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**SECTION 4.17 - HAZARDS, HAZARDOUS MATERIALS AND PUBLIC SAFETY**

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ENTRIX, Inc., "Hazards Evaluation of the Newhall Ranch Habitat Management Plan and Spineflower Conservation Plan Project" (September 2008).

## 4.17.1 INTRODUCTION

This section focuses on the potential significant hazards, hazardous materials, and public safety impacts resulting from the "No Action/No Project" alternative (Alternative 1), the proposed Project (Alternative 2), and the five other Project alternatives (Alternatives 3-7). For purposes of this EIS/EIR, hazardous materials are defined as substances with certain chemical and physical properties that could pose a substantial present or future hazard to human health or the environment if improperly handled, stored, disposed, or otherwise managed. If improperly handled, hazardous materials can result in public health hazards through human contact with contaminated soils or groundwater or through airborne releases in vapors, fumes, or dust.

This section first describes the environmental setting for each of these issues, followed by a discussion of the regulatory framework governing them. The section concludes with an assessment of potential significant impacts resulting from the proposed Project and alternatives, as well as the identification of mitigation measures for any identified significant impacts. Potential significant impacts were analyzed, specifically where development occurs in the following locations: (1) adjacent to historic and continuing oil and natural gas production that has occurred on and adjacent to the Specific Plan site, and the Entrada and VCC planning areas; (2) in proximity to high voltage electrical transmission lines; (3) in proximity to high pressure gas lines located on the Specific Plan site; (4) adjacent to SR-126, upon which hazardous materials are transported; (5) in proximity to Chiquita Canyon Landfill; (6) within the Castaic/Forebay Reservoir dam inundation area; (7) adjacent to ongoing agricultural operations/pesticide use; and (8) areas subject to wildland fire risk. The potential impacts identified have been or will be remediated as specified in the Phase I reports cited in this section, and by implementing the required and recommended mitigation measures set forth in this EIS/EIR.

This section is based on the hazards evaluation of the proposed Project and the alternatives. (See **Appendix 4.17** for the technical report, prepared by ENTRIX, Inc. (2008).) Please also refer to this EIS/EIR, **Section 4.13**, Geology and Geologic Hazards, for a discussion of potential geologic safety hazards, and **Section 4.18**, Public Services, which describes the public and emergency services that serve the Project area.

### 4.17.1.1 Relationship of Proposed Project to Newhall Ranch Specific Plan Program EIR

This section (**Section 4.17**) provides a stand-alone assessment of the potentially significant hazards, hazardous materials, and public safety impacts associated with the proposed Project and alternatives; however, the previously certified Newhall Ranch environmental documentation provides important information and analysis pertinent to this EIS/EIR. The Project components would require federal and state permitting, consultation, and agreements that are needed to facilitate development of the approved land uses within the Specific Plan site and that would establish spineflower preserves within the Project area, also facilitating development in the Specific Plan, VCC, and a portion of the Entrada planning area. Due to this relationship, the Newhall Ranch environmental documentation, findings, and mitigation, as they relate to hazards, hazardous materials, and public safety, are summarized below to provide context for the proposed Project and alternatives.

Section 4.5 of the Newhall Ranch Revised Draft EIR (March 1999) identified and analyzed the existing conditions, potential impacts, and mitigation measures associated with environmental safety for the entire

Specific Plan area. In addition, Section 5.0 of the Newhall Ranch Revised Draft EIR (March 1999) identified and analyzed the potential environmental safety impacts and mitigation measures associated with construction and operation of the approved WRP, which would treat the wastewater generated by the Specific Plan. The Newhall Ranch mitigation program was adopted by Los Angeles County in findings and in the revised Mitigation Monitoring Plans for the Specific Plan and WRP.

The Newhall Ranch Revised Draft EIR (March 1999) concluded that the Specific Plan would result in less-than-significant impacts to environmental safety, on a project level and cumulative basis, with the implementation of proposed mitigation measures. Accordingly, the Newhall Ranch Revised Draft EIR (March 1999) recommended the implementation of Mitigation Measures SP-4.5-1 through SP-4.5-9 to address the potentially significant environmental safety impacts identified in the document.[1] In addition, the Newhall Ranch Revised Draft EIR (March 1999) recommended the implementation of Mitigation Measures SP-5.0-22 through SP-5.0-29, to mitigate environmental safety impacts resulting from the WRP. Specifically, the Newhall Ranch Specific Plan Program EIR recommended implementation of Mitigation Measures SP-4.5-1, SP-4.5-3, SP-4.5-5, SP-4.5-7, SP-4.5-8, and SP-4.5-9 to ensure compliance with all plan and regulatory requirements. To ensure avoidance of hazards, hazardous materials, and public safety impacts resulting from the construction and operation of the approved WRP, the Newhall Ranch Specific Plan Program EIR also recommended implementation of Mitigation Measures SP-5.0-22 through SP-5.0-29. The Los Angeles County Board of Supervisors found that adoption of the recommended mitigation measures would ensure compliance with all plan and regulatory requirements. The Board of Supervisors also found that adoption of the measures would reduce the identified potentially significant effects to less-than-significant levels.

**Table 4.17-1** summarizes the Specific Plan's and the WRP's environmental safety impacts, the applicable mitigation measures, and the significance findings after implementation of the mitigation.

**Table 4.17-1**
**Hazards, Hazardous Materials, and Public Safety Impacts Caused By Implementation of the Specific Plan and WRP**

| Impact Description | Mitigation Measures | Finding After Mitigation |
|---|---|---|
| **Specific Plan Hazards Impacts** - The Specific Plan will allow development to occur in and adjacent to portions of the Specific Plan site that are occupied by oil and natural gas production operations.<br><br>Electrical transmission lines also would traverse portions of the site. However, only recreation, open area, utilities, drainage structures, parking and roadway uses will be allowed within the power line easements.<br><br>Development is proposed in close proximity to high pressure gas mains. The California Public | • SP-4.5-1 (requiring compliance with the California State Board of Education's requirements for school siting);<br>• SP-4.5-2 (prohibiting habitable structures within SCE easements);<br>• SP-4.5-3 (requiring remediation of abandoned oil and natural gas-related sites);<br>• SP-4.5-4 (requiring fencing and emergency access to all on-going oil and natural gas operational sites); | Not significant. |

[1] Reference to mitigation measures included in the Newhall Ranch Specific Plan Program EIR are preceded by "SP" in this EIS/EIR to distinguish them from other mitigation measures discussed herein.

**Table 4.17-1**
**Hazards, Hazardous Materials, and Public Safety Impacts Caused By Implementation of the Specific Plan and WRP**

| Impact Description | Mitigation Measures | Finding After Mitigation |
|---|---|---|
| Utilities Commissions mandates safety requirements for the regular inspection and maintenance of these mains in order to reduce fire and explosion hazards associated with them to below a level of significance.<br>A portion of the Specific Plan site also lies in the dam inundation area of the Castaic/Forebay Reservoirs and, although dam failure is a rare occurrence in the state, flooding of the site as a result of dam inundation is remotely possible, but is not considered significant.<br>No Proposition 65 pesticides would be used in common or public areas of the site, or in areas of the site that will continue to be farmed until developed. Therefore, no significant impacts relative to pesticide exposure would occur. | • SP-4.5-5 (compliance with Southern California Gas Company requirements);<br>• SP-4.5-6 (requiring buyer awareness measures near high-pressure gas mains);<br>• SP-4.5-7 (requiring methane gas protection systems where applicable);<br>• SP-4.5-8 (requiring landfill gas migration protection and/or control systems where applicable);<br>• SP-4.5-9 (requiring County review of any plans for underground hazardous materials storage facilities). | |
| **Specific Plan Cumulative Hazards Impacts** - No cumulative impacts were identified. | • No further mitigation recommended. | Not significant. |
| **WRP Hazards Impacts** - Operation of the plant would involve the storage, use, and disposal of a variety of hazardous chemicals, primarily for application in the various stages of the waste treatment process. Treatment facilities also would generate various toxic air emissions, as well as biosolids that contain traces of chemical pollutants and pathogen-laden bacteria. Accidents or catastrophic natural events (such as an earthquake or flooding) could result in significant risks to the environment or human health from release of the various hazardous materials and emissions at the plant. | • SP-5.0-22 (requiring compliance with the NPDES Permit);<br>• SP-5.0-23 (requiring worker safety programs that comply with Cal-OSHA);<br>• SP-5.0-24 (requiring preventative and contingency plans for controlling accidental discharges of hazardous materials, and for minimizing the consequences);<br>• SP-5.0-25 (requiring Stormwater Pollution Prevention Plan);<br>• SP-5.0-26 (requiring compliance with County Wastewater Ordinance);<br>• SP-5.0-27 (requiring Integrated Emergency Response Plan);<br>• SP-5.0-28 (requiring biosolid treatment and disposal to comply with Title 22 of the California Code of Regulations);<br>• SP-5.0-29 (requiring permits for construction and operations resulting in new sources of air toxic emissions). | Not significant. |

Source: Newhall Ranch Revised Draft EIR (March 1999) and Newhall Ranch Revised Additional Analysis (May 2003).

### 4.17.1.2 Relationship of Proposed Project to VCC and Entrada Planning Areas

#### 4.17.1.2.1 VCC Planning Area

The SCP component of the proposed Project, if approved, would facilitate development in the VCC planning area. The VCC is reliant on the SCP and associated take authorizations, and would not be developed without the take authorizations due to grading constraints. The VCC planning area is the remaining undeveloped portion of the VCC commercial/industrial complex currently under development by the applicant. The VCC was the subject of an EIR certified by Los Angeles County in April 1990 (SCH No. 87-123005). The applicant recently has submitted to Los Angeles County the last tentative parcel map (TPM No. 18108) needed to complete build-out of the remaining undeveloped portion of the VCC planning area. The County will require preparation of an EIR in conjunction with the parcel map and related project approvals; however, the County has not yet issued a Notice of Preparation (NOP) of the EIR or released the EIR. **Table 4.17-2** summarizes the VCC's environmental safety impacts, the applicable mitigation measures, and the significance findings after mitigation from the previously certified VCC EIR (April 1990).

**Table 4.17-2**
**Hazards, Hazardous Materials, and Public Safety Impacts Caused By VCC Implementation**

| VCC Impact Description | VCC Mitigation Measures | Finding After Mitigation |
|---|---|---|
| **Project Hazards Impacts** - Project implementation would result in some industrial users who may store, use, transport, and dispose of hazardous materials. In addition, a portion of the project is within 1,000 feet of the Live Oak Elementary School. However, a Los Angeles County Fire Department facility (Fire Station #76) is located immediately south of the VCC project site on Henry Mayo Drive. This station contains one of three Haz-Mat squads in Los Angeles County, and is well situated to respond to fires or spills in the VCC within 2-5 minutes. | • Mitigation measures would require businesses that handle hazardous materials to comply with all applicable federal, state, and local rules and regulations, and to obtain all permits necessary from the various regulatory agencies involved. In addition, industrial businesses handling hazardous materials, and within 1,000 feet of the elementary school, would be required to develop a Risk Management and Prevention Program that would then be submitted to the County's Fire Department for review and approval prior to building occupancy. | Not significant. |
| **Cumulative Hazards Impacts** - Tenants of all pending, approved, and recorded industrial projects developed in the VCC project region are legally required to comply with all applicable rules and regulations related to the use, storage, and transport of hazardous materials. Further, it is the responsibility of the Department of Public Works to review the need, compatibility, and design of each project on an individual basis. It is likely that compliance with the applicable laws would mitigate the potential severity of cumulative impacts to a level below significant. | • No further mitigation recommended. | Not significant. |

Source: VCC EIR (April 1990).

#### 4.17.1.2.2 Entrada Planning Area

The applicant is seeking approval from Los Angeles County for planned residential and nonresidential development within the Entrada planning area. The SCP component of the proposed Project would designate an area within Entrada as a spineflower preserve. If approved, the SCP component would include take authorization of spineflower populations in Entrada that are located outside of the designated spineflower preserve area. Thus, the planned residential and nonresidential development within portions of the Entrada planning area is reliant on the SCP and associated take authorizations, and those portions would not be developed without the take authorizations. The applicant has submitted to Los Angeles County Entrada development applications, which cover the portion of the Entrada planning area facilitated by the SCP component of the proposed Project. However, as of this writing, the County has not yet issued a NOP of an EIR or released an EIR for Entrada. As a result, there is no underlying local environmental documentation for the Entrada planning area at this time.

## 4.17.2 METHODOLOGY

Project impacts related to hazards and hazardous materials were evaluated based on existing and proposed land uses within the proposed Project area and the potential to expose sensitive receptors, including residents and construction workers, as well as the surrounding environment, to hazards or hazardous materials during construction activities and after development/redevelopment in this area. A Hazards Evaluation of the proposed Project (see **Appendix 4.17**) was prepared to identify hazardous waste issues related to former or current operations within the Project area and in the surrounding vicinity. Based on the findings of the screening, impacts were evaluated relative to current regulatory standards. Additional mitigation measures were developed to address significant environmental concerns, as well as the use and disposal of hazardous materials.

## 4.17.3 REGULATORY SETTING

### 4.17.3.1 Federal

**Occupational Health and Safety Administration.** The Occupational Health and Safety Administration (OSHA) published Standard 1910.120, which addresses dangers that hazardous materials pose in the workplace. (29 C.F.R. § 1910.120.) The standard requires that employers evaluate the potential health hazard that hazardous materials pose in the workplace and communicate information concerning hazards and appropriate protective measures to employees. Under Standard 1910.120, a health hazard is defined to mean "a chemical, mixture of chemicals or a pathogen for which there is statistically significant evidence based on at least one study conducted in accordance with established scientific principles that acute or chronic health effects may occur in exposed employees." (29 C.F.R. § 1910.120, subd. (a)(3).)

