

3.7 Community Resources

This section describes community resources in the study area. For this section, the study area is considered concurrent with the Covered Lands with the exception of demographic data pertaining to socioeconomics and environmental justice, which is presented in the context of Kern County. Topics addressed in this section include the current land uses and land use designation; land resources, including agricultural and mineral resources; socioeconomic conditions; hazardous materials and other hazards; and public services and utilities.

3.7.1 Land Uses and General Plan Designations

3.7.1.1 Existing and Approved Land Uses

As shown in Figure 3.7-1, the majority of the study area consists of open space. Livestock grazing is the predominant land use in this area. Other ongoing ranch uses that occur in open space areas include agricultural operations, filming activities, and some recreational use. Although limited recreation activities are available to the public, these activities occur entirely on private lands and require permission from Tejon Ranchcorp (TRC). Examples of existing recreational land uses include limited Tejon Ranch Conservancy docent-led hikes, hunting and game activities, bicycling, hiking, horseback riding, and use of back-country cabins.

The majority of developed land uses are located in the southern and western portion of the study area along the Interstate 5 (I-5) corridor (Figure 3.7-1). In this area, there are also some agricultural uses (small orchards and vineyards located near Castac Lake), mineral extraction activities (in the National Cement Mine and La Liebre Mine lease areas), and residential and commercial developments (near the northern end of Lebec Road east of I-5). The TRC headquarters complex (including associated structures, such as corporate headquarters buildings, an antique shop, a post office, a church, and single-family residences) is located at along Lebec Road on the east and west sides of I-5. Utility corridors and antennae farms also occur in the study area. For more information about utility corridors and associated facilities, including the California Aqueduct, see Section 3.7.5.5, Utilities.

3.7.1.2 Kern County General Plan Land Use Designations

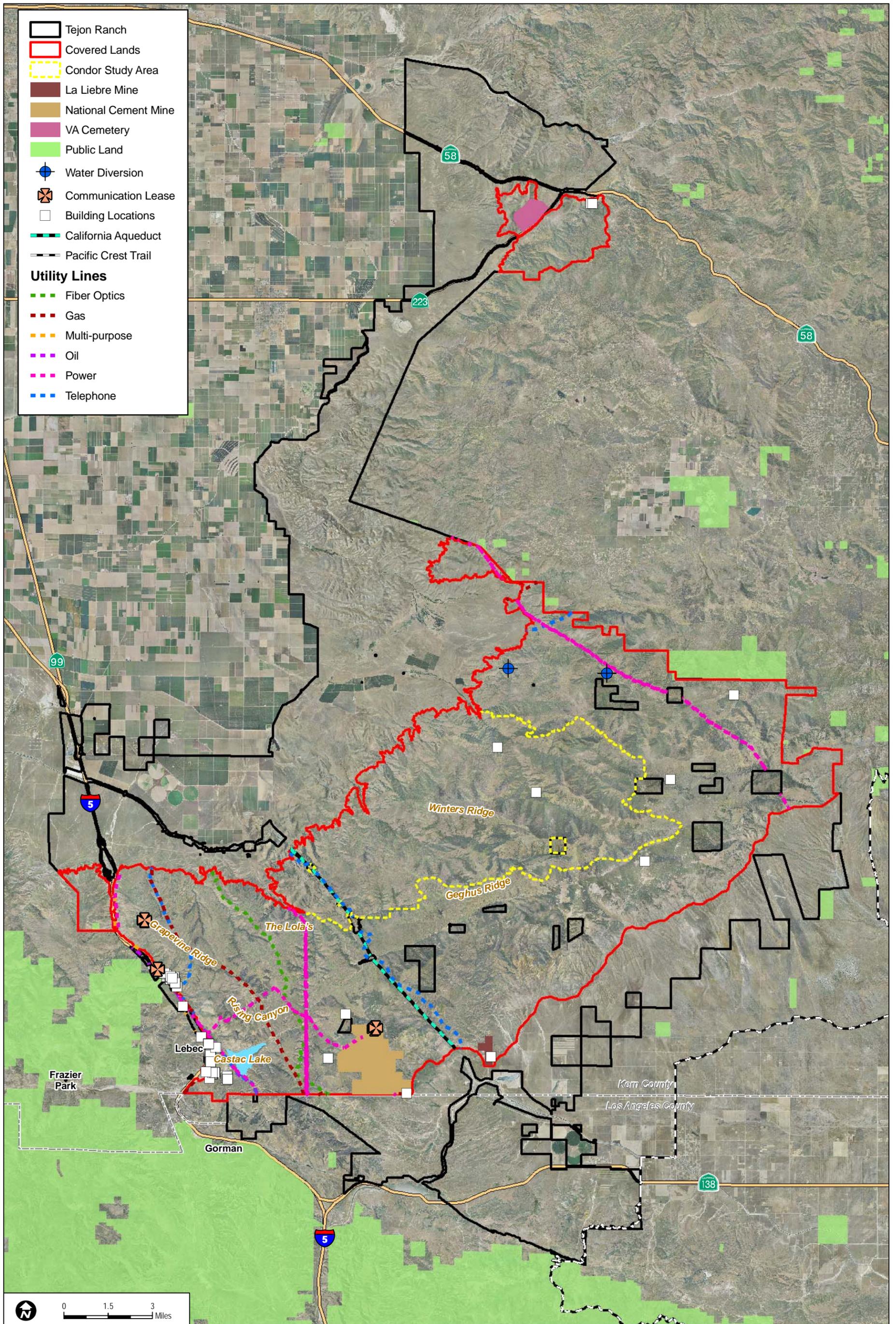
The study area is located solely within Kern County and contains no incorporated cities. As a result, Kern County exercises the primary land use regulatory authority over the Covered Lands.

Kern County adopted a general plan in 2004 that was last amended with changes to certain land use designations made together with the County's approval of the TMV Project in 2009 (Kern County 2009a). The general plan land use element identifies certain classes of land uses that are consistent with Kern County's planning goals and objectives throughout the area of its jurisdiction. The portions of the County that are subject to each general plan land use designation are identified by a corresponding map code on maps that are maintained by Kern County. Figure 2-3 identifies the locations of the existing general plan land use designations applicable to the Covered Lands, including those listed below.

- **State or Federal Lands (Map Code 1.1).** Kern County Map Code 1.1 designates property under the ownership and control of state or Federal agencies. The general plan land use designations and corresponding map codes are not updated on a continuous basis. As a result, certain designations and codes may not precisely correspond with current ownership patterns. At one time, approximately 670 acres of state or Federal Lands were located in the study area, most of

which were owned by the Bureau of Land Management. TRC subsequently acquired the majority of the Kern County Map Code 1.1 lands in the study area. At present, approximately 98 acres of the study area are owned by state agencies, including ranch inholdings used by the California Department of Water Resources (DWR) in conjunction with the California Aqueduct, and 1 acre by the Bureau of Land Management.

