

Section 3.2

Land Use, Agriculture, Population and Housing

3.2 Land Use, Agriculture, Population and Housing

3.2.1 Introduction

This section describes the affected environment and regulatory setting for land use (including planning and recreation), agriculture, and population and housing. It also describes the impacts on these resources that would result from implementation of the project, and mitigation measures that would reduce those impacts.

Socioeconomic impacts are discussed separately in Section 3.12, *Socioeconomics*. Growth-inducing and cumulative impacts are discussed separately in Chapter 4, *Other CEQA Analyses*.

3.2.1.1 Summary of Impacts

Table 3.2-1 presents a summary of the impacts on land use, agriculture, and population and housing. See Section 3.2.6, *Impacts*, and Section 3.2.7, *Mitigation Measures*, for a detailed discussion of all impacts and mitigation measures.

Table 3.2-1. Summary of Land Use, Agriculture, and Population and Housing Impacts

Impact	Applicable Alternative	Significance before Mitigation	Mitigation Measures	Significance after Mitigation
LU-1a: Physically Divide a Community	All Alternatives	Less than Significant	None Required	–
Impact LU-1b: Disruption of Surrounding Land Uses during Construction	All Alternatives	Less than Significant	None Required	—
LU-1c: Incompatibility with or Substantial Disruption of Surrounding Land Uses during Operations	No Project Alternative	Less than Significant	None Required	–
	All Action Alternatives	Potentially Significant	WTR-MM-2: Water Supply Program for Wells that Are Affected by Remedial Activities	Less than Significant
LU-1d: Potential Inconsistency with San Bernardino County Land Use/ Zoning Designations and General Plan Policies	All Alternatives	Less than Significant	None Required	–
LU-1e: Potential Inconsistency with the California Desert Conservation Plan and/or the West Mojave Plan	No Project Alternative	Less than Significant	None Required	–
	All Action Alternatives	Potentially Significant	LU-MM-1: Obtain Bureau of Land Management Permits BIO-MM-1a: Construction Measures Required to Minimize, Reduce, or Mitigate Impacts to Desert Tortoise BIO-MM-1b: Limit Footprint of Disturbance Areas within Special-Status Species Habitats	Less than Significant

Impact	Applicable Alternative	Significance before Mitigation	Mitigation Measures	Significance after Mitigation
			BIO-MM-1c: Implement Pre-Construction and Ongoing Awareness and Training Program BIO-MM-1d: Conduct Ongoing Biological Construction Monitoring BIO-MM-1e: Minimize Potential Construction Hazards to Special-Status Species BIO-MM-1f: Minimize Construction and/or Operational Practices and/or Facilities to Prevent Attraction of Project-Related Predators BIO-MM-1g: Reduction of Project-Related Spread of Invasive Plant Species BIO-MM-1h: Compensate Impacts to Desert Tortoise and Mohave Ground Squirrel BIO-MM-1i: Integrated Pest Management and Adaptive Management Plan for Agricultural Treatment Units BIO-MM-1j: Reduction of Night Light Spillover BIO-MM-1k: Other Measures Required to Minimize, Reduce, or Mitigate Impacts to Mohave Ground Squirrel BIO-MM-1l: Other Measures Required to Minimize, Reduce, or Mitigate Impacts to Burrowing Owl BIO-MM-1m: Minimize Impacts to American Badger Natal Dens and Desert Kit Fox Occupied Dens BIO-MM-1n: Avoid Impacts to Nesting Loggerhead Shrike, Northern Harrier, and Other Migratory Birds BIO-MM-1o: Implement Measures Required to Minimize, Reduce, or Mitigate Impacts to Special-Status Plants BIO-MM-4, Implement West Mojave Plan Measures to Impacts to DWMAs on BLM Land	

Impact	Applicable Alternative	Significance before Mitigation	Mitigation Measures	Significance after Mitigation
LU-2: Conversion of Agricultural Land to Non-Agricultural Use, Including FMMP-Designated and Williamson Act Lands	No Project	Less than Significant	None Required	–
	All Action Alternatives	Potentially Significant	LU-MM-2, Acquire Agricultural Conservation Easements for Important Farmland; WTR-MM-2, see above	Less than Significant
LU-3: Population and Housing Changes due to Remedial Activities	All Alternatives	Less than Significant	None Required	–

The project could disrupt existing residential and commercial activities through groundwater drawdown and/or temporary water quality degradation in certain areas due to remediation byproducts. This impact could be mitigated through provision of alternative water supplies and/or centralized treatment systems for restoring water quality, to avoid disruption of residential and commercial land uses, as described in Section 3.1, *Water Resources and Water Quality*.

The project would not disrupt recreational opportunities or induce demand for new recreational facilities.

Most of the activities included in the project would be consistent with land use designations and zoning in the San Bernardino General Plan. However, the above-ground ex-situ treatment plants included in Alternative 4C-3 and Alternative 4C-5 would be inconsistent with current land use designations and zoning. PG&E would be required to obtain a General Plan amendment and complete associated permitting with San Bernardino County in order to implement the above-ground treatment plans if one of these alternatives is advanced. With compliance with the County land use planning process and permitting, the project's inconsistency with land use designations and zoning would be remedied and the associated environmental impact would be less than significant.

The project would have impacts on protected biological resources on federal lands under the jurisdiction of the West Mojave Plan; with mitigation identified in Section 3.7, *Biological Resources*, the project would be consistent with the West Mojave Plan.

The project would increase agricultural activities through the use of agricultural treatment as part of the remedial actions. Hinkley Valley has historically been used for agriculture. Although the project increases a use that is compatible with the land uses in Hinkley, the project could disrupt or interfere with other existing agricultural activities through either groundwater drawdown (affecting agricultural water supplies), acquisition of water rights by PG&E in order to comply with the Mojave River Basin Adjudication, and/or water quality degradation. Impacts on existing agricultural activities could be mitigated through the provision of alternative water supplies to affected agricultural operations and/or treatment systems for restoring water quality as described in Section 3.1, *Water Resources and Water Quality*. In addition, in order to avoid the potential for long-term conversion of agricultural land to other uses over the lifetime of the project due to use of water rights, mitigation is required to place conservation easements on agricultural land as necessary.

The project would not induce substantial population growth in the project area, and would not displace substantial numbers of existing housing or people, or necessitate the construction of replacement housing elsewhere.

3.2.2 Regulatory Setting

3.2.2.1 Federal Regulations

Farmland Protection Policy Act

A National Agricultural Land Study conducted in the early 1980s found that millions of acres of farmland were being converted to other uses each year in the United States. As a result, Congress passed the Agriculture and Food Act of 1981, which contained the Farmland Protection Policy Act (FPPA). The purpose of the FPPA is to minimize the extent to which federal programs contribute to the irreversible conversion of farmland to non-agricultural uses, and to ensure that federal programs are administered in a manner that will be compatible with state, local, federal, and private programs and policies to protect farmland.

Because the groundwater remediation is not a federal program and there are no farmlands under jurisdiction of the act on the Bureau of Land Management (BLM) land included in the project area, the FPPA does not apply to the proposed project.

Bureau of Land Management California Desert Conservation Area Plan and the West Mojave Plan

There are approximately 1,100 acres of federal land under the jurisdiction of the BLM in OU3 and 2,000 acres overall in the project study area (see Figure 3.2-1).

Subsequent to the Federal Land Policy and Management Act of 1976, the California Desert Conservation Area (CDCA) Plan was developed by BLM in response to direction by Congress:

The use of all California desert resources can and should be provided for in a multiple use and sustained yield management plan to conserve these resources for future generations, and to provide present and future use and enjoyment, particularly outdoor recreation uses, including the use, where appropriate, of off-road recreational vehicles.

The CDCA Plan manages 25 million acres of land in southern California. About 10 million acres are administered by the BLM. CDCA Plan areas are managed under the California Desert Protection Act of 1994, the 1964 Wilderness Act, and BLM's national wilderness management policy, all of which mandate a high degree of protection and restrict access and use. The CDCA Plan establishes goals for protection and use of the desert and designates land with multiple use classes. The plan sets forth goals, specific actions, and management needs for each resource in the desert.

