

III.22 PUBLIC HEALTH, SAFETY, AND SERVICES

This chapter identifies public health, safety, and services as they relate to the Desert Renewable Energy Conservation Plan (DRECP or Plan). Issues addressed include hazardous materials, airport safety, wildland fire, public services, landfills, and occupational safety. Geologic and water pollution information specific to hazardous materials and public services also appears in this chapter, but more complete geologic hazard and water pollution hazard issues are addressed in Chapter III.4, Geology and Soils, and Chapter III.5, Flood Hazard, Hydrology, and Drainage. Appendix R1.22 provides supporting information for this chapter, specifically five tables regarding public service infrastructure within or near the Plan Area.

III.22.1 Regulatory Setting

III.22.1.1 Federal

Occupational Safety and Health Act. The federal Occupational Safety and Health Act of 1970 protects occupational health and safety rights for individuals in the workplace (29 United States Code [U.S.C.] 651 et seq.). Congress created the Occupational Safety and Health Administration (OSHA), an agency within the U.S. Department of Labor, to set and enforce standards including training, outreach, education, and continuing improvements in workplace safety and health. State and local jurisdictions may have additional laws and regulations that further strengthen provisions of this act.

Comprehensive Environmental Response, Compensation, and Liability Act. The manufacture, transport, and disposal of hazardous and toxic wastes have become an important issue in desert areas, where potential impacts may erroneously be publicly perceived as less harmful than in other areas. Under provisions of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), a provision known as Superfund defines a hazardous substance as any material that the federal Environmental Protection Agency (EPA) has designated for special consideration under the Clean Air Act, Clean Water Act, Toxic Substances Control Act, or the Resource Conservation and Recovery Act (RCRA; EPA 2013).

The EPA may also designate additional substances as hazardous under CERCLA. Hazardous wastes or substances can be hazardous to human health or the environment when they are improperly managed and possess at least one of four characteristics (ignitability, corrosivity, reactivity, or toxicity), or appear on other EPA lists of substances deemed to be hazardous.

Superfund Amendments and Reauthorization Act. The Superfund Amendments and Reauthorization Act established the Emergency Planning and Community Right-to-Know

Act as the national legislation on community safety. This law helps local communities protect public health, safety, and the environment from releases of hazardous substances. In implementing provisions of the Emergency Planning and Community Right-to-Know Act, Congress requires each state to appoint a State Emergency Response Commission. Each state commission then must divide its state into Emergency Planning Districts and appoint a Local Emergency Planning Committee for each of those districts.

Resource Conservation and Recovery Act. RCRA focuses on preventing adverse impacts from hazardous wastes. The three primary goals of the act are to (1) protect human health and the environment from the potential hazards of waste disposal, (2) reduce the amount of waste generated, and (3) ensure that wastes are managed in an environmentally sound manner (EPA 2013). In 1984, Congress enacted the Hazardous and Solid Waste Amendments, which expanded RCRA to require hazardous wastes management from initial manufacture to final disposal.

Federal Aviation Administration Regulations. Federal Aviation Administration (FAA) Regulations, Part 77, establish standards for identifying and assessing obstructions to air navigation. Part 77, Subpart C, specifically limits structure heights in the vicinity of airports. FAA regulations (49 CFR Part 77) require the following project review:

- Any project that includes one of the following must complete a Part 77 Determination of No Hazard to Air Navigation prior to construction:
 - Any construction or alteration exceeding 200 feet above ground level.
 - Any construction or alteration:
 - Within 20,000 feet of a public use or military airport that exceeds a 100:1 surface from any point on the runway of each airport with at least one runway more than 3,200 feet.
 - Within 10,000 feet of a public use or military airport that exceeds a 50:1 surface from any point on the runway of each airport with its longest runway no more than 3,200 feet.
 - Within 5,000 feet of a public use heliport that exceeds a 25:1 surface.
- Any highway, railroad or other traverse way whose prescribed adjusted height would exceed the above noted standards.
- When requested by the FAA.
- Any construction or alteration located on a public use airport or heliport regardless of height or location.

Other Federal Regulations. Other applicable hazardous substances regulations include the Federal Insecticide, Fungicide and Rodenticide Act, the Safe Drinking Water Act, and the Pollution Prevention Act of 1990.

III.22.1.2 State

California Emergency Services Act. The California Emergency Management Agency (Cal EMA), created in 2009 in Assembly Bill (AB) 38 and established as part of the Governor's Office, merges the duties, powers, purposes, and responsibilities of the former Governor's Office of Emergency Services (OES) with those of the California Governor's Office of Homeland Security.

Cal EMA coordinates state agency responses to major disasters in support of local governments. The agency assures the state's readiness to respond to and recover from all hazards — natural, human-caused, and war-caused emergencies and disasters — and assists local governments in their emergency preparedness, response, recovery, and hazard mitigation efforts (Cal EMA 2011).

Alquist–Priolo Special Studies Zone Act. In accordance with the Alquist–Priolo Special Studies Zone Act (Public Resources Code [PRC] Chapter 7.5, Division 2), which took effect on May 4, 1975, the Office of State Geologist delineated Special Study Zones. These zones include the potential and recently active traces of major faults within the Plan Area. This act is enforced within counties to assure that buildings and other structures intended for human occupancy built within these zones are designed and constructed in compliance with all applicable codes and ordinances (see Chapter III.4, Geology and Soils).

Hazardous Materials Release Response Plans and Inventory Law. According to the Hazardous Materials Release Response Plans and Inventory Law of 1985, local agencies must develop area plans to respond to releases of hazardous materials and wastes. An area plan includes pre-emergency planning procedures for emergency response, coordination of affected government agencies and responsible parties, follow-up, and training. The California Hazardous Materials Incident Reporting System collects data involving the accidental release of hazardous materials. This information is reported to and maintained by OES/Cal EMA.

The California Highway Patrol and the California Department of Transportation (Caltrans) enforces federal and state regulations and responds to hazardous materials transportation emergencies. The California Highway Patrol enforces labeling and packing regulations to prevent leaks and spills of material in transit. It also provides information to cleanup crews in the event of an incident. Caltrans has emergency teams throughout California (Cal EMA 2009).

California Department of Forestry and Fire Protection. The California Department of Forestry and Fire Protection (CAL FIRE) protects natural resources from fire on lands designated by the State Board of Forestry as State Responsibility Areas. CAL FIRE also manages the state forest system and enforces forest practice regulations, which govern forestry practices on private and other nonfederal lands.

Cooperative efforts through contracts and agreements between state, federal, and local agencies are important when responding to emergencies like wildland and structure fires, floods, earthquakes, hazardous material spills, and medical aids. The CAL FIRE Cooperative Fire Protection Program staff coordinates these agreements and contracts for the department. Because of this cooperation, CAL FIRE may be the department providing dispatch, paramedic, fire, and rescue services in areas not in an official State Responsibility Area.

Under the California Master Mutual Aid Agreement, CAL FIRE assists other fire departments within the state when department resources are available, regardless of the type of disaster. CAL FIRE can access local government fire departments through the same agreement for assistance in wildland fire suppression.

When resources are overtaxed, agreements with the California Military Department provide California National Guard resources. These include activation of the giant C-130 aircraft (Modular Airborne Fire Fighting System), helicopters, support personnel, communications equipment, and other specialized resources.

The largest of CAL FIRE's cooperative programs involves an agreement for the exchange of fire protection services with federal wildland fire agencies, including the U.S. Forest Service (USFS), Bureau of Land Management (BLM), and National Park Service (NPS). The goal is to have the closest agency respond to a wildfire, regardless of jurisdiction. Through this cooperative relationship, California is able to access federal and state resources throughout the United States in times of disaster when department resources are depleted. CAL FIRE also provides assistance, through interstate compact agreements, to federal and other state wildfire agencies throughout the nation.

