3.6 Hazards and Hazardous Materials

This section assesses potential hazards and hazardous materials that may arise as a result of the proposed project. A material is considered hazardous if it appears on a list of hazardous materials prepared by a federal, state, or local agency, or if it has characteristics defined as hazardous by such an agency. Chemical and physical properties cause a substance to be considered hazardous, including the properties of toxicity, ignitability, corrosively and reactivity. These properties are defined in California Code of Regulations, Title 22, Sections 66261.20-66261.24. Common materials that are considered hazardous include fuels, motor oil, grease, various lubricants, solvents, soldering equipment and glues. A "hazardous waste" is any hazardous material that is discarded, abandoned, or recycled. The criteria that render a material hazardous also make a waste hazardous (California Health and Safety Code, Section 25117).

The potential hazards that could arise from the proposed project are discussed in this section, as well as a summary of a report prepared by Environmental Data Resources (EDR) that lists properties in the region with known historical or current hazardous materials storage or releases. The project area includes the proposed backbone alignment, proposed pump stations, and the proposed reservoirs. A 0.5-mile buffer surrounding these project elements is also included in the assessment.

3.6.1 Setting

Much of the project area is urbanized, used for agricultural purposes, or is undeveloped open space. Urban areas contain commercial and industrial facilities that produce and/or use a wide variety of hazardous materials, including fuels and solvents. Fuels, chemicals, and other hazardous materials and hazardous wastes are also transported via roadways in the project area. Agricultural areas store and use pesticides and fertilizers that may pose hazards or impact soil and groundwater quality.

The Palmdale Regional Airport lies within approximately 1.0 mile of East Avenue M and 50th Street East. General William J Fox Airport is approximately 1.5 miles north of West Avenue H. EAFB is greater than 15 miles to the north-east of the project site.

There are approximately 60 schools located within 1 mile of the proposed alignments (Rand McNally, 2007a, 2007b).

The County of Los Angeles Fire Department maps the Fire Hazard Severity Zones (FHSZ) within the cities of Lancaster and Palmdale; the California Department of Forestry and Fire Protection has mapped the FHSZs within Kern County. The FHSZ's are based on an evaluation of fuels, topography, dwelling density, weather, infrastructure, building materials, brush clearance, and fire history. According to these maps, the majority of the proposed "backbone" will be constructed in areas designated as having a "moderate fire hazard." The portion of the alignment on Avenue P east of Sierra Highway is in an area designated as having "other non-wildland"

FHSZ; and the portion of the alignment on 40th Street, which will also include the proposed Reservoir 3 and Booster Pump Station 2, lie in a "high fire hazard" FHSZ.

An EDR database report was prepared and reviewed to identify the hazardous materials/waste sites present in the project service area. The purpose of this inquiry was to identify portions of the project that may encounter contaminated soils during construction of the pipelines and other facilities. The EDR Report Executive Summary is included in **Appendix F**. Results from the EDR are discussed below.