**Resource Conservation and Recovery Act (RCRA) (42 U.S.C. §§ 6901 *et seq.*).** RCRA establishes a regulatory structure for the management of solid and hazardous wastes. RCRA gives the U.S. Environmental Protection Agency (USEPA) the authority to control the generation, transportation, treatment, storage, and disposal of hazardous waste. RCRA also sets forth a framework for the management of non-hazardous waste.

The 1986 amendments to RCRA, found in Subtitle I (40 C.F.R. §§ 280 *et seq*.), enable the USEPA to address environmental problems that could result from underground storage tanks storing petroleum and other hazardous substances. RCRA focuses on active and future facilities; however, once a hazardous material is released to the environment, it is deemed a waste as soon as the material impacted is disturbed or moved. Therefore, contaminated soil can be regulated under RCRA. The California Department of Toxic Substance Control (DTSC) implements RCRA in California and regulations regarding hazardous waste are contained in California Code of Regulations, title 26.

In addition, the USEPA has established Preliminary Remediation Goals (PRGs), which are tools for evaluating and cleaning up contaminated sites. The PRGs are risk-based concentrations that are intended to assist risk assessors in screening evaluations of environmental measurements. PRGs are guidelines to set initial cleanup goals and are not legally enforceable standards.

**Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) (7 U.S.C. §§ 136 *et seq.*).** Pesticides are regulated by the federal government under the FIFRA, which establishes registration and labeling requirements for pesticides, herbicides, and other economic poisons. Registration requires documentation that the pesticide will not damage human health or the environment if used as intended. FIFRA prohibits the sale of any economic poison that has not been registered by the USEPA.

**U.S. Department of Transportation.** Title 49 of the Code of Federal Regulations and section 31303 of the California Vehicle Code prohibit the transportation of most hazardous materials through residential neighborhoods and require hazardous materials be transported over routes requiring the least overall travel time. Transport of hazardous materials along any city or state roadway or railway is subject to regulation by the U.S. Department of Transportation. The Department of Transportation defines hazardous materials as a substance or material that has been determined to pose "an unreasonable risk to health, safety, or property when transported in commerce." (C.F.R. § 105.5, subd. (b).).

### 17.3.2 State

**California Department of Conservation Division of Oil, Gas, and Geothermal Resources (DOGGR).** The Public Resources Code, division 3, chapters 1 through 4, governs the regulatory functions of DOGGR. The code charges DOGGR with the responsibility of supervising oil, gas, and geothermal well drilling, operation, maintenance, and abandonment operations to prevent damage to life, health, property, and natural resources. More specifically, the DOGGR must:

- Prevent damage to underground oil, gas, and geothermal deposits;
- Prevent damage to underground and surface waters suitable for irrigation or domestic use;
- Prevent other surface environmental damage, including subsidence;
- Prevent conditions that may be hazardous to life or health; and
- Encourage the wise development of oil, gas, and geothermal resources through good conservation and engineering practices.

DOGGR also is charged with implementing section 3208.1, subdivision (a), of the Public Resources Code, which states, in part:

> To prevent, as far as possible, damage to life, health, and property, the supervisor or district deputy may order reabandonment of any previously abandoned well . . . because the owner of the property on which the well is located proposes construction on the property that would prevent or impede access to the well for purposes of remedying a currently perceived future problem.

After the statute was enacted in 1983, the DOGGR developed the "Construction-Site Plan Review Program," which assists local permitting agencies that regulate land-use development by identifying and reviewing the status of oil wells near or beneath proposed structures.

The Construction-Site Plan Review Program is an integral part of building and safety procedures for urban development of oil field properties and helps to ensure that construction does not take place over improperly abandoned wells. Under its authority, and before issuing permits, local permitting agencies review and implement DOGGR's pre-construction oil well recommendations and requirements. This serves to alleviate land-use issues and allows for responsible urban development of oil field properties.

DOGGR considers 10 feet to be the minimum distance needed to maintain access to a well for remedial work. Before any construction can begin, wells within 10 feet of the proposed construction must be plugged and abandoned to current standards and tested for gas or fluid leakage. Wells 10 feet or more from a proposed structure do not need to be plugged and abandoned to current standards unless future well access will be limited by topography, loss of entry or workspace, or grading alteration. Wells in this category also must be tested for gas or fluid leakage. Wells beneath a proposed structure must be plugged and abandoned to current standards and tested for gas or fluid leakage. For wells never found even after intensive surveying and excavation efforts by DOGGR and developers, DOGGR typically recommends surface control for gas that may leak into proposed structures near a well's historic location. Such controls may include the installation of gas leak detection sensors located in basements or low-lying areas where gas may accumulate. These measures help to ensure the continued protection of health and safety for urban development in proximity to oil fields.

**Department of Toxic Substance Control (DTSC).** The objective of the DTSC is to protect human health and the environment from exposure to hazardous material and waste. The DTSC has the authority to respond and enforce the cleanup of hazardous substance releases pursuant to the Hazardous Substance Account Act, chapter 6.8, division 20, of the Health and Safety Code, and the cleanup of hazardous waste under the Hazardous Waste Control Law, chapter 6.5, division 20, of the Health and Safety Code (commencing with section 25100).

The Hazardous Substance Account Act contains a petroleum exclusion by which the term "hazardous substance" cannot apply to "petroleum, including crude oil or any fraction thereof which is not otherwise specifically listed or designated as a hazardous substance." (Health and Saf. Code, § 25317.) As a result, the DTSC can enforce the cleanup if the presence of hazardous substance results from: (1) the addition of hazardous substances to crude oil and the addition is not part of regular crude oil processing; or (2) use of crude oil. (See 40 C.F.R. § 261.3.)

Waste streams at oil production sites generally are considered waste, not substances, and are thus regulated by the DTSC when hazardous. Certain waste streams can be considered as recyclable material, not waste, provided that their ultimate disposal to land does not release contaminants to the environment. (Health and Saf. Code, § 25143.) Most waste streams from oil and gas sites qualify for the RCRA "petroleum exclusion," described in title 40, section 261.4, of the Code of Federal Regulations. Thus, most petroleum soil contamination resulting from typical "exploration, development, or production of crude oil, natural gas or geothermal energy" is excluded from RCRA classification. (40 C.F.R. § 261.4(b)(5).) A clarification of the RCRA petroleum exclusion is provided in the March 22, 1993 issue of the Federal Register. (58 Fed.Reg. 15284.) Drilling waste is classified under California Code of Regulations, title 22, section 66261.120 as "special waste" and does not necessarily need to be disposed at hazardous waste treatment/storage/disposal facilities even if it exhibits hazardous characteristics.

Under Government Code section 65962.5, subdivision (a), the DTSC is required to compile and update as appropriate, but at least annually, and submit to the Secretary for Environmental Protection, a list including the following:

(1) All hazardous waste facilities subject to corrective action pursuant to Health and Safety Code section 25187.5; and

(2) All land designated as hazardous waste property or border zone property pursuant to Health and Safety Code, division 20, chapter 6.5, article 11 (sections 25220 *et seq*.)

**Los Angeles Regional Water Quality Control Board (RWQCB).** The RWQCB protects ground and surface water quality in the Los Angeles region by the development and enforcement of water quality objectives and implementation of a basin plan. The RWQCB also regulates the handling, storage, and disposal of hazardous substances in construction projects. The RWQCB governs requirements, issues waste discharge permits, takes enforcement action against violators, and monitors water quality. The RWQCB is also authorized to supervise the cleanup of hazardous waste sites referred to it by the local agencies when water quality may be affected.

**California State Board of Education.** The California State Board of Education requires that schools be sited more than 100 feet from the edge of the right-of-way of 100 to 110 kilovolts (kV) lines; 150 feet from 220 to 230 kV lines; and 350 feet from 500 to 550 kV lines. (See Cal. Code of Regs., tit. 5, § 14010, subd. (c).)

**California Highway Patrol (CHP).** The transport of hazardous materials throughout the state of California is regulated by the CHP. The Hazardous Materials Section of the CHP, located in Sacramento, licenses companies that haul hazardous materials. Three categories of hazardous materials are regulated by the CHP in that their transport is limited to designated routes and stopping places. These categories include explosives, inhalation hazard materials (*i.e.*, materials that are poisonous if inhaled), and radioactive materials. SR-126 is a designated route for the transport of explosive and inhalation materials, but not for radioactive materials. (See Cal. Code Regs., tit. 13, div. 2, ch. 6, art. 1, 2.5, and 2.7.)

**California Department of Food and Agriculture (CDFA).** The CDFA is the principal agency responsible for the regulation of pesticide sales and use in the state. Specifically, it registers and classifies

pesticides, licenses professional agricultural pest control operations and advisors, monitors pesticide residues in food samples, and promulgates pesticide use and worker safety regulations. California Food and Agricultural Code, section 12972 requires pesticide applications to be confined to their target and to avoid contamination of non-target properties; violations can result in either civil penalties or a revocation of a pesticide use permit. (See Food & Agr. Code, divs. 6 and 7; see also Cal. Code Regs., tit. 3, div. 6.)

**California Department of Health Services (DHS).** The DHS has an advisory role with respect to pesticide use and exposure. It conducts studies and investigates cases of pesticide exposure; conducts toxicological evaluations and risk assessments; and provides educational programs for physicians on diagnosing and treating pesticide poisonings. On a local level, if the USEPA determines that a pesticide has the potential to cause human injury or environmental damage, its use is restricted and a permit from the local agricultural commissioner is required for its purchase and use. Furthermore, restricted pesticides are only available for retail sale to and use by certified applicators or persons under their direct supervision and only for those uses covered by the certified applicator's certification.

**Office of Health Hazard Assessment (OEHHA).** In 1986, California voters approved an initiative to address their growing concerns about exposure to toxic chemicals. That initiative became the Safe Drinking Water and Toxic Enforcement Act of 1986, better known by its original name of Proposition 65. Proposition 65 requires the state to publish a list of chemicals known to cause cancer or birth defects or other reproductive harm. The OEHHA, which is part of the California Environmental Protection Agency (Cal-EPA), administers the Proposition 65 program.

Proposition 65 requires businesses to notify Californians about significant amounts of chemicals in the products they purchase, in their homes or workplaces, or that are released into the environment. Proposition 65 also prohibits California businesses from knowingly discharging significant amounts of listed chemicals into sources of drinking water.

**Public Resources Code Section 4291.** The Project would be subject to the provisions of section 4291 of the Public Resources Code, which specifies standards for brush clearance around buildings or structures located in, upon, or adjoining any mountainous, forest, brush, or grassland area.

#### 4.17.3.3 Local

**Certified Unified Program Agency (CUPA).** The Certified Unified Program Agency (CUPA) is an agency certified by the DTSC to conduct the Unified Program, which consists of hazardous waste generator and on-site treatment programs; aboveground and underground storage tank programs; Hazardous Materials Management, Business Plans, and Inventory Statements; and the Risk Management and Prevention Program. In the Project area, the Certified Unified Program Agency is the Los Angeles County Fire Department Health Hazardous Materials Division.

Federal and state site remediation regulations are enforced by the DTSC and RWQCB. In the case of oil field remediation, the DTSC usually delegates its lead agency role to the RWQCB as a result of the petroleum exclusions. In Los Angeles County, the RWQCB further delegates their responsibility to the Certified Unified Program Agency, especially when the threat to groundwater quality is limited.

The Site Mitigation Unit of the Health Hazardous Materials Division supervises the remediation of contaminated soil sites in unincorporated portions of Los Angeles County. The Los Angeles County Certified Unified Program Agency will grant closure of an impacted site when confirmatory samples of soil and groundwater taken demonstrate that levels of contaminants are below the standards set by DTSC and RWQCB.

**Los Angeles County Building Code, Section 308, subdivision (c).** Los Angeles County Building Code section 308, subdivision (c), states that all buildings and structures located within 1,000 feet of a landfill containing decomposable material (in this case the Chiquita Canyon Landfill) shall be provided with a landfill gas migration protection and/or control system. Any buildings or structures to be constructed in this area that are within 1,000 feet of an active landfill area would be required to meet all federal, state, and County code requirements pertaining to methane gas.

**Los Angeles County Building Code, Section 308, subdivision(d).** Los Angeles County Building Code section 308, subdivision (d), requires that all buildings and enclosed structures that would be constructed within 25 feet of oil or gas wells shall be provided with methane gas protection systems. In addition, buildings located between 25 feet and 200 feet of oil or gas wells shall, prior to the issuance of building permits by the County of Los Angeles, be evaluated in accordance with the current rules and regulations of DOGGR.

**Los Angeles County Fire Code.** Development within Los Angeles County-designated fire zones is subject to various governmental codes, guidelines, and programs, which are aimed at reducing the hazard potential to acceptable levels. Los Angeles County Fire Code standards related to development within areas designated as Fire Zones 3 or 4 include, but are not limited to:

- Remove and clear within 10 feet on each side of every roadway all flammable vegetation or combustible growth (Fire Code 27.327);
- Clear all hazardous flammable vegetation to the ground for a distance of 30 feet from any structure, or flammable vegetation to a height of 18 inches for another 70 feet (Fire Code 27.301 and 302);
- Remove that portion of any tree within 10 feet of the outlet of a chimney (Fire Code 27.30);
- Maintain any tree adjacent to or overhanging any building free of dead wood (Fire Code 27.301); and
- Access roads shall be constructed with all-weather materials (Fire Code 10.207).

In all cases, development projects, including the Newhall Ranch Specific Plan, VCC, and Entrada, are required to incorporate the most current state and County code requirements that are in effect at the time of building permit issuance.

### 4.17.4 EXISTING CONDITIONS

This subsection describes the existing hazards in the Project area. Oil field operations, assessment, and remediation (cleanup) are described first, followed by other issues related to potential contaminants,

transmission lines, high-pressure natural gas lines, the Chiquita Canyon Landfill, and dam inundation areas.