All of the public lands in the CDCA Plan under BLM management have been designated geographically into four multiple-use classes. The classification was based on the sensitivity of resources and the types of uses for each geographic area. Each multiple-use class describes a different type and level or degree of use which is permitted within that particular geographic area. Within the project area, the BLM lands are one of the two multiple use class-designations:

- **Multiple-Use Class L (Limited Use):** This Class protects sensitive, natural, scenic, ecological, and cultural resource values. Public lands designated as Class L are managed to provide for generally

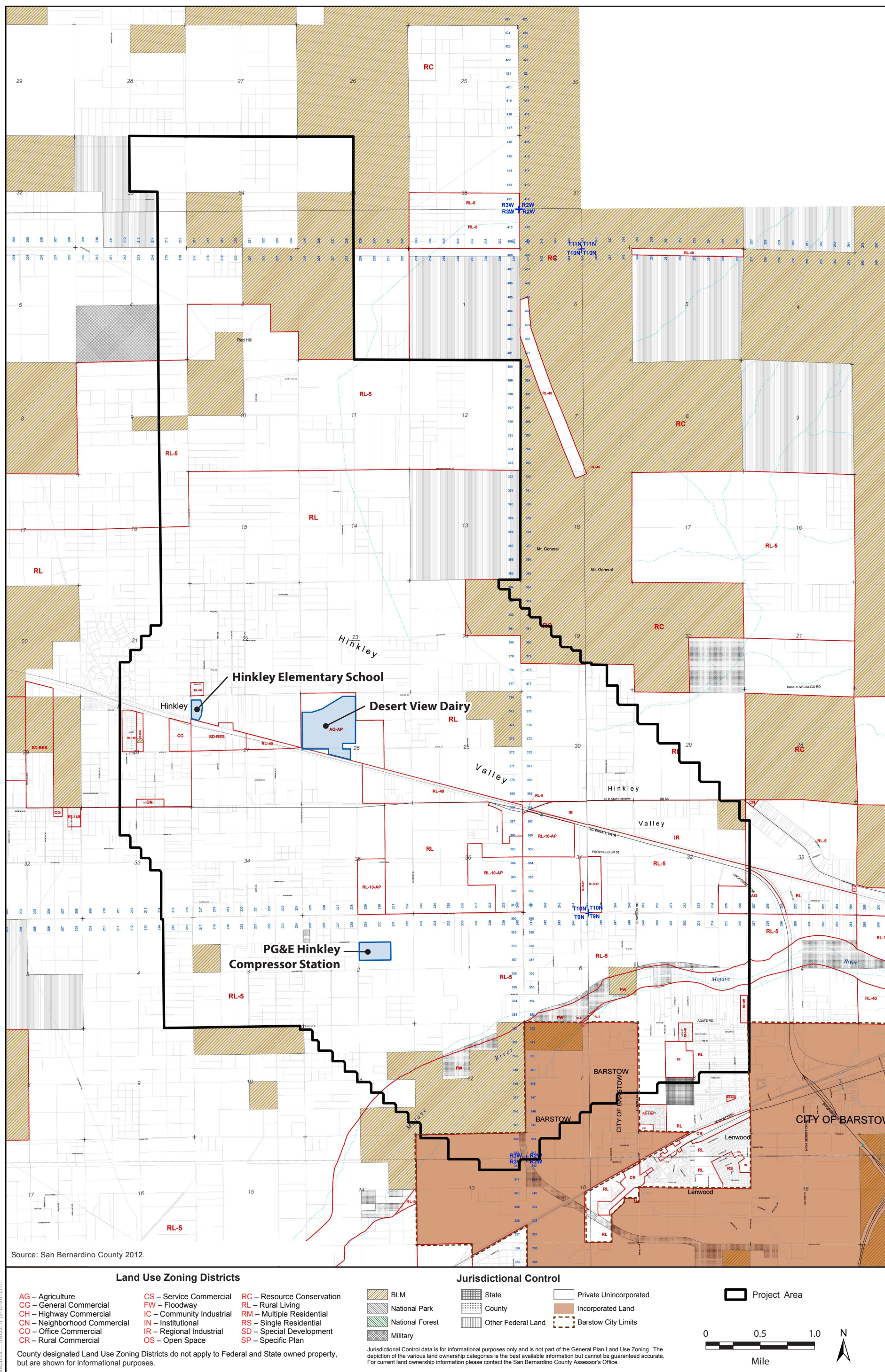


Figure 3.2-1

San Bernardino County General Plan Land Use Zoning Districts

lower-intensity, carefully controlled multiple use of resources, while ensuring that sensitive values are not significantly diminished.

- **Multiple-Use Class M (Moderate Use):** This class is based upon a controlled balance between higher intensity use and protection of public lands. This class provides for a wide variety of present and future uses such as mining, livestock grazing, recreation, energy, and utility development. Class M management is also designed to conserve desert resources and to mitigate damage to those resources which permitted uses may cause.

The CDCA Plan has been amended since its adoption in 1980, including the 9,357,929-acre West Mojave Plan, which encompasses most of California's western Mojave Desert, including the project area. The West Mojave Plan is a federal land use plan that presents a comprehensive strategy to conserve and protect the desert tortoise, the Mohave ground squirrel, and nearly 100 other sensitive plants and animals and the natural communities of which they are a part (Bureau of Land Management 2005). The West Mojave Plan originally started as a broader effort to establish a Habitat Conservation Plan that would cover activities on both private and public land throughout the western Mojave Desert. However, it was only adopted as a federal land management plan for federal lands under BLM jurisdiction.

The West Mojave Plan applies to limited areas of federal land, under the jurisdiction of the BLM, within the project area. The requirements of the West Mojave Plan, relevant to protection of biological resources, are discussed in additional detail in Section 3.7, *Biological Resources*.

3.2.2.2 State Regulations

Farmland Mapping and Monitoring Program

The purpose of the California Department of Conservation's Farmland Mapping and Monitoring Program (FMMP) is to provide consistent and impartial data to decision makers for use in assessing the status, reviewing trends, and planning for the future of agricultural land resources in California. The program, however, is not responsible for regulating farmland. FMMP rates agricultural land according to soil quality and irrigation status and updates maps every 2 years. The FMMP designated farmlands in the project area are described in Section 3.2.3.1 under *Project Area Zoning Designations and Allowable Uses*. The FMMP is not a regulatory program; it only provides information used for making decisions concerning agricultural land.

Prime Farmland

Prime farmland is land that has the best combination of physical and chemical characteristics for producing food, feed, fiber, forage, oilseed, and other agricultural crops with minimum inputs of fuel, fertilizer, pesticides, and labor and without intolerable soil erosion.

Unique Farmland

Unique farmland is land other than prime farmland that is used for the production of specific high-value food and fiber crops such as citrus, tree nuts, olives, cranberries, fruits, and vegetables.

Farmland of Statewide Importance

Farmland of statewide importance is land of statewide or local importance identified by state or local agencies for agricultural use, but not of national significance.

Farmland of Local Importance

Farmland of local importance is land identified as important to the local agricultural economy by each county's board of supervisors and a local advisory committee.

Grazing Land

Grazing land is land on which the existing vegetation is suited to the grazing of livestock. This category was developed in cooperation with the California Cattlemen's Association, the University of California Cooperative Extension, and other groups interested in the extent of grazing activities.

Urban and Built-Up Land

Urban and built-up land is land occupied by structures with a building density of at least 1 unit to 1.5 acres, or approximately 6 structures to a 10-acre parcel. This land is used for residential, industrial, commercial, construction, institutional, public administration, cemeteries, airports, golf courses, sanitary landfills, sewage treatment, water control structures, railroad and other transportation yards, and other developed purposes.

Other Land

Other land is land that is not included in any other mapping category. Common examples include low density rural developments; brush, timber, wetland, and riparian areas not suitable for livestock grazing; confined livestock, poultry or aquaculture facilities; strip mines, borrow pits; and water bodies smaller than forty acres. Vacant and nonagricultural land surrounded on all sides by urban development and greater than 40 acres is mapped as other land.

Williamson Act

The California Land Conservation Act of 1965, commonly referred to as the Williamson Act, enables local governments to enter into contracts with private landowners for the purpose of restricting specific parcels of land to agricultural or related open-space use. In return, landowners receive property tax assessments that are much lower than normal because they are based on farming and open-space uses as opposed to full market value. Local governments receive an annual subvention of forgone property tax revenues from the state via the Open Space Subvention Act of 1971.

The Williamson Act was amended in August 1998 to establish Farmland Security Zones. Under this Farm Bureau-sponsored Super Williamson Act, landowners can receive an additional 35% reduction in the land's value for property tax purposes, only if farmers and ranchers keep their property in the conservation program for at least 20 years.

Of California's 58 counties, 52 have adopted the Williamson Act program. San Bernardino County is included in those that have adopted the act, and is part of the South Coast and Desert Region of the program. Williamson Act lands present in the project area are discussed in Table 3.2-2 in Section 3.2.3.2, *Agriculture*.

3.2.2.3 San Bernardino County General Plan

The project area is located in the Desert Region of San Bernardino County (County), which is one of three distinct regions discussed in the County's General Plan (San Bernardino County 2007b). Land use designations and zoning in the project area per the General Plan are discussed in Section 3.2.3.1, *Land Use*.

General Plan Policies

The County's General Plan has a set of countywide and region-specific goals and policies. Key goals and policies are listed below. In general, the county's policies apply to all land within the county's jurisdiction (i.e., lands outside city limits that are not state or federal lands). However, there is a preemption of local land use power for certain PG&E utility facilities.

Public Utilities Code Section 1007.5 establishes California Public Utility Commission (CPUC) authority over local jurisdictions for certain activities. The CPUC's General Order 131-D, Section XIV, "clarifies that local jurisdictions acting pursuant to local authority are preempted from regulating electric power line projects, distribution lines, substations, or electric facilities constructed by public utilities subject to the Commission's jurisdiction." Therefore, activities associated with the Compressor Station and associated gas pipelines are under CPUC authorization and exempt from local regulation. However, remedial actions associated with the chromium cleanup are not exempt, and the Water Board's regulatory authority over the cleanup does not automatically exempt the cleanup activities from exemption from local land use authority. As a state agency, the Water Board itself is not subject to local land use authority; however provided exercise of local land use regulations does not impede or hinder state exercise of authority over the remediation, remedial actions can be subject to local land use requirements.