California Airport Land Use Planning. California code includes several regulations to guide airport planning and prevent airport safety issues. These include:

- Public Utilities Codes Sections 21670-21679.5 establish jurisdiction policies and procedures regarding airports to provide orderly and safe development related to airports and surrounding uses. This includes the completion and adoption of Airport Land Use Compatibility plans.
- Public Utilities Codes Sections 21402-21403 cover regulations regarding airspace and airport approach zone flights.

- Public Utilities Codes Sections 21655, 21658, and 21659 cover regulations regarding the construction of utility poles or lines, and other structures of substantial height in the vicinity of an airport and requires compliance with Part 77 of the Federal Aviation Regulations (see federal regulations above).
- Public Utilities Codes Sections 21661.5 and 21664.5 require airports to obtain permits for expansions and modifications to ensure compatibility with surrounding areas.
- Government Code Section 65302.3 establishes that General Plans must address and be consistent with Airport Land Use Compatibility plans.
- Business and Professions Code Section 11010 and Civil Code Sections 1103–1103.4 and 1353 require real estate transactions to disclose if properties are located in the airport influence area.

California Landfill Diversion Mandates and Integrated Waste Management Plans. In 1989 the California Legislature passed AB 939, the Integrated Waste Management Act, which mandated that every city, county, and regional agency in the state reduce waste disposed in landfills from generators within their borders by 50% by the year 2000 (State of California 1989). AB 939 also requires each county to develop a County Solid Waste Management Plan and a countywide siting element, and to coordinate with cities to develop city Source Reduction and Recycling Elements.

AB 341, signed into law in October 2011, sets a policy goal of 75% waste diversion by the year 2020. AB 341 requires that each city, county, and regional agency develop strategies to improve landfill diversion rates. The act specifically requires that measures be developed to address commercial facilities and multifamily residential developments.

CalRecycle. CalRecycle addresses waste disposal in California and promotes waste reduction, recycling, and reuse. Regulations pertaining to CalRecycle include the Beverage Container Recycling and Litter Reduction Act (14 California Code of Regulations [CCR] Division 2, Chapter 5), nonhazardous waste management (14 CCR 14 Division 7), and waste disposal (CCR Title 27).

California Education Code (Section 17620-17626 et seq.) and California Government Code (Section 65995-65998 et seq.; School Impact Fees). California Education Code (Section 17620) states that the governing board of any school district is authorized to levy a fee, charge, dedication, or other requirement against any construction within the boundaries of the district, for the purpose of funding the construction or reconstruction of school facilities (State of California 2012a).

Section 65995 sets a maximum level of fees that a developer may be required to pay to mitigate a project's impacts on school facilities (Section 17620, State of California 2012b).

These maximum fees apply to zone changes, General Plan amendments, zoning permits, and subdivisions. Under the provisions of Section 65995(h), payment of these fees provides full and complete mitigation of school facility impacts, regardless of any contrary provisions in the California Environmental Quality Act (CEQA) or any other state or local laws.

III.22.2 Overview of Public Health, Safety, and Services within the Plan Area

III.22.2.1 Hazardous Materials

III.22.2.1.1 Generators of Hazardous Materials

There are no large industrial or commercial users of hazardous materials in the Plan Area. There are, however, identified hazardous or toxic materials and small-quantity generators associated with accidental spills, purposeful illegal dumping, air emissions, and other uncontrolled discharges into the environment. Improper use and management of these materials pose a significant threat to the environment.

Fuels, oils, lubricants, and solvents are the primary hazardous and flammable materials associated with renewable energy resource development. These substances are typically on site during the construction and operation of the facilities. These substances are also required for the operation of construction equipment. Small quantities of additional common hazardous materials typically used on site during construction include antifreeze and used coolant, latex and oil-based paint, paint thinners and other solvents, cleaning products, and herbicides (BLM and Department of Energy 2012).

During the operation and maintenance of renewable energy facilities it is typical for small quantities of hazardous materials to be periodically and routinely transported, used, and disposed of. These materials typically consist of minor amounts of petroleum products (fuels and lubricating oils) and small-to-moderate amounts of motor vehicle fuel.

III.22.2.1.2 Areas of Known Hazardous Contamination

There are many known hazardous contamination areas throughout the Plan Area. Examples of contamination include diesel leakage from failure of a truck's fuel pump, improper disposal of paint cans, and even leaching of chemicals from abandoned mines and mining equipment. Table III.22-1 lists areas where pollution is being or has been cleaned up in the Plan Area under RCRA or CERCLA. State or locally funded cleanups are not listed and may include spills of oil and gas, pipeline liquids, and other hazardous substances, as well as underground storage tank leaks. A complete list of oil and chemical spills can be found on the National Response Center website (2014).

The military has been active in the California desert for more than 200 years. In addition to current military operations (see Chapter III.24), there are 111 formerly used defense sites in the Plan Area and 1 outside the Plan Area (see Figure III.22-1, Formerly Used Defense Sites). Unexploded ordnance, exploded ordnance residue, and munitions from World War II training exercises have been found at many of these sites.

**Table III.22-1
RCRA and CERCLA Hazardous Contamination Sites in Plan Area**

Site Name	Clean-up Type	Location	Jurisdiction	Applicable Legislation
Naval Air Weapons Station China Lake	Hazardous Waste	1 Administration Circle Ridgecrest, CA 93555	Kern County	RCRA Corrective Action
Commander NTC & Fort Irwin	Hazardous Waste	INWE-IRW-PWE Fort Irwin, CA 92310	San Bernardino County	RCRA Corrective Action
Edwards Air Force Base	Hazardous Waste	5 East Popson Avenue Edwards, CA 93523	Kern County	RCRA Corrective Action
U.S. Marine Corps Logistics Base	Hazardous Waste, Superfund	Marine Corps Logistics Base B570 Box 110570 Barstow, CA 92311	San Bernardino County	RCRA Corrective Action and CERCLA Listed as final in the National Priorities List. First cleanup action completed.
Pacific Gas & Electric Topock Compressor Station	Hazardous Waste	Interstate 5 Needles, CA 92363	San Bernardino County	RCRA Corrective Action
Ducommun Aerostructures	Hazardous Waste	4001 El Mirage Road Adelanto, CA 92301	San Bernardino County	RCRA Corrective Action
Southern Logistics Airport	Hazardous Waste, Superfund	18374 Phantom Victorville, CA 92394	San Bernardino County	Listed as Final in National Priorities List. First cleanup action completed.
NUWAY Laundry and Cleaners	Brownfield Properties	15595 8th Street Victorville, CA 92395	San Bernardino County	RCRA Corrective Action
West Coast Flying SVC Inc.	Hazardous Waste	13-400 West 14th Avenue Blythe, CA 92225	Riverside County	RCRA Corrective Action
WOTEN Aviation Services Inc.	Hazardous Waste	25980 Neighbors Blvd. AT ARPT Ripley, CA 92225	Riverside County	RCRA Corrective Action
Clean Harbors Westmorland Inc.	Hazardous Waste	5295 South Garvey Road Westmorland, CA 92281	Imperial County	RCRA Permit

**Table III.22-1
RCRA and CERCLA Hazardous Contamination Sites in Plan Area**

Site Name	Clean-up Type	Location	Jurisdiction	Applicable Legislation
Caspian Inc. El Centro	Hazardous Waste	2440 Leimgruber El Centro, CA 92243	Imperial County	RCRA Corrective Action
Stoker Chemical Company	Superfund	3390 Dogwood Road Imperial, CA 92251	Imperial County	Proposed for listing in the National Priorities List, study under way.