### 4.17.4.1 Oil Field Operations

Newhall Ranch is located in the Santa Barbara-Ventura basin. There are three oil and natural gas fields in the Specific Plan area: the Newhall-Potrero Oil Field discovered in 1937, the Del Valle Oil Field discovered in 1979, and the Castaic Junction Oil Field discovered in 1950. The Newhall-Potrero Oil Field is currently operated by Vintage Production California LLC, a subsidiary of Occidental Petroleum Corp.; the Castaic Junction Oil Field, which already has been abandoned and remediated, was previously operated by Exxon Company, USA. The Del Valle Oil Field is also within the Specific Plan site, and portions of this field are operated by LBTH and Vintage Production California LLC. Major oilfield and well locations are depicted in **Figure 4.17-1**.

**History of Oil Production in Project Area.** Oil has been actively extracted in the southern California area for thousands of years, and since 1850 at least 155 oil and gas fields have been discovered in the greater Santa Barbara-Ventura basin. The first salable petroleum in California was the oil found in 1850 at Pico Canyon near Newhall. In 1866, Thomas R. Bard drilled several wells on the Rancho Ojai, near Ventura. The most successful of these was "Ojai," which produced from 15 to 20 barrels of oil per day from a depth of 550 feet. This well was the best to date and would be considered the first commercially-productive California oil well. Drilling activity declined by 1867, and many California wells capable of producing oil were idled because of over-production in Pennsylvania. The Pennsylvania oil was brought to San Francisco at a price lower than California operators could meet. The oil boom began in the 1890s, when Edward L. Doheny discovered oil at 2nd Street and Glendale Boulevard in downtown Los Angeles. His find set off a "second black gold rush" that lasted several years. Los Angeles became a center of world oil production in the early 20th Century. (AAPG, 1973.) Oil production continues throughout the Santa Barbara-Ventura and Los Angeles basins; between 1952 and 1988, some 1,000 wells pumped 375 million barrels of oil.

**Overview of Urban Development in Oil Fields and Regulatory Oversight.** After oil production operations are completed, the oil fields are remediated (cleaned up) and made available for development or open space areas. Oil field properties provide open areas available for development in Los Angeles County. The timing of development is an interplay between the price of oil and land value for other uses. Frequently, oil production can continue on a reduced footprint, allowing for multiple land uses in a process known as "islandising" of the oil production. In many cases, however, the entire oil field leases are remediated and sold. Since southern California is one of the largest oil-producing provinces in the world, many communities are placed on former oil fields.

In response to land use conflicts and hazards to public health and safety from improperly abandoned oil field facilities, DOGGR developed a Construction-Site Plan Review Program in 1983, as discussed above in **Subsection 4.17.3.1.2**. The program is an integral part of building and safety procedures for urban development of oil field properties and helps to ensure that construction does not take place over improperly abandoned wells or other oil field infrastructure. Under DOGGR authority, and before issuing permits, local permitting agencies review and implement DOGGR's pre-construction oil well recommendations and requirements. This process alleviates land use conflicts and allows for safe and responsible urban development of oil field properties.

Division 3, chapters 1 through 4, of the Public Resources Code governs the regulatory functions of DOGGR. The code charges DOGGR with the responsibility of supervising oil, gas, and geothermal well drilling, operation, maintenance, and abandonment operations to prevent damage to life, health, property, and natural resources. More specifically, DOGGR must encourage the wise development of oil, gas, and geothermal resources through good conservation and engineering practices, and prevent the following:

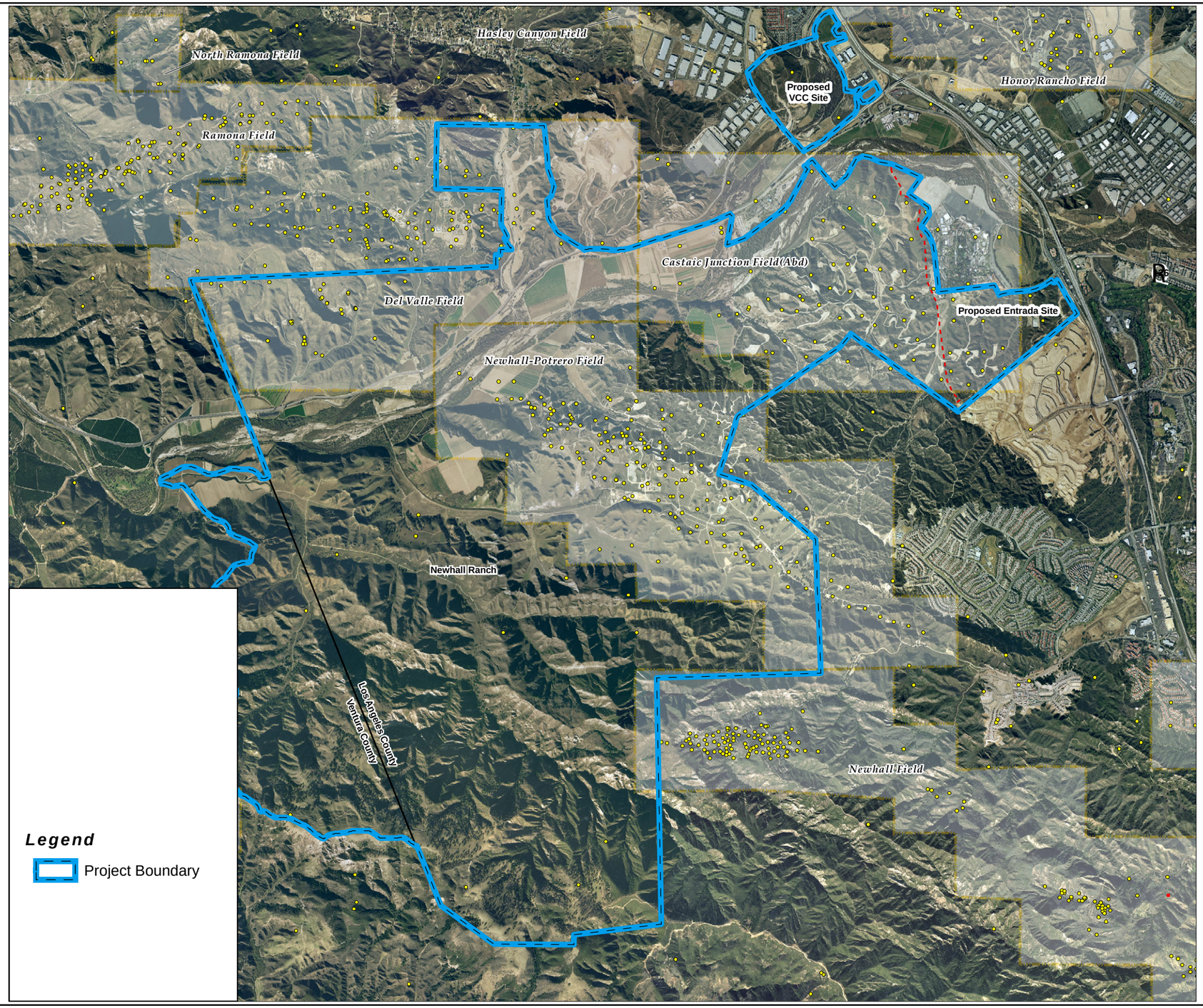
- Damage to underground oil, gas, and geothermal deposits;
- Damage to underground and surface waters suitable for irrigation or domestic use;
- Other surface environmental damage, including subsidence; and
- Conditions that may be hazardous to life or health.

**Oil Field Operations and Conditions.** The following potential sources of contamination are typically found at oil exploration and production sites:

- Improperly abandoned wells;
- Sumps and pits;
- Oil and gas gathering and distribution pipelines;
- Tank bottom sludge;
- Gas condensate;
- Ash generated from generators;
- Mercury spills from gas meters; and
- PCBs from compressors or transformers.

Historically, petroleum contamination has been the primary criterion for environmental management at exploration and production sites. (McMillen *et al.*, 2001.) Crude oil is a complex mixture of hydrocarbons, and the compositions depend on the oil field from which it is produced. Most crude oils produced in California are termed "heavy," and have an API gravity of less than 12. Light crudes, with an API gravity of greater than 20, occur less commonly. Oil is very viscous, and tends to migrate less than 50 feet from the source area. (McMillen *et al.*, 2001.) When mixed with less viscous gas condensate or fuels, migration can be more extensive and groundwater may be adversely impacted.

Tank bottom sludges and other sources can also contain elevated levels of metals. It is unusual to find volatile organic compounds or semi-volatile organic compounds that exceed regulatory standards.




**SOURCE:** California Department of Conservation, Division of Oil, Gas, and Geothermal Resources, AirPhotoUSA - 2000, URS – August 2006

**FIGURE 4.17-1**

Major Oil Field and Well Locations

32-214•12/07

**Oil Field Abandonment.** In 1976, the Resource Conservation and Recovery Act (RCRA) was enacted to regulate solid waste for all but a few exempt wastes. Wastes associated with oil and gas exploration and production are exempt from the RCRA, which states that oil and gas wastes should not be regulated as hazardous waste, if they are being managed under existing regulatory programs in a way that adequately mitigates or prevents harm to the environment. Therefore, it is up to state regulatory agencies to determine adequate management requirements. California has a network of regulatory agencies with responsibility to monitor and enforce conditions on existing and historic oil fields.

Under current law, an oil field operator who abandoned a well under archaic standards cannot be required to reabandon that well unless it is leaking or presents an imminent threat or hazard. However, through the building permit process, local governments can, if recommended by DOGGR, require that a well be reabandoned to the current state standards before any permanent structure is placed over or near it.

In addition to proper well abandonment, oil sump abandonment is also of concern. An oil sump is a holding area or depressions in the ground historically used to contain water, drilling mud, and oily soil, during the drilling process. Assembly Bill 2209, which became effective January 1, 1974, provides for regular sump inspection, maintenance, and correction. Within five years, most of the sumps and pits containing oil from production operations had been eliminated or screened. Eliminating the hazardous oil field sumps also helped to alleviate the problem of oil spills.

As discussed above, as land value exceeds the value of oil productions, fields are abandoned to make way for other development. In most cases, oil field operations are "islandised" to allow development as field operations are curtailed. Lands that are held in lease or fee-lease terms typically require restoration. In both cases, future land use is dependent on remediating the oil field to support the proposed alternate land use. There are multiple agencies with jurisdiction over lease abandonment and site restoration activities in California, including the RWQCB, the DTSC, and local authorities. However, the lead agency for oil production activities is DOGGR, and any other agency with jurisdictional authority is required to work under the auspices of DOGGR to ensure the protection of the public and environment.

Current DOGGR abandonment standards require that all oil, gas, and injection wells are plugged and abandoned in accordance with DOGGR regulations, which include measures to prevent contamination of fresh water and other natural resources, to protect the integrity of resources, and to protect life, health, the environment, and property. The final well plugging and site restoration are witnessed and approved by DOGGR inspectors. Upon completion of well plugging operations, excavations are backfilled with clean material and compacted, and the site is restored to as natural a state as practicable.

Earlier wells were abandoned to specifications established for oil fields located in rural areas. In addition, many wells in the older fields, drilled prior to 1915, were not regulated by state law. As a result, records of exact well location or mechanical condition may be unavailable or inaccurate. However, wells drilled since 1915 are maintained by DOGGR, including those in the Project area. As such, DOGGR should provide sufficient information to evaluate the current condition of any well that may be in an area proposed for surface development.

**Oil Fields in Specific Plan Area.** The Newhall-Potrero Oil Field is an active field located within the central portion of the Specific Plan site. It lies within Potrero Canyon and produces oil and natural gas from an asymmetrical, northwesterly-plunging, faulted anticline that is approximately four miles long and

one mile wide. The oil field comprises 1,370 acres and two leases: the Rancho San Francisco (RSF) lease of 1,270 acres and the Ferguson lease of 100 acres, both of which are operated by Vintage Production California.

The production facility includes well sites, six production satellite stations, a shipping tank area, a shop area, a warehouse area, tank batteries, water tanks, pipelines, and other production facilities. Of the 163 well sites, 39 are active, 80 are idle, and 44 have been abandoned. The Newhall-Potrero Oil Field currently is being operated by Vintage Production California, while the historical sump locations and discontinued facilities are being actively remediated by Kerr-McGee, a wholly owned subsidiary of the Anadarko Petroleum Corporation.

The Castaic Junction Oil field comprises 4,350 acres and is located within the northeastern portion of the Project site. The production facility had included water tanks; office facilities; a water disposal system; tank batteries; condensate tanks; oil, injection, and gas wells; sumps; a flare station; a gas compressor plant area with a compressor unit, engine house, gas plant building, cooling towers, tanks for methanol, fuel, glycol, heater units, and miscellaneous other tanks; a chemical storage facility; heater treaters; drill pads; electrical panels with and without overhead transformers; and pumps, trenches, panels, and piping associated with the facilities. The entire field was abandoned in December 1995 with all oil, gas, and injection wells plugged and abandoned in accordance with DOGGR regulations. The final well plugging and site restoration were witnessed and approved by DOGGR inspectors. Upon completion of the well plugging operations, the excavations were backfilled with clean material and compacted.

The two smaller oil and natural gas fields are located north of the Santa Clara River. The LBTH Field is 40 acres in size and is located approximately one-quarter mile north of SR-126 along the western side of Chiquito Canyon Road. The Blackhawk Field is 174 acres in size and is located north of SR-126, at the northwestern end of San Martinez Grande. Both of these fields are active and have producing wells that will remain in operation until they are no longer economically viable. The mineral leases for these fields require that the lands be fully remediated in conjunction with the future abandonment of oil and natural gas production operations.

**Potential Oil Field Contaminants.** Contaminants commonly associated with oil and natural gas fields include: total petroleum hydrocarbons (TPH); volatile organic compounds (VOCs), including benzene, toluene, ethybenze, and xylenes, referred together as BTEX; semi-volatile compounds (SVOCs), including polynuclear aromatic hydrocarbons (PAHs); polychlorinated biphenyls (PCBs); hydrogen sulfide; and metals, including arsenic, lead, mercury, vanadium, barium, and hexavalent chromium. Methane gas is also associated with abandoned wells.