- **Other Facilities (Map Code 3.3).** Kern County Map Code 3.3 identifies existing facilities used for public or semipublic purposes. The Kern County Fire Department's Lebec Substation and a California Department of Transportation (Caltrans) maintenance facility and I-5 rest area are located in the study area and are subject to the Kern County Map Code 3.3 designation, for a total of approximately 1 acre.
- **Accepted County Plan Area (Map Code 4.1).** Kern County Map Code 4.1 identifies areas for which specific land use plans (specific plans or similar planning documents) have been prepared and approved by Kern County. Portions of the O'Neil Canyon Specific Plan and the Frazier Park/Lebec Specific Plan, totaling approximately 340 acres, are located in the study area west of I-5. Land uses in areas subject to a Kern County Map Code 4.1 designation are subject to the provisions of the applicable specific plans approved by Kern County.
- **Specific Plan Required (Map Code 4.3).** Kern County Map Code 4.3 identifies areas in which subsequent land uses will be finalized by the consideration and approval of a specific plan to be proposed by the applicable landowners. In general, the Kern County Map Code 4.3 designation pertains to portions of the County for which significant projects were previously proposed or discussed with Kern County. Appendix C of the general plan identifies certain dwelling unit, commercial, and other yields associated with each area that is subject to a Kern County Map Code 4.3 designation. Pursuant to the general plan, these yields are subject to additional assessment and evaluation during the specific plan review and related state and Federal permit processes as applicable. Kern County is not required to approve proposals that incorporate the identified yields. Approximately 4,035 acres of the study area are in the 4.3 designations.
- **Residential-Minimum 5 Gross Acres per Unit (Map Code 5.7).** Kern County Map Code 5.7 refers to areas subject to low-density residential uses that may have physical constraints and that do not require connections to public water and sewer infrastructure. A small portion of the study area (22 acres), located in the extreme north, is subject to the Kern County Map Code 5.7 designation.
- **Resource Reserve (Map Code 8.2).** Kern County Map Code 8.2 identifies areas that exhibit mixed natural resource characteristics, such as rangeland, woodland, and wildlife habitat. Parcels up to a minimum of 20 acres are allowable under the Kern County Map Code 8.2 designation, except that the minimum parcel size for lands subject to Williamson Act or farmland security zone contracts is 80 acres. Approximately 62 acres of the study area are subject to the Kern County Map Code 8.2/20-acre minimum designation, and 699 acres are subject to the Kern County Map Code 8.2/80-acre minimum designation.
- **Extensive Agriculture (Map Code 8.3).** Kern County Map Code 8.3 identifies areas subject to agricultural uses that involve large amounts of land with relatively low value-per-acre yields, such as livestock grazing, dryland farming, and woodlands. Parcels up to 20 acres are allowable under the Kern County Map Code 8.3 designation, except that the minimum parcel size for lands subject to Williamson Act or farmland security zone contracts is 80 acres. Approximately 10,857 acres of the study area are subject to the Kern County Map Code 8.3/20-acre minimum designation, and 74,239 acres are subject to the Kern County Map Code 8.3/80-acre minimum. Together, the Kern County Map Code 8.3 designations account for approximately 60% of the study area.



SOURCE: California Resource Agency 2011

FIGURE 3.7-1

Existing Land Uses on Covered Lands

- **Mineral and Petroleum (Map Code 8.4).** Kern County Map Code 8.4 refers to areas that produce or could potentially produce petroleum, natural gas, geothermal resources, or mineral deposits of regional or statewide significance. Kern County Map Code 8.4 areas encompass approximately 6,374 acres of the study area and are generally located along the southeastern face of the Tehachapi Mountains.
- **Resource Management (Map Code 8.5).** Kern County Map Code 8.5 identifies open space lands containing important resource values, such as wildlife habitat, scenic values, or watershed recharge areas. Parcels up to 20 acres are allowable under the Kern County Map Code 8.5 designation, except that the minimum parcel size for lands subject to Williamson Act or farmland security zone contracts is 80 acres. Approximately 521 acres of the study area are subject to the Kern County Map Code 8.5/20-acre minimum designation, and 1,555 acres are subject to the Kern County Map Code 8.5/80-acre minimum.

Kern County approved the Tejon Mountain Village Specific and Community Plan (TMV Specific Plan Area) covering approximately 26,417 acres and approving the TMV Project in the fall of 2009 (Kern County 2009a). The plan allows for the disturbance of 5,082 acres within the boundary of the TMV Specific Plan Area. In addition to the land use designations listed above, the following designations are also found in the TMV Specific Plan Area:

- **Parks and Recreation Areas (Map Code 3.1).** This category designates existing public and private recreation facilities and park areas. The purpose of this designation is to provide a wide variety of facilities to serve the many recreational interests of County residents. Permitted uses shall include, but are not limited to, public and private parks containing facilities for day use, hiking, camping, walking, picnicking, riding, and other recreational activities.
- **29 Dwelling Units/Net Acre Maximum (Map Code 5.1).** This category is designed to allow high-density apartments and condominiums in proximity to an within walking distance of urban commercial centers, with a minimum of 1,502 square feet of site area per unit, yielding a maximum of 29 units per net acre.
- **10 Dwelling Units/Net Acre Maximum (Map Code 5.3).** This category is designed to accommodate urban single-family development on lots with a minimum average size of 4,356 square feet (.10 of an acre), yielding a maximum of 10 units per net acre in conformance with precise development, cluster, or other special planning ordinance standards.
- **4 Dwelling Units/Net Acre Maximum (Map Cod 5.4).** This category is designed to accommodate urban single-family development ton lots with a minimum average size of 0.25 net acre.
- **2 Dwelling Units/ Net Acre Maximum (Map Code 5.45).** This category is designed to accommodate urban single-family development on lots with a minimum average size of 2 net acres.
- **1 Dwelling Unit/Net Acre Maximum (Map Code 5.5).** This constitutes a single-family designation with rural service needs in the valley and desert regions, while in the mountain region, residential uses of this density will require urban service provision.
- **Residential – Minimum 2.5 Gross Acres/Unit (Map Code 5.6).** This constitutes a single-family designation with rural service needs in the valley and desert regions, while in the mountain region residential uses of this density will require urban service provision.
- **General Commercial (Map Code 6.2).** This constitutes retail and service facilities of less intensity than regional centers providing a broad range of goods and services which serve the day-to-day needs of nearby residents.
- **Highway Commercial (Map Code 6.3).** This constitutes uses that provide services, amenities, and accommodations at key locations along major roadways to visitors and through traffic.

Table 3.7-1 summarizes the acreage associated with each Kern County General Plan land use designation and corresponding map code in the study area.