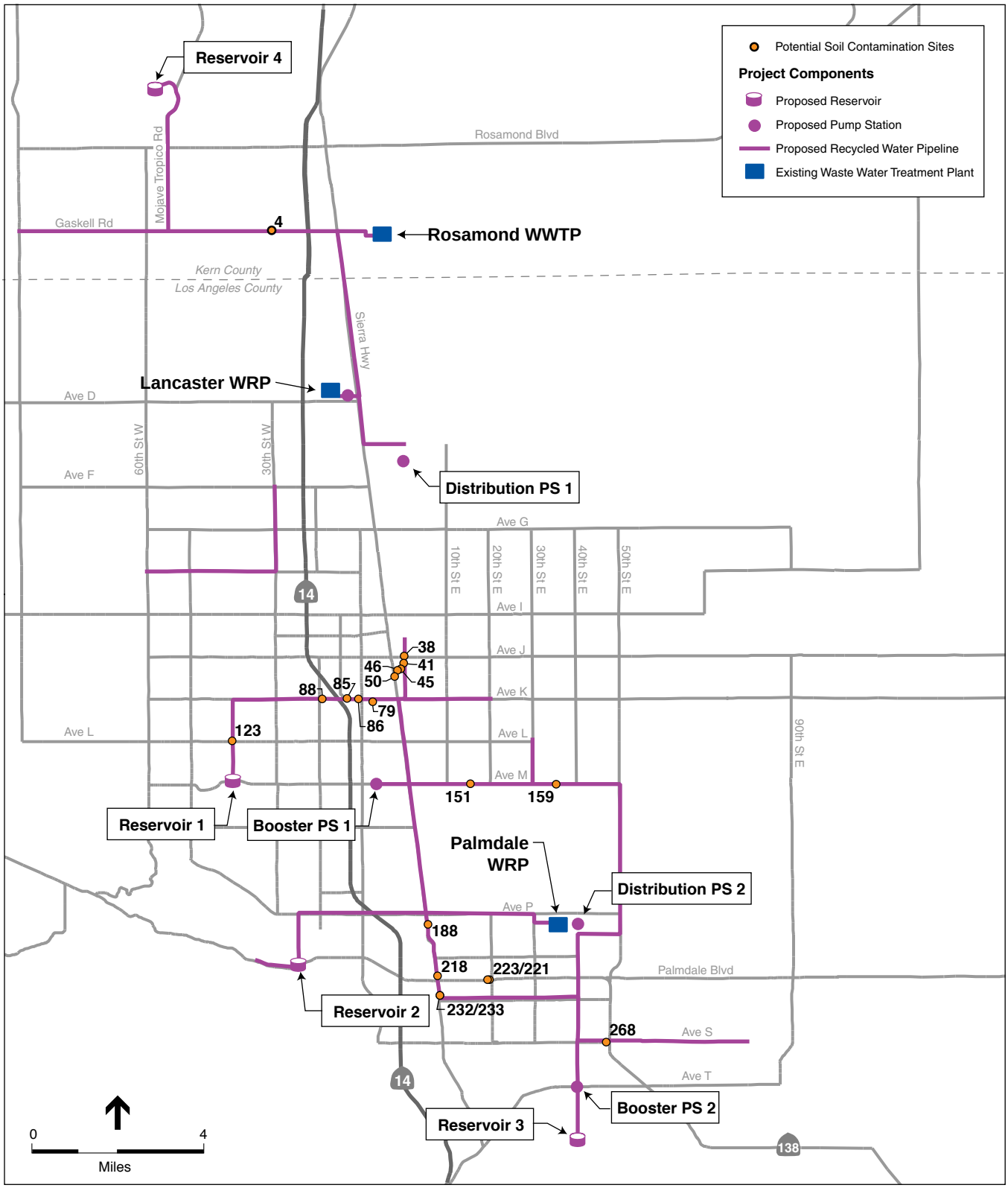
The review of the EDR database report focused on the databases that identified sites with documented soil contamination, specifically the following:

- Leaking Underground Storage Tank (LUST) databases: for potential sources of soil contamination by petroleum hydrocarbons and petroleum related volatile organic compounds (VOCs).
- Dry Cleaners database: for potential sources of soil contamination by chlorinated hydrocarbons such as tetrachloroethene (PCE) and trichloroethene (TCE).
- National Priorities List (NPL): for potential sources of soil contamination by a range of chemicals including petroleum constituents, VOCs, and metals.
- Spills, Leaks, Investigations, and Cleanup (SLIC) database: for potential sources of soil contamination by a range of chemicals including petroleum constituents, VOCs, and metals.
- Solid Waste Landfill (SWLF) and Toxic Pits databases: for potential sources of soil contamination associated with solid waste landfills, including petroleum constituents, VOCs, and metals.

The review of the EDR database report did not identify any sites on the NPL or SLIC database. Sites that were identified on the remaining databases were screened according to the case status, the details provided in the database listings, and proximity to the project sites. The review focused on sites within close proximity to the project alignments.

Figure 3.6-1 summarizes the findings of the EDR database report. For the purpose of this review, sites are considered relevant if they appear on the LUST database and the case remains open or undefined, if they appear on the Dry Cleaner database, or if they appear on the SWLF or Toxic Pits database.