Key Relevant Water Policies

- **GOAL CI 11:** The County will coordinate and cooperate with governmental agencies at all levels to ensure safe, reliable, and high quality water supply for all residents and ensure prevention of surface and ground water pollution.
 - **Policy CI 11.1:** Apply federal and state water quality standards for surface and groundwater and wastewater discharge requirements in the review of development proposals that relate to type, location and size of the proposed project to safeguard public health.
 - **Policy CI 11.2:** Support the safe management of hazardous materials to avoid the pollution of both surface and groundwater. Prohibit hazardous waste disposal facilities within any area known to be or suspected of supplying principal recharge to a regional aquifer.
 - **Policy CI 11.3:** Support the development of groundwater quality management plans with emphasis on protection of the quality of underground waters from non-point pollution sources.
 - **Policy CI 11.6:** Cooperate with state, regional, and responsible authorities to expand water sampling programs to determine ambient groundwater quality conditions affecting public, agricultural, and private wells. Identify the sources, extent, and types of organic and inorganic groundwater contaminants, and evaluate their impacts on groundwater resources.
- **Program 1:** Establish setbacks from ephemeral and perennial streams regulating the location of septic systems, habitable structures, and other impervious or potentially polluting uses.
- **Program 2:** Work with special districts and other water agencies responsible for delivery of water resources to develop a water resource information system regarding aquifer degradation. Monitor development and consumption trends to assess aquifer stability.
- **Policy CI 11.13:** Prevent surface and groundwater pollution and continue the cleanup of contaminated waters and watersheds.

Key Land Use Policies

- **Goal LU 1:** The County will have a compatible and harmonious arrangement of land uses by providing a type and mix of functionally well-integrated land uses that are fiscally viable and meet general social and economic needs of the residents.
 - **Policy LU 1.1:** Develop a well-integrated mix of residential, commercial, industrial, and public uses that meet the social and economic needs of the residents in the three geographic regions of the County: Valley, Mountain, and Desert.
 - **Policy LU 1.4:** Encourage preservation of the unique aspects of the rural communities and their rural character.
- **Goal LU 8:** Beneficial facilities, such as schools, parks, medical facilities, sheriff and fire stations, libraries, and other public uses, as well as potentially hazardous sites, will be equitably distributed throughout the County.
 - **Policy LU 8.1:** Potentially polluting, hazardous, and other health risk facilities should be located no closer than one-quarter mile to a sensitive receptor and vice versa.
- **Goal LU-11:** Promote mutually beneficial uses of land to address regional problems through coordination and cooperation among the County, the incorporated cities, Southern California Association of Governments (SCAG), San Bernardino Associated Governments (SANBAG), the various special districts and other local, state, and federal agencies.
 - **Policy LU 11.3:** Work with the Bureau of Land Management (BLM), U.S. Forest Service, the U.S. Park Service, and other public agencies to eliminate conflicts between public and private lands, and to designate and protect wilderness and restricted natural areas.

Key Agriculture Policies

- **GOAL D/CO 4:** Protect agricultural lands from the effects of nonagricultural development.
 - **Policy D/CO 4.2:** The conversion of agricultural land to non-agricultural uses shall be discouraged unless the proposed use can be demonstrated to be preferable in terms of economic development, and resource availability and resource conservation.
- **GOAL ED 6:** The County will promote agriculture as an economic activity in areas where production is viable.
 - **Policy ED 6.1:** Retain areas of the County that have long-term agricultural potential to contribute value to the overall economy.

Key Population and Housing Policies

- **GOAL H 3:** Because property maintenance is desirable and can be promoted through information, training, and health and safety code enforcement programs, the following action programs will be taken.
 - **Policy H 3.10:** Contract with for-profit and non-profit developers and assist them in acquiring and rehabilitating vacant U.S. Housing and Urban Development (HUD) and Veterans Administration (VA) repossessed properties. These houses will be resold at affordable prices to first-time and other homebuyer families.

Zoning

The San Bernardino County General Plan also includes land use designations, zoning, and development codes that establish the allowable uses within different zoning districts and the development requirements for different allowable uses. The two key zoning districts that are relevant to the project area are summarized below

Agriculture (AG)—provides sites for commercial agricultural operations, agriculture support services, rural residential uses, and other compatible uses. Open space and recreational uses may occur on non-farmed lands within this AG land use zoning district. Areas designated as Agriculture with an Agricultural Preserve overlay (AG-AP) are designated for agriculture or conservation, including Williamson Act tracts. Industrial allowable uses include composting, recycling, industrial use and hazardous waste facilities. Hazardous waste facility uses are allowed with a special use permit.

Rural Living (RL)—allows for low-density, rural residences where agriculture and other compatible uses, such as hunting clubs, dude ranches, RV parks, etc., may be present. Other land uses allowed include mining and quarrying, energy production operations, and open space. These areas generally have partial public services and limited public improvements. The only allowable industrial uses are composting and recycling. Utility facilities are allowed with a conditional use permit. Hazardous waste facility uses are not allowed in this designation; a General Plan Amendment would be required to allow such use.

Special Development (SD)—allows for a combination of residential, commercial, industrial, agricultural, open space, and recreational uses, as well as other compatible uses. An “RES” suffix indicates that the focus of the land use is on residential development.

Regional Industrial (IR)—establishes areas suitable for major industrial centers or a single large industrial plant having 200,000 or more square feet of floor area, or more than 500 employees on any shift; provides sites for industrial uses that have severe potential for negative impacts on any uses that would locate relatively close by; and identifies areas intended eventually to be utilized for industrial purposes to support the public need for manufacturing uses and employment opportunities.

Neighborhood Commercial (CN)—provides suitable locations for retail and service commercial establishments intended to meet daily convenience needs of a residential area. Residential uses, except social care facilities, are not permitted in commercial districts.

General Commercial (CG)—provides appropriately located areas for stores, offices, service establishments, and amusements offering a wide range of commodities and services scaled to meet neighborhood and community needs. Residential uses, except social care facilities, are not permitted in commercial districts

Single Residential (RS)—provides areas for single-family homes on individual lots and for accessory and non-residential uses that complement single residential neighborhoods. Incompatible non-residential uses in single-family residential neighborhoods are discouraged. The Single Residential (RS) Land Use Zoning District is divided into sub districts based on minimum lot size. These sub districts are as follows: RS-1, which has a minimum lot size of 1 acre; RS-20M, which has a minimum lot size of 20,000 square feet, RS-14 M, which has a minimum lot size of 14,000 square feet; and RS 10, which has a minimum lot size of 10,000 square feet

3.2.3 Environmental Setting

This section discusses the existing physical conditions in the project area related to land use, agriculture, and population and housing.

3.2.3.1 Land Use

Existing Land Uses

The project area is a predominantly rural community, consisting of rural residences, farmland, ranchland, federal land, roadways (including SR 58), a railroad, utility corridor for a major natural gas pipeline, and limited businesses.

Within the project study area, the main concentration of residences are in the west portion in Hinkley, an unincorporated community, and in the southeast just west of the City of Barstow (with a small portion within city limits) (Figure 3.2-1). Within the project study area, single-family and rural residences are also dispersed along roadways throughout. Agricultural areas are predominantly located in the southeast part of the study area near the Mojave River, with several scattered areas to the north (including existing PG&E agricultural treatment units) and to the west. Hinkley also has a mix of commercial, industrial, and institutional uses, including a grocery store, a post office, a bar, a mobile home park, a salvage yard, churches, the Hinkley Elementary school (west of Hinkley Road), a senior center, a San Bernardino County fire station, and a desert research facility, scattered throughout the project area. The project area also partially overlaps with federal lands under BLM jurisdiction that are designated for conservation in the West Mojave Plan.

The project area is used largely for agricultural purposes, with rural residences scattered throughout the area, as described above. The primary land uses in the project area are associated with operation of the Hinkley Compressor Station, agricultural treatment activities at the Desert View Dairy (both owned by PG&E), and other privately owned agricultural properties. The Compressor Station is located in the southern portion of the project area, and the Desert View Dairy and the other existing agricultural treatment units are located in the central portion of the project area.

Other land uses include ongoing in-situ remediation in the approximate area bound by SR 58 to the north, the Compressor Station to the south, Mountain View Road to the west, and Summerset Road to the east. In-situ remediation land use includes, monitoring wells, above-ground compounds (for carbon amendment storage and supplies), and underground vaults and piping. Associated sampling activities are also an active land use, located throughout the project area (see Figure 3.2-1 and figures and description of existing remedial activities in Chapter 2, *Project Description*).

Recreational opportunities in the county usually occur on open space lands and consist primarily of water sports, hiking, bicycling, equestrian activities, off-road vehicle recreation, fishing, camping, and hunting (San Bernardino County 2007a). The project area has lands on which recreation is allowed, but there are no formal recreation facilities. The closest municipal parks are Jasper Park and Lenwood Park, located approximately 2 miles southeast of the project area in the city of Barstow. However, there are extensive federal lands under BLM jurisdiction located near Hinkley that can be used for recreation.

Project Area Zoning Designations and Allowable Uses

According to the Land Use Element of the San Bernardino County General Plan and as shown in Figure 3.2-1, a majority of the project area is zoned for Rural Living (including designations RL, RL-5, RL-40, and RL-10-AP), with an area north of Santa Fe Avenue designated for Agriculture with an Agricultural Preserve overlay (AG-AP). There are also limited areas with other zoning designations interspersed in the project area, including: a small area in the west designated as Special Development (SD-RES); a small area on the eastern boundary, just north of SR 58 designated as Regional Industrial (IR); two small areas located at the western boundary in Hinkley, just south of the rail line, one designated as General Commercial (CG) and one as Neighborhood Commercial (CN), and small areas in the southeastern corner of the project area, just south of the Mojave River, designated as Single Residential (RS) (San Bernardino County 2007b). Allowed land uses in each of these zoning districts were described above.