Table 3.7-1. Land Use Designation and Map Code Acreage in the Study Area

Map Code	Land Use Designation	Acres
1.1	State or Federal Land	178
3.3	Other Facilities	1
4.1	Accepted County Plan Area	342
4.3	Specific Plan Required	6,623
5.7	Residential–Minimum 5 Gross Acres/ Unit	38
8.2	Resource Reserve ¹	817
8.3	Extensive Agriculture ²	96,781
8.4	Mineral and Petroleum	8,585
8.5	Resource Management ³	2,105
TMV Specific Plan Area		
3.3	Other Facilities	11
5.3	10 Dwelling Units/Net Acre Maximum	75
5.4	4 Dwelling Units/Net Acre Maximum	2,607
5.45	2 Dwelling Units/ Net Acre Maximum	43
5.5	1 Dwelling Unit/Net Acre Maximum	4,450
5.6	Residential – Minimum 2.5 Gross Acres/Unit	399
5.7	Residential–Minimum 5 Gross Acres/ Unit	731
8.5	Resource Management	15,132
5.1/6.3/3.1/3.3	Highway Commercial/Mixed	281
5.3/6.2/3.1	General Commercial/Mixed	2,686
	TOTAL	141,886

Notes:

¹Approximately 751 acres are subject to Williamson Act contracts

²Approximately 53,000 acres are subject to Williamson Act contracts

³ Approximately 1,598 acres are subject to Williamson Act contracts

Source: Kern County 2009b

3.7.2 Land Resources

Land resources in the study area consist of agricultural resources and mineral resources.

3.7.2.1 Agricultural Resources

Agricultural resources in the state of California are inventoried and ranked by the California Department of Conservation, in consultation with the U.S. Department of Food and Agriculture Natural Resource Conservation Service. Together, these agencies administer the Farmland Mapping and Monitoring Program (FMMP). The FMMP compiles *important farmland* maps on a biannual basis for each County in California. The maps use several categories to describe the farming potential of each mapped area within a County. In order of decreasing farming value, these categories include Prime Farmland, Unique Farmland, Farmland of Statewide Importance, Farmland of Local

Importance, Interim Farmland (irrigated and nonirrigated farmland), Grazing Land, Urban and Built-up Land, and Other Lands.

FMMP designations in the study area are shown in Figure 3.7-2. There are no areas of Prime Farmland, Unique Farmland, or Farmland of Statewide Importance in the study area. Approximately 100 acres of the study area located near Castac Lake have been mapped as Interim Farmland (irrigated). No commercial agriculture occurs in the study area. The majority of the study area is classified as Grazing Land. Higher elevation areas are classified as Other Lands because they do not meet the criteria of any other FMMP category.

Certain portions of the study area are protected under agricultural conservation agreements related to the California Land Conservation Act, also known as the Williamson Act (Figure 3.7-3). These agreements reduce the tax basis of the affected property in exchange for the owner's commitment to maintain agricultural or grazing activities for a minimum period of 10 years. The contract term automatically renews every year for a new 10-year period until the owner elects to terminate the agreement pursuant to the act. In such an event, the agreement will expire 10 years after a notice of nonrenewal has been properly filed in accordance with the act. Nonrenewal notices affecting approximately 8,000 acres of the study area generally located in or near the eastern boundaries of the TMV Planning Area were filed by TRC in 2001 and 2003.

3.7.2.2 Mineral Resources

There are two mines in the study area: the La Liebre mine, which is an approximately 200-acre sand, rock, and gravel mine; and the National Cement mine, which is an approximately 2,500-acre aggregate and Portland cement mine (California Department of Conservation 2007). Both of these mines operate under the terms of mineral extraction leases with TRC (Figure 3.7-4).

Approximately 3,384 acres of the study area have been mapped as mineral resource zones by the state of California under the Surface Mining and Reclamation Act. These include MRZ-2 areas, which are known to contain mineral resources, and MRZ-3 areas, where the significance of the mineral resources present has not been determined. These areas are primarily located near the southwestern border of the study area and, as shown on Figure 3.7-4, overlap with the existing mines discussed above.

3.7.3 Socioeconomic Conditions

This section describes the current population, demographics, economic conditions, and environmental justice conditions in the study area. As of June 2011, more detailed 2010 Census data had not been published by the U.S. Census Bureau. Therefore, information in this section is based largely on the 2000 Census.

3.7.3.1 Population

The study area is located near the southern edge of Kern County and north of Los Angeles County. A portion of the study area is located near State Route (SR) 58. Except in the immediate vicinity of the ranch headquarters (which includes Fort Tejon Elementary School and some residences near I-5), there is no resident population in the study area.

The communities of Lebec, Frazier Park, and Lake of the Woods have been designated as Census Designated Places by the U.S. Census Bureau and are located to the west of the study area. The portion of the study area adjacent to SR 58 is near two additional Census Designated Places, Bear Valley Springs and Keene.

Kern County encompasses 8,202 square miles, and is the third largest County in California, located at the southern end of the Central Valley. From 2000 to 2010, the population in Kern County grew by 26.9% to 839,631 (U.S. Census Bureau 2011a). Of the areas in or near the study area, only Keene had a larger growth rate of 27.1% from 2000 to 2010, due to a rise in population from 339 to 431. Bear Valley Springs grew by 22.2% to 5,172; Frazier Park grew by 14.6% to 2,691; Lake of the Woods grew by 10.1% to 917; and Lebec grew by 14.2% to 1,468; according to California Department of Finance projections, the County's population is anticipated to grow to 1,086,113 persons by 2020 and 1,352,627 persons by 2030 (California Department of Finance 2011a).

3.7.3.2 Housing

Kern County has experienced significant housing growth since 2000. The supply of residential units increased by 22.8% between 2000 and 2010, from 231,564 units to 284,367 units (California Department of Finance 2011b). During this period, the largest increase in housing in the study area occurred in Keene and Bear Valley Springs, which both grew by 27%. Keene grew from 177 units to 225 housing units, and Bear Valley Springs grew from 2,147 to 2,729 units. Between 2000 and 2010, housing units grew from 516 to 594 in Lebec, from 203 to 354 units in Frazier Park, and from 475 to 480 units in Lake of the Woods, representing increases of 15%, 12%, and 1%, respectively (California Department of Finance 2011c).