The review of the database report indicates that a total of 21 sites qualify as potential sources of soil contamination for the project as indicated in **Table 3.6-1** below. Site names and addresses are listed as they appear in the database report:



SOURCE: EDR Database Report, 2008.

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Figure 3.6-1

Potential Soils Contamination

TABLE 3.6-1
POTENTIAL CONTAMINATION OF SOILS IN THE PROJECT AREA

Site or Site Cluster Number	Site Name	Site Address	Database
4	Pratt & Whitney Building	1899 Stazol (Flight Line)	LUST
38	Southern California Gas Company	44416 Division Street	LUST
38	Mobil Mini Mart	101 East Avenue J	LUST
41	Elite Car Wash	44267 Division St. N	LUST
45	Jana Store Fixtures	123 Ave J-5 W	LUST
46	UNOCAL Bulk Plant #345	44141 Yucca Ave N	LUST
50	Caltrans Lancaster Maintenance	44023 Sierra Highway	SWLF
79	Donna Hamilton DBA Gadsden Cleaners	43535 Gadsden Ave Ste G	CLEANERS
85	GEMCO Store #521 Former	1333 Ave K W	LUST
86	Commerce Cleaners	1068 W Ave K	CLEANERS
88	K-20 Mini Mart	1850 W Avenue K	LUST
123	West Side Cleaners	4029 Avenue L	CLEANERS
151	Site 1 T1-5 Bldg 145	1502 Ave M E	LUST
159	Site 4 Northrop	3520 Ave M E	LUST
188	Massariai	39500 Sierra Hwy	LUST
218	Miracle Cleaners	38456 N Sierra Hwy	CLEANERS
221	Shell Service Station	1853 Palmdale Boulevard	LUST
223	Gateway Cleaners	1813-A Palmdale Blvd	CLEANERS
232	LADPW MD-5	381226 Sierra Hwy	LUST
233	LA CO Public Works Roads Dept.	38126 Sierra Highway	SWLF
268	Alfa Cleaners	4626 E Ave S Ste A	CLEANERS

3.6.2 Regulatory Framework

The following subsections present information on the applicable standards for the management of hazardous materials and nonhazardous and hazardous waste. Hazardous materials handling is subject to numerous laws and regulations at all levels of government. Federal and State laws require detailed planning to ensure that hazardous materials are properly handled, used, stored, and disposed of, and in the event that such materials are accidentally released into the environment, to prevent or to mitigate injury to human health or the environment.

As the project does not necessitate the storage of any hazardous materials, this assessment will focus on the use of hazardous materials such as oil, fuel, and solvents during the construction of the project, as well as the potential for hazardous waste removal of construction spoils.

Federal

Hazardous materials are governed under these three federal regulations: Occupational Safety and Health Administration (OSHA), Resource Conservation and Recovery Act, and the Toxic Substance Control Act.

OSHA

Worker safety is regulated through the federal OSHA as well as at the state level, through Cal OSHA. Federal OSHA, established in CFR Title 29, requires 40 hours of training for hazardous materials operators, plus eight hours of refresher training per year. The training includes personal safety, hazardous materials storage and handling procedures, and emergency response procedures.

Resource Conservation and Recovery Act

Under the federal Resource Conservation and Recovery Act (RCRA), individual states may implement their own hazardous waste programs in lieu of the RCRA as long as the state program is at least as stringent as federal RCRA requirements and is approved by the USEPA. The USEPA approved California's RCRA program, called the Hazardous Waste Control Law (HWCL), in 1992. Cal EPA and DTSC, a department within Cal EPA, regulate the generation, transportation, treatment, storage, and disposal of hazardous waste. DTSC has primary hazardous materials regulatory responsibility, but can delegate enforcement responsibilities to local jurisdictions that enter into agreements with DTSC for the generation, transport, and disposal of hazardous materials under the authority of the HWCL.

Toxic Substance Control Act

The Toxic Substances Control Act (TSCA) of 1976 was enacted by Congress to give the USEPA the ability to track the 75,000 industrial chemicals currently produced or imported into the United States. The USEPA repeatedly screens these chemicals and can require reporting or testing of those that may pose an environmental or human-health hazard. The USEPA can ban the manufacture and import of those chemicals that pose an unreasonable risk.