3.2.3.2 Agriculture

Agriculture has historically been an important part of San Bernardino County's economy. According to its 2007 General Plan, the County consistently ranks in the top 15 agricultural-producing counties in the state. However, agricultural production value and use within the County has declined as a result of the effects of urban expansion and economic considerations. Most agricultural development is located in areas with relatively level terrain and stable soil conditions with access to water supplies. For similar reasons, these types of areas are also the most desirable (and economically valuable) for urban development. Within more urbanized parts of San Bernardino County, such as San Bernardino Valley and Victor Valley, urban conversion of agricultural lands has occurred. In addition, a number of agricultural areas within the County have been converted to other uses because of declining viability, decreasing air quality, and increasing water costs. As farmers relocate, agricultural uses often change to more specialized and high unit value crops that can be grown in less desirable (from the standpoint of urban development) terrain. The net result is that the amount of vacant land that can be converted to most agricultural uses is steadily diminishing. (San Bernardino County 2007b).

As shown in Figure 3.2-2, the majority of the project area is designated as grazing land. FMMP-designated prime farmlands and farmlands of statewide importance include agricultural treatment units located north of SR 58 and agricultural lands east of the Compressor Station. There are small portions designated as unique farmlands adjacent to Mountain View Road and Sonoma Road, associated with the northern most agricultural treatment unit (Gorman), and in the southeast portion of the project area. Williamson Act lands are associated with agricultural treatment units and other agricultural areas directly north of SR 58 and in the southeastern portion of the project area, respectively (Figure 3.2-3). Table 3.2-2 shows the acreage of FMMP-designated farmlands and Williamson Act lands in San Bernardino County and the project area. Overall, the project area comprises approximately 6% of the important farmland in the County and 2% of all types of farmland (including grazing).

Table 3.2-2. FMMP-Designated Farmlands and Williamson Act Lands

Farmland Designation	San Bernardino County (acres)	Project Area (acres)
Prime	14,089	1,232
Statewide importance	6,747	124
Local importance	1,160	--
Unique	2,661	116
Subtotal Important Farmland	24,657	1,472
Grazing	902,588	17,475
Total Farmland	927,245	18,947
Williamson Act	4,818	349
Source: California Department of Conservation 2010		

3.2.3.3 Population and Housing

Hinkley is the primary population and residential center in the project area. U.S. Census data is typically used to identify population and housing characteristics of a geographic region or area. No census data are available for the Hinkley community, but it is part of the zip code tabulation area 92347, which includes the area northwest of the city of Barstow of which Hinkley is the only community located in this area. The zip code tabulation area had a total population of 1,915 and a total of 802 housing units of which 670 were identified as occupied units in the year 2000 (U.S. Census Bureau 2000). Much of the project area contains scattered rural residences, some of which are associated with adjacent agricultural and ranch land.

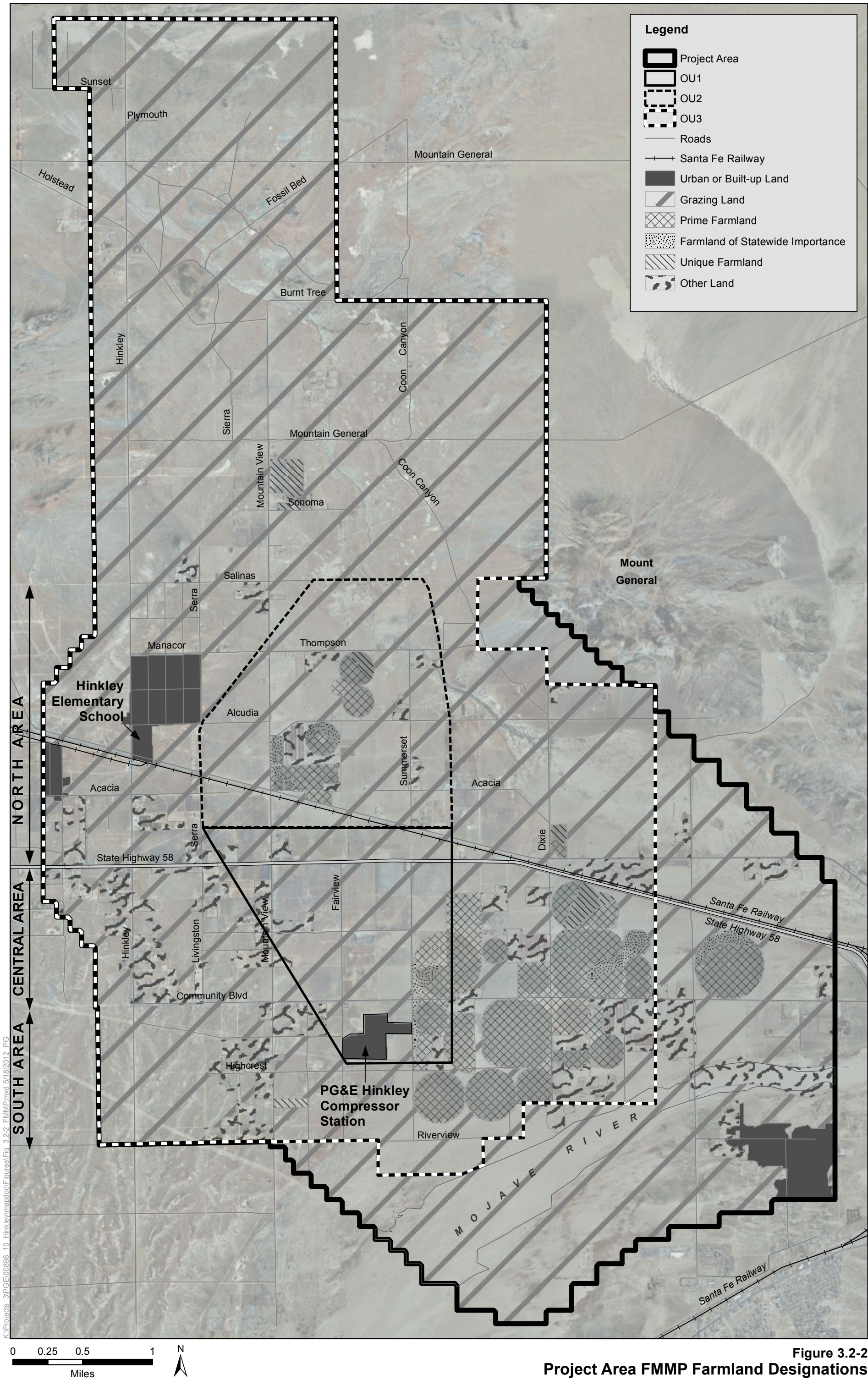
The historic growth and trends of Hinkley's population and housing are described in Section 3.8, *Cultural Resources* (refer to 3.8.3.3, *Historic Setting*).

3.2.4 Significance Criteria

The State CEQA Guidelines, Appendix G (14 CCR 15000 et seq.), have identified significance criteria to be considered when determining whether a project could have significant effects on land use, agriculture, and population and housing.

For this analysis, an impact pertaining to land use was considered significant under CEQA if it would:

- Physically divide an established community.
- Be fundamentally incompatible to the point that adjacent land uses are substantially disrupted.
- Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project adopted for the purpose of avoiding or mitigating an environmental effect.
- Conflict with applicable habitat conservation plans or natural community conservation plans.
- Increase the use of parks or recreational facilities so that substantial physical deterioration of the facility would occur or be accelerated.
- Result in an adverse physical effect on the environment from construction or expansion of recreational facilities.