3.7.3.3 Demographics

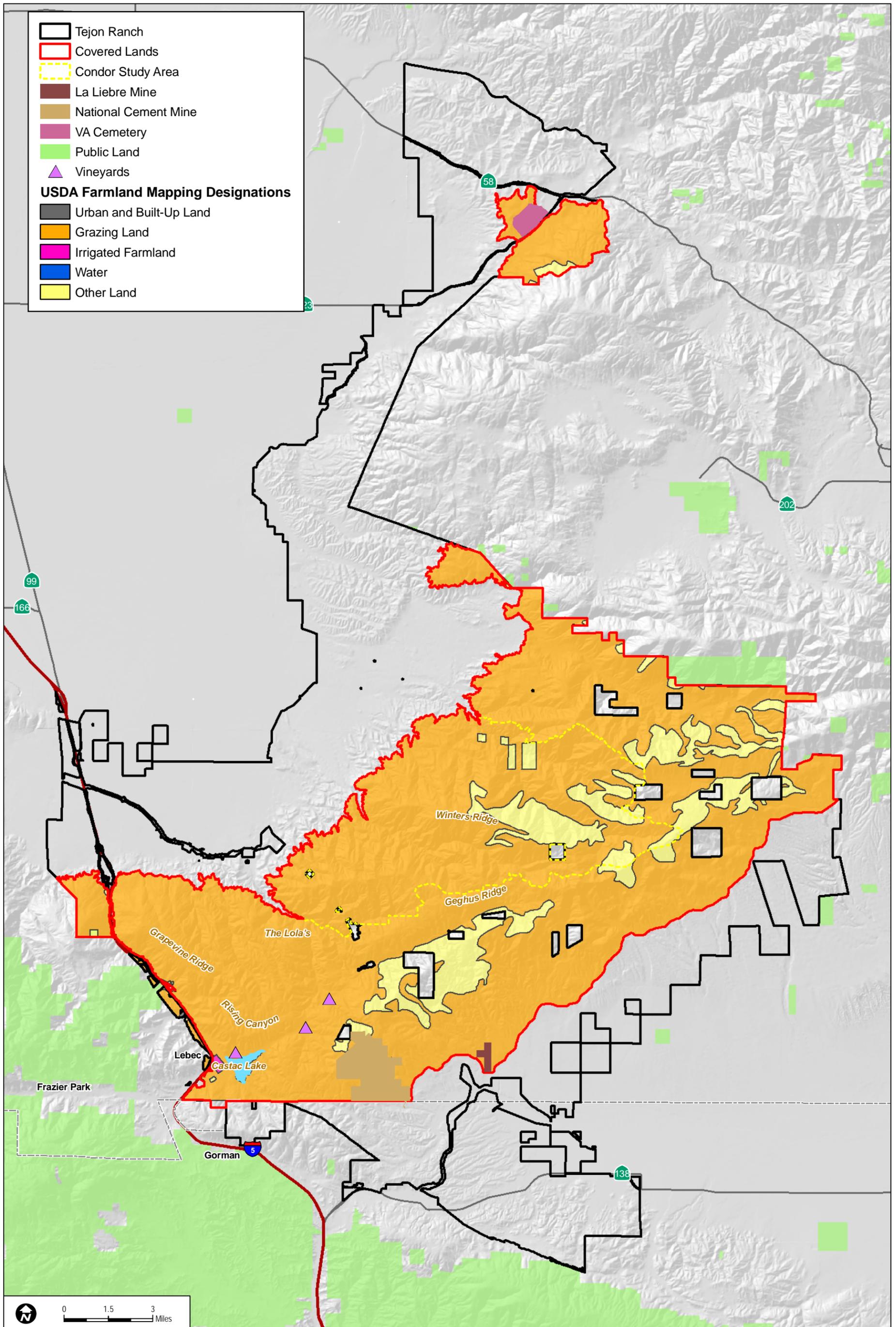
Race and Hispanic Origin

Table 3.7-2 lists the race and Hispanic origin for Kern County as a whole and for the Census Designated Places that occur near the study area (U.S. Census Bureau 2011b).

Table 3.7-2. Race and Hispanic Origin by Percentage

Jurisdiction	Total 2010 Population	White	Black or African American	American Indian & Alaska Native	Asian	Native Hawaiian & Other Pacific Islander	Some Other Race	Two or More Races	Hispanic Origin
Kern County	839,631	38.6%	5.4%	0.7%	3.9%	0.1%	0.2%	1.9%	49.2%
Bear Valley Springs	45,172	87.0%	1.4%	0.7%	1.0%	0.1%	0.1%	1.9%	7.7%
Frazier Park	2,691	76.1%	0.5%	0.6%	0.8%	0.1%	0.1%	2.2%	19.6%
Lebec	1,468	67.7%	0.5%	1.2%	1.2%	0.0%	0.0%	2.5%	26.9%
Keene	431	84.0%	0.5%	0.5%	1.9%	0.0%	0.2%	2.1%	10.9%
Lake of the Woods	917	82.1%	0.3%	1.6%	1.2%	0.0%	0.0%	1.3%	13.4%

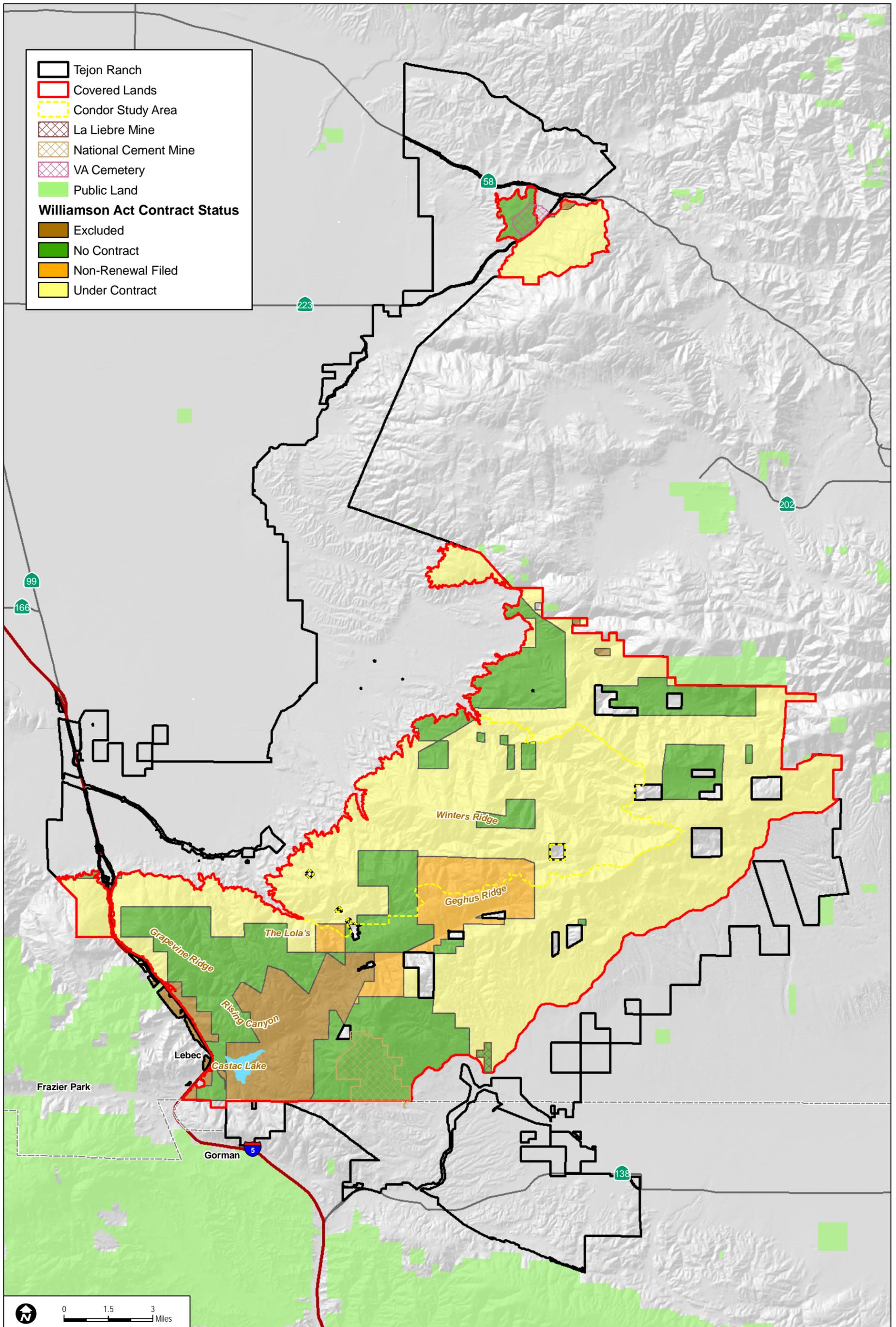
Source: California Department of Finance 2011d