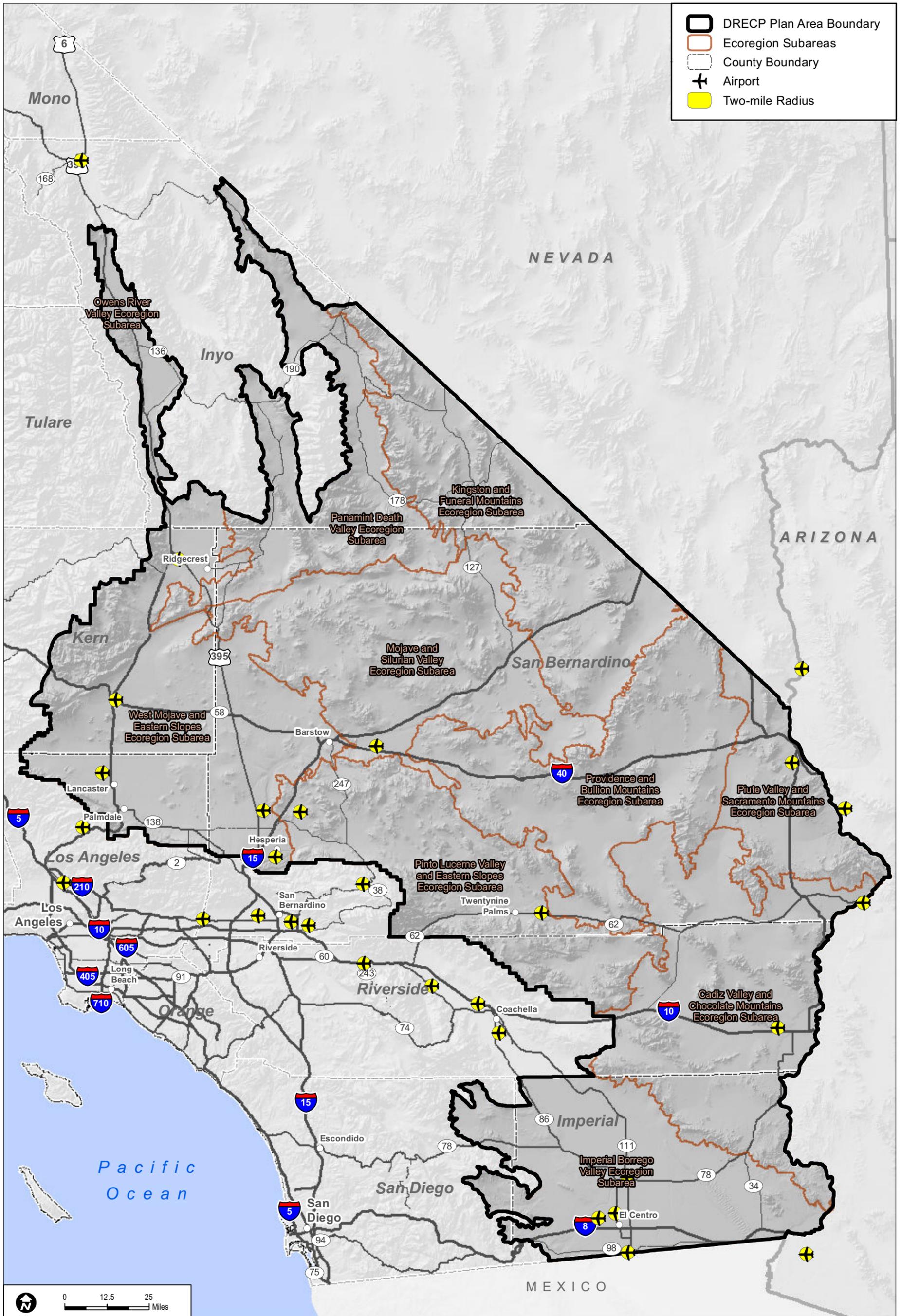
Source: California Department of Toxics Substance Control 2007.

III.22.2.2 Airport Safety Hazards

Approximately 30 active airports are within the Plan Area, which for this purpose extends to a 20-mile radius outside the Plan Area boundaries. These airports are shown in Figure III.22-2, Airports in the Plan Area, and identified in Appendix R1 (Table R1.22-1). Airports can pose safety hazards to surrounding areas, and surrounding areas can in turn pose safety hazards to airports. Existing areas surrounding airports are generally affected by noise levels and accidents from take offs and landings. Surrounding areas can affect airport safety if tall structures project into airspace travel areas or other features interfere with flight. Airport Land Use Compatibility Plans (ALUCPs) are designed to address these issues. New developments may also require FAA review.

ALUCPs typically identify zones for (1) runway protection and building restrictions, (2) inner approach/departure and adjacent to runway, (3) extended approach/departure, (4) primary traffic patterns, (5) other airport environs, and (6) special land use. Then each zone would have, as applicable, prohibited uses and development conditions. Prohibited uses could include developments affected by high noise levels such as libraries or schools, developments with a large population in a potential accident area, storage of hazardous materials, or structures that would potentially interfere with airspace. Appendix R1, Table R1.22-1, identifies the ALUCP zones for airports within the Plan Area.

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Sources: ESRI (2014); CEC (2013); BLM (2013); CDFW (2013); USFWS (2013)

FIGURE III.22-2
Airports in the Plan Area

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The FAA must review structures 200 feet or higher, projects within 20,000 feet of the airport, or any other project it chooses to review (49 CFR Part 77). These development reviews are intended to avoid interference with airports and control airport safety issues.

III.22.2.3 Wildland Fire Hazards

Fire is historically infrequent in the southwestern deserts, but has increased in both frequency and extent in recent decades generally due to increased vegetation fuel provided by the invasion of non-native annual grasses such as red brome and buffelgrass (Brooks, Matchett, and Berry 2006; Abella 2010). Within the Plan Area, the largest acreages burned in 1999, 2005, 2006, and 2007 (CAL FIRE 2009), which indicates an escalating trend of fire size and frequency.

In 2010 the Board of Forestry and Fire Protection adopted the Strategic Fire Plan for California (CAL FIRE 2010). The California Fire Plan, a cooperative effort managed by CAL FIRE, is the state's road map for reducing the risk of wildfire. The largest and most visible part of CAL FIRE operations is fire suppression. Operational units are organized to address fire suppression over a geographic area, divided by region (north or south). California has 21 operational units that geographically follow county lines. Each unit consists of one to three counties.

Four operational units are within the Plan Area: the Kern County Unit, Riverside County Unit, San Bernardino Unit (includes Inyo, Mono [not part of the Plan Area], and San Bernardino counties), and the San Diego Unit (includes Imperial and San Diego counties).

The Kern County Unit currently has mutual aid agreements and operating agreements with the USFS (Sequoia and Los Padres national forests), the Bakersfield and Cal Desert districts of BLM, CAL FIRE, and the USFWS. The Kern County Fire Department provides fire protection by contract to the cities of Delano, McFarland, Wasco, Shafter, Arvin, and Ridgecrest. Kern also cooperates fully with the other incorporated cities in the county: Bakersfield, Taft, and California City (CAL FIRE 2013a).

The Riverside County Unit currently has 17 cooperative fire agreements that include 10 automatic aid agreements and 7 mutual aid agreements. The Riverside County Unit has automatic aid agreements with the Cabazon Band of Mission Indians, city of Hemet, city of Corona, Idyllwild Fire Protection District, city of Murrieta, Morongo Band of Mission Indians, Orange County Fire Authority, Pechanga Band of Luiseño Mission Indians, city of Palm Springs, and city of Redlands. The Riverside County Unit has mutual aid agreements with California Rehabilitation Center (Norco), Chuckwalla Valley State Prison Fire Department, city of Corona (for hazmat responses), Imperial Valley, March Air Force Base, Niland Fire

District, and the Mutual Aid Pact between La Paz County, Arizona, San Bernardino County, Riverside County, and the Colorado River Indian reservation (CAL FIRE 2012).