### 4.17.4.2 Summary of Assessment and Remediation in the Newhall Ranch Specific Plan Areas

The following subsection summarizes technical reports and supporting documentation commissioned by Newhall Land for assessment of Project development areas, including Entrada, Mission Village, Landmark Village, and Homestead North and South, as shown in **Appendix 4.17**, Attachment A, Figure A-2. The reports also include specific investigations of oil field-related hazards and their remediation at the RSF and Castaic Junction Oil Fields.

The Specific Plan area has been evaluated for potential hazards related to oil field activity, and for other potential environmental hazards, in compliance with the regulatory framework described in **Subsection 4.17.3.1**. In this subsection, the reports prepared for the oil fields are described first, followed by a summary of the investigation and remediation work conducted for the Specific Plan area. This summary of work includes both oil field and non-oil field studies.

**Castaic Junction Oil Field.** The following reports have been prepared describing assessment and remediation on the Castaic Junction Oil Field:

- Castaic Junction Site Abandonment Phase 1 -- Final Report prepared by Downtown Production Organization (DPO) Operations Integrity-Compliance, dated October 1995;
- Castaic Junction Phase II prepared by Downtown Production Organization Operations Integrity-Compliance, dated May 16, 1996;
- In March 1996, MSE Environmental, Inc. prepared a report summarizing their Phase II investigation at the Castaic Oil Field.
- Closure Report Castaic Junction Oil Field prepared by Exxon Company, dated July 1996;
- Final Closure Report Castaic Junction Oil Field prepared by Exxon Company, USA, dated February 1997; and
- Phase I Environmental Site Assessment -- Proposed The Mesas East prepared by BA Environmental, dated February 7, 2005.

The Castaic Junction Oil Field is located in the northeast portion of the Specific Plan area. It is primarily within the Mission Village project area, but includes portions of the Landmark project areas, and Entrada as shown in **Appendix 4.17**, Attachment A, Figure A-3. The oil field was operated between the late 1940s and 2002. (BA Environmental, 2005.) Site decommissioning activities commenced in 1988, with a significant portion occurring between 1995 and 1997.

A description of the environmental activities that were conducted within each of the Newhall Ranch project areas is provided in the following sections. Based on available information, no environmental activities associated with the Castaic Junction Oil Field were conducted within the Landmark Village project area.

**Mission Village**

***Oil Field Investigation/Remediation Activities.*** The Mission Village area is located primarily within the Castaic Junction Oil Field, as shown in **Appendix 4.17**, Attachment A, Figure A-3. The decommissioning activities included general site restoration and site-specific remediation and restoration. General site restoration activities included plugging and abandoning all oil, gas, and injection wells in accordance with DOGGR regulations, backfilling the excavations associated with each well with clean, compacted material.

The remediation activities included cleanup of areas based on the Level B cleanup levels from the RWQCB Interim Guidance for Remediation of Petroleum Impacted Sites, Soil Screening Levels, dated November 1994. The general remediation plan consisted of excavating areas of visually impacted soil and, following excavation, ripping selected areas to promote natural revegetation. The areas within the Mission Village project area that were remediated under the general remediation plan consist of Tank Battery 2 and associated gully and bank, the drainage area near Tank Battery 5, Tank Battery 6/7, the Condensate Tank area, and the Round House area. These areas are shown in **Appendix 4.17**, Attachment A, Figure A-4.

The areas within the Mission Village project area for which documented investigation and remediation activities occurred are as follows:

- Tank Battery 2;
- Tank Battery 3;
- Tank Battery 4;
- Tank Battery 6/7 including the Flare Stack Sump;
- Gas Plant Area including Gas Plan Sump 17 and the Cooling Tower Sump;
- Condensate Tank;
- Round House;
- Drill Pad 63;
- Drill Pit Site Investigation at Wells 4, 11, 15, and 49; and
- Trash Pit Area Southwest of Well No. 11.

The location of these areas is provided in **Appendix 4.17**, Attachment A, Figure A-4. A summary of the activities conducted in each of these areas is provided in the following sections and a compilation of the analytical results is provided in **Appendix 4.17**, Attachment B, Table B-1.

- **Tank Battery 2 (TB-2).** In 1995, a site investigation was conducted in this area as part of the Phase I activities and involved the installation of seven trenches and the collection of 23 soil samples for chemical analysis. (DPO, 1995.) Based on the results of the investigation, DPO recommended the removal of asphaltic material in selected areas, including the drainage area south of the road and facility, and additional investigation in selected areas.

  In January 1996, MSE Environmental, Inc. installed five soil borings and collected 37 soil samples for chemical analysis. The soil borings were installed adjacent to and outside of an existing excavation to define the lateral and vertical extent of petroleum hydrocarbon impacts. The soil boring depths ranged from 40.5 feet below ground surface to 100 feet below ground surface and soil samples

were collected every five feet. Groundwater was encountered at 96 feet below ground surface. DPO (1996) indicated that previous excavation activities in the area removed the bulk of the impacted soil and recommended continuing the excavation either until clean sidewall material is encountered, or to the perimeter defined by the soil borings.

Exxon (1996) reported that activities conducted in the TB-2 area consisted of excavating and removing impacted soil in the vicinity of the former tanks, at a sump located northwest of the tank battery, and an area located southwest of the sump. Confirmation samples were collected from the western wall and the base of the excavation associated with the area located southwest of the sump. Adequate cleanup of the excavation near the former tanks was determined based on the analytical results from the soil borings installed around the excavation in January 1996. For the sump located northwest of the tank battery, impacted soil was removed to visible cleanliness. The report indicated that the analytical results from the soil samples collected in the TB-2 area were all below the RWQCB Level B cleanup criteria and therefore no further work was required.

- **Tank Battery 3 (TB-3).** In 1995, a site investigation was conducted in this area as part of the Phase I activities and involved the installation of 11 trenches and the collection of 17 soil samples for chemical analysis. (DPO, 1995.) Based on the results of the investigation, DPO recommended the removal of asphaltic material in selected areas and additional investigation in selected areas, including the drainage area north and south of the road culvert and the manifold area.

  In January 1996, MSE Environmental, Inc. installed one soil boring to determine depth-to-groundwater in the area. No soil samples were collected and groundwater was not encountered to the total boring depth of 110 feet below ground surface.

  Exxon (1996) reported that activities conducted in the TB-3 area consisted of removing two to three feet of soil across the tank battery area and other areas with visible petroleum hydrocarbon impacts, removing soil from two sump areas, and excavating and removing impacted soil from the TB-3 culvert area. One of the sumps was excavated to a depth of 10 feet below ground surface and composite confirmation samples were collected from the sidewalls and base of the excavation. The other sump was excavated to 16 feet below ground surface and one sample was collected from the base of the excavation. In the culvert area, the excavation area was approximately 110-feet by 20-feet by 35-feet deep and approximately 1,835 cubic yards of soil was removed. A composite confirmation sample was collected from the base of the excavation. In addition to the aforementioned samples, 12 other samples were collected across the site and the report indicates that the analytical results from the soil samples collected in the TB-3 area were all below the RWQCB Level B cleanup criteria.

- **Tank Battery 4 (TB-4).** In 1995, a site investigation was conducted in this area as part of the Phase I activities and involved the installation of three trenches and the collection of seven soil samples for chemical analysis. (DPO, 1995.) Based on the results of the investigation, DPO recommended the removal of asphaltic material in selected areas and additional investigation in selected areas, including the former tank battery area and the former pump area.

  Exxon (1996) reported that activities conducted in the TB-4 area consisted of removing petroleum hydrocarbon impacted soil from a sump located northeast of the former tank battery area. The extent of excavation was determined by visual observations of impacts and the collection of two composite

confirmation samples. The report indicated that the analytical results from the soil samples were all below the RWQCB Level B cleanup criteria.

- **Tank Battery 6/7 (TB-6/7) and Gas Plant Area.** In 1995, a site investigation was conducted in this area as part of the Phase I activities and involved the installation of 12 trenches and collection of 19 soil samples for chemical analysis. (DPO, 1995.) Based on the results of the investigation, DPO recommended the removal of the upper one to two feet of soil in selected areas, the removal of the tar mat near the flare stack area, backfilling of methanol tank trench and the former "sump-like" features in the northwest corner, excavation of the diesel tank area until visually clean, and additional investigation in the heater unit and glycol tank area.

  In January 1996, MSE Environmental, Inc. installed four soil borings and collected 22 soil samples in the vicinity of the former tank battery and flare stack area, and installed three soil borings and collected 18 soil samples in the Gas Plant Sump 17 area. The soil borings in the former tank battery and flare stack area were installed to depths ranging between 20.5 feet below ground surface to 88 feet below ground surface. The soil borings in the Gas Plant Sump 17 area were installed to depths ranging between 24 feet below ground surface to 84.5 feet below ground surface. Groundwater was not encountered in either of these areas.

  Exxon (1996) reported that activities conducted in the TB-6/7 and Gas Plant area consisted of removing petroleum hydrocarbon impacted soil from: (1) two small sumps, located north of the former flare stack in the Tank Battery 6/7 area, and the Gas Plant Sump 17 area; and (2) the cooling tower sump located in the Gas Plant area. In regards to the two small sumps, one was excavated to 24 feet below ground surface and two confirmation samples were collected from the excavation. The other sump was excavated to approximately 33 feet below ground surface and approximately 1,764 cubic yards of impacted soil was removed. Following completion of the excavation, a soil boring was installed to 60 feet below ground surface in this area and eight soil samples were collected for chemical analysis. The report indicates that the analytical results for these samples were non-detect for TPH and BTEX.

  The activities conducted in the Gas Plant Sump 17 area consisted of excavating to approximately 55 feet below ground surface and removing approximately 4,000 cubic yards of impacted soil. Eight soil samples were collected from the excavation and the report indicated that the analytical results for the final closure samples, collected in June 1996, were non-detect for BTEX and TPH.

  In regards to the cooling tower sump in the Gas Plant area, excavation activities were conducted in May and June 1996, but were temporarily suspended until a plan could be developed to complete the excavation in the most cost effective and environmentally sound manner. Accordingly, a plan was developed and was implemented between October and December 1996. The remediation activities involved: removing 100,000 cubic yards of clean overburden material; thermally treating on site approximately 20,000 tons of petroleum hydrocarbon impacted soil; and transporting off site for disposal approximately 4,000 tons of impacted soil. Following completion of the excavation in December 1996, nine confirmation soil samples were collected from the sidewalls and base of the excavation. Of the nine samples, only two contained detectable concentrations of TPH and those

were below the RWQCB Level B criteria. The excavation area was restored by backfilling a portion with clean soil, benching steep cut slopes, and diverting surface water runoff away from the area.

- **Condensate Tank.** In 1995, a site investigation was conducted in this area as part of the Phase I activities and involved the installation of four trenches and the collection of one soil sample for chemical analysis. (DPO, 1995.) Based on the results of the investigation, DPO recommended the removal of a subsurface asphaltic layer and indicated that the volume requiring removal was minimal.

  Exxon (1996) reported that this area was remediated using the general remediation plan that consisted of excavating areas of visually impacted soil.

- **Round House Area.** In 1995, a site investigation was conducted in this area as part of the Phase I activities and involved the installation of one hole and one trench and the collection of 11 soil samples for chemical analysis. (DPO, 1995.) Based on the results of the investigation, DPO recommended conducting additional soil sampling near Well 15 and the equipment storage area.

  Exxon (1996) reported that this area was remediated using the general remediation plan that consisted of excavating areas of visually impacted soil.

- **Drill Pad 63.** In 1995, a site investigation was conducted in this area as part of the Phase I activities and involved the installation of 10 trenches and visually inspecting soil conditions. (DPO, 1995.) No detectable odor or discoloration was observed, so no samples were collected for chemical analysis. No further work was recommended for this area and no additional work is documented for this area.

- **Drill Site Investigation.** As part of the remediation activities conducted by Exxon in 1996, an investigation was performed on six former drill pits associated with well numbers 4, 11, 15, and 49. The objective of the investigation was to determine potential impacts resulting from crude oil production, produced water, or drilling fluid deposition during drilling activities. The scope involved excavating trenches ranging from 25- to 50-feet long by five-feet deep. Of the six pits that were investigated, only two (one pit at well number 4 and one at well number 15) showed shallow petroleum hydrocarbon impacts to two feet below ground surface. Soil samples were collected from the trenches and were analyzed for TPH, BTEX, and CAM metals. The report indicated that the analytical results from the soil samples were all below the RWQCB Level B criteria. Based on the results of this investigation, the report indicated that no concerns exist with respect to former drill pits and that no other investigations or remediation activities are planned for these areas.

- **Trash Pit Area Southwest of Well No. 11.** Between October and December 1996, Exxon conducted cleanup activities in the trash pit area situated southwest of well number 11. The activities in the trash pit area involved the removal and off-site disposal of approximately two and one-half tons of metal debris, as well as household debris including wood, paper, and glass. No soil samples or analytical data was provided for these activities.

***Non-Oil Field Investigation/Remediation Activities.*** The following section describes the environmental activities associated with the Mission Village area, based on information provided in the following document:

Phase I Environmental Site Assessment
Proposed the Mesas East (Mission Village)
1,250 Acre Parcel of Land
Valencia, California
BA Environmental, February 7, 2005

The Mission Village area is partially located within the abandoned Castaic Junction Oil Field, as shown in **Appendix 4.17**, Attachment A, Figure A-5. Additional information is also provided under the discussion for the Castaic Junction Oil Field.