SOURCE: California Department of Conservation 2004

FIGURE 3.7-2

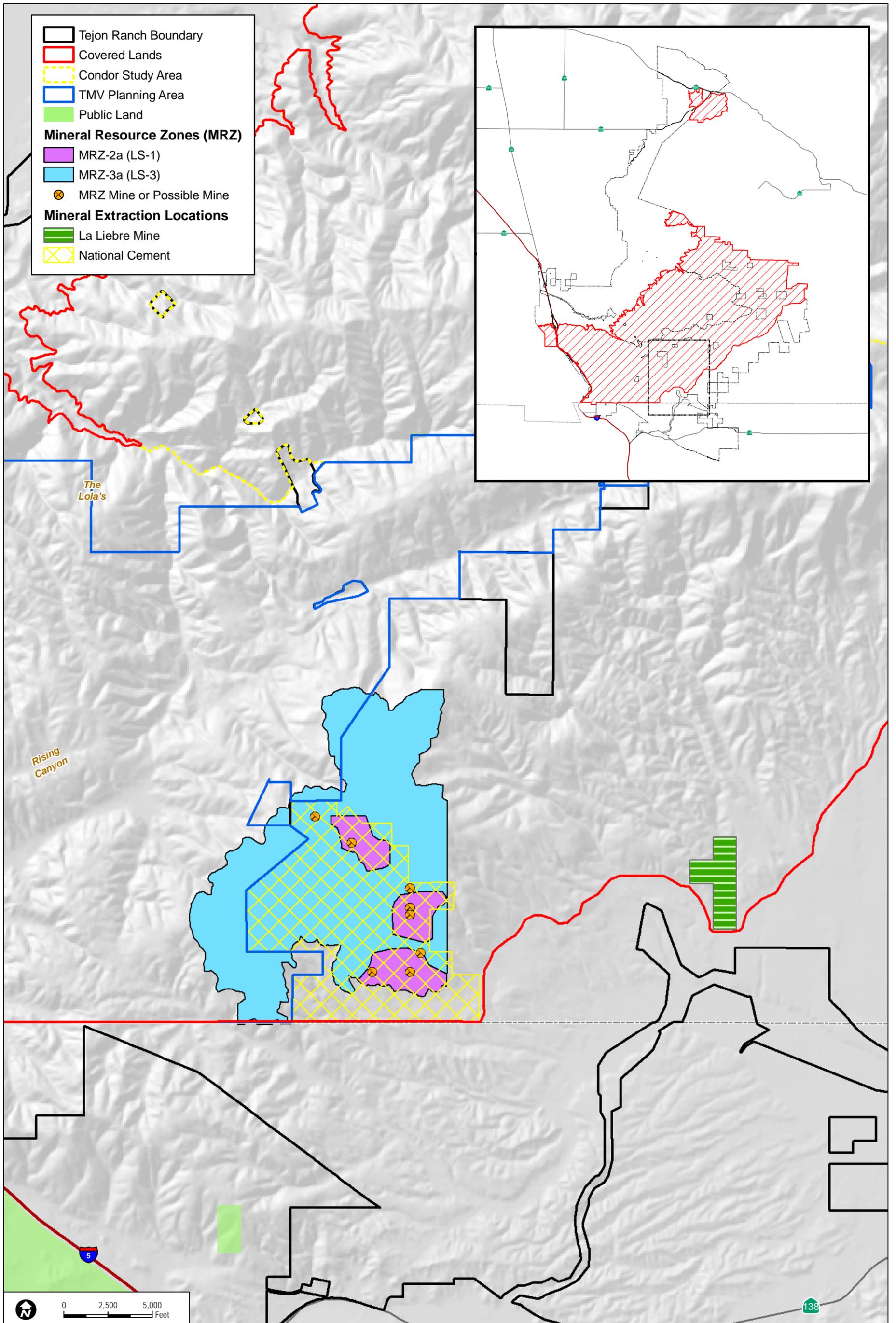
USDA Farmland Mapping Designations in Covered Lands



	Tejon Ranch
	Covered Lands
	Condor Study Area
	La Liebre Mine
	National Cement Mine
	VA Cemetery
	Public Land
Williamson Act Contract Status	
	Excluded
	No Contract
	Non-Renewal Filed
	Under Contract

SOURCE: California Department of Conservation 2008

**FIGURE 3.7-3
Williamson Act Contract Areas in Covered Lands**



SOURCE: TRC 2007
USGS 2007

FIGURE 3.7-4
Mineral Resource Zones and Mining Leases in Covered Lands

Labor Force and Unemployment Rates

The number of people considered to be in the labor force (i.e., actively working or seeking work) and the unemployment rate for Kern County and the cities and Census Designated Places near the study area are shown in Table 3.7-3 for the period from 2000 to 2010.

Table 3.7-3. Labor Force and Unemployment Rates

	Kern County	Bear Valley Springs	Frazier Park	Keene	Lake of the Woods	Lebec
2000 Labor Force	293,500	1,900	1,000	100	400	600
2000 Unemployment Rate (%)	8.2	2.2	7.2	1.6	3.7	3.6
2001 Labor Force	298,000	1,900	1,000	100	400	600
2001 Unemployment Rate (%)	8.6	2.3	6.9	1.7	3.8	3.7
2002 Labor Force	307,100	2,000	1,000	100	400	600
2002 Unemployment Rate (%)	9.8	2.6	8.5	2.0	4.4	4.3
2003 Labor Force	313,700	2,000	1,000	100	400	600
2003 Unemployment Rate (%)	10.3	2.8	9.0	2.1	4.7	4.5
2004 Labor Force	317,200	2,100	1,100	100	400	600
2004 Unemployment Rate (%)	9.9	2.6	8.6	2.0	4.5	4.3
2005 Labor Force	330,400	2,100	1,100	100	400	700
2005 Unemployment Rate (%)	8.4	2.2	7.3	1.7	3.8	3.7
2006 Labor Force	341,600	2,200	1,200	100	400	700
2006 Unemployment Rate (%)	7.6	2.0	6.6	1.5	3.4	3.3
2007 Labor Force	351,900	2,200	1,200	100	400	700
2007 Unemployment Rate (%)	8.3	2.2	7.2	1.6	3.7	3.6
2008 Labor Force	359,300	2,300	1,200	100	500	800
2008 Unemployment Rate (%)	9.7	2.4	8.5	0.0	4.8	4.5
2009 Labor Force	363,100	2,200	1,200	100	400	700
2009 Unemployment Rate (%)	14.4	3.7	12.6	0.0	7.6	6.7
2010 Labor Force	368,500	2,200	1,200	100	500	800
2010 Unemployment Rate (%)	15.9	4.2	14.0	0.0	8.4	7.6
2011 Labor Force	361,200	2,200	1,200	100	400	700
2011 Unemployment Rate (%)	16.0	4.2	14.2	0.0	8.4	7.6

Source: California Employment Development Department 2011a, 2011b

Income and Poverty Levels

Income¹ levels for individuals and families² in 2000 are shown in Table 3.7-4 (U.S. Census Bureau 2000a). The highest median family incomes in 2000 are in Bear Valley Springs (\$64,583) and Keene (\$59,583). The highest per capita incomes are also in Bear Valley Springs (\$27,388) and Keene (\$27,986). The lowest median family incomes are in Kern County as a whole (\$39,403); the area with the lowest per capita income level was Lebec (\$14,895).

