991 Air Quality Attainment Plan for the San Joaquin Valley	Establishes the regulatory groundwork in order to bring the SJVAB into compliance with the CAAQS for ozone and CO.
1992 Federal Attainment Plan for Carbon Monoxide	Establishes the regulatory groundwork in order to bring the SJVAB into compliance with the NAAQS for CO.
The Ozone Attainment Demonstration Plan	Establishes the regulatory groundwork in order to bring the SJVAB into compliance with the NAAQS for ozone. This plan also satisfies the required triennial review for the CAAQS.
PM-10 Attainment Demonstration Plan	Establishes the regulatory groundwork in order to bring the SJVAB into compliance with the NAAQS for PM-10.

Source: *Guide for Assessing Air Quality Impacts - Technical Document, San Joaquin Valley Unified Air Pollution Control District, June 1, 1999.*

AIR QUALITY MONITORING DATA

CARB and local Air Districts operate regional air quality monitoring networks that provide information on average concentrations of pollutants for which federal or state agencies have established ambient air quality standards. Air quality in Farmersville is best represented by air monitoring data collected at the Visalia monitoring station. Table 3-7 lists the pollutants that have exceeded either the NAAQS or the CAAQS in 1995 through 2000 at the monitoring station, and the number of days that the standards were exceeded.

The table shows that over the past six years, the number of days the California standard for PM-10 was exceeded ranged from 66 days in 1997 to 180 days in 2000. As a comparison, the Fresno PM-10 station exceeded the PM-10 standard 72 days in 2000 - indicating that PM-10 tends worsen the further south one goes in the valley.

A review of ozone monitoring at the Visalia station shows the number of exceedence days ranging from 24 days in 1997 to 54 days in 1998.

For the San Joaquin Valley Air Basin to reach attainment for the 1-hour ozone standards, the national 1-hour ozone standard (0.12 parts per million by volume [ppm]) can not be exceeded more than 3 times in any 3-year period. The state 1-hour ozone standard (0.09 ppm) cannot be equaled or exceeded in any 1-year period for three (3) years.

Table 3-7
Air Quality Monitoring Data
For Ozone, and PM-10

YEAR	Days Exceeded Standard			
	Ozone		PM-10 ¹	
	National	State	National	State
2000	1	46	0	180
1999	1	52	0	174
1998	6	54	6	102
1997	1	24	0	66
1996	4	53	0	150
1995	2	48	0	153

Source: *Guide for Assessing Air Quality Impacts - Technical Document, San Joaquin Valley Unified Air Pollution Control District, June 1, 1999 and*

[http://www.arb.ca.gov/adam/cgi-](http://www.arb.ca.gov/adam/cgi-bin/db2www.exe/adamquery.mac/Branch)

[bin/db2www.exe/adamquery.mac/Branch](http://www.arb.ca.gov/adam/cgi-bin/db2www.exe/adamquery.mac/Branch).

1. PM-10 is monitored once every six days rather than continuously. The data shown indicates the number of measured and calculated days exceeding the standard. Calculated days are the estimated number of days that a measurement would have been greater than the standard had measurements been collected every day. to worsen as one travels south (downwind) in the valey.

As shown in Table 3-7, PM-10 is monitored every six days. Each monitored (measured) exceedance is treated as being equivalent to six exceedance days (calculated). Since the District monitors every six days rather than continuously, there can be no exceedances during the year when showing attainment of the standard.

For the SJVAB to reach attainment for the 24-hour PM-10 standards, neither the national (150 micrograms per cubic meter [$\mu\text{g}/\text{m}^3$]) nor the state (50 $\mu\text{g}/\text{m}^3$) standard can be exceeded for three successive years.

Ozone and PM-10 characteristics are described in the table to the right.

Planning for Air Quality

The San Joaquin Valley Unified Air Pollution Control District recommends a number of strategies for cities to create development patterns that protect air quality. The publication "A Guide for Assessing and Mitigating Air Quality Impacts" has the following recommendations:

- Encourage compact development featuring a mix of uses that locates residences near jobs and services.
- Provide neighborhood retail within or adjacent to large residential developments.
- Provide services, such as restaurants, banks, copy shops, post office, etc., within office parks and other large employment centers.
- Encourage the development of higher density housing and employment centers near existing and planned transit routes.
- Encourage infill of vacant and redevelopment sites.
- Ensure that the design of streets, sidewalks and bike paths/routes within a development encourages walking and biking.
- Orient building entrances towards sidewalks and transit stops.
- Provide landscaping to reduce energy demand for cooling.
- Orient buildings to minimize energy required for heating and cooling.
- Encourage changes in zoning regulations to allow for upper story residential and/or office uses in neighborhood shopping areas.