A Phase I Environmental Site Assessment was conducted at the Mission Village area in February 2005. The Phase I investigation included a reconnaissance of the subject property and vicinity, review of available relevant regulatory records, and review of the property history. In addition, 77 soil samples were collected on November 16, 2004. None of the soil samples analyzed contained any detectable concentrations of organochlorine pesticides or chlorinated herbicides, although organophosphorus pesticides were detected in several samples. Specifically, trace concentrations of Fensulfothion were detected in several samples. However, the concentrations of Fensulfothion were below the laboratory's quantitative detection limit of 0.05 mg/kg. Based on the trace concentrations, the Fensulfothion levels are less than significant. The following environmental conditions in connection with the Mission Village area were identified:

- Approximately 47 oil wells and associated production area existed on the subject property;
- Staining was observed near several of the former oil wells;
- Structures related to a "gas plant" were located on Exxon Mesa;
- Three areas of structures were located on site. Two were former oil company field offices and the third was associated with the former ranching operations. Aboveground Storage Tanks (ASTs) or Underground Storage Tanks (USTs) for fueling purposes may have been located at these structures;
- A large pond or sump was formerly located in the narrow strip of land in the north-central portion of the property, south of the Santa Clara River;
- Two day tanks and a 1,000-gallon AST area associated with a diesel powered water pump; and
- A former oil pad debris area was located in a small canyon on the southwest portion of the subject property. Debris was screened from this area, disclosing evidence of drums and buckets remaining in the area.

***Activities to be Completed Prior to Development.*** According to the Phase I Environmental Site Assessment that was conducted at the Mission Village area in February 2005, the following activities should be conducted prior to site development:

- If disturbed, or if located within an area of redevelopment, all former oil wells located on the subject property should be re-abandoned according to all applicable local and state regulations;

- The areas of former sumps, gas plant, landfill, and structures should be assessed for potential impact to the subject site and remediated to meet current standards as described in **Subsection 4.17.3.1,** Regulatory Setting;

- Areas of visible staining should be assessed if they are not planned for excavation, or are located in an area planned to be raised in grade using clean soil; and

- Areas of visible staining that are scheduled to be excavated should have any visibly impacted soil disposed of in accordance with all federal, state, and local regulations.

**Entrada**

***Oil Field Investigation/Remediation Activities.*** A portion of the Castaic Junction Oil Field is located in the Entrada project area, as shown in **Appendix 4.17**, Attachment A, Figure A-4. This area was approached in the same manner as described for the Mission Village project area.

Investigation and remediation activities occurred in the Tank Battery 5 (TB-5) and Tank Battery 8 (TB-8) areas within the Entrada project area. The location of these areas is provided in **Appendix 4.17**, Attachment A, Figure A-4. A summary of the activities conducted in each of these areas is provided in the following subsections and a compilation of the analytical results is provided in **Appendix 4.17**, Attachment B, Table B-2.

- **Tank Battery 5 (TB-5).** In 1995, a site investigation was conducted in this area as part of the Phase I activities and involved the installation of seven trenches and the collection of 14 soil samples for chemical analysis. (DPO, 1995.) Based on the results of the investigation, DPO recommended the removal of soil with surface contamination down to clean soil and additional investigation in selected areas, including the heater treater unit area and along the north fence line. Exxon (1996) reported that this area was remediated using the general remediation plan that consisted of excavating areas of visually impacted soil.

- **Tank Battery 8.** In 1995, a site investigation was conducted in this area as part of the Phase I activities and involved the installation of four trenches and the collection of 10 soil samples for chemical analysis. (DPO, 1995.) Based on the results of the investigation, DPO recommended the removal of asphaltic material and an oily layer below the access road fill material, and additional investigation in selected areas. Exxon (1996) reported that this area was remediated using the general remediation plan that consisted of excavating areas of visually impacted soil.

***Non-Oil Field Investigation/Remediation Activities.*** The following subsection describes the environmental activities associated with the Entrada area, based on information provided in the following documents:

Phase II Subsurface Investigation
Water Quality Basins
Entrada ME 073-02 Basins
Valencia, California
BA Environmental, September 6, 2006

Progress Report - Oil Well Issues
Proposed Entrada Development
Feedmill Road at The Old Road
Los Angeles County, California
Anacapa Geoservices, Inc. December, 2006

Phase I Environmental Site Assessment
Entrada Park Site (Lot 526)
Magic Mountain Parkway and The Old Road
Valencia, California
BA Environmental, March 6, 2007

In December 2006, Newhall Land retained Anacapa Geoservices to assess oil well related issues at the Entrada area. The investigation of oil well issues included a review of historic aerial photographs, topographic maps, geologic maps, DOGGR well files, and the physical location of each identified well. After the wells were located, the well covers were removed by a certified oil-field welder. DOGGR performed leak testing of each well on September 27, 2005. No wells were noted by DOGGR as leaking. The well heads were surveyed and each well head was marked for future access using an identifier plate welded to the well head cover. The excavations were backfilled, but the soil was not compacted. Two wells (Exxon NLF #49 and Exxon NLF #30) were transferred into the adjoining Mission Village area.

In March 2007, a Phase I Environmental Site Assessment was conducted at the 5.01-acre parcel of land proposed to be converted into a public park, located within the Entrada area. The subject property is a roughly triangular parcel of land located approximately 2,400 feet southwest of the intersection of Magic Mountain Parkway and The Old Road. The Phase I investigation included a topographic map review, assessment of site geology and hydrogeology, assessment of oil wells and oil fields, historical review, site reconnaissance, and a review of government records. No evidence of recognized environmental conditions in connection with that property was identified in the Phase I Environmental Site Assessment.

***Activities to be Completed Prior to Development.*** The December 2006 Anacapa Geoservices report, regarding oil well related issues at the Entrada area, stated that the following tasks should be completed prior to site development, in compliance with DOGGR regulations:

- Determine finish grade at each location and decide whether each well needs to be cut or extended to conform to the DOGGR requirement that the wells be abandoned within six to nine feet of the finish surface;

- Fully assess and remediate discolored soil at well #35;

- Remove piping and other debris found in the vicinity of the wells;

- Determine the future use at and in proximity (as defined by DOGGR and Los Angeles County) to each well. Design the community, if possible, to avoid placing structures over or within ten feet of wells;

- Advise the clearing, grubbing, and grading crews to monitor for evidence of past oil field equipment, stained soil, and other related debris. Notify the site superintendent if these material are found;
- Determine the need to vent the wells. Oversight of this issue is managed by the County Department of Building and Safety. Design of a conforming vent, if necessary, shall be completed by a licensed and qualified professional engineer;
- Notify the crews to monitor for the possible presence of Chevron Well N52-19;
- Exercise caution on the Exxon NLF #51 pad, due to the presence of a high pressure gas line;
- Assess adversely impacted soil; and
- Following the completion of activities, the DOGGR will issue a Lot Release.

**Rancho San Francisco (RSF) Oil Field.** The following subsections describe the environmental activities associated with the RSF Oil and Gas Lease area based on information provided in the following documents:

Evaluation of Existing Site Characterization Data
Newhall Land and Development Co.
Newhall, California
Volume 1 and 2
Waterstone Environmental, Inc.
February 28, 2000

Brown and Caldwell Site Closure Certifications 2004, 2005, 2006

The RSF Oil and Gas Lease area is located in the central portion of the Newhall Ranch Specific Plan area, within the Homestead Village and Potrero Valley project areas, as shown in **Appendix 4.17**, Attachment A, Figure A-2. The oil and gas development commenced in 1935 (RSF Lease Amendment, 2003), and current operations at the field are governed pursuant to a negotiated settlement agreement reached in 2003 between Newhall Land and the oil and gas operators on the property. Specifically, the oil field impacts to the RSF Oil and Gas Lease area are currently being remediated, and will ultimately be fully remediated prior to construction on the potentially contaminated sites, under detailed environmental cleanup protocols. These protocols specify a cleanup standard of 100 mg/kg for TPH and require excavation, removal, and proper off-site disposal and/or treatment of any soils impacted with TPH concentrations in excess of this standard. For sites that have already been remediated, this TPH standard has been reached. This standard is significantly more stringent -- and thus more protective of human health and the environment -- than the cleanup standards normally imposed by the governmental agencies that routinely oversee the cleanup of contaminated sites, including RWQCB, DTSC, and DOGGR, which typically accept TPH remediation to contaminant levels ranging between 1,000 mg/kg and 10,000 mg/kg, depending on the development use of the affected property. The settlement agreement requires that any other oil field contaminants identified on the RSF Oil and Gas Lease be remediated to state-determined contaminant levels suitable for residential development, thus ensuring appropriate standards for the proposed development of the area.

Remediation of the RSF Oil and Gas Lease area began shortly after the settlement agreement was executed in 2003 and is currently ongoing. The most significantly impacted areas on the RSF Oil and Gas Lease resulted from historic crude storage practices that were utilized primarily in the 1940s and 1950s. Remediation of these areas was prioritized to generally remediate the most-impacted areas first. Remediation is conducted under the oversight of an independent environmental consultant (*i.e.*, Brown and Caldwell) that: (1) witnesses the confirmation sampling process required to demonstrate compliance with the cleanup protocols; (2) separately reviews the laboratory data resulting from that sampling; (3) has the right to require further cleanup and confirmation sampling as necessary to ensure compliance with the cleanup protocols; and (4) ultimately issues certification that remediation has been completed in accordance with the more stringent cleanup standards required by the settlement agreement.

As a result of the settlement agreement, these same cleanup requirements were made applicable to ongoing and future oil and gas operations on the RSF Oil and Gas Lease area, to ensure that these more stringent cleanup standards will apply to all of the oil and gas operations on the property. As a result of the settlement agreement and related 2003 Amendment to the RSF Oil and Gas Lease, Newhall Land acquired the right to buy-out the entirety of the oil and gas lease or any active well site at any time during the remainder of the oil and gas lease. This permits the orderly development of the surface consistent with the Specific Plan for the area. If not earlier terminated by Newhall Land, the RSF Oil and Gas Lease will automatically end in the year 2020. Upon termination of the lease, whenever that may occur, any remaining environmental impacts from oil and gas operations will be remediated in accordance with the cleanup standards established by the settlement agreement.

**Homestead Village**

A description of the environmental activities associated with the RSF Oil and Gas Lease that were conducted within the Homestead Village and Potrero Valley project areas is provided in the following subsections. The description is based on data provided in Waterstone (2000) and site closure certifications issued by Brown and Caldwell.

***Oil Field Investigation/Remediation Activities.*** The RSF Oil and Gas Lease is divided into six areas; portions of three of these areas (Areas 1, 2, and 6) are situated within the Homestead Village project area as shown in **Appendix 4.17**, Attachment A, Figure A-5. Site assessment and remediation activities have been conducted in each of these areas and site closure certificates have been issued to most of the sites within each area through the process mediated by Brown and Caldwell.

A list of the Homestead Village project area sites for which site closure certification has been issued by Brown and Caldwell is provided in **Appendix 4.17**, Attachment B, Table B-4. and the locations of these sites are depicted in **Appendix 4.17**, Attachment A, Figure A-6. These sites are organized into three categories as follows:

- Discontinued Sites with Closure Certification -- these sites are no longer in operation, analytical data indicates that remaining TPH concentrations are less than 100 ppm, and Brown and Caldwell has issued a site closure certification letter for the site;

- Deferred Sites with Incomplete Closure Certification -- these sites are no longer in operation, but either: (1) Brown and Caldwell has not issued a site closure certificate; or (2) the certificate indicates

residual TPH concentrations above 100 ppm, or other constituents that are above USEPA Preliminary Remediation Goals (PRGs) for residential land use; and

- Deferred Sites -- these sites are located adjacent to, or overlap with, active sites and remediation of these sites has been deferred until the cleanup of those active sites.

Specifically, the above sites are located within Areas 1, 2, and 6 of the RSF Oil Field. These areas are described as follows:

- Area 1 -- Area 1 is located in the north-central portion of the oil and gas lease area and includes production satellite station 1A, 16 potential earthen sumps, two water injection tanks, and two well site pads;

- Area 2 -- Area 2 is located in the northwest portion of the oil and gas lease area and includes production satellite station 2A, six potential earthen sumps, one former tank battery, two water injection tanks, and three well site pads; and

- Area 6 -- Area 6 is located in the central portion of the oil and gas lease area and includes production satellite station 6A, 41 well site locations, 14 potential earthen sumps, six former tank batteries, a maintenance yard, one gas separator battery, four concrete pads, a field compressor, a historical trash pit, a well site pad, and a pipe yard area.

As reported in the Waterstone (2000) report, the following number of sites were remediated in the Homestead Village area (*i.e.*, discontinued sites with closure certification):

- Four wells sites in Area 2;

- Seven sump sites including four in Area 1, two in Area 2, and one in Area 6; and

- One tank site in Area 1.

Sites that were considered discontinued but have incomplete closure certification are not included in the above list because it cannot be confirmed that these sites were successfully remediated to below the regulatory standards. Accordingly, those sites, in addition to the deferred sites, are described for Homestead Village a few pages below in the section discussing activities to be completed prior to development.

***Non-Oil Field Investigation/Remediation Activities.*** The following subsection describes the environmental activities associated with the Homestead Village areas based on information provided in the following documents:

Phase I Environmental Site Assessment and Subsurface Investigation
Homestead North / South (2,886.4 Acres)
Valencia, California
BA Environmental
February 8, 2005

Phase I Environmental Site Assessment and Subsurface Investigation
Proposed Public Park (Lot 1081)
Valencia, California
BA Environmental
February 8, 2005

Phase I Environmental Site Assessment and Subsurface Investigation
Proposed Public Park (Lot 514)
Valencia, California
BA Environmental
February 8, 2005

Phase I Environmental Site Assessment and Subsurface Investigation
Proposed Public Park (Lot 322)
Valencia, California
BA Environmental
February 8, 2005

A portion of the Homestead Village area is located north of SR-126, between Chiquito Canyon and the Ventura County line (Homestead North). The second portion of Homestead Village is located south of SR-126 and Landmark Village (Homestead South). The Homestead South area is partially located within the RSF Oil Field, as shown in **Appendix 4.17**, Attachment A, Figure A-8.