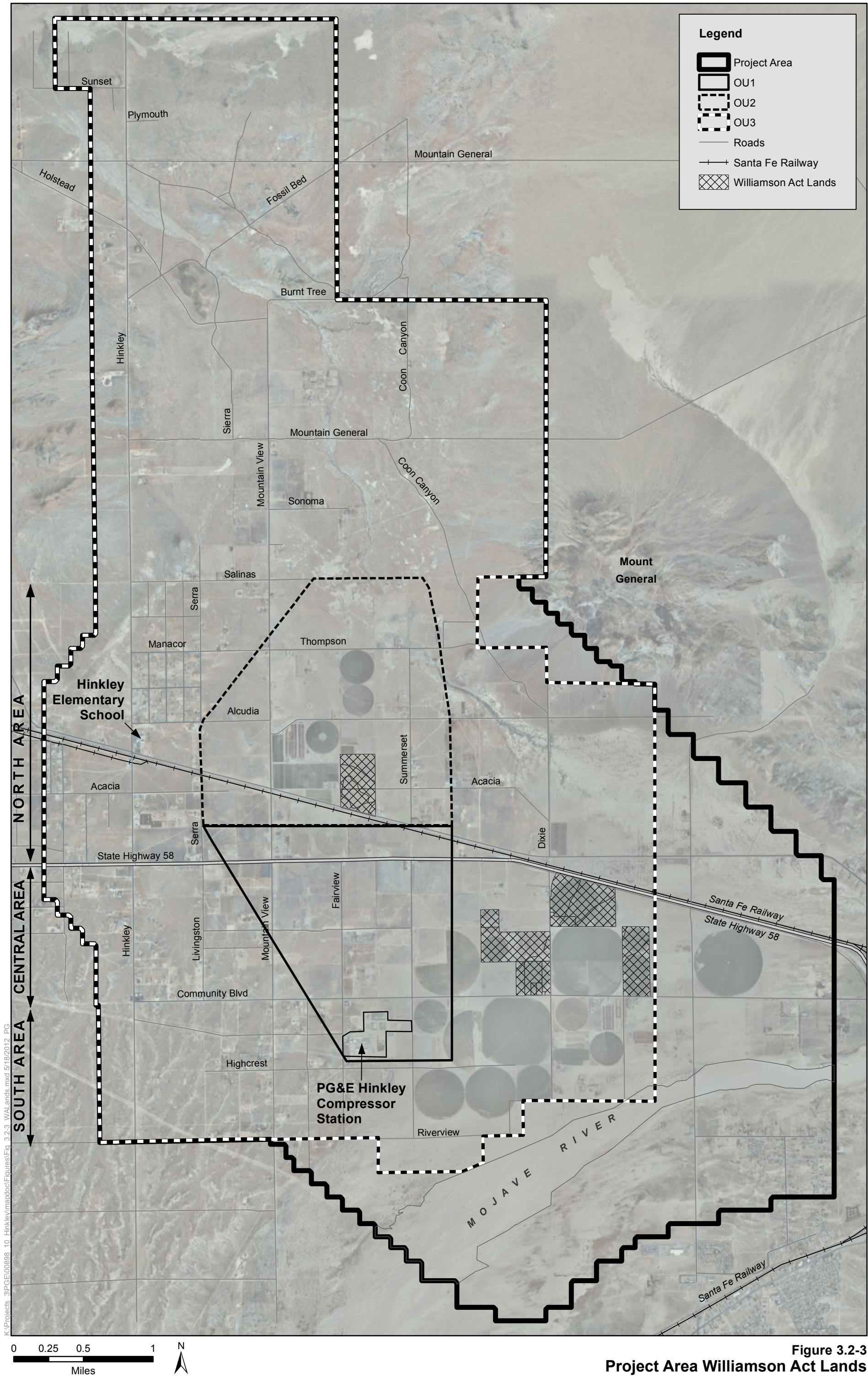


Figure 3.2-3
Project Area Williamson Act Lands

Sources: California Dept. of Conservation, Farmland Mapping & Monitoring Program, 2010.

There are no recreation facilities in the project area, and none of the project alternatives include the construction, expansion, or elimination of recreation facilities. The project would not impede access to nearby BLM lands for recreation. In addition, as discussed in Section 3.2.6.3, the project would not result in a substantial increase in population, which would create demand for recreational facilities. Therefore, potential impacts on recreation are not analyzed further.

For this analysis, an impact pertaining to agriculture was considered significant under CEQA if it would:

- Convert prime farmland, unique farmland, or farmland of statewide importance.
- Conflict with existing zoning for agricultural use, or a Williamson Act contract.
- Involve other changes in the existing environment that, because of their location or nature, could result in conversion of farmland to non-agricultural use.

For this analysis, an impact pertaining to population and housing was considered significant under CEQA if it would:

- Induce substantial population growth in the project area.
- Displace substantial numbers of existing housing or people, or necessitate the construction of replacement housing elsewhere.

3.2.5 Methodology

Impacts on land use were evaluated based on a comparison of existing land uses to potential changes in land use that could result with project implementation. Consistency with zoning and land use plans and policies was assessed by reviewing the applicable information included in Section 3.2.2, *Regulatory Setting*. Impacts to agricultural resources were evaluated based on review of project maps and remedial activities to determine whether project implementation would result in the irreversible conversion of FMMP-designated farmlands and/or Williamson Act lands. Population and housing impacts were evaluated by comparing the relative changes between existing conditions and those that would occur with project implementation.

3.2.6 Impacts

This section provides the impact analysis and mitigation measures related to land use, agriculture, and population and housing. The impacts are organized by topic, which correspond with the significance criteria described in Section 3.2.4, *Significance Criteria*.

3.2.6.1 Land Use

Impact LU-1a: Physically Divide a Community (Less than Significant, All Alternatives)

All alternatives would include construction and operation of wells and piping associated with in-situ remediation and plume containment and new access roadways, none of which would physically divide the existing community. All action alternatives would also include agricultural treatment units, and Alternatives 4C-3 and 4C-5 would also include above-ground treatment facilities near existing above-ground uses (Compressor Station and Desert View Dairy). Agriculture has a long history in Hinkley; as the dominant physical change associated with remediation, its expansion as part of remedial activities would not introduce a land use element that would physically separate

the Hinkley community. For all alternatives, access between portions of Hinkley would remain unhindered, and no treatment facilities would physically divide the community. Thus, this impact would be less than significant for all alternatives.

Impact LU-1b: Disruption of Surrounding Land Uses during Construction (Less than Significant, All Alternatives)

Construction of new wells and all associated infrastructure (e.g., well pads, extraction pumps, underground vaults, transmission pipelines, in-situ treatment equipment such as pumps and dosing equipment, fencing to secure equipment areas), new access roads, above-ground treatment facilities, and new agricultural treatment units would require land clearance, trenching, paving, concrete laying, and crop planting (refer to Section 2.9, *Construction, Operation and Maintenance*, in Chapter 2). These activities would increase the temporary presence of construction workers, construction staging areas, and the use of large construction vehicles and equipment that could temporarily conflict with the existing and adjacent primarily rural/agricultural uses.

In general, construction-related impacts would be similar under all alternatives, but impacts of the action alternatives would have a greater intensity and scale than the No Project Alternative in comparison to existing conditions. The majority of construction impacts would occur during the initial buildout of wells, agricultural land treatment units, and above-ground treatment facilities, and could result in short-term inconvenience, but would not substantially disrupt surrounding land uses. Alternative 4C-4 involves the most extensive amount of agricultural treatment and associated infrastructure and thus would involve the largest amount of ground disturbance. Alternatives 4C-3 and 4C-5 include above-ground treatment facilities, which would have longer construction periods than individual wells, roads, or pipelines. Continued construction of these components (in subsequent phases) would also result in the same impacts, but the amount of land that could be temporarily affected would be incremental in comparison to the initial buildout.

Further, upon completion of construction, all construction equipment would be removed, and construction staging areas and other areas that are temporarily disturbed would be restored to pre-project conditions. Construction related impacts of the project are thus considered less than significant for all alternatives.

Impact LU-1c: Incompatibility with or Substantial Disruption of Surrounding Land Uses during Operations (Less than Significant, No Project Alternative; Less than Significant with Mitigation, All Action Alternatives)

No Project Alternative

Under the No Project Alternative, when compared to existing conditions, no incompatibility with surrounding land uses is expected because this alternative would expand in-situ wells and piping and would not result in new agricultural treatment units or above-ground treatment facilities. The No Project Alternative represents only minor changes of land use from existing conditions and therefore would be considered compatible.

Action Alternatives

Under all action alternatives, long-term land use changes would be associated with agricultural treatment units, above-ground treatment units, access roads, and wells as described below.

The impact of new proposed uses on visual aesthetics and visual character are discussed separately in Section 3.11, *Aesthetics*.

Land Use Compatibility

Agricultural treatment units are the largest source of land use change associated with the remediation. As described in Chapter 2, *Project Description*, in order to address the expanded plume area, there could be anywhere from 264 acres (Alternative 4B) to 1,212 acres (Alternative 4C-4) of new agricultural treatment units, depending on the alternative. While the addition of these treatment units would be a substantial expansion of agricultural activity in the area, the history of agricultural activity in Hinkley Valley dates to the 1930s and includes former agricultural activity in some of the areas currently used for agricultural treatment units, and in other portions of the project area. Agricultural use is a normal and expected land use within the Hinkley Valley. For all alternatives, the expansion of agriculture would not introduce new land uses that would be incompatible with the rural residences, existing agriculture, and other land uses present in the study area.

Above-ground treatment facilities, which are included only in Alternatives 4C-3 and 4C-5, would be quasi-industrial facilities located on PG&E-owned land within the chromium plume. The footprint of these facilities will be relatively small (<1 acre each) compared to the acreage of the agricultural treatment units and the expanse of the chromium plume. There are only limited industrial uses in the Hinkley Valley (including the Compressor Station and limited uses along Santa Fe Avenue west of Lenwood), so the addition of above-ground facilities would nominally be out of character with the predominately rural residential and agricultural use that dominates the Hinkley Valley. However, these facilities would be located adjacent to existing structures. In Alternative 4C-3, the southern above-ground treatment plant would be located next to the Compressor Station and thus would be consistent with the existing industrial use; and the northern plant would be located adjacent to the Desert View Dairy, which already has several buildings associated with it. In Alternative 4C-5, the above-ground treatment plant would be located next to the Compressor Station. Given their limited extent, the self-contained nature of activities, and their proposed locations, these facilities would be compatible adjacent land uses.

Pipelines would be buried and would not have a surficial presence. Wells would occupy small areas and infrequent access for sampling would not be incompatible with adjacent land uses. Access roads would be constructed to reach remedial activities, but would be similar to existing roads in the area and would also not be incompatible adjacent land uses.

In summary, the proposed uses would be compatible with surrounding land uses, and therefore the impact would be less than significant.

Operational Impacts on Neighboring Uses

Under all alternatives, operations and maintenance activities for wells includes daily onsite system inspections, pumping and carbon injection, and other daily and periodic activities described in Section 2.9, *Construction, Operation, and Maintenance*, in Chapter 2. All action alternatives include additional irrigation and agricultural tilling for agricultural treatment with the most occurring in Alternative 4C-4. Additionally, Alternatives 4C-3 and 4C-5 include operation of above-ground treatment facilities. These activities would result in a small increase in local traffic during most of the year from deliveries, vehicle, and equipment access; but the increase would not be so substantial that it would disrupt neighboring uses. During and after harvesting of fodder crops in the fall, traffic would increase significantly, but it would be short-term and therefore not considered to substantially disrupt adjacent land uses.