The San Bernardino Unit currently has 11 cooperative fire agreements: Angeles National Forest, BLM, Inyo County Volunteers, Loma Linda Fire Department, Los Angeles City Fire Department, Mono County Volunteers, NPS (Barstow and Joshua Tree), Rancho Cucamonga Fire Department, Redlands Fire Department, San Bernardino County Fire Department, and the San Bernardino National Forest. In addition to these cooperative fire agreements, the San Bernardino Unit has Dispatch Agreements with Arrow Bear Fire Department, Crest Forest Fire Protection District, Morongo Valley Fire Department, Newberry Fire Department, and Yermo–Daggett Fire Department (CAL FIRE 2013b).

The San Diego Unit currently has 7 cooperative fire agreements: Deer Springs Fire Protection District, Pine Valley Fire Protection District, Ramona Water District, Rural Fire Protection District, San Diego County Fire Authority, Valley Center Special District and Yuima Water District. In addition to these cooperative fire agreements, the San Diego Unit has dispatch agreements with Campo Band of Mission Indians, La Jolla Reservation Fire Department, Pala Band of Mission Indians, Pauma Band of Mission Indians, Rincon Band of Luiseno Indians, San Pasqual Band of Mission Indians, Lipay Nation of Santa Ysabel Indians, and Sycuan Indian Reservation Fire Department (CAL FIRE 2013c).

III.22.2.4 Public Services

Public services are those functions that serve residents on a communitywide basis. These functions include parks and recreation, emergency services, and schools. Chapter III.18, Outdoor Recreation, discusses existing conditions for parks and recreation. Existing conditions for emergency services and schools are discussed below.

III.22.2.4.1 Emergency Services and Emergency Response Plans

III.22.2.4.1.1 Levels of Responsibility

Federal agencies implement emergency programs such as the Emergency Alert System through the Federal Communications Commission, Federal Emergency Management Agency (FEMA), and the National Weather Service. The National Interagency Fire Center (NIFC) is the nation's support center for wildland firefighting. Seven federal and state agencies are based at NIFC and work together to coordinate and support wildland fire and disaster operations.

State agencies, specifically Cal EMA/OES as the lead agency for state-led responses, may call upon local and county agencies to respond to emergencies within and outside of the state.

During a serious emergency, Cal EMA may use the services of the California National Guard, California Highway Patrol, Caltrans, CAL FIRE, and the Department of Social Services.

County agencies provide local assistance in unincorporated areas. These agencies also provide support for local jurisdictions when local governments cannot control a particular emergency situation.

Local agencies respond to emergencies within their boundaries. Jurisdictions may call upon other agencies and their services if they cannot resolve specific situations in their jurisdictions.

III.22.2.4.1.2 Emergency Alert System

The Emergency Alert System is the nationwide emergency alert program that provides information to the President of the United States when he addresses the nation on national emergencies. Emergency Alert System plans are part of the State of California State Emergency Alert System (State of California 2004), which replaces Emergency Broadcast System plans and procedures.

At the local level, Emergency Alert System participants can transmit emergency information through the governor, Cal EMA, California Highway Patrol, or the National Weather Service. The following regions within the Plan Area have local Emergency Alert System public plans: Riverside–San Bernardino, San Diego, Los Angeles, Kern, Inyo-Mono, and Imperial.

III.22.2.4.1.3 Emergency Manager Resources

Cal EMA offers resources to help emergency managers create their plans. This agency coordinates the state's response to catastrophic incidents and serves as the liaison between federal, regional, and local governments. Cal EMA divides its operations into three regions; each region, in turn, has either emergency operations centers or regional emergency operations centers. These centers are activated during disasters and are the primary coordination points for regional and local governments.

County governments also serve as operational areas for emergency services purposes; each has an emergency operations center and is the primary contact/liaison between state and local governments. The local government is the primary entity responsible for first responses during disasters and each county has a separate emergency operations center.

Cal EMA activates the state operations center and the regional emergency operations center. FEMA activates the National Response Coordination Center at FEMA's headquarters and at the FEMA Region IX Office Regional Response Coordination Center (U.S. Department of Homeland Security et al. 2013).

III.22.2.4.1.4 Earthquake Response

The Plan Area is in one of the most seismically active regions in the United States; some areas have a greater than 99% probability of a 6.7 magnitude earthquake within 30 years. The 2007 Working Group on California Earthquake Probabilities produced the Uniform California Earthquake Rupture Forecast, which is the first comprehensive report to compare earthquake probabilities throughout California. According to this report, the southern San Andreas Fault has the highest probability (59%) of generating at least one magnitude 6.7 earthquake or larger in the next 30 years (Southern California Earthquake Center 2007). More specific information about geologic hazards and faults within the Plan Area can be found in Chapter III.4, Geology and Soils. The information below is specific to earthquake emergency response.

Based on the high probability of a large earthquake occurring in Southern California, the State of California, the United States Geological Survey (USGS) and the Southern California Earthquake Center at the University of Southern California, along with other organizations, created the Great Southern California ShakeOut Scenario. This scenario gathered regional response planning information from the Southern California Catastrophic Earthquake Response Plan (OPLAN; FEMA and Cal EMA2 2010, 2011). The Great Southern California ShakeOut Scenario is the result of that information, the California Geological Survey, and USGS predictions of what would likely occur following a 7.8 earthquake.

In the OPLAN, the scenario predicts critical damage to Interstate 10 in the Coachella Valley and in the San Geronio Pass to I-15 in the Cajon Pass, State Route 14, SR-111, SR-62, Box Canyon Road, and Big Pines Highway. Disrupted lifelines would include fiber optic cables (90 crossings), petroleum and natural gas pipelines (39 crossings), railroads (21 crossings), aqueducts (32 crossings), and overhead electric power transmission lines (141 crossings).

In executing a response to the OPLAN scenario, a joint federal/state Unified Coordination Group was established. The unified command is led by a senior leader using Incident Command System concepts and principles consistent with the National Incident Management System and the California Standardized Emergency Management System, to accomplish response activities consistent with the priorities of the governor, sovereign tribal nations, the local governments and the objectives set forth in this OPLAN (FEMA and Cal EMA2 2010, 2011).

III.22.2.4.1.5 Emergency Management System – Regions/Counties/Local

Individual counties have separate emergency management systems complete with multiple levels of response and services. These systems include field responses, operational areas, Cal EMA/OES mutual aid regions, and state government agencies.

Various agencies and departments are involved in addressing issues such as policymaking, medical services, public service restoration, cleanup, information collection, and public information. Each component of the emergency management system has a specific role in responding to county and state emergencies. Each county is equipped to coordinate policy and analyze disaster plans. Through these centers, information can be shared between entities and field units. Systems including the Incident Command System can be used by several local jurisdictions to address various emergency management disasters.

Individual counties have offices of disaster preparedness, or equivalent entities, which are responsible for emergency situations that may be natural, human-caused, or a result of war-time conditions within a respective county. Each office maintains its own plan for coordinating assistance and designating responsibility to various agencies. The local governments that have submitted local hazard mitigation plans specify the hazards deemed important within their respective regions.

III.22.2.4.1.6 Mutual Aid

Mutual aid is a system that provides support to local and county agencies when their resources are inadequate to respond to an emergency within California. There are six mutual aid regions throughout California, and all municipal and county agencies within the state have adopted mutual aid systems.

When an emergency occurs, local jurisdictions must use their own resources first. If a local jurisdiction cannot control a disaster, that jurisdiction can request supplies, facilities, equipment, personnel, or additional services from other cities or levels of government.