Learn About . . .

Ozone (O₃)

Ozone is highly reactive secondary gas pollutant that is toxic, colorless and has a pungent odor. Ozone is photochemically produced through complex chemical reactions of certain hydrocarbons and oxides of nitrogen (primary pollutants) in the presence of sunlight and temperatures above 59F. In high concentrations, ozone and other photochemical oxidants are directly detrimental to humans by causing respiratory irritation and possible alterations in the functioning of the lungs. It also inhibits vegetation growth. Ozone has been found to damage some man-made materials, such as rubber, paint, and plastics.

Ozone is a regional air pollutant. It is generated over a large area and is transported and spread by wind. The worst ozone concentrations tend to be found downwind from emission sources in Valley metropolitan areas. However, the results of the San Joaquin Valley Air Quality Study showed that "high ozone concentrations in the Valley were due to varying combinations of local and transported pollutants" (Guide for Assessing and Mitigating Air Quality Impacts - Technical Document, SJVUAPCD, 6/1/99). Ozone has been the San Joaquin Valley's most intractable air quality problem.

Particulate Matter (PM-10)

PM-10 refers to particulate matter equal to or less than 10 microns in diameter. This material cannot be adequately filtered by the human respiratory system. Inhaled atmospheric particulates can be harmful to humans by directly causing injuries to the respiratory tract and lungs. Suspended particulates scatter and absorb sunlight, producing haze and reducing visibility.

The actual composition of PM-10 varies greatly with time and location. It depends on the sources of the material and meteorological conditions. Primary man-made sources of PM-10 in the Valley are agricultural operations, agricultural burning, demolition and construction activities, dust produced by motor vehicles on paved and unpaved roads, and residential wood burning. Wind erosion of agricultural land also represents a significant source of air borne dust in the Valley.

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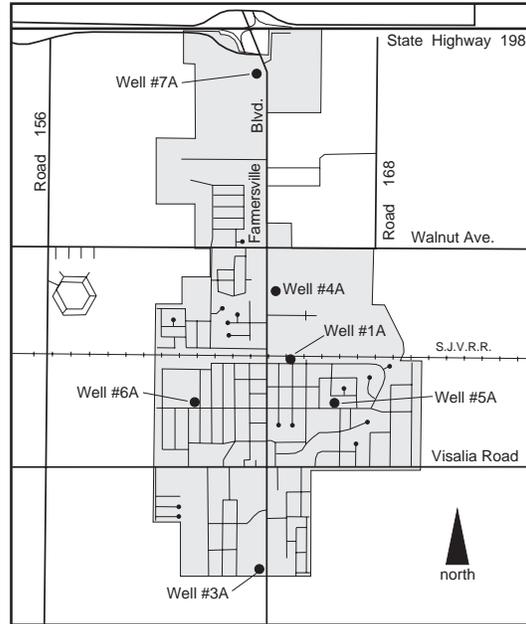
Additional strategies for creating air quality “friendly” development patterns are discussed in the Land Use Element’s Appendix A: “A Smart Growth Primer.”

F. WATER QUALITY

Farmersville generally enjoys good water quality. Testing of the city’s water reveals the supply meets all state and federal regulations for maximum allowable contaminants. The City is located within the Kaweah Delta flood plain and obtains its water supply from the groundwater table underneath the city. There are presently six active city-operated wells located throughout the community (see Map 3-3). These wells draw groundwater from depths ranging from 240 to 400 feet. Drawing water from this depth reduces the chances of contaminants closer to the ground surface polluting the water supply.

Farmersville is required to test its water supply on a regular basis and publish the results of the test annually. The City sends a water quality report to all property owners once per year. Water quality standards are enforced by the state and federal governments. The California Department of Health – Drinking Water Division is the state agency responsible for ensuring that water supplied by local agencies meets health standards.

**Map 3-3
Water Wells**



Map 3-3. Farmersville water system well locations.