However, there are two water resource impacts of remedial operations that could substantially disrupt adjacent land uses: groundwater drawdown, and water quality degradation due to remedial byproducts. As discussed in Section 3.1, *Water Resources and Water Quality*, all action alternatives would result in groundwater drawdown due to agricultural treatment pumping that could disrupt domestic, water supply, and agricultural wells. The number of affected wells varies with each alternative according to the level of agricultural treatment and pumping proposed, with Alternative 4B having the least effect and Alternative 4C-4 having the greatest effect. Refer to Section 3.1 for the details.

Without mitigation, the loss of water supply could substantially disrupt adjacent residential, commercial, or agricultural land uses; such a disruption is considered a significant impact. Also, as described in Section 3.1, agricultural treatment and in-situ treatment could result in generation of remedial byproducts that could affect the water quality for certain domestic, commercial, or agricultural wells. If this effect were to occur, adjacent land uses could be substantially disrupted. Implementation of **Mitigation Measure WTR-MM-2**, which requires the provision of alternative water supplies and/or treatment systems for restoring water quality so that adjacent land uses are not substantially disrupted, would reduce this impact to a less-than-significant level.

Impact LU-1d: Potential Inconsistency with San Bernardino County Land Use/Zoning Designations and General Plan Policies (Less than Significant, All Alternatives)

As described in Section 3.2.2.3, *San Bernardino County General Plan*, some of PG&E's electric facilities (Compressor Station and associated gas pipeline) are not subject to the County's general plan policies but remedial activities are subject to local land use regulation. As described below, most activities would be consistent; and the potential inconsistency associated with the proposed above-ground treatment facilities (Alternatives 4C-3 and 4C-5 only) is considered a less than significant impact.

Land Use/Zoning Designations

The majority of the project area where remedial action would occur (OU1, OU2, and OU3) is within San Bernardino County's land use zoning district for Rural Living (RL) which allows for low-density, rural residences and agricultural uses. There is also a designated Agricultural (AG) zoning district where the existing Desert View Dairy is located (Figure 3.2-1). The Agricultural (AG) zoning allows sites for commercial agricultural operations, agriculture support services, rural residential uses, and other compatible uses. Areas designated as Agricultural (AG-AP) are designated for agriculture or conservation, including Williamson Act tracts. All remedial activity is expected to be located within the Rural Living (RL) and Agricultural (AG) zoning districts, although it is possible that wells could be located on several outlying areas designated for other uses (see discussion below).

Other, smaller areas of non-rural zoning districts are located mostly in the outer peripheries of the project area and closer to existing urban uses, including the following: a small area designated Regional Industrial (IR) between Santa Fe Road and SR 58 west of Lenwood Ave; an area designated Special Development-Residential (SD-RES) along SR 58 east of Hinkley Road; an area designated General Commercial (GC) south of SR 58 and west of Hinkley Road; an area designated Neighborhood Commercial (CN) along the north side of SR 58 just west of Hinkley Road; and an area designated Residential (RS-14M and RS-20M) along Mulberry Road south of the railroad and north of Acacia Street on the extreme west side of the project area. Areas of existing industrial or commercial use are unlikely areas for new remedial facilities due to the availability of non-developed land throughout the project area that can more readily accommodate remedial facilities and would cost less for acquisition.

Under all project action alternatives, proposed remediation activities would be similar to existing activities but at a larger scale. There is no defined remediation land use in the San Bernardino Development Code; and thus each proposed remedial activity must be analyzed by reviewing land uses similar to the different remedial actions.

Agricultural Treatment

Under all action alternatives, the proposed agricultural treatment activities are agricultural land uses and, as such, are consistent with both the Rural Living (RL) and Agricultural (AG) zoning districts and would not require special or conditional use permits (San Bernardino County Code, Title 8-Development Code). Agricultural treatment units are not likely to be placed on areas currently used for residential, commercial or industrial use and thus are not expected to disrupt such uses.

In-Situ Treatment

Under all alternatives, the proposed in-situ treatment would include wells, buried pipelines, utilities, and small above-ground compounds for storing carbon amendment and supplies. Given the limited footprint of such facilities, in-situ treatment would be similar to water supply and infrastructure needed for agricultural and residential uses and is thus considered consistent with the Agricultural (AG) and Rural Living (RL) zoning districts in the project area. It is possible that wells, buried pipelines and utilities may need to cross areas designated for commercial or industrial use; but given their limited footprint and utility character, this infrastructure would be consistent with land use designations and would not substantially disrupt such existing uses.

Ex-situ Treatment

The above-ground treatment facilities included in Alternatives 4C-3 and 4C-5 would likely be considered industrial uses (or possibly hazardous waste facilities) per the San Bernardino County Development Code.

The northern above-ground treatment plant would be in an area designated Agriculture (AG). Industrial facilities are allowed with a conditional-use permit in Agricultural (AG)-designated areas and hazardous waste facilities require a special-use permit. Agricultural uses, such as uses occurring at the Desert View Dairy, are specifically prohibited from areas designated with a Hazardous Waste Overlay; if a Hazardous Waste Overlay is applied it will need to be narrowly drawn for the northern above-ground treatment facility to avoid enclosing agricultural areas. Given that the proposed above-ground treatment use can be buffered from any adjacent residential use, the proposed placement of the northern above-ground treatment plant is considered a less-than-significant land use impact.

The southern above-ground treatment plant would be in an area designated Rural Living (RL) adjacent to the Compressor Station. The only industrial uses allowed in the Rural Living (RL) zoning districts are composting and recycling facilities; hazardous waste facilities are not allowed. A General Plan Amendment would be required for the southern above-ground treatment plant. Although an above-ground treatment plant near the Compressor Station is not an allowable use in the San Bernardino County General Plan and Development Code, given that these uses can be buffered from any adjacent residential uses and given the probability that San Bernardino County would be able to process amendments and permits to facilitate such uses, the inconsistency of this proposed use is considered a less-than-significant impact.

If the County determines that the above-ground treatment plants are hazardous waste facilities, the following permits or processes would be required: (1) a general plan amendment to apply a Hazardous Waste Overlay to the proposed site and respective buffer; (2) a conditional-use permit in compliance with Chapter 85.06 (Conditional Use Permit and Minor Use Permit); (3) a special-use permit issued by the San Bernardino County Fire Department; and (4) ministerial permits from the Building and Safety Division for building, grading, flood control, and similar activities.

General Plan Policies

The project would be generally consistent with the goals and policies of the County General Plan for water resources, land use, agriculture, and population and housing listed in Section 3.2.2.3. As noted above, the above-ground treatment facilities included in Alternatives 4C-3 and 4C-5 would be required to comply with all applicable County land use requirements which would be applied during permitting of these facilities.

Impact LU-1e: Potential Inconsistency with the California Desert Conservation Plan and/or the West Mojave Plan (Less than Significant, No Project Alternative; Less than Significant with Mitigation, All Action Alternatives)

There are no BLM lands within OU1 or OU2, but OU3 contains approximately 1,100 acres of BLM lands. Within the project study area there are approximately 2,000 acres of BLM land. As described above, the BLM lands in the project area are designated for limited or moderate use. The BLM areas on the east and northern sides of OU3 are Desert Wildlife Management Areas (which are also defined in BLM planning documents as Areas of Critical Environmental Concern) and are designated in the West Mojave Plan for habitat conservation for several wildlife and plant species (see Section 3.7, *Biological Resources*). None of the BLM land is designated wilderness.

The bulk of remedial actions would occur within OU1 or OU2; actions in these areas would have no affect on BLM land. As shown in Figure 3.2-1, the BLM lands within OU3 are limited to areas on the eastern and northern periphery of OU3, with the exception of a small area on the southwest part of the OU3 west of the PG&E Hinkley Compressor Station. At present, the potential remedial actions on the BLM have not been specifically identified, but are likely to include monitoring wells, extraction wells, piping, and access roads. Agricultural treatment units are not likely to be proposed on federal lands given that agricultural units can be more efficiently placed in central locations on private land within Hinkley Valley rather than on the periphery of the remedial area. PG&E would be required to obtain permits for any proposed used on BLM land and to comply with all applicable requirements of the CDCA Plan and supporting plans.

Under the No Project Alternative, future remedial activity would only occur on private land and not on federal land, and there would be no conflicts with the CDCA Plan or the West Mojave Plan.

For all action alternatives, where project activities could disturb BLM land, potential conflicts with the land management requirements of the CDCA Plan and/or with the conservation requirements of the West Mojave Plan could occur. However, implementation of **Mitigation Measure LU-MM-1** and **Mitigation Measures BIO-MM-1a through BIO-MM-1m, BIO-MM-1p and BIO-MM-6** (described in Section 3.7, *Biological Resources*) would minimize potential conflicts with BLM land management requirements or the conservation requirements of the West Mojave Plan on BLM land to a less-than-significant level.

3.2.6.2 Agriculture

Impact LU-2: Conversion of Agricultural Land to Non-Agricultural Use, Including FMMP-Designated and Williamson Act Lands

Overall, the agricultural lands within the project area encompass approximately 2% of the County's agricultural lands and approximately 6% of the County's important (prime, state importance, and unique) farmlands.