Table 3.7-4. Family and Individual Income and Poverty Levels

Jurisdiction	Median Family Income	Per Capita Income	Families Below Poverty Level	Individuals Below Poverty Level
Kern County	\$39,403	\$15,760	16.8%	20.8%
Bear Valley Springs	\$64,583	\$27,388	5.4%	7.2%
Frazier Park	\$46,857	\$19,302	11.0%	12.4%
Keene ¹	\$59,583	\$27,986	22.5%	24.7%
Lake of the Woods	\$43,468	\$17,983	13.2%	14.2%
Lebec	\$40,972	\$14,895	1.4%	8.1%

Note:

¹ Keene has both the highest per capita income level of the areas discussed in this analysis and the highest poverty rate. This is due to the presence in this very small community (89 families) of 16 families making over \$100,000 a year and 20 families making below the poverty level. These extremes, combined with the small size of the community, produce these results.

Sources: U.S. Census Bureau 2000a through 2000g

The U.S. Census Bureau has identified income thresholds that vary by family size and composition to define the applicable poverty level within a population (U.S. Census Bureau 2000h). Under these thresholds, in 2000, approximately 22.5% of all families and approximately 24.7% of all individuals were below the poverty level in Keene, representing the highest poverty rates in the areas near the study area. Family and individual poverty rates in all of Kern County were substantially below these levels, and lower in each of the other Census Designated Places near the study area.

3.7.4 Hazardous Materials and Other Hazards

3.7.4.1 Hazardous Materials

As discussed above, the majority of the study area is undeveloped and not subject to significant hazardous material risks. However, there are some known hazardous materials sites located in the study area, including but not limited to, the California Highway Patrol Facility located at 4459 Lebec Road and the old Post Office located at 1777 Lebec Road (Kern County 2009c, pp. 4.7-5 to 4.7-8). In addition, the National Cement mine has been the subject of ongoing solvent-related cleanup and

¹ Total income is the sum of the amounts reported separately for wages, salary, commissions, bonuses, or tips; self-employment income from own nonfarm or farm businesses, including proprietorships and partnerships; interest, dividends, net rental income, royalty income, or income from estates and trusts; social security or railroad retirement income; supplemental security income; any public assistance or welfare payments from the state or local welfare office; retirement, survivor, or disability pensions; and any other sources of income received regularly, such as veterans' payments, unemployment compensation, child support, or alimony.

² A family is a group of two or more people who reside together and who are related by birth, marriage, or adoption.

abatement orders by the Regional Water Quality Control Board and the Department of Toxic Substances Control. Land uses in or near the study area that may be associated with the use of hazardous wastes or materials include the following:

- Agricultural activities that used chemicals that are now prohibited due to human health risks and that may persist in the environment.
- Utilities that contain natural gas or oil in underground pipelines.
- Electrical transformers that used polychlorinated biphenyls (PCBs).
- Past hunting that included use of lead shot or bullets prior to the TRC and state ban on lead ammunition in early 2008.
- Highways, including I-5, SR 58, and SR 223, that could have airborne lead derived from the use of leaded gasoline, lead tire weights, lead in paint, ambient levels of lead in gasoline, and tire wear.
- Industrial or public safety facilities, such as the Caltrans Maintenance Yard, the California Highway Patrol facilities, and past and present service stations that may use or have used aboveground or underground storage tanks.
- Existing and closed landfills in the vicinity of Lebec.
- The National Cement and La Liebre mines.

3.7.4.2 Electromagnetic Fields

Electromagnetic fields are generated by transmission lines and electrical appliances, which exist throughout Kern County and particularly in urban areas. Several major transmission lines cross the study area and generate localized electromagnetic fields. These fields are generated by electricity use and the flow of electrons through power lines and electrical appliances. Although concern about the health effects of electromagnetic fields has increased over the past 20 years, studies to date have failed to show that exposure to electromagnetic fields cause adverse health effects. Certain animal and cell studies suggest that biological changes can be associated with magnetic fields, but as yet there is no accepted method for analyzing how these findings may affect human health. Some epidemiological studies have shown an association between leukemia and an indirect estimate of high magnetic field exposure, such as for populations that have lived very close to major transmission lines. These studies remain inconclusive.

3.7.4.3 Wildfires

Wildfires can occur throughout Kern County, particularly where there are expanses of open space. In the study area, wildfires occur due to the presence of combustible vegetation, rugged terrain, and hot or dry weather patterns conducive to fire propagation and spread. The study area is subject to unique wind and weather patterns based on geographic location at the southern extent of the San Joaquin Valley, and at the convergence of the Sierra Nevada, the Tehachapi Mountains, and the Coast Range. Typical wind patterns in the region include easterly winds in the morning hours, shifting to westerly winds in the afternoon. In the northern portion of the study area, north/northwest winds typically flow up from the San Joaquin Valley. Localized wind patterns are strongly affected by both regional and local topography.

Fire perimeter data and records of fire occurrences in California are maintained by the California Department of Forestry and Fire Protection via their Fire and Resource Assessment Program (FRAP) historic fire perimeter data set. Based on an evaluation of FRAP fire history, 42 fires burned in or onto the study area between 1912 and 2010. The most recent fires occurred in August of 2010. The Post Fire and Base Fire were small fires (1,300 and 70 total acres, respectively) burning along the

western edge of the study area adjacent to I-5. Fire occurrence in the study area is concentrated primarily along the western boundary, adjacent to I-5, and fires in this area are generally small in total size (less than 1,000 acres). Historically, fires burning in or onto the remaining portions of the study area (east of I-5) tend to be larger in overall size, but are isolated geographically. Specifically, five large fires burned in or onto the study area between 1986 and 2006, including the 1986 Los Alamos Fire (12,140 total acres), the 1990 Tejon Fire (7,800 total acres), the 1992 Middle Ridge Fire (7,400 total acres), the 1996 White Oak Fire (7,180 total acres), and the 2006 Quail Fire (4,770 total acres). With the exception of the Quail Fire and the Los Alamos Fire, both of which burned in the western portion of the study area near I-5, these larger fires were separated by distances of up to 4.5 miles.