State

Hazardous materials are governed under these four California regulations: California OSHA, California Code of Regulations (CCR), the California Hazardous Materials Release Response Plans and Inventory Law, and the Unified Hazardous Materials Management Regulatory Program.

California OSHA

In California, the California Occupational Safety and Health Administration (Cal OSHA) regulates worker safety similarly to the federal OSHA. OSHA has developed worker safety regulations for the safe abatement of lead-based paint and primers (Lead in Construction Standard, Title 8 CCR 1532.1).

CCR

The California Code of Regulations (CCR), Title 22, Section 66261.20-24 contains technical descriptions of characteristics that would classify a soil as a hazardous waste. When excavated,

soils having concentrations of contaminants higher than certain acceptable levels must be handled and disposed as hazardous waste.

California Hazardous Materials Release Response Plans and Inventory Law

The California Hazardous Materials Release Response Plan and Inventory Law of 1985 (Business Plan Act) requires that businesses that store hazardous materials onsite prepare a business plan and submit it to local health and fire departments. The business plan must include:

- Details of the facility and business conducted at the site;
- An inventory of hazardous materials that are handled and stored onsite;
- An emergency response plan; and
- A safety and emergency response training program for new employees with an annual refresher course.

Unified Hazardous Materials Management Regulatory Program

In January 1996, Cal EPA adopted regulations, which implemented a Unified Hazardous Waste and Hazardous Materials Management Regulatory Program (Unified Program). The program has six elements: (1) hazardous waste generators and hazardous waste onsite treatment; (2) Underground Storage Tanks; (3) Aboveground Storage Tanks; (4) hazardous materials release response plans and inventories; (5) risk management and prevention programs; and (6) Unified Fire Code hazardous materials management plans and inventories. The plan is implemented at the local level and the agency responsible for implementation of the Unified Program is called the Certified Unified Program Agency (CUPA). In Los Angeles County, the Los Angeles County Fire Department is the designated CUPA. In Kern County, the Kern County Environmental Health Services Department is the designated CUPA.

Local

The Kern County General Plan contains pertinent policies and implementation measures regarding hazardous materials.

The County of Los Angeles General Plan, which is undergoing a comprehensive update of the 1980 countywide General Plan, and the individual General Plan for the cities of Lancaster and Palmdale contain pertinent goals, objectives, and policies regarding hazardous materials.

3.6.3 Impacts and Mitigation Measures

Significance Criteria

Criteria used to determine the significance of impacts related to hazards and hazardous materials are based on Appendix G of the *CEQA Guidelines*. The project would result in a significant impact if it would:

- Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials.

- Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment.
- Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school.
- Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment.
- For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area.
- For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area.
- Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan.
- Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands.

Impacts Discussion

The greatest hazardous materials risk to human health and the environment, due to implementation of the project, are: (a) if contaminated groundwater was encountered during excavation activities from the backbone installation or if the excavation released contaminated soils into the groundwater; (b) if contaminated soils were to be encountered during excavation activities and (c) if uncontrolled releases of hazardous materials from the construction site were to be conveyed off-site potentially impacting other areas. The greatest potential to encounter contaminated soils is if hazardous materials (such as petroleum) were to migrate in the soil and/or groundwater away from a LUST or other damaged storage structure and then excavated during construction activities. Uncontrolled releases of hazardous materials from the construction site, if conveyed off-site, would also pose a threat to human health and the environment.

Recycled Water End Users

The recycled water could potentially be used for M&I applications, agricultural irrigation, groundwater recharge and power plant cooling water. No short-term or long-term, project-level impacts or program-level impacts to hazards and hazardous materials due to the use of recycled water by proposed end users are anticipated.

Project-Level Impacts

Recycled Water Pipeline

Impact 3.6-1: During construction of the proposed project, contaminated soils could be encountered during excavation activities, causing a risk of exposure to hazardous materials. Less than Significant with Mitigation.