When an emergency occurs that is beyond a county's ability to respond, aid will first come from other locations in that county's mutual aid region. Each individual region has the power to coordinate its own emergency plans and staffing. The State is obligated to provide services when local and county agencies are overwhelmed with emergency response requests.

The following is a list of the counties within the Plan Area and their respective mutual aid regions:

- Imperial County – Mutual Aid Region VI
- Inyo County – Mutual Aid Region VI
- Kern County – Mutual Aid Region V
- Los Angeles County – Mutual Aid Region I
- Riverside County – Mutual Aid Region VI
- San Bernardino County – Mutual Aid Region VI
- San Diego County – Mutual Aid Region VI

III.22.2.4.1.7 Critical Facilities

Within each county specific facilities and communications equipment play a critical role in both responding to an emergency and providing information to the public.

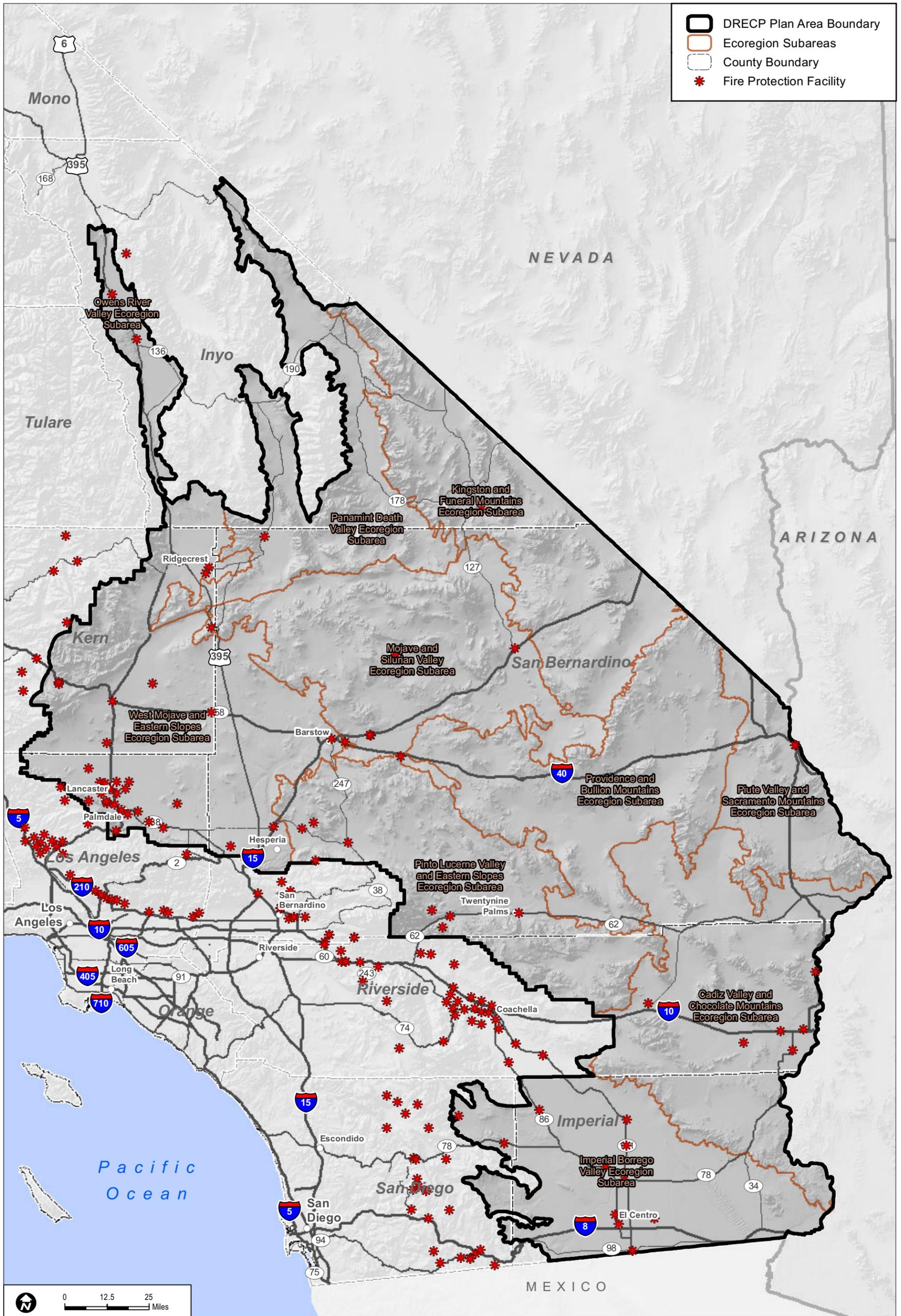
The following are critical facilities throughout California:

- Portable satellite units – emergency information news centers
- Radio and television stations – emergency information to the public
- Hospitals and mobile clinics – medical assistance
- Care and shelter facilities
- Coroner
- Fire and police stations – emergency services
- Access routes – transport goods and services after the disaster has occurred

The fire stations in the Plan Area (and within a 20-mile radius of the Plan Area) are identified in Appendix R1, Table R1.22-2, and shown in Figure III.22-3, Fire Protection Facilities in the Plan Area. The police, sheriff, and ranger stations in the same area are identified in Appendix R1, Table R1.22-3, and shown in Figure III.22-4, Law Enforcement Facilities in the Plan Area. There are 182 fire stations and 50 law enforcement stations within the Plan Area. These stations are generally concentrated in the western areas of the Plan Area closest to existing development. A substantial number of fire stations are outside the Plan Area, within the 20-mile radius to the west. The roadways that link the Plan Area to the west are therefore critical to emergency services.

In addition, utilities are considered priority infrastructures in the event of a catastrophic incident. These include water, wastewater, power, and natural gas facilities and infrastructure.

Critical facilities may also include lifelines, which are networks of services important to the public welfare. Within counties, these typically include supply sources, transmission lines, distribution systems, and storage locations. Damage to these lifelines might cause loss of services to large areas. Counties may group these lifelines into various categories including energy, water transportation, and communication.



Sources: ESRI (2014); CEC (2013); BLM (2013); CDFW (2013); USFWS (2013); RECON (2013)

FIGURE III.22-3

Fire Protection Facilities in the Plan Area

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III.22.2.4.2 Schools

Numerous school districts serve the student population in the Plan Area as summarized below. Appendix R1, Table R1.22-4, provides a detailed accounting of these districts and associated schools.

Fifteen school districts serve Imperial County in the Plan Area. These districts include 32 elementary schools, 9 middle schools, and 8 high schools. Two schools serve all grades. Major towns and cities in this portion of the Plan Area include El Centro, Calexico, Brawley, Calipatria, and Winterhaven.

Four school districts serve Inyo County in the Plan Area. These districts include 5 elementary schools, 2 middle schools, and 5 high schools. Major towns and cities in this region of the Plan Area include Independence, Lone Pine, Death Valley and Shoshone.

Six school districts serve Kern County in the Plan Area. These districts include 18 elementary schools, 5 middle schools, and 11 high schools. Two schools serve all grades. Major towns and cities in this region include Ridgecrest, Inyokern, Loraine, California City, North Edwards, Rosamond, Mojave, and Boron.

Eight school districts serve Los Angeles County in the Plan Area. These districts include 70 elementary schools, 17 middle schools, and 16 high schools. Two schools serve all grades. Major towns and cities in this region include Lancaster, Palmdale, Acton, and Pearblossom.

Two school districts serve Riverside County in the Plan Area. These districts include 4 elementary schools, 1 middle school, and 3 high schools. Major towns and cities in this region include Blythe, Palo Verde, and Desert Center.