A Phase I Environmental Site Assessment was conducted at Homestead Village development site (Homestead North and Homestead South) (Phase I Environmental Site Assessment, February 8, 2005). The subject property consisted of an approximately 2,886.4-acre parcel of land, divided into the following seven individual developments:

- Chiquito Canyon/Chiquito Estates (434 acres);
- Homestead Central (306.2 acres);
- Homestead West (304.6 acres);
- Mesas West (621.4 acres)
- Long Canyon North/Long Canyon South (653 acres)
- Onion Fields (350.5 acres)
- Potrero Ridge (216.7 acres)

The Phase I investigation included a reconnaissance of the subject property and vicinity, review of available relevant regulatory records, and review of the property history. The Phase I Environmental Site

Assessment identified the following historical recognized environmental conditions with regard to the subject site:

- Three former fuel USTs were located on the Homestead Central development. The tanks were removed in 1988 and received closure in 1996;
- At least 107 oil wells and associated production areas existed on the subject property;
- Several sumps and former sumps, former tank batteries, and landfill or trash dump areas existed on the subject property;
- Staining was observed near several of the former oil well locations, former tank locations, and sumps (past and present);
- Several oil pipelines have been identified on the subject property;
- Two areas of grouped former structures were located on-site. One may have been a former oil company field office and associated with the former farming operations. ASTs and USTs for fueling purposes may have been located at these structures;
- Asbestos containing materials were identified in structures located in the Homestead Central development; and
- Lead-based paint may exist in structures located in the Homestead Central development.

In addition to the above Phase I Environmental Site Assessment for the larger Homestead Village area, three separate Phase I Environmental Site Assessments were conducted for three proposed public park sites, including Lot 514, Lot 322, and Lot 1081. The results of the three separate Phase I Environmental Site Assessments are summarized as follows.

Lot 514 is an 8.7-acre parcel within the Mesas West development site. The Phase I investigation included a reconnaissance of the subject property and vicinity, review of available relevant regulatory records, and review of the property history. In addition, limited soil sampling was performed to assess whether past use of pesticides or herbicides has impacted the shallow soils beneath the previously cultivated areas on the subject property. Specifically, on April 22, 2005, eight shallow soil samples were collected and analyzed for organochlorine pesticides, organophosphorus pesticides, and chlorinated herbicides. The results of the Phase I investigation indicate that concentrations of organochlorine pesticides were detected in several samples, including 4,4-DDE at 0.002 milligrams per kilogram (mg/kg) and gamma-BHC (Lindane) at 0.001 mg/kg, which is below the residential PRG level. No organophosphorus pesticides or chlorinated herbicides were detected. The overall Phase I Environmental Site Assessment identified the two oil wells and associated production areas that existed at the subject property as potential environmental conditions.

Lot 322 is a 5.8-acre parcel within the Homestead Central development site. The Phase I investigation included a reconnaissance of the subject property and vicinity, review of available relevant regulatory records, and review of the property history. In addition, limited soil sampling was performed to assess

whether past use of pesticides or herbicides has impacted the shallow soils beneath the previously cultivated areas on the subject property. Specifically, on April 22, 2005, nine shallow soil samples were collected and analyzed for organochlorine pesticides, organophosphorus pesticides, and chlorinated herbicides. The results of the Phase I investigation indicate that concentrations of organochlorine pesticides were detected in several samples, including 4,4-DDE at 0.002 mg/kg, which is below the residential PRG level. No organophosphorus pesticides or chlorinated herbicides were detected. The overall Phase I Environmental Site Assessment revealed no evidence of recognized environmental conditions.

Lot 1081 is a 5.92-acre parcel within the Long Canyon North/Long Canyon South development site. The Phase I investigation included a reconnaissance of the subject property and vicinity, review of available relevant regulatory records, and review of the property history. In addition, limited soil sampling was performed to assess whether past use of pesticides or herbicides has impacted the shallow soils beneath the previously cultivated areas on the subject property. Specifically, on April 21, 2005, eight shallow soil samples were collected and analyzed for organochlorine pesticides, organophosphorus pesticides, and chlorinated herbicides. None of the samples collected from the sites were found to have detectable concentrations of organochlorine pesticides, organophosphorus pesticides, or chlorinated herbicides. The overall Phase I Environmental Site Assessment identified the Unocal pipeline that crosses the western portion of the subject property as a potential environmental condition.

***Activities to be Completed Prior to Development.*** There are four sites in the Homestead South area for which historic sampling results exceed cleanup levels of 100 ppm for TPH and the USEPA Region 9 PRGs for residential land use. These areas will be remediated prior to development activity. They include sites for which no closure certification has been issued, and sites of concern that have been identified in previous reports but at which no additional activities have been conducted. These few sites do not include sites for which site closure certification has been issued by Brown and Caldwell. The locations of the sites are provided in **Appendix 4.17**, Attachment A, Figure A-6 and a summary of the analytical data associated with the sites is provided in **Appendix 4.17**, Attachment B, Table B-5. In sum, the sites require remediation in order to address detectable concentrations of the following: TPH, benzene, ethylbenzene, toluene, and xylenes.

In addition, the February 8, 2005 Phase I Environmental Site Assessment conducted at Homestead Village development site (Homestead North and Homestead South) recommended the following activities prior to site development:

- If disturbed, or if located within an area of redevelopment, all former oil wells located on the subject property should be re-abandoned according to all applicable local and state regulations. Active oil wells should also be abandoned in accordance with applicable local and state regulations prior to development, and any crude oil-impacted soil around the wells remediated;

- The areas of former sumps, tanks, and landfill identified in the development sections should be assessed for potential impacts to the subject site;

- If the on-site oil pipelines will continue to be used, they should be assessed for leakage. If the pipelines are planned to not be used, they should be removed and the soils beneath them further assessed for the potential for impact;

- Areas of visible staining should be assessed if they are not planned for excavation, or are located in an area planned to be raised in grade using clean soil;

- Areas of visible staining that are scheduled to be excavated should have any visibly impacted soil disposed of in accordance with all federal, state, and local regulations;

- Asbestos containing materials should be abated prior to the demolition of any on-site structure. Any suspect material not already identified or tested should be sampled prior to demolition. All asbestos containing materials should be abated by a licensed asbestos abatement contractor;

- Prior to demolition, all structures should be sampled for lead-based paint. If confirmed to have lead-based paint, health and safety procedures should be initiated to protect workers during demolition activities; and

- All groundwater monitoring wells or production water wells should remain unless in an area to be disturbed. If so, the water wells should be abandoned, if necessary, according to applicable local and state regulations, prior to redevelopment.

The three separate Phase I Environmental Site Assessments conducted for three proposed public park sites, including Lot 514, Lot 322, and Lot 1081, recommended the following activities prior to development:

- The abandoned oil wells at Lot 514 should be re-abandoned if located in areas of planned grading;

- Although not a recognized condition, the on-site water well at Lot 322 should be abandoned to applicable local and state regulations, prior to development, if not planned to be in use; and

- If the Unocal pipeline at Lot 1081 is not to be used in the future, it should be removed and the soil beneath the pipeline should be assessed for possible petroleum hydrocarbon contamination.

**Potrero Valley**

***Oil Field Investigation/Remediation Activities.*** The oil lease is divided into six areas and portions of all of these areas are situated within the Potrero Valley project area, as shown in **Appendix 4.17**, Attachment A, Figure A-2. Site assessment and remediation activities have been conducted in each of these areas and site closure certificates have been issued to most of the sites within each area through the process mediated by Brown and Caldwell.

A list of the sites within the Potrero Valley project area for which site closure certification has been issued by Brown and Caldwell is provided in **Appendix 4.17**, Attachment B, Table B-3, and the locations of these sites are provided in **Appendix 4.17**, Attachment A, Figure A-6.

Specifically, the above sites are located within Areas 2, 3, 4, 5, and 6 of the RSF Oil Field. These Areas are described as follows:

- Area 2 -- Area 2 is located in the northwest portion of the oil and gas lease area and includes production satellite station 2A, six potential earthen sumps, one former tank battery, two water injection tanks, and three well site pads;

- Area 3 -- Area 3 is located in the southeastern portion of the oil and gas lease area and includes production satellite station 3A, two test separators, one transfer pump, two drum-type sumps, and two equipment pads;

- Area 4 -- Area 4 is located in the southeastern portion of the oil and gas lease area and includes production satellite station 4A, seven potential earthen sumps, two water injection tanks, five historical stained areas, five stained areas, and one soil mound;

- Area 5 -- Area 5 is located in the north-central portion of the oil and gas lease area and includes production satellite station 5A, four potential earthen sumps, a shipping storage tank area, two historic tank batteries, one concrete pad, and one well site pad; and

- Area 6 -- Area 6 is located in the central portion of the oil and gas lease area and includes production satellite station 6A, 41 well site locations, 14 potential earthen sumps, six former tank batteries, a maintenance yard, one gas separator battery, four concrete pads, a field compressor, a historical trash pit, a well site pad, and a pipe yard area.

As reported in the Waterstone (2000) report, the following number of sites were remediated in the Potrero Valley area (*i.e.*, discontinued sites with closure certification):

- Nine well sites, including one in Area 2, two in Area 3, three in Area 4, and three in Area 6;

- Eleven sump sites, including two in Area 2, one in Area 3, two in Area 4, one in Area 5, and five in Area 6;

- One tank site in Area 2;

- One historic tank battery site in Area 2;

- Two sites in Area 3;

- One concrete pad site in Area 4;

- Two storage tank sites including one in Area 3 and one in Area 4;

- Two sites in Area 5; and

- One site in Area 4.

Sites that were considered discontinued but have incomplete closure certification are not included in the above list because it cannot be confirmed that these sites were successfully remediated to below the regulatory standards. Accordingly, those sites, in addition to the deferred sites, are described for Potrero Valley below.

***Activities to be Completed Prior to Development.*** There are 30 sites in the Potrero Valley area for which historic sampling results exceed cleanup levels of 100 ppm for TPH and the USEPA Region 9 PRGs for residential land use. These sites will be remediated prior to development activity as required by the existing lease. They include sites for which no closure certification has been issued and sites of concern that have been identified in previous reports but at which no additional activities have been conducted. There are an additional seven sites on which a sump with potential impacts was identified. Site closure certification has not been issued by Brown and Caldwell for these 37 sites. The locations of the sites discussed below are provided in **Appendix 4.17**, Attachment A, Figure A-6, and a summary of the analytical data associated with the sites is provided in **Appendix 4.17**, Attachment B, Table B-5. In sum, the sites require remediation in order to address detectable concentrations at various sites regarding the following: TPH, barium, ethylbenzene, toluene, xylene, lead, benzene, chrysene, flourene, naphthalene, 2-methyl-naphthalene, phenanthrene, dimethyl-phthalate, di-n-butyl phthalate, SVOCs, MTBE, and acenaphthylene.

**Landmark Village**

***Non-Oil Field Investigation/Remediation Activities.*** The following subsection describes the environmental activities associated with the Landmark Village area based on information provided in the following documents:

Phase I Environmental Site Assessment and Subsurface Investigation
Landmark Village
Valencia, California
BA Environmental
September 27, 2004

Phase II Subsurface Investigation
Landmark School Site
Valencia, California
BA Environmental
September 1, 2006

Addendum Letter: Phase I Environmental Site Assessment
Proposed Water Tank Locations and Utility Corridor Easements
Valencia, California
BA Environmental
October 3, 2005

District 26/32 Sludge Disposal Study
Progress Report #1

County Sanitation Districts of L.A. County
September, 1977

A Phase I Environmental Site Assessment was conducted at the Landmark Village area on December 3, 2003. An addendum to that Phase I report was issued on October 3, 2005. The addendum specifically addressed the potential past and present use of pesticides on the open space area located in the center of the proposed tract. One of the soil samples analyzed for that area was reported to contain 0.002 mg/kg (ppm) of dieldrin, an organochlorine pesticide. No other organochlorine pesticides, organophosphorus pesticides, or chlorinated herbicides were detected in that area. According to the USEPA Region 9 PRG Table, the residential PRG for dieldrin is 1.7 mg/kg (ppm). Based on this, the concentration of dieldrin detected in the samples is well below the residential PRG for that pesticide.

An additional Phase I Environmental Site Assessment was conducted at the Landmark Village area as reported in the September 27, 2004 Phase I Environmental Site Assessment. The Phase I investigation included a reconnaissance of the subject property, which consists of approximately 280 acres and two borrow sites where fill material will be derived from (known as Borrow Site "A" and Borrow Site "B"). Borrow Site "A" consists of approximately 400 acres and is currently covered in native vegetation. Historically, portions of the site were used for agriculture, and there is some evidence of past oil exploration in the site. Borrow Site "B" consists of approximately 300 acres, and there is currently an electrical transmission tower located in the area. Evidence of past oil wells and a possible existing oil pipeline are present within this site. The Phase I Environmental Site Assessment also includes a review of available relevant regulatory records, and a review of the property history. In addition, 69 soil samples were collected between January 29, 2004 and February 5, 2004. All of the soil samples analyzed were reported not to contain detectable concentrations of organophosphorus pesticides or chlorinated herbicides, although organochlorine pesticides were detected in several samples. However, the concentrations of organochlorine pesticides were below the residential or industrial use PRGs set up by the USEPA. The following items were recognized as environmental conditions in connection with the area:

- Several oil wells and associated production areas may exist on the subject property and on Borrow Sites "A" and "B,"
- Several ASTs, likely associated with oil production, existed on site in the 1950s;
- A portion of the waterline easement associated with the Zone 1A tank site is adjacent to an old trash dumping site;
- Several pipelines cross the subject property, and one pipeline crosses Borrow Site "B;"
- Scattered suspect asbestos containing material debris was observed in the central and western portions of the subject property;
- Staining was observed beneath what appeared to be an abandoned pipeline along the old railroad easement, and near what was believed to be a former oil well on Borrow Site "B." In addition, staining was observed beneath a diesel AST associated with a potable water pump located in the eastern portion of the subject property; and

- Two equipment storage areas were observed on the subject site, one located in the eastern portion of the subject property and one in the central portion. The storage area in the central portion was associated with a former airstrip. Agricultural chemical storage and mixing was observed or may have taken place at these areas in the past. Soil staining was observed in both areas.