A total of 21 sites were identified on the EDR database report that are within 0.25 mile of the project and represent potential sources of soil contamination that could be encountered during excavation (Table 3.6-1; Figure 3.6-1). Sites appearing on the LUST database with cases remaining open or undefined represent potential sources of petroleum hydrocarbons and VOCs. Sites appearing on the Cleaners database represent potential sources of chlorinated solvents including PCE and TCE. Sites appearing on the SWLF database represent potential sources of a variety of constituents including petroleum hydrocarbons, VOCs, chlorinated solvents, and metals.

Mitigation Measures

Mitigation Measure 3.6-1: In the event that evidence of potential soil contamination, including soil discoloration, noxious odors, debris, or buried storage containers are encountered during construction, the implementing agencies shall require the construction contractor(s) to have a contingency plan for sampling and analysis of potentially hazardous substances and coordination with the appropriate regulatory agencies, if necessary. The required handling, storage, and disposal methods shall depend on the types and concentrations of chemicals identified in the soil. Any site investigations or remedial actions shall comply with applicable laws.

Significance after Mitigation: Less than significant.

Impact 3.6-2: Accidental upset of hazardous materials used during project construction may increase the risk of exposure to the environment, workers, and the public. Less than Significant with Mitigation.

Construction of the recycled water backbone pipeline would require equipment that utilizes hazardous materials such as petroleum fuels and oil. During construction activities, such hazardous materials could accidentally be spilled or otherwise released into the environment exposing construction workers, the public and/or the environment to potentially hazardous conditions.

Operation of the project would not require routine transport, use, or disposal of hazardous materials or create a significant hazard due to accidental release of hazardous materials into the environment. The project does not include treatment facilities to transport and store recycled water.

Mitigation Measures

Mitigation Measure 3.6-2a: Construction contractor(s) shall be required to implement best management practices (BMPs) for handling hazardous materials during the project. The use of the construction BMPs shall minimize negative effects on groundwater and soils, and will include, without limitation, the following:

- Follow manufacturers' recommendations and regulatory requirements for use, storage, and disposal of chemical products and hazardous materials used in construction.
- Avoid overtopping construction equipment fuel tanks.
- During routine maintenance of construction equipment, properly contain and remove grease and oils.
- Properly dispose of discarded containers of fuels and other chemicals.

Mitigation Measure 3.6-2b: The implementing agencies shall require the construction contractor(s) to implement safety measures in accordance with General Industry Safety Orders for Spill and Overflow Control (CCR Title 8, Sections 5163-5167) to protect the project area from contamination due to accidental release of hazardous materials. The safety measures shall include, but not be limited to, the following:

- Spills and overflows of hazardous materials shall be neutralized and disposed of promptly.
- Hazardous materials shall be stored in containers that are chemically inert to and appropriate for the type and quantity of the hazardous substance.
- Containers shall not be stored where they are exposed to heat sufficient enough to rupture the containers or cause leakage.
- Specific information shall be provided regarding safe procedures and other precautions before cleaning or subsequent use or disposal of hazardous materials containers.

Disposal of all hazardous materials shall be in compliance with applicable California hazardous waste disposal laws. The construction contractor shall contact the local fire agency and the County Department of Public Health, Environmental Health Division, for any site-specific requirements regarding hazardous materials or hazardous waste containment or handling.

Mitigation Measure 3.6-2c: In the event of an accidental release of hazardous materials during construction, containment and clean up shall occur in accordance with applicable regulatory requirements.

Mitigation Measure 3.6-2d: Oil and other solvents used during maintenance of construction equipment shall be recycled or disposed of in accordance with applicable regulatory requirements. All hazardous materials shall be transported, handled, and disposed of in accordance with applicable regulatory requirements.

Mitigation Measure 3.6-2e: The implementing agencies shall require the construction contractor(s) to prepare a Site Safety Plan in accordance with applicable regulatory requirements.

Mitigation Measure 3.6-2f: The implementing agencies shall require the construction contractor(s) to prepare and implement a Safety Program to ensure the health and safety of construction workers and the public during project construction. The Safety Program shall include an injury and illness prevention program, as site-specific safety plan, and

information on the appropriate personal protective equipment to be used during construction.