Thirty-four school districts serve San Bernardino County in the Plan Area. These districts include 328 elementary schools, 58 middle schools, and 78 high schools. Eleven schools serve all grades. Major towns and cities include Adelanto, Barstow, Chino, Colton, Fontana, Ontario, Rialto, and San Bernardino.

One school district serves San Diego County in the Plan Area. This district includes 1 elementary school, 1 middle school, and 1 high school. Major towns in this area include Borrego Springs and Ocotillo Wells.

Pursuant to California Government Code Section 65995 et seq., school districts assess fees on new development to offset demands for service, with limits on the assessment set by state law. The school fees are collected when building permits are issued.

III.22.2.5 Landfills

Thirty-nine main landfills are in the Plan Area; these landfills provide solid waste services to both the Plan Area and major surrounding urban areas. Local enforcement agencies designated by the governing body of a county or city and, upon certification by CalRecycle, are empowered to implement delegated CalRecycle programs and locally designated activities. Local enforcement agencies ensure the correct operation and closure of solid waste facilities in the state and they guarantee the proper storage and transportation of solid wastes.

Each county is required to prepare a solid waste management plan and a countywide siting element in accordance with AB 939 and its subsequent updates. Landfill planning requirements include (1) determining the overall jurisdiction covering solid waste generation and the remaining capacity at existing landfills, and (2) identifying plans for new or expanded landfills based on the amount of time remaining until landfill capacity is reached.

Local enforcement agencies must coordinate and develop recycling programs, household hazardous waste programs, and municipal code regulations pertaining to solid waste and recycling. Local integrated waste management plans, programs, and regulations vary by jurisdiction, but all are designed to meet state and federal regulations regarding solid waste. As described in Section III.22.1, this includes both adequate landfill planning and meeting the 75% waste diversion goal by the year 2020.

III.22.2.6 Public Health and Safety

Construction of a renewable energy project entails activities such as (1) establishing site access; (2) excavating for site clearance and site development; (3) installing towers, solar panels, and other energy accumulating equipment; (4) constructing associated buildings, electrical substations, and access roads; (5) routine maintenance; and (6) eventual decommissioning. Construction and operations workers at any facility are subject to the risk of injury or death from physical hazards. While such occupational hazards are relatively rare in modern times and can be minimized when workers adhere to safety standards and use appropriate protective equipment, fatalities and injuries from on-the-job accidents can, unfortunately, still happen. There is the additional hazard that many construction activities in the Plan Area take place outdoors in remote locations, without nearby emergency response providers.

Occupational safety and health are protected through OSHA, (29 U.S.C. 651 et seq.). States may, however, adopt laws or regulations that exceed OSHA safety standards. Some occupational hazards associated with energy projects are similar to those in all heavy construction and electric power industries, while others are unique to a specific type of renewable energy

facility such as wind, solar, or geothermal. Accident rates have been tabulated for most types of work, and risks can and have been calculated on the basis of historical industrywide statistics for use in a site-specific impact assessment.

The U.S. Bureau of Labor Statistics and the National Safety Council maintain statistics on the annual number of injuries and fatalities by industry type (National Safety Council 2011). The expected annual number of worker fatalities and injuries for specific industry types can be calculated based on Bureau of Labor Statistics and National Safety Council rate data and the number of annual full-time-equivalent workers required for construction and operations.

III.22.3 Public Health, Safety, and Services issues within Plan Area by Ecoregion Subarea

This section provides a brief description of hazardous materials, airport safety, wildland fire, public services, and landfills within each ecoregion subarea. See Figures III.22-2 to III.22-5 for airport, fire, police, and landfill facility locations. Because issues including occupational hazards, unexploded ordnance, transmission line safety, and nuisance associated with energy projects are similar across all ecoregion subareas, this section does not individually address these items.

III.22.3.1 Cadiz Valley and Chocolate Mountains Ecoregion Subarea

The Cadiz Valley and Chocolate Mountains ecoregion subarea falls within Mutual Aid Region VI. Most emergency services and critical facilities are clustered around the community of Blythe, on the eastern boundary of this ecoregion subarea, and most of the central and western portion of the ecoregion subarea is sparsely populated with limited access to public safety facilities (Figures III.22-2 and III.22-3). The two landfills and one airport within this ecoregion subarea are also in the eastern area near Blythe (Figures III.22-2 and III.22-5). Table III.22-2 lists two RCRA/CERCLA clean-up sites. The ecoregion subarea contains both federal and local responsibility areas in Riverside, Imperial, and San Bernardino counties (CAL FIRE 2012). Critical linkages include I-10, which runs east–west across the ecoregion subarea.

III.22.3.2 Imperial Borrego Valley Ecoregion Subarea

The Imperial Borrego Valley ecoregion subarea falls within Mutual Aid Region VI. Most emergency services and critical facilities are clustered around the center of this ecoregion subarea in the communities between Calexico and Brawley (see Figures III.22-2 and III.22-3). Critical linkages include I-8, which runs east–west across the southern portion of the ecoregion subarea. Several landfills are scattered fairly evenly throughout this ecoregion subarea, as illustrated in Figure III.22-5, Landfills in the Plan Area. Several airports are also in this ecoregion subarea, clustered in the central area near existing

development (Figure III.22-2). Table III.22-2 identifies three RCRA/CERCLA cleanup sites in this ecoregion subarea. The ecoregion subarea contains federal, state, and local responsibility areas in Imperial and San Diego counties.

III.22.3.3 Kingston and Funeral Mountains Ecoregion Subarea

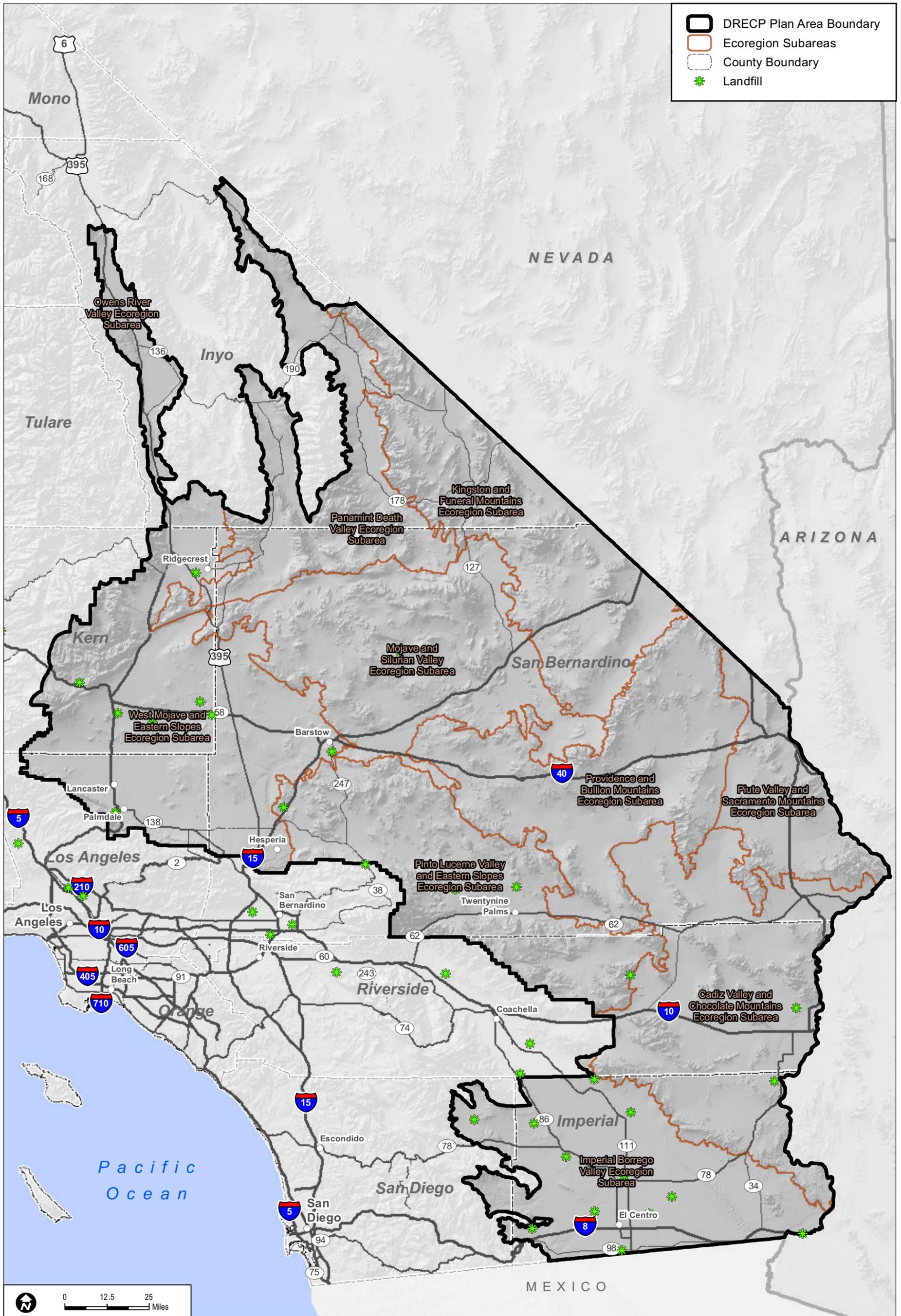
The Kingston and Funeral Mountains ecoregion subarea falls within Mutual Aid Region VI. This ecoregion subarea is sparsely populated with limited access to public safety facilities (see Figures III.22-3 and III.22-4). The nearest emergency services are in Pahrump, Nevada. Critical linkages include I-15, positioned north–south across the ecoregion subarea. There are no active landfills, airports, or RCRA/CERCLA cleanup sites (Figures III.22-2 and III.22-5). The ecoregion subarea contains federal and local responsibility areas in Inyo and San Bernardino counties.