Subsequent to the above Phase I investigation, a Phase II Subsurface Investigation also was performed at the proposed nine-acre school site located in the north-central portion of the Landmark Village area (Phase I Environmental Site Assessment, September 27, 2004) to assess whether past agricultural activities have impacted subsurface soil conditions beneath the subject property (Phase II Subsurface Investigation Report, September 2006). Accordingly, 32 shallow soil and 32 deeper soil samples were collected and analyzed for organophosphorus pesticides, organochlorine pesticides, chlorinated herbicides, paraquat, arsenic, and heavy metals. No detectable concentrations of organophosphorus pesticides, chlorinated herbicides, paraquat, arsenic, or elevated concentrations of heavy metals were found, although several samples were reported to contain low level concentrations of trifluralin, an organochlorine pesticide. However, the concentrations of trifluralin were well below the residential use PRGs and therefore safe. No additional subsurface investigations or remedial action is needed at this site.

An addendum to the Phase I Environmental Site Assessment was performed at the two proposed water tank locations and utility corridor easements associated with the proposed Landmark Village area on May 5, 2004 (two addendums to the original report were also issued on September 28, 2004 and October 3, 2005). The subject property consists of two vacant parcels of land for proposed water tanks and narrow strips (approximately 35- to 140-feet wide) of land for proposed utility corridors. The subject site includes the following 10 subareas:

- Future Water Reclamation Plant to Future Potrero Road;
- Future Potrero Road to Landmark Village Development;
- Future Homestead Frontage Road;
- Landmark Village Development -- Spine Road;
- Landmark Village Development to Commerce Center Drive;
- Hancock Parkway -- Commerce Center Drive;
- Henry Mayo Road;
- The Old Road;
- Northern Proposed Water Tank Location; and
- Southern Proposed Water Tank Location.

The following environmental conditions were recognized in conjunction with the subject property:

- Portions of the subject site are located within active or inactive oil fields;
- Portions of the subject property cross or run parallel to petroleum pipelines; and
- A portion of the waterline easement associated with the Zone 1A tank site is adjacent to an old trash dumping site.

No additional subsurface investigations or remedial action was recommended.

Land disposal of liquid digested sewage sludge (biosolids) has been conducted at the site since the Saugus-Newhall and Valencia Water Reclamation Plants (WRPs) were placed in operation during the latter part of 1962 and 1966, respectively. This activity can be conducted, subject to conditions established by the RWQCB. The Sanitation Districts previously operated six disposal sites for spreading sludge from the Saugus-Newhall and Valencia WRPs. Disposal Site 6 was located within the Landmark Village area. Disposal Site 6, approximately 60 acres in size, was only used for several years and then shifted to Site 1, located in Hasley Canyon. This is the only sludge site that is found within Landmark Village; however, a small portion of the site runs outside of Landmark's proposed borders. The area was recently evaluated by DTSC and found to pose no health issue.

***Activities to be Completed Prior to Development.*** The September 27, 2004 Phase I Environmental Site Assessment recommended that the following activities be completed prior to development:

- If disturbed, or if located within an area of redevelopment, all former oil wells located on the subject property should be re-abandoned according to all applicable local and state regulations;
- If the pipelines on the subject site are not to be used in the future, they should be abandoned and soils beneath them assessed for petroleum hydrocarbon leakage. If the pipelines are planned to remain in use, the pipelines should be assessed for possible hydrocarbon leakage;
- Properly dispose of scattered suspect asbestos containing materials; and
- The areas of former ASTs, current agricultural storage areas, and current soil staining observed on the subject site should be assessed for potential impact to the subject site.

Additionally, the Phase I recommended that all groundwater monitoring wells or production water wells in the area that would be disturbed by development be abandoned according to applicable local and state regulations.

### 4.17.4.3 Additional Potential Hazards

**Existing Southern California Edison Transmission Lines.** The Specific Plan site is traversed by Southern California Edison (SCE) 66 kilovolt (kV) and 220 kV transmission lines within a 300-foot easement in the northern portion of the site, and 66 kV and 230 kV transmission lines within a 75- to 240-foot (total width) easement in the central portion of the site. These regional transmission lines originate at two locations: (1) the Saugus Substation east of I-5, across from the Six Flags Magic Mountain Amusement Park; and (2) the Valencia Industrial Park Pardee Substation, east of I-5 and north of the

Santa Clara River. Because high voltage electrical transmission lines create electromagnetic fields (EMFs) and because of ongoing debate over the potential health effects of EMFs, they are discussed in this subsection.

Electric and magnetic fields occur from energy sources that are electrical in nature. These energy sources and their associated electric and magnetic fields have been described and categorized within the electromagnetic spectrum, as illustrated in **Appendix 4.17**, Attachment A, Figure A-9 (National Institute of Environmental Health Sciences and U.S. Department of Energy, 2002). The spectrum is organized by the frequency at which the electrical polarity of an energy source changes or oscillates with respect to time (in seconds). The frequency of an electric or magnetic field is expressed as Hertz (Hz). For instance, the earth's magnetic field does not change at any appreciable rate and is considered static. This lies at the extreme low end of the electromagnetic spectrum, at zero Hz. At the opposite end of the electromagnetic spectrum are the gamma rays. These fields have an extremely high frequency ($10^{21}$) and a tremendous amount of energy. This is called ionizing radiation because this energy can ionize molecules. The spectrum also includes visible light, microwaves, radio waves, and electricity.

The electricity we use each day is generated, transmitted, and distributed at a constant frequency of 60 Hz, also referred to as "power frequency." The unit of measure for electrical power is watts. Watts can be described as a product of electrical voltage and flow of charge (electrical current measured in Amp). Power-frequency electric and magnetic fields are referred to as EMFs.

Voltage, or electrical pressure on any energized conductor, exerts a force field known as an electric field. This electric field is measured in units of volts per meter (V/m) and is dependent on the amount of charge. Therefore, a conductor energized at a higher level will have a higher electric field associated with it. Electric fields interact with other neighboring positive or negative charges to cause attracting or repelling forces. The strength of this field rapidly decreases with distance from the source. The electric field can easily be shielded. Trees, fences, buildings, and most other structures can shield electric fields from an overhead power line. The earth will shield the electric field from buried power lines. The strength of the electric field from a power line depends on the voltage level, the distance away from the line, and design of the system.

The use of electricity causes electric charges to flow as electric current. The current on a conductor creates magnetic fields. The unit of measure of magnetic fields is milliGauss (mG). The strength of magnetic fields diminishes quickly as one moves away from the source, just like the electric field. Magnetic fields interact with neighboring magnetic fields and the resultant field depends on the magnitude and direction of each magnetic field source (*i.e.*, currents). All SCE facilities contain multiple currents on circuits and depending on their arrangement can increase or decrease the strength of the magnetic field. Therefore, consideration of the direction and magnitude of the current and the configuration of conductors on poles or underground can be used to design facilities with reduced magnetic fields.

During recent years, questions have been raised about the possible health effects of power frequency EMF. Scientific communities have been unable to determine if EMF causes health effects or to establish any standard level of exposure that is known to be harmful. (Nair, 1993.) Current scientific research focuses on exposure to magnetic fields rather than electric fields.

So far, research on EMF effects on human health has not found sufficient evidence to link EMF exposure to the risk of cancer or other disease. Accordingly, the California Public Utilities Commission (CPUC) Decision 93-11-013 states: "It is not appropriate to adopt any specific numerical standard in association with EMF until we have a firm scientific basis for adopting any particular value." If even the highest risk estimates reported in some of the literature are real, the individual risk is likely to be small, particularly compared to other health risks and compared to the benefits we derive from electric power.

In 1993, CPUC Decision 93-11-013 created an EMF research and information program. This program was managed by DHS and funded by utility ratepayers. The purpose of the program was to perform policy analysis, and provide education and technical help to benefit Californians. Input to DHS was provided by a Stakeholders Advisory Consultant Group, comprising members of the public and consumer groups, health and scientific experts, and labor and utility representatives. More input also came from state agencies, consultants, and special interest groups during the open-forum discussion periods at the Stakeholders Advisory Consultant Group meetings.

In 2002, three scientists for DHS concluded:

- To one degree or another, all three of the DHS scientists are inclined to believe that EMFs can cause some degree of increased risk of childhood leukemia, adult brain cancer, Lou Gehrig's Disease, and miscarriage;

- They strongly believe that EMFs do not increase the risk of birth defects, or low birth weight;

- They strongly believe that EMFs are not universal carcinogens, since there are a number of cancer types that are not associated with EMF exposure; and

- To one degree or another they are inclined to believe that EMFs do not cause an increased risk of breast cancer, heart disease, Alzheimer's Disease, depression, or symptoms attributed by some to a sensitivity to EMFs.

However, all three scientists had judgments that were "close to the dividing line between believing and not believing" that EMFs cause some degree of increased risk of suicide, or for adult leukemia, two of the scientists were "close to the dividing line between believing or not believing" and one was "prone to believe" that EMF cause some degree of increased risk.

In 1996, the National Academy of Sciences issued a report finding that there is no clear, convincing evidence to show that residential exposures to EMFs are a threat to human health. The National Academy of Sciences is a private, non-profit society of distinguished scholars that advises the federal government on scientific and technical issues. (NAS, 1996.)

The federal government also has conducted EMF research as a part of a $45-million research program managed by the National Institute of Environmental Health Sciences. This program, known as the EMF RAPID (Research and Public Information Dissemination) Program, submitted a final report to the U.S. Congress on June 15, 1999. (NIEHS, 1999.) The report concludes that:

- The scientific evidence suggesting that EMF exposures pose any health risk is weak.

- EMF exposures cannot be recognized as entirely safe because of weak scientific evidence that exposures may pose a leukemia hazard.

- The power industry should continue its current practice of siting power lines to reduce exposures and continue emphasis on educating both the public and providers of electricity about ways to reduce exposure.

In 2001, Britain's NRPB (National Radiological Protection Board) arrived at a similar conclusion:

> After a wide-ranging and thorough review of scientific research, an independent Advisory Group to the Board of NRPB has concluded that the power frequency electromagnetic fields that exist in the vast majority of homes are not a cause of cancer in general. However, some epidemiological studies do indicate a possible small risk of childhood leukemia associated with exposures to unusually high levels of power frequency magnetic fields.

In 2002, World Health Organization's International Agency for Research on Cancer concluded:

> . . . ELF magnetic fields are possibly carcinogenic to humans, based on consistent statistical associations of high-level residential magnetic fields with a doubling of risk of childhood leukemia. Children who are exposed to residential ELF magnetic fields less than 0.4 microTesla have no increased risk for leukemia. . . . In contrast, no consistent evidence was found that childhood exposures to ELF electric or magnetic fields are associated with brain tumors or any other kinds of solid tumors. No consistent evidence was found that residential or occupational exposures of adults to ELF magnetic fields increase risk for any kind of cancer.

SCE has identified methods to reduce magnetic fields unique to its facilities and has incorporated these techniques into the "EMF Design Guidelines for New Electrical Facilities: Transmission, Substation, Distribution" manual. (SCE, 2004.) Using these guidelines, "no- and low-cost" measures to reduce fields are implemented wherever available and practical, in accordance with CPUC Decision 93-11-013.

SCE calculated EMF levels for the lines that cross the Specific Plan site; this was done at tract 45433, which is just east of the Specific Plan site. SCE reported that, at the edge of the right-of-way, EMF levels dropped to 1.1 mG. These levels are consistent with levels found along similar electrical transmission lines throughout California.

**Existing Southern California Gas Company High Pressure Lines.** There are two Southern California Gas Company (SCGC) high pressure gas main lines on the site, including a 34-inch main located within a 25- to 30-foot-wide easement that traverses the central portion of the site, and a 12- to 16-inch main that originates at the Ventura County boundary and generally follows Potrero Valley Road and Pico Canyon Road to I-5.

SCGC patrols, inspects, tests, repairs, replaces, and maintains its pipelines in compliance with CPUC-mandated safety requirements. CPUC General Order 112E, which is based upon the U.S. Department of Transportation guidelines contained in Part 192 of the federal Code of Regulations, specifies a variety of

design, construction, inspection, and notification requirements. The CPUC conducts annual audits of pipeline operations to ensure compliance with these safety standards. In areas that are designated High Consequence Areas, primarily highly populated areas, SCGC has implemented a rigorous Integrity Management Program, which uses the latest pipeline safety inspection tools to check pipe condition and ensure these pipelines are maintained safely.

Because nearly 60 percent of the incidents on utility distribution pipelines are due to excavation damage, the SCGC's safety program includes the operation of a call-before-you-dig or a utility-locator service for excavators. In 1998, with the support and encouragement of the natural gas industry, Congress enacted a law establishing a national "call before you dig" safety program, known as One-Call. The One-Call Program is aimed at developing a variety of best practice procedures to prevent excavation damage to underground facilities. In 2005, the Federal Communications Commission designated "811" as a nationwide 3-digit phone number for contractors and others to call before conducting excavation activities.

In addition, SCGC installs above-ground markers to indicate the location of buried gas lines. At a minimum, line markers are placed at each crossing of a public road, except in very urban areas where utility-locator services are available.

**Transport of Hazardous Materials Along SR-126.** The transport of hazardous materials throughout the state of California is regulated by the CHP. The Hazardous Materials Section of the CHP, located in Sacramento, licenses companies that haul hazardous materials. Three categories of hazardous materials are regulated by the CHP in that their transport is limited to designated routes and stopping places. These categories include explosives, inhalation hazard materials (*i.e.*, materials that are poisonous if inhaled), and radioactive materials. The California Code of Regulations, title 13, division 2, chapter 6, articles 1, 2.5 and 2.7, identifies SR-126 as a designated route for the transport of explosive and inhalation materials, but not for radioactive materials. (Theveny *et al.*, 1995.) Therefore, it is very likely that explosives and inhalation hazard materials are transported on SR-126; in addition, although not common, there is a potential for accidental explosions or releases of hazardous gases to occur.