Wildfire has played a role in shaping and maintaining the plant communities found in the study area; however, its effect has been minimized because of vegetation alterations resulting from livestock grazing practices. Further, the small amount of human activity in the study area minimizes potential wildfire ignition sources. Ignition sources for wildfires burning in the study area are typically associated with transportation corridors, namely I-5, where overheated vehicles and discarded cigarettes have been identified as ignition sources for 11 of the 42 fires burning in or onto the study area (26%) (California Department of Forestry and Fire Protection 2007).

3.7.4.4 Disease Vectors

Disease vectors associated with insects, rodents, and fungi are relatively high in Kern County. The most common vector-caused diseases in Kern County include the following:

- **West Nile Virus.** West Nile virus is a mosquito-borne disease that, in rare situations, can result in permanent neurological effects or death. Approximately 80% of infected people have no symptoms. Fifteen cases were reported in Kern County in 2010. Sentinels, such as chickens and horses, are also very susceptible, with 86 reported cases in 2010 (Center for Disease Control and Prevention 2011).
- **Plague.** Plague is a bacterial infection carried by fleas on ground squirrels and other rodents. Plague is also transmitted to humans by pets that may become infested with fleas. The disease is potentially fatal unless antibiotic therapy is given. There were no reported cases of plague in Kern County in 2010 (California Vectorborne Disease Surveillance System 2010).
- **Lyme Disease.** Lyme disease is a bacterial infection carried by the western black-legged tick in California. Symptoms include rashes, fatigue, and muscle and joint pain. On average, two cases are reported in Kern County each year. Lyme disease can also affect dogs, horses, and other domesticated animals (California Department of Public Health 2010).
- **Hantavirus Pulmonary Syndrome.** Hantavirus is a respiratory disease carried by wild rodents, especially deer mice. About 50% of human cases are fatal. Since first discovered in 1993, four cases with probable exposure in Kern County have occurred (California Department of Public Health 2007).
- **San Joaquin Valley Fever.** Valley fever disease is caused by fungus spores carried in soil or blowing dust, primarily in arid regions. Agricultural and construction workers are most often infected, but windy weather can carry spores into moister, urban areas. Many people experience mild symptoms and then become immune to further infection (California Health and Human Services Agency 2008).
- **Other Vector-Borne Illnesses.** Other vector-borne illnesses that may occur in the study area as temperatures warm with global warming and their ranges are extended into higher latitude areas include malaria, tick-borne encephalitis, yellow fever, and dengue fever (Harvell et al. 2002).

3.7.5 Public Services and Utilities

3.7.5.1 Fire and Emergency Response

The Kern County Fire Department is responsible for providing fire protection as the primary responder in the unincorporated areas of Kern County. These include the study area as well as regional transportation corridors such as I-5 and SR 223. The Kern County Fire Department staffs 46 fire stations. The department is divided into seven battalions for operations management (Kern County Fire Department 2011). The nearest station to the study area is Station 56 in Lebec, located at 1548 Golden State Highway, adjacent to I-5. Kern County stations at the Tejon Ranch Commerce Center and Frazier Park, and the Los Angeles County station in Gorman to the south, can also provide emergency fire services to the study area. The Bear Valley station at 28946 Bear Valley Road in Tehachapi is located nearest to the portions of the study area adjacent to SR 58. Kern County stations at Arvin and Stallion Springs can also serve the area (Figure 3.7-5).

3.7.5.2 Police Protection

The Kern County Sheriff's Department and the California Highway Patrol are responsible for law enforcement in the study area. The sheriff's department provides primary police protection for unincorporated portions of Kern County. The California Highway Patrol provides traffic regulation enforcement, emergency incident management, and service and assistance on I-5 and other major roadways in California. The main sheriff's station is in Bakersfield. Fourteen sheriff substations are located throughout the County. The nearest substation to the study area is the Frazier Park Substation, located at 617 Monterey Trail. Near SR 58, substations are located in Tehachapi (Golden Hills), at 22209 Old Town Road, and in Lamont, at 12022 Main Street. The nearest California Highway Patrol station is the Fort Tejon Station, located at 1033 Lebec Road in Lebec. The California Highway Patrol Grapevine Inspection Facility is also located along I-5 north of the study area, at 32829 I-5 in Lebec (Figure 3.7-5).

3.7.5.3 Schools

There are three school districts in the vicinity of the study area: the El Tejon Unified School District, which provides kindergarten through 12th grade education; the Arvin Union School District, which provides kindergarten through 8th grade education; and the Kern High School District, which provides education for grades 9 through 12. Other nearby schools include Frazier Park School, Frazier Mountain High School, Sierra Vista Elementary School, Bear Mountain Elementary School, Haven Drive Middle School, and Arvin High School.

3.7.5.4 Water Supply

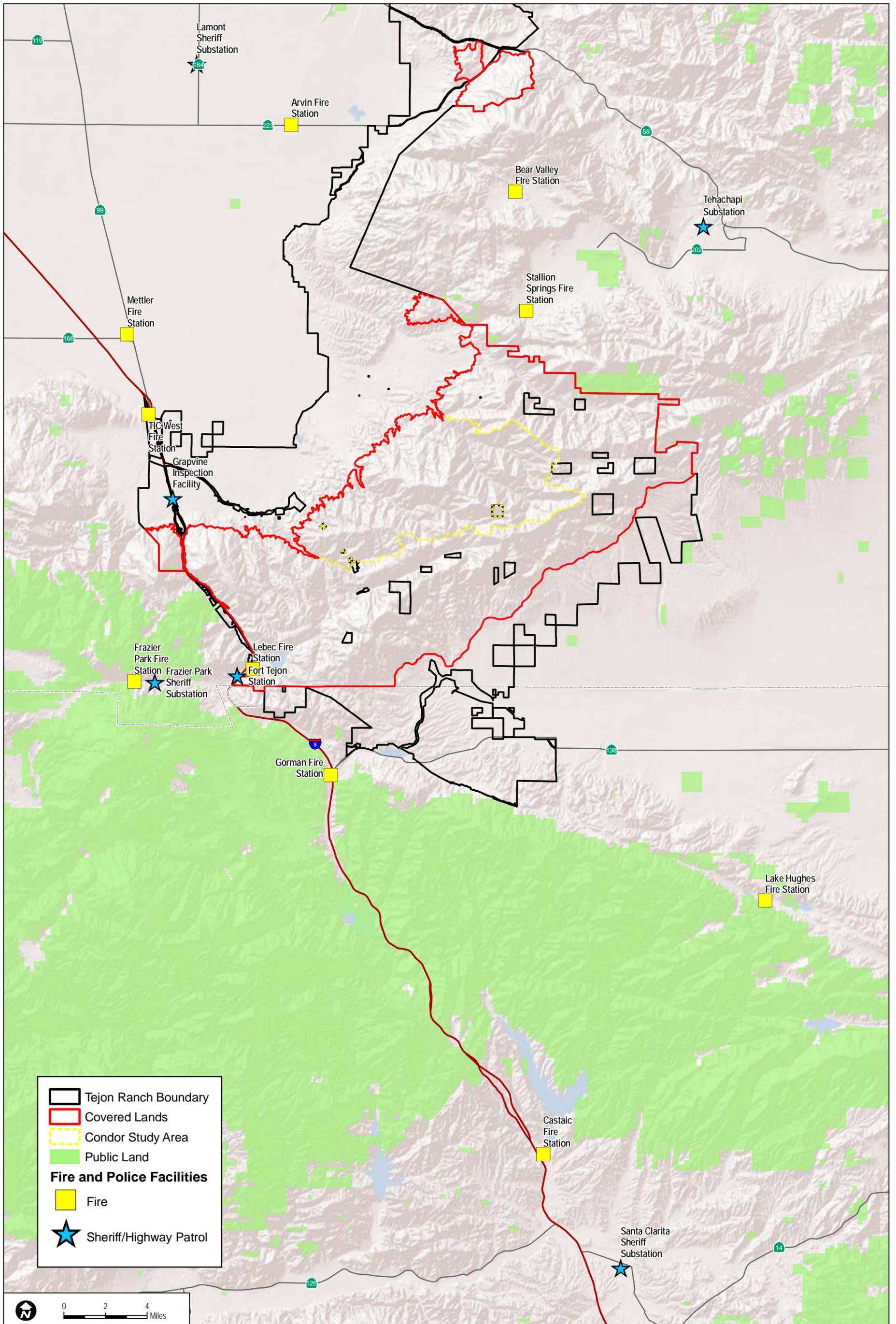
Portions of the study area are located within the existing service areas of three water districts: TCWD, the Tehachapi-Cummings County Water District, and the Antelope Valley–East Kern Water Agency, as shown in Figure 3.7-6. The TCWD service area includes a portion of the TMV Planning Area, and TCWD would provide water and wastewater collection and treatment services for the TMV Project. Tehachapi-Cummings County Water District and the Antelope Valley–East Kern Water Agency do not currently provide water or other services to the study area, nor do they have plans to do so. Well water near Castac Lake is used by TRC for ranch headquarters, landscaping irrigation, and lake management purposes, as well as for limited agricultural irrigation, El Tejon School and Tejon Fields landscaping. Approximately two homes receive well water near SR 58 in the study area.