III.22.3.4 Mojave and Silurian Valley Ecoregion Subarea

The Mojave and Silurian Valley ecoregion subarea falls within Mutual Aid Region VI. This ecoregion subarea is sparsely populated with limited access to public safety facilities (see Figures III.22-3 and III.22-4). The nearest emergency services are just west of the ecoregion subarea in Barstow. One airport is in the southern area along I-40 and a landfill is centrally located (Figures III.22-2 and III.22-5). Critical linkages include I-15, positioned northeast–southeast across the ecoregion subarea, and I-40 positioned east–west across the southern portion of the ecoregion subarea. There is one RCRA/CERCLA cleanup site listed in Table III.22-2. The ecoregion subarea contains federal and local responsibility areas in San Bernardino County and a small portion of eastern Kern County.

III.22.3.5 Owens River Valley Ecoregion Subarea

The Owens River Valley ecoregion subarea falls within Mutual Aid Region VI. This ecoregion subarea is sparsely populated with limited access to public safety facilities (see Figures III.22-3 and III.22-4). The nearest emergency services are provided by the Southern Inyo Healthcare District Hospital in Lone Pine. No active airports or landfills are in this ecoregion subarea (Figures III.22-2 and III.22-5). Critical linkages include state and local roads. There is one RCRA/CERCLA cleanup site listed in Table III.22-2. This ecoregion subarea contains federal and local responsibility areas in Inyo County, a small portion of northwestern San Bernardino County, and eastern Kern County.



Sources: ESRI (2014); CEC (2013); BLM (2013); CDFW (2013); USFWS (2013); RECON (2013)

FIGURE III.22-5

Landfills in the Plan Area

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III.22.3.6 Panamint Death Valley Ecoregion Subarea

The Panamint Death Valley ecoregion subarea falls within Mutual Aid Regions V and VI. This ecoregion subarea is sparsely populated with limited access to public safety facilities (see Figures III.22-3 and III.22-4). The nearest emergency services are west of the ecoregion subarea in Ridgecrest. Critical linkages include state and local roads. There are no active airports, landfills, or RCRA/CERCLA cleanup sites (Figures III.22-2 and III.22-5). This ecoregion subarea contains federal and local responsibility areas in Inyo County, northwestern San Bernardino County, and eastern Kern County.

III.22.3.7 Pinto Lucerne Valley and Eastern Slopes Ecoregion Subarea

The Pinto Lucerne Valley and Eastern Slopes ecoregion subarea falls within Mutual Aid Region VI. Most emergency services and critical facilities are clustered around the communities of Victorville in the western portion and Twentynine Palms in the central portion of the ecoregion subarea (see Figures III.22-3 and III.22-4). Much of the remainder of the ecoregion subarea is sparsely populated with limited access to public safety facilities. Landfills and airports are also clustered in these areas of the ecoregion subarea (see Figures III.22-2 and III.22-5). There is one RCRA/CERCLA cleanup site listed in Table III.22-2. This ecoregion subarea contains federal, state, and local responsibility areas in San Bernardino and Riverside counties. Critical linkages include state and local roads such as SR-62 and SR-247.

III.22.3.8 Piute Valley and Sacramento Mountains Ecoregion Subarea

The Piute Valley and Sacramento Mountains ecoregion subarea falls within Mutual Aid Region VI. Much of this ecoregion subarea is sparsely populated although some limited public safety facilities are in the community of Needles, California, on the extreme eastern boundary of the ecoregion subarea (see Figures III.22-3 and III.22-4). Critical linkages include I-40 across the northern portion of the ecoregion subarea and state and local roads. There is one airport in Needles, as well as an airport adjacent to the ecoregion subarea near Lake Havasu City (Figure III.22-2). No landfills have been identified in the ecoregion subarea (Figure III.22-5). There is one RCRA/CERCLA cleanup site listed in Table III.22-2. The ecoregion subarea contains both federal and local responsibility areas in eastern San Bernardino County.

III.22.3.9 Providence and Bullion Mountains Ecoregion Subarea

The Providence and Bullion Mountains ecoregion subarea falls within Mutual Aid Region VI. This ecoregion subarea is sparsely populated with limited access to public safety facilities (see Figures III.22-3 and III.22-4). The nearest emergency services are west of the ecoregion subarea in Barstow and south of the ecoregion subarea in Twentynine Palms. Critical linkages include I-40, positioned east–west across the center of the ecoregion subarea.

There are no active airports, landfills, or RCRA/CERCLA cleanup sites (Figures III.22-2 and III.22-5). The ecoregion subarea contains both federal and local responsibility areas in central San Bernardino County.

III.22.3.10 West Mojave and Eastern Slopes Ecoregion Subarea

The West Mojave and Eastern Slopes ecoregion subarea falls within Mutual Aid Regions I, V and VI. This ecoregion subarea is populated with numerous communities with public safety facilities, distributed across the ecoregion subarea (see Figures III.22-3 and III.22-4). Critical linkages include I-40, positioned northeast-southwest across the eastern portion of the ecoregion subarea, as well as numerous state and local roads. This area also contains several airports and landfills concentrated near the developed areas (Figures III.22-2 and III.22-5). Four RCRA/CERCLA cleanup sites are listed in Table III.22-2. This ecoregion subarea contains federal, state, and local responsibility areas in western San Bernardino County, Kern County, and northeastern Los Angeles County.

III.22.3.11 Hazardous Materials by Ecoregion Subarea

Table III.22-3 summarizes clean-up/hazardous materials sites in the Plan Area, listed by ecoregion subarea. The West Mojave and Eastern Slopes ecoregion subarea contains the most with four cleanup sites, followed by the Imperial Borrego Valley ecoregion subarea with three cleanup sites.