Significance after Mitigation: Less than significant.

Impact 3.6-3: The proposed project could result in a safety hazard for people residing or working in the project area in the vicinity of airports. Less than Significant with Mitigation.

Components of the proposed project are within two miles of airports, including the Palmdale Regional Airport and General William J. Fox Airport. The proposed project would not construct any wildlife hazard attractants that would jeopardize the safety of aircraft operations. However, construction of the proposed project along roadways near airport facilities could introduce safety hazards for both workers at the construction sites and at the airports. Coordination with airport agencies and staff would be required to ensure proper protections measures are integrated into a construction safety program and implemented by the construction contractor. Additional discussion regarding project compatibility with airport operations and pre-construction coordination with airport agencies, such as Los Angeles World Airports (LAWA), Caltrans, and the FAA, is presented in Chapter 3.8, Land Use and Agriculture.

Mitigation Measures

Mitigation Measure 3.6-3: The implementing agencies shall coordinate with appropriate airport agencies (such as LAWA, Caltrans, and FAA) and staff to ensure a safety program is developed and implemented during construction of the proposed project.

Significance after Mitigation: Less than significant.

Impact 3.6-4: The proposed project could interfere with emergency response and evacuation plans during project construction. Less than Significant with Mitigation.

Construction of the proposed project would require transportation of equipment and materials that could interfere with emergency response or evacuation plans. Roadways could be temporarily affected due to operation or storage of construction equipment and material deliveries, particularly during construction of the proposed pipeline. Project construction would not result in complete roadway closures but would result in lane closures, which would affect traffic flows. Implementation of a Traffic Control/Traffic Management Plan, as described in Mitigation Measure 3.11-1a would ensure there would be no interference with emergency response and evacuation plans. The Traffic Control/Traffic Management Plan would ensure that all roads remain passable to emergency service vehicles at all times. No further mitigation measures are required.

Mitigation Measures

Implementation of Mitigation Measure 3.11-1a.

Significance after Mitigation: Less than significant.

Impact 3.6-5: Construction activities in grassland areas would have the potential to expose people or equipment to risk of loss, injury, or death involving wildland fires. Less than Significant with Mitigation.

Portions of the recycled water backbone are located in areas characterized by residential communities, agricultural operations, open space, and vacant lands. These areas may be susceptible to wildland fires as construction of the proposed project requires equipment and activities that use petroleum fuels and oil and could result in accidental spills leading to fire-related hazards.

Mitigation Measures

Mitigation Measures 3.6-5a: The implementing agencies shall coordinate with local fire agencies to develop a fire safety plan, which describes various potential scenarios and action plans in the event of a fire.

Mitigation Measures 3.6-5b: During construction, all staging areas, welding areas, or areas slated for development using spark-producing equipment shall be cleared of dried vegetation or other material that could ignite. Any construction equipment that includes a spark arrestor shall be equipped with a spark arrestor in good working order. During the construction of the recycled water backbone, contractors shall require all vehicles and crews working at the project site to have access to functional fire extinguishers at all times. In addition, construction crews shall have a spotter during welding activities to look out for potentially dangerous situations, including accidental sparks.

Significance after Mitigation: Less than significant.

Program-Level Impacts

Storage Reservoirs & Pump Stations

Impact 3.6-6: Accidental upset of hazardous materials used during construction of the storage reservoirs and pump stations may increase the risk of exposure to the environment, workers, and the public, resulting in a significant impact. Less than Significant with Mitigation.

Construction of the storage reservoirs and pump stations would require equipment that utilizes hazardous materials such as petroleum fuels and oil. During construction activities, such hazardous materials could accidentally be spilled or otherwise released into the environment

exposing construction workers, the public and/or the environment to potentially hazardous conditions. Implementation of Mitigation Measures 3.6-2a through 3.6-2f would reduce potential impacts to less than significant levels.

Mitigation Measures

Implementation of Mitigation Measures 3.6-2a through 3.6-2f.

Significance after Mitigation: Less than significant.