Direct Conversion of Agricultural Land to Non-Agricultural Use (Less than Significant, All Alternatives)

The No Project Alternative would not add new agricultural treatment areas; limited increases in remediation infrastructure would not affect agricultural areas; and groundwater drawdown would not be different from existing conditions. Therefore, the No Project Alternative would not have a significant impact on agriculture.

The action alternatives would add between 262 acres (Alternative 4B) and 1,212 acres (Alternative 4C-4) of new agricultural treatment units. As described in Section 3.2.3.3, agricultural production and agricultural lands decreased historically due to decreasing profit margins and challenges with water availability in the 1980s and early 1990s. Under all action alternatives, implementation of proposed remediation activities would largely support continued agricultural uses and proposed new agricultural lands would be used to grow livestock fodder crops (e.g., alfalfa, grass) that would increase the acreage of land in San Bernardino County that is actively used for agricultural purposes. Any new agricultural treatment units would be located on lands that are either designated for agriculture (by zoning, FMMP designation, and Williamson Act) or are compatible with agricultural uses, and would create an increase in agricultural use and production in the area.

Under all alternatives, new in-situ remediation and agricultural treatment wells and supporting infrastructure would be installed on existing and new agricultural treatment units and in other locations throughout the project area, some of which could be on FMMP-designated farmlands or Williamson Act lands. Because pipelines and vaults would be buried and wells and small above-ground compounds (for storing carbon amendment and supplies) occupy very little space, installation of such infrastructure would not result in loss of significant agricultural lands.

There are no above-ground treatment facilities currently in operation, nor would any be constructed under the No Project Alternative, or Alternatives 4B, 4C-2, and 4C-4. Under Alternative 4C-3, there would be two above-ground treatment plants: in the north adjacent to the Desert View Dairy, and in the south adjacent to the Compressor Station. Alternative 4C-5 would include a southern treatment plant in the same location as Alternative 4C-3.

The Desert View Dairy is designated prime farmland and farmland of statewide importance. The Desert View Dairy is also adjacent to two parcels that are under Williamson Act contracts (Figures 3.2-2 and 3.2-3). However, the footprint area of the northern plant does not encroach onto these FMMP-designated or Williamson Act farmlands and operation of the treatment plant would not constrain the current agricultural uses at the Desert View Dairy, or the other adjacent agricultural lands that are both in use and currently not under agricultural production.

The permanent footprint of the southern treatment plant would be located adjacent to, but not within, existing agricultural areas that are FMMP-designated prime farmland and farmland of statewide importance, and within proximity of lands under Williamson Act contracts. Similar to the

northern treatment plant, operation of the southern treatment plant would not constrain existing agricultural uses or require the conversion of these lands to non-agricultural uses. This impact is considered less than significant for Alternative 4C-3 and 4C-5.

The majority of the future remedial activity area is on grazing lands rather than land currently being farmed for crops. In the northern and southwestern future remedial activity areas, two small areas are designated unique farmland in these areas, respectively; there is prime farmland and farmland of statewide importance to the east and northeast of the Compressor Station (Figure 3.2-2). Remedial activities are not likely to occur on the unique farmland–designated land southwest of the Compressor Station because this location is likely upgradient of the plume.

Remedial activities could affect the prime and important statewide farmland areas located along Mountain View Avenue and Sonoma Avenue, and east of the Compressor Station. Based on the current design, the only new known encroachments within FMMP-designated important farmland would be for an extraction well for Alternative 4C-3 and Alternative 4C-5, and for an agricultural treatment unit for Alternative 4C-4. However, as discussed in Chapter 2, *Project Description*, remedial activities would need to be expanded to address the current and potentially expanded plume. In-situ remediation is expected to be focused in the areas described in the Feasibility Study and Addenda, but agricultural treatment areas will be expanded beyond that described in the Feasibility Study and treatment units and associated wells and pipelines might need to be installed in areas of designated important farmlands.

The installation of wells or pipelines for monitoring or remediation would not change agricultural lands to non-agricultural uses. Agricultural treatment units would continue agricultural use where proposed on areas already in agricultural use.

Overall, none of the alternatives would result in substantial conversion of agricultural lands to non-agricultural use. This impact is considered less than significant.

Indirect Effects that Could Result in Conversion of Agricultural Land to Non-Agricultural Uses (Less than Significant, No Project Alternative; Less than Significant with Mitigation, All Action Alternatives)

Remedial activities could indirectly result in disruption of agricultural use due to groundwater drawdown or changes in water quality.

Because the No Project Alternative would not increase agricultural treatment areas or pumping compared to existing conditions, it would not result in groundwater drawdown or changes in water quality related to total dissolved solids greater than that would occur with existing remedial infrastructure. As discussed in Section 3.1, *Water Resources and Water Quality*, agricultural treatment could also result in increased total dissolved solid concentrations that could result in water quality degradation such that it could not be used for agriculture. However, the current requirements in the General Permit mandate that water quality standards cannot be exceeded or increasing more than 25 percent above current concentrations for TDS. If TDS exceeds these trigger levels, then PG&E is required to either scale back groundwater extraction and discharge, halt groundwater extraction and discharge, or treat the groundwater to meet the trigger levels. With this control in place, the No Project Alternative would not have a significant water quality impact on existing agriculture. While the No Project Alternative would increase in-situ remediation carbon injection and pumping and thus byproduct formation, with the existing contingency plans in current permits, in-situ remediation activity is not expected to compromise existing agricultural land use due to changes in water quality.

1 All action alternatives would result in groundwater drawdown compared to existing conditions, as
2 discussed in Section 3.1, *Water Resources and Water Quality*, remedial pumping for agricultural
3 treatment. In general, this is not expected to affect agricultural wells because the dominant location
4 of existing agricultural wells is east of the Compressor Station, which is an area that will be less
5 affected by projected drawdown (see related figures in Section 3.1, *Water Resources and Water*
6 *Quality*). Alternative 4C-4, which has the largest amount of agricultural treatment and associated
7 pumping, is projected to affect at least one agricultural well, based on the Feasibility Study-levels of
8 pumping, but other alternatives may also affect agricultural wells with increased pumping needed to
9 address the expanded plume. **Mitigation Measure WTR-MM-2** would require provision of
10 alternative water supplies if groundwater drawdown were to affect agricultural wells, which would
11 prevent substantial disruption to existing agricultural activities.

12 As discussed in Section 3.1, *Water Resources and Water Quality*, PG&E will be required to acquire
13 water rights in sufficient amounts to support proposed agricultural treatment pumping levels. In
14 theory, those water rights could be acquired from existing agricultural landowners in the project
15 area or adjacent to the project area. If willing sellers of existing agricultural land were to sell their
16 water rights to PG&E (or to lease them for the duration of remediation), the ability to irrigate
17 existing agricultural land may be reduced and prime farmland could lose its prime designation as a
18 result (the prime designation requires irrigation). Because the remedial actions could range from 29
19 to 50 years to reduce groundwater chromium concentrations to 3.1 ppb Cr[VI] and could range from
20 75 to 95 years to reach 1.2 ppb, depending on alternative, the loss of irrigation could result in
21 agricultural land lying fallow for many decades. In the 1990s, large areas of former agricultural land
22 were left fallow following the groundwater basin adjudication and the limitations on water use in
23 the area and most of these areas in the Hinkley area have remained fallow since. However, in some
24 other parts of the desert, some former agricultural land has been converted to other uses. One
25 example of this is the Abengoa Mojave Solar project near Harper Lake, which in part is located on
26 former agricultural land. Given past experience and land use patterns in the Hinkley area, it is
27 probable that most of agricultural land that might be fallowed if their water rights are acquired by
28 PG&E would not be converted to non-agricultural uses. However, given the duration of the project
29 (75-95 years), it is possible that some other non-agricultural land uses could be established over
30 time. Because water is a limited commodity and there are limited agriculturally suitable areas in the
31 Mojave Desert, the potential loss of agricultural lands is considered a potentially significant impact.
32 **Mitigation Measure LU-MM-2** would require PG&E to either avoid acquiring water rights from
33 existing agricultural users or would require PG&E to acquire and record an agricultural easement
34 over any important farmland (prime, unique, statewide importance) from which it acquires water
35 rights for remedial purposes, so that the land can be returned to agricultural use at the point that
36 water is no longer used for remedial purposes. With this mitigation measure, the project would not
37 result in a long-term indirect loss of important farmland, and the impact would be reduced to a less-
38 than-significant level.

39 As discussed in Section 3.1, *Water Resources and Water Quality*, agricultural treatment could also
40 result in increased total dissolved solid concentrations that could result in water quality
41 degradation such that it could not be used for agriculture. **Mitigation Measure WTR-MM-2**
42 (described in Section 3.1) requires the monitoring and provision of alternative water supplies
43 and/or treatment systems for restoring water quality if remedial byproducts were to degrade water
44 quality such that existing agriculture would be impeded. With this measure, this impact on
45 agriculture would be less than significant.

3.2.6.3 Population and Housing

Impact LU-3: Population and Housing Changes due to Remedial Activities (Less than Significant, All Alternatives)

Population Growth

Population growth impacts under CEQA occur when a project results in such substantial increases in population in an area that further development, beyond that included in the project itself, is necessary to provide housing, services, and supporting infrastructure.

The project includes construction activities that would temporarily increase local employment (and possibly population if workers decide to live in Hinkley); however, due to the temporary nature of construction, it is expected that workers would use existing housing and accommodation services in Hinkley, Barstow, and elsewhere during construction. Additional impacts are not anticipated to result from the temporary population increase related to project construction.