**Table III.22-2
RCRA and CERCLA Hazardous Sites by Ecoregion Subarea**

Site Name	Clean-up Type	Ecoregion Subarea
Naval Air Weapons Station China Lake	Hazardous Waste	Owens River Valley Ecoregion Subarea
Commander NTC & Fort Irwin	Hazardous Waste	Mojave and Silurian Valley Ecoregion Subarea
Edwards Air Force Base	Hazardous Waste	West Mojave and Eastern Slopes Ecoregion Subarea
U.S. Marine Corps Logistics Base	Hazardous Waste, Superfund	West Mojave and Eastern Slopes Ecoregion Subarea
Pacific Gas & Electric Topock Compressor Station	Hazardous Waste	Piute Valley and Sacramento Mountains Ecoregion Subarea
Ducommun Aerostructures	Hazardous Waste	West Mojave and Eastern Slopes Ecoregion Subarea
Southern Logistics Airport	Hazardous Waste Superfund	West Mojave and Eastern Slopes Ecoregion Subarea

**Table III.22-2
 RCRA and CERCLA Hazardous Sites by Ecoregion Subarea**

Site Name	Clean-up Type	Ecoregion Subarea
NUWAY Laundry and Cleaners	Brownfield Properties	Pinto Lucerne Valley and Eastern Slopes Ecoregion Subarea
West Coast Flying SVC Inc.	Hazardous Waste	Cadiz Valley and Chocolate Mountains Ecoregion Subarea
WOTEN Aviation Services Inc.	Hazardous Waste	Cadiz Valley and Chocolate Mountains Ecoregion Subarea
Safety Kleen Westmorland Inc.	Hazardous Waste	Imperial Borrego Valley Ecoregion Subarea
Caspian Inc. El Centro	Hazardous Waste	Imperial Borrego Valley Ecoregion Subarea
Stoker Chemical Company	Superfund	Imperial Borrego Valley Ecoregion Subarea

Source: California Department of Toxics Substance Control 2007.

III.22.4 Public Health, Safety, and Services Issues—Natural Community Conservation Plan

The affected environment for the Natural Community Conservation Plan (NCCP) is the same as that described for the entire Plan Area.

III.22.5 Public Health, Safety, and Services Issues—General Conservation Plan

III.22.5.1 Public Health, Safety, and Services Issues in the General Conservation Plan Area

The General Conservation Plan (GCP) area includes nonfederal lands identified in Volume I, Figure I.0-4. All of the ecoregion subareas contain GCP lands, which generally occupy the territory around major cities in the Plan Area. However, there are GCP lands in areas far from these cities. Therefore, the description of hazardous materials, fire hazards, and emergency services is similar to those described for the Plan Area. The following is a brief description of where the majority of the GCP lands are within each ecoregion subarea.

The Cadiz Valley and Chocolate Mountains ecoregion subarea contains the largest amount of GCP lands, concentrated around the city of Blythe. There are individual GCP lands spread throughout the ecoregion subarea but they are much smaller.

The Imperial Borrego Valley ecoregion subarea GCP lands are predominantly in the area south of the Salton Sea. The towns of Calipatria, Brawley, Holtville, Imperial, El Centro, and

Calexico all contain GCP lands and are surrounded by these lands. There is also a large parcel of GCP land in the northwest corner of this ecoregion subarea within San Diego County. A number of smaller, individual GCP land parcels are also throughout this ecoregion subarea.

The Kingston and Funeral Mountains ecoregion subarea contains a small amount of GCP lands. The largest area of GCP lands is on the very eastern boundary of the ecoregion subarea in Inyo County on the California border near the town of Pahrump, Nevada.

The Mojave and Silurian Valley ecoregion subarea contains the majority of GCP lands in the southern portion of the ecoregion subarea, around the city of Barstow, and to the southeast, between I-15 and Highway 40. Small GCP parcels are also throughout the southern portions of this ecoregion subarea.

The Owens River Valley ecoregion subarea predominantly contains GCP lands on the east side of Highway 395 throughout the Owen River Valley in Inyo County with additional smaller parcels spread throughout this ecoregion subarea.

The Panamint Death Valley ecoregion subarea contains a small amount of GCP lands north-east of the city of Ridgecrest. Small areas of GCP lands are also in the southern area of this ecoregion subarea.

The Pinto Lucerne Valley and Eastern Slopes ecoregion subarea has GCP lands in the southwest area. Large areas of GCP land spread east and west of the city of Twentynine Palms and to the southeast of the city of Victorville. Small GCP lands are throughout the ecoregion subarea.

The Piute Valley and Sacramento Mountains ecoregion subarea contains minimal GCP lands, primarily on the eastern boundary near the city of Needles and southeast of Lake Havasu City. A small number of GCP lands are spread throughout the ecoregion subarea.

The Providence and Bullion Mountains ecoregion subarea contains minimal GCP lands, generally in the northeastern and central areas.

The West Mojave and Eastern Slopes ecoregion subarea contains the largest amount of GCP lands of all the ecoregion subareas. The GCP lands spread across nearly the entirety of the ecoregion subarea, with the exception of the northeast area. The cities of Palmdale, Lancaster, Tehachapi, California City, Adelanto and Barstow all contain GCP lands, and the areas surrounding these cities also contain significant GCP lands.

III.22.6 Public Health, Safety, and Services Issues Outside the Plan Area

The environment outside the Plan Area contains BLM-administered lands within the California Desert Conservation Area (CDCA) boundary that were not included in the Plan Area. These lands are identified in Volume I, Figure I.0-6. These lands are predominantly grouped into three areas, each consisting of multiple separated areas.

One area is between the Panamint Death Valley ecoregion subarea and the Owens River Valley ecoregion subarea, north of the Plan Area. Another is south of the Pinto Lucerne Valley and Eastern Slopes ecoregion subarea and north of the Imperial Borrego Valley ecoregion subarea. Three additional areas are to the west of the Imperial Borrego Valley ecoregion subarea. Most of these areas are in remote locations; therefore, the description of hazardous materials, airport hazards, fire hazards, emergency services, and landfills is similar to that in the Plan Area.

III.22.6.1 Public Health, Safety, and Services Issues—Transmission Out of Plan Area

The transmission required Outside of the Plan Area includes four geographic areas: San Diego, Los Angeles, North Palm Springs–Riverside, and the Central Valley.

The federal and state regulatory environment (see Sections III.22.1.1 and III.22.1.2) also applies to all Out of Plan Area corridors. Additionally, due to the universal nature of public health and safety resources, the environmental setting presented encompasses all Out of Plan Area corridors, with the exception of the areas of known hazardous contamination sites (see Section III.22.2.1.2).

Each of these four Out of Plan Area corridors follows existing 500 kilovolt rights-of-way. Land uses within the corridors are primarily large-scale transmission infrastructure and substations. No known sites within the Out of Plan Area corridors have been identified as cleaned under RCRA or CERCLA. However, current construction projects and the ongoing operation and maintenance of transmission facilities and substations within the Out of Plan Area corridors could cause site-specific incidents of contamination, including oil and fuel spills and improper paint can disposal.

III.22.6.2 Public Health, Safety, and Services Issues—Bureau of Land Management Land Use Plan Amendment Decisions

CDCA Plan lands Outside of the Plan Area are shown in Volume I, Figure I.0-2b. Most of these areas are in remote locations, including large portions of Mono County and Inyo County, north of the Plan Area, and portions of Riverside and San Diego counties, west of

the Plan Area. However, some cities within the Plan Area, including Palm Springs, Palm Desert, Indio, and Coachella, would provide additional emergency services resources for these lands. Airports and landfills are also near these developed areas. The description of hazardous materials, fire hazards, landfills, and airport hazards is similar to the Plan Area analysis and includes similar issues.