3.7.5.5 Utilities

A number of public and private utilities traverse the study area. These utilities include the California Aqueduct, various underground fiber-optic systems, telephone lines, natural gas and oil pipelines, electrical transmission lines, high-tension power lines, and wireless facilities. Figure 3.7-1 depicts utility corridors and facilities.

3.7.5.6 Other Services

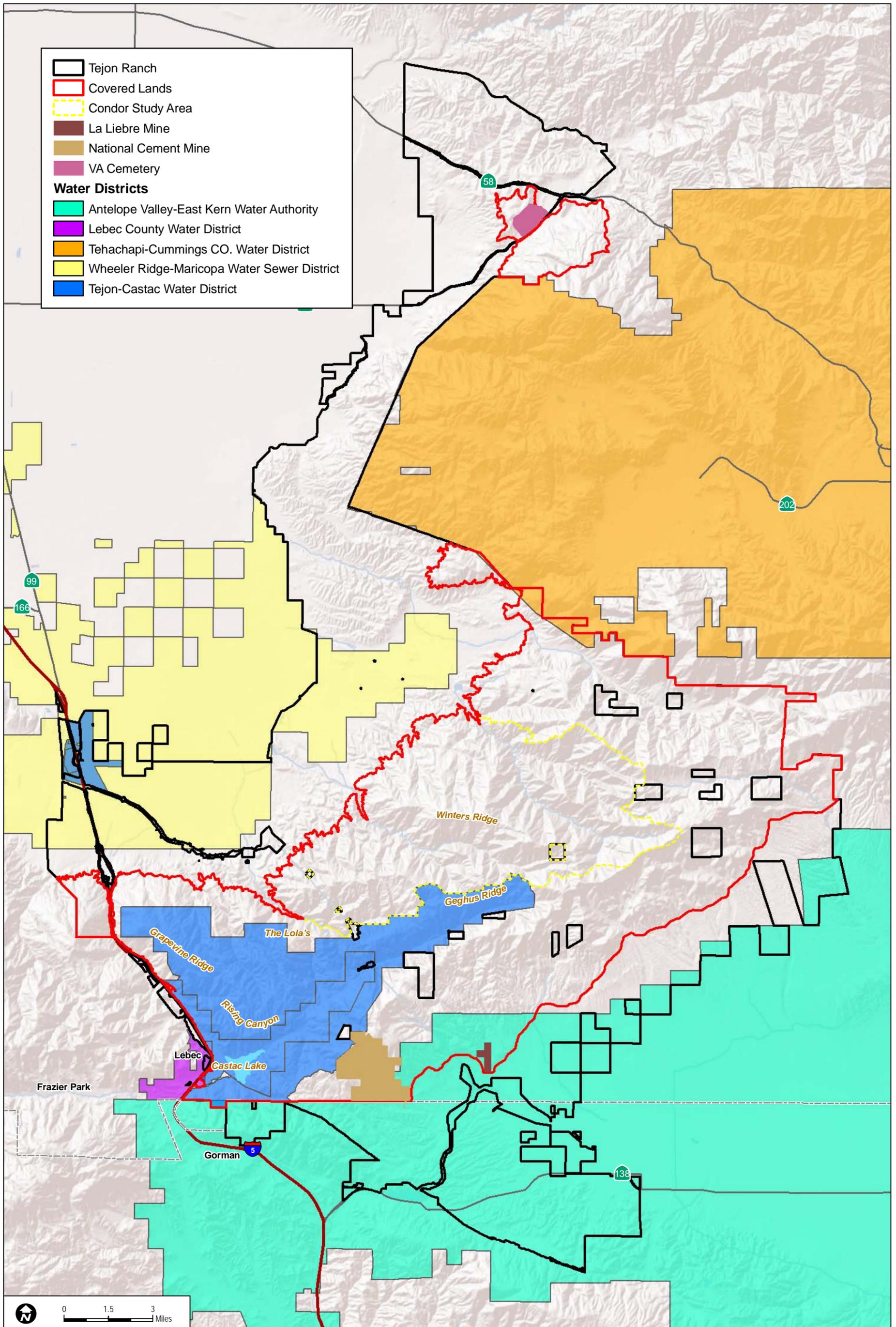
The nearest public libraries to the study area are located in Frazier Park, Arvin, and Tehachapi. The nearest hospitals are located in Tehachapi and the City of Bakersfield. Kern County government facilities are located primarily in Bakersfield.



SOURCE: TRC 2007

FIGURE 3.7-5

Fire and Police Protection Facilities



	Tejon Ranch
	Covered Lands
	Condor Study Area
	La Liebre Mine
	National Cement Mine
	VA Cemetery
Water Districts	
	Antelope Valley-East Kern Water Authority
	Lebec County Water District
	Tehachapi-Cummings CO. Water District
	Wheeler Ridge-Maricopa Water Sewer District
	Tejon-Castac Water District

SOURCE: TRC 2007
California Department of Water Resources 2003

FIGURE 3.7-6
Water Districts