Displacement of People or Housing

The majority of the housing and population within the project area is located at the westernmost boundary of the project area. Remediation activities are unlikely to occur in areas with higher concentrations of houses because there is ample vacant land available throughout the project area and because the cost of land acquisition is much higher on areas with substantial development than on land with more limited or no development.

Under the No Project Alternative, new infrastructure would consist of remediation wells within areas where there are already existing remediation activities; new acquisition of land is not anticipated to be required. There would be no impact on housing or population under the No Project Alternative above existing conditions.

Implementation of the action alternatives, however, would have the potential to involve acquisition of existing rural residential properties in the largely open land areas within the project area, resulting in potential displacement of some population and housing. The most likely areas of property acquisition are within OU1 and OU2 (see Figure 3.2-4); however, PG&E already owns a good proportion of this land. Additional areas of property acquisitions could be in areas overlying the plume to the east and north of OU1/OU2 for agricultural treatment units to address the expanded area of groundwater contamination. If rural residential properties are acquired, there may be a loss in rural residential housing units and potential displacement of residents who occupy acquired housing units to move to another community.

Alternative 4B would have the least potential to result in acquisition of existing residences and displacement of people because all of the 264 new acres of agricultural treatment could be accommodated within PG&E-owned areas within OU1 and OU2, but it is possible that acquisition might allow some existing residents to sell their residences to PG&E. Alternatives 4C-2, 4C-3, and 4C-5 could involve up to 392 acres of new agricultural treatment, which could be largely accommodated on PG&E-owned lands, but could require acquisition of other lands that might have rural residences. Acquisition of properties would likely be the most significant under Alternative 4C-4 because it could require up to 1,212 acres of new agricultural treatment, which might not all be located within PG&E-owned areas.

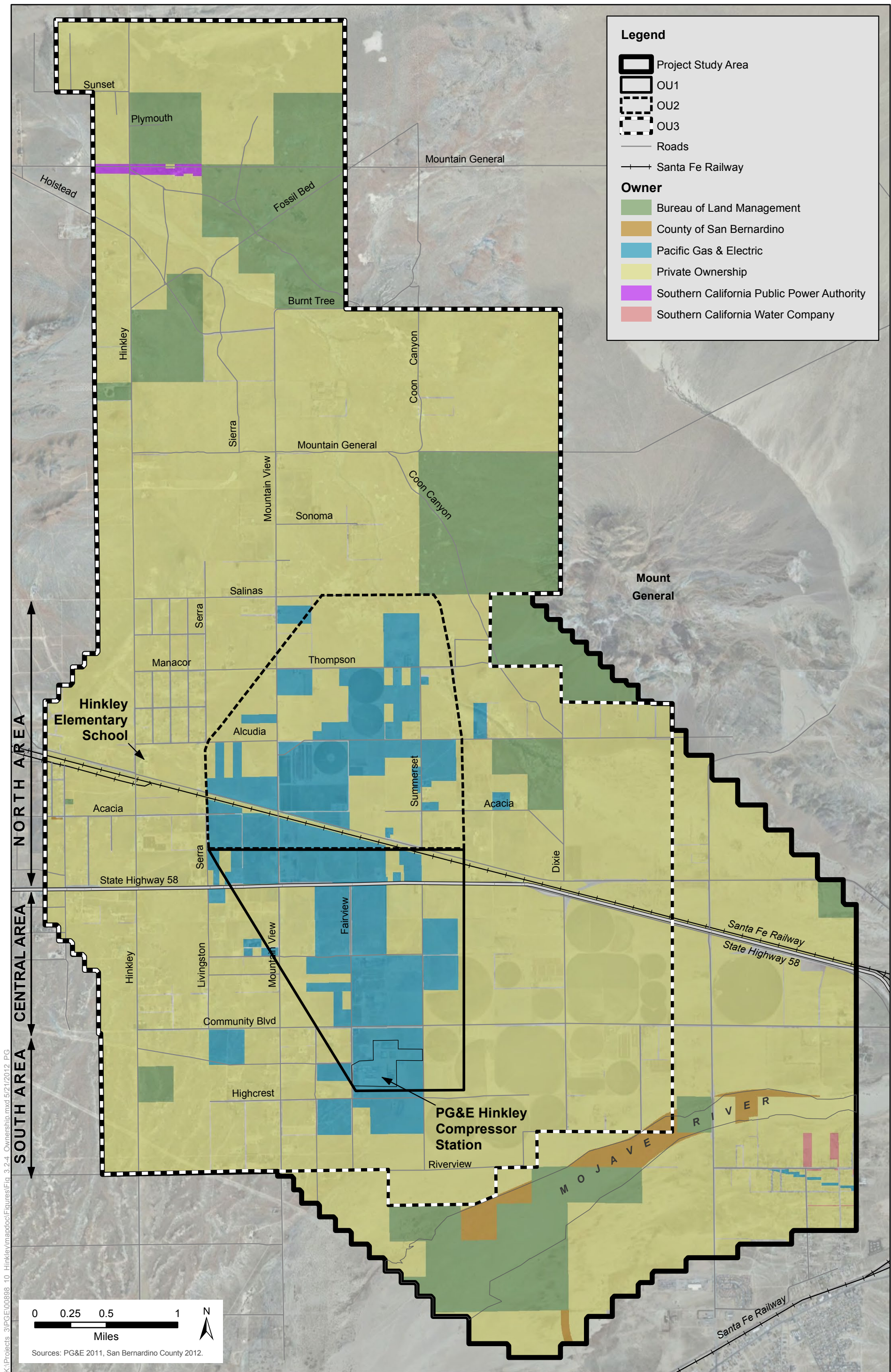


Figure 3.2-4
Land Ownership in the Project Area

1 Acquisition of land containing housing would occur only through voluntary agreement between
2 PG&E and the landowner and would be done only on a willing-seller basis. Given the areas of likely
3 acquisition and the very low density of residences, the number of homes acquired to facilitate
4 remedial activities is expected to be low. The exact number cannot be estimated at this time because
5 the location of future remedial actions is not precisely known, except for the locations of proposed
6 actions described in the Feasibility Study and Addenda. Based on the known locations of remedial
7 actions (see Chapter 2, *Project Description*), there would be no acquisition of properties, including
8 residences, with any alternative except Alternative 4C-5, which could include acquisition of parcels
9 containing perhaps 5 to 10 residences. However, as described in Chapter 2, remedial actions,
10 including agricultural treatment, will need to expand from that described in the Feasibility Study
11 and Addenda to address the expanded plume.

12 As a worst-case assumption, residential acquisitions are likely be limited to 50 or fewer properties
13 based on the number of residences within and adjacent to OU1 and OU2 on the east and north where
14 agricultural treatment units might be placed to address the expanded plume. Currently, housing
15 vacancy rates in San Bernardino County are quite high (in 2011 the vacancy rate was 12.5%) (The
16 Community Foundation 2011) and thus it is probable that residents who desired to remain within
17 the County would likely buy or rent currently vacant housing in San Bernardino County. Vacancy
18 rates across California are also elevated due to the recent recession. In the next few years (which is
19 when new agricultural treatment units will be built), demand for up to 50 properties is not expected
20 to change market conditions for new housing and is unlikely to contribute to construction of new
21 housing.

22 In theory, if acquisition of residences in the Hinkley area actually resulted in new home construction
23 elsewhere, it could result in impacts to biological resources, cultural resources, and farmland, as
24 well as impacts related to traffic, air quality, and noise, and other impacts at the location of new
25 residential development. Because the location of such development is not known, it is highly
26 speculative to conclude exactly what kind of secondary physical impacts might occur and whether
27 those impacts would be significant.

28 With the current housing market conditions noted above concerning vacancies combined with the
29 limited potential number of residences actually affected, the likelihood of contributing to new
30 housing construction elsewhere is considered to be very low; as a result, this impact is considered
31 less than significant. Even if it could be determined that a demand for new housing would result
32 from property acquisition related to remedial actions, it would be speculative to conclude that a
33 significant physical impact would result given the inability to predict where residents who choose to
34 sell their properties might move.

35 It should be noted that PG&E could make offers to willing sellers to purchase land over the
36 chromium plume that might not be used for remedial activities. This action would be a private
37 action unrelated to the remedial actions; PG&E's private land acquisition program is not part of the
38 project analyzed in this EIR.

3.2.7 Mitigation Measures

Mitigation Measure LU-MM-1. Obtain Bureau of Land Management Permits in Compliance with California Desert Conservation Area Plan and the West Mojave Plan

PG&E will obtain all approvals from BLM for any proposed remedial activities on federal land prior to implementing such actions. PG&E will demonstrate consistency with all relevant BLM policies for use of the subject land and provide evidence of such consistency to the Water Board prior any construction on federal land.

Mitigation Measure LU-MM-2. Acquire Agricultural Conservation Easements for any Important Farmland If Water Rights Are Acquired for Remediation

PG&E will either avoid acquiring water rights from existing important farmland (prime, unique, statewide importance) or will acquire and record an agricultural conservation easement over such important farmland from which it acquires water rights for remedial purposes. The conservation easement will prohibit all future conversion of the land to non-agricultural land for the duration that PG&E retains water rights associated with such land. The agricultural conservation easement will be recorded within one year of purchase or acquisition of any water rights associated with the subject property. The easement will be revocable upon return of the water rights to the agricultural landowner.