In the event of a spill or release of hazardous gases, the Ventura County Environmental Health Division and/or the Los Angeles County Fire Department Hazardous Material Unit (located at Fire Station 72, 27223 Henry Mayo Drive, which is the closest fire station to the Specific Plan site in the Santa Clarita Valley) would provide response coordination, spill identification, and cleanup supervision. Local law enforcement and fire authorities would provide traffic control and spill containment. County response personnel would be coordinated with appropriate state, and if necessary, federal response agencies.

**Chiquita Canyon Landfill.** The Chiquita Canyon Landfill is a 592-acre Class III (non-hazardous) landfill, located north of and adjacent to SR-126, immediately east and north of the RMDP project area. Currently, 257 acres are permitted for actual disposal of waste. The remainder of the site is for sedimentation ponds and future expansions. It currently receives approximately 5,000 to 6,000 tons of solid waste daily during a seven-day operating week. The site is owned and operated by Republic Services of California I, LLC. Since the facility was acquired by Republic Services in 1999, it has been upgraded with: (1) a new landfill gas management system; (2) an upgraded leachate management system; (3) improved internal roadways; and (4) new operating procedures. Additionally, Republic Services has

improved the efficiency of the operation by purchasing two trailer tippers to speed the unloading of waste material at the active portion of the landfill.

New or expanded landfills must be lined with a composite liner (clay and plastic membrane) or other approved liner, in accordance with California Code of Regulations, title 27, not only to prevent water from entering the refuse area of the landfill, but also to prevent water and other materials from entering ground or surface waters. In addition, all landfills must have collection systems, monitoring wells, and other surveillance programs established to ensure the environmental safety of the facility both during its operation and upon its closure. Environmental issues that are of concern regarding the operation of a landfill include, but are not limited to, the following: odors, leachate, methane gas migration, water quality, dust generation, vectors, birds, windblown refuse, and truck traffic.

The network of environmental protection systems at the Chiquita Canyon Landfill includes a composite liner that exceeds federal requirements. The liner is made of clay and synthetic material. Two feet of clay is compacted to increase the impermeability of the liner. A geo-synthetic liner and a 40-mil high-density plastic membrane are placed over the clay. A drainage layer is installed over the liner. The liner system meets all state and federal regulations.

The environmental protection system also includes a leachate collection system, in which perforated pipe is placed atop the liner to allow for proper drainage/collection of rainwater and other liquids in the landfill. Once collected, the liquid is shipped off site for treatment.

Rainfall that is diverted away from the landfill must also be managed. At the Chiquita Canyon Landfill, stormwater runoff is collected and contained in sedimentation basins. These ponds allow soil particles to settle out of the water before it is discharged to a nearby waterway.

Groundwater is one of the most important concerns at a landfill and requires special monitoring. Groundwater monitoring wells have been installed throughout the site to ensure that landfill operations are not impacting groundwater. Each of the wells is sampled on a monthly basis, with the results sent to the California Department of Environmental Protection and Water Resources Board.

A gas management system was installed in the early 1990s and is used to control methane gas, which is naturally produced during waste decomposition. The gas is collected and safely burned at a single, enclosed flare stack located on the site. This system has greatly reduced odors and prevents gas migration.

Access to the site is limited to one entrance and one exit. The facility records and tracks all shipments to the landfill with scales and gate receipts. Each load of incoming waste is visually inspected to ensure that only permitted materials are accepted for disposal. Once unloaded, the waste is immediately compacted to conserve airspace. At the end of each working day, daily cover is placed over the compacted waste to minimize odors.

Steps also are taken to control dust and litter at the landfill. Periodic watering of access roads prevents dust from rising when trucks travel in and out of the landfill. Litter is minimized by limiting the size of the active disposal area, applying daily cover, and using fencing on windy days to catch lightweight materials. Laborers collect any litter that blows away from the landfill.

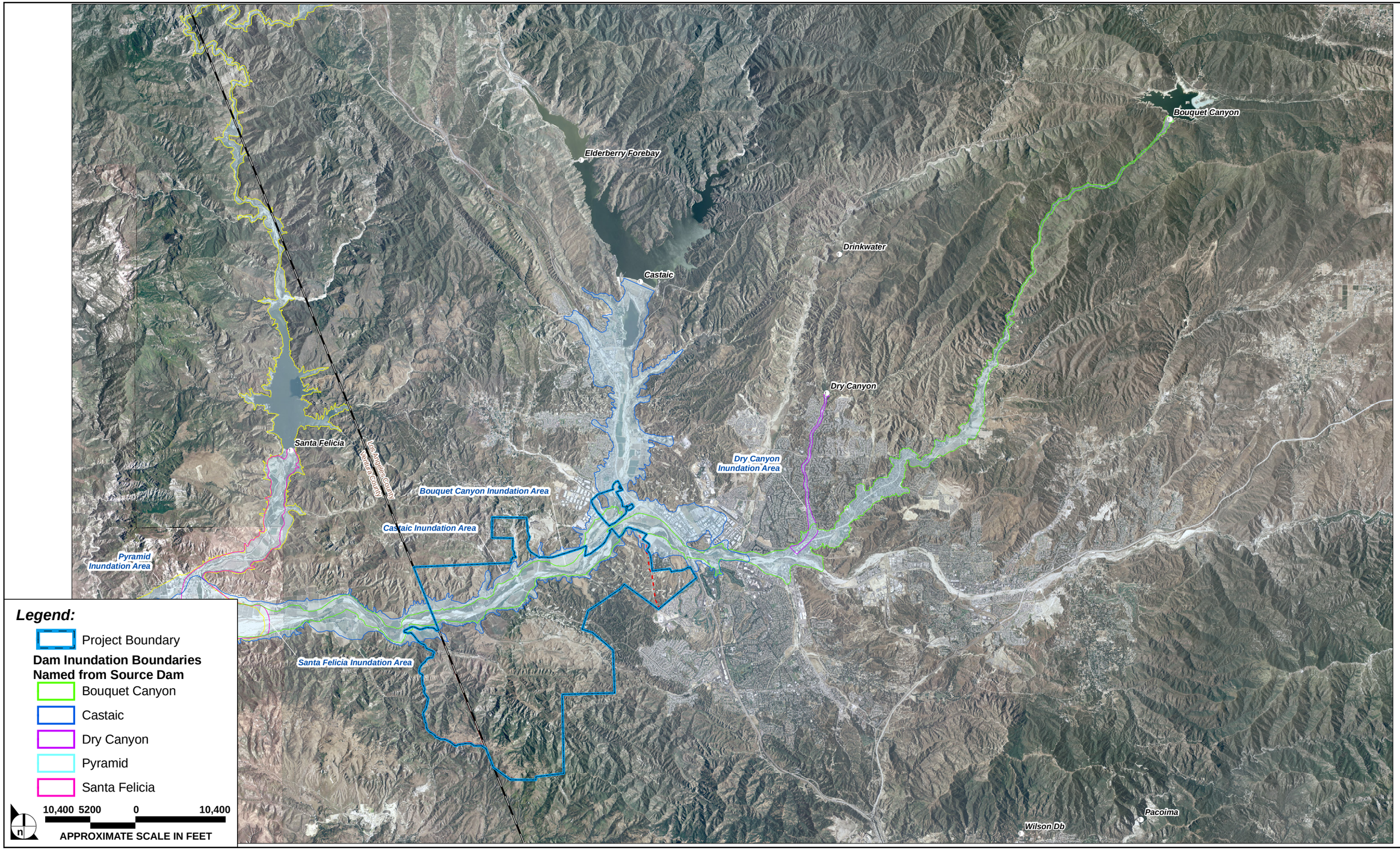
The facility is fully permitted by RWQCB, the Los Angeles County Department of Health Services, and the South Coast Air Quality Management District (SCAQMD). State and local inspectors regularly inspect the site.

**Dam Inundation Area.** Dam inundation refers to the flooding and erosion of low lying areas due to catastrophic dam failure. Dam inundation may be caused by earthquakes or other events that compromise the integrity of dams upstream of the proposed Project. The Project site is located about eight miles downstream from the Castaic Dam, which is located at the southern end of Castaic Lake and about 17 miles downstream from the Bouquet Dam, which is located at the southern end of Bouquet Reservoir.

Less than one percent of the 308 recorded worldwide dam failures between 1766 and 1944 are attributable to earthquakes. (Los Angeles County, 1990.) The embankments of the Castaic Lake Dam and Bouquet Dam are composed of strong and densely-compacted materials. According to the Los Angeles County Safety Element, "most engineered, mechanically-compacted dam embankments or fills of earth or rock materials have performed well under seismic shaking." (Los Angeles County, 1990.) The area dams held up well during the Northridge earthquake (magnitude 6.8 on the Richter Scale) with no signs of damage reported, and are likely to hold up well during other earthquakes of similar, if not greater magnitude. (Los Angeles County, 1990.) According to the California Department of Water Resources (DWR), the Castaic Dam is designed to resist both the maximum credible earthquake and the probable maximum precipitation flood. The dam's spillway has several times the capacity of creeks flow of record, and the dam's freeboard can easily handle any potential landslide that might occur into the lake. Additionally, the dam provides incidental control benefits downstream.

In the event of a catastrophic dam failure, the limits of dam inundation would roughly follow the outline of the 100-year flood zone within the confines of the Santa Clara River bed, as illustrated in **Figure 4.17-2.** (Federal Emergency Management Agency [FEMA], 1996.) The 100-year flood is a flood that has a one percent chance of being equaled or exceeded in any given year. However, the volume of water being contained by the lakes is limited. The Project area is not in an area subject to run-up and the distances between the lakes and Project area are relatively large. An event resulting in the overtopping of the dam would be less significant than a dam inundation event.

The Project area also is located near the site of the St. Francis Dam that was built by the Bureau of Water Works and Supply of the City of Los Angeles. This dam was built in 1925-26 as a curved concrete gravity dam in San Francisquito Canyon, about five miles northeast of what is now Santa Clarita. The purpose of the dam was to provide an additional 38,000 acre-feet of storage for Los Angeles-Owens River Aqueduct water close to Los Angeles. The dam failed catastrophically upon its first filling on March 12, 1928. The reason for the dam failure has been attributed to three major factors: (1) the instability of the paleomegalandslide on which the dam was built; (2) the failure to compensate for the additional height added to the dam's design; and (3) the design and construction being overseen by only one person. The failure of the dam prompted the state Legislature, on August 14, 1929, to create what is now the Division of Safety and Dams under DWR. Division engineers and engineering geologists review and approve plans and specifications for the design of dams and oversee their construction to ensure compliance with the approved plans and specifications. Reviews include site geology, seismic setting, site investigations,




**SOURCE:** USDA-FSA, NAIP, URS – December 2006

**FIGURE 4.17-2**

Dam Inundation Area

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construction material evaluation, dam stability, hydrology, hydraulics, and structural review of appurtenant structures. In addition, Division engineers annually inspect dams to ensure they are performing and being maintained in a safe manner to prevent dam failures in the future. (California Department of Water Resources, 2007.)

**Existing On-Site Agricultural Operations/Pesticide Use.** The pesticides discussed in this subsection include insecticides, rodenticides, herbicides, and fungicides, since they are used and stored on and adjacent to the Specific Plan site. A pesticide is any substance used to kill crop pests, such as insects, rodents, weeds, and fungi. They are inherently toxic and, used improperly, can have adverse effects on human health and the environment. None of the pesticides used on any land owned by Newhall Land are hazardous enough to receive a Proposition 65 warning. Specific pesticides historically used and stored on the Specific Plan site are listed in **Table 4.17-3.** Agricultural uses are likely to continue on the site as development takes place. Eventually, urban land uses will completely replace the on-site agricultural uses with the exception of the Salt Creek area. Agricultural activities and pesticide use to the west of the site in Ventura County are assumed to continue.

**Table 4.17-3**
**Pesticides Historically Used on the Newhall Ranch Site**

| Insecticides | Rodenticides | Herbicides | Fungicides |
|---|---|---|---|
| Pounce | PCQ Squirrel Bait | Dacthal | Ridomil |
| Diazinon | Gopher Getter | Caparol | |
| Asana Insecticide | | Roundup | |
| Lannate Insecticide | | Simazine | |
| | | Krovar/Diuron | |
| | | Karmex/Diuron | |

Source: The Newhall Land and Farming Company (December 1994).

Pesticides exert adverse effects on living organisms, including non-target organisms, such as non-pest plants and animals in or near a treated area. The four variables that determine the degree to which a non-target organism is affected include: the chemical and physical properties of pesticides, their mode of application, and their route of entry and rate of absorption into the blood stream.

The chemical and physical properties of a pesticide determine the potential toxic effects it can have on humans. Every pesticide is divided into one or two classes by the USEPA based on its toxicity, its intended use, and its environmental impact. A pesticide listed for general use is considered to present little or no danger to either the applicator or the environment if it is used as directed.

Pesticides may be applied either by broadcast spraying (spraying a fine mist over the target -- usually from an aircraft or a land vehicle) or by topical application (placing the pesticide directly on or in the vicinity of the target). Broadcast spraying can result in the dispersion of pesticides into adjacent non-target areas (especially during windy conditions); therefore, some pesticides that are applied in this manner are strictly regulated.

**Wildfires.** The Los Angeles County Fire Department has designated lands in the County with regard to their potential for wildland fire hazards. These designations, determined at the discretion of the County

Forester, are based on an area's accessibility, amount and type of vegetative cover, water availability, and topography. The only two designations used by the Los Angeles County Fire Department are Fire Zones 3 and 4. Areas within the County which are not designated as either Fire Zone 3 or 4 are not considered to be subject to wildland fire hazards. (Johnson, 1995.)

The differences between the Fire Zone 3 and 4 designations are relatively minor, in that one or more of the four criteria (access, topography, vegetation, and water) may pose less of a constraint in Fire Zone 3 than in Fire Zone 4. Fire Zone 4 has more restrictive building requirements than Fire Zone 3. Portions of Fire Zone 4 may, upon development, meet the criteria of Fire Zone 3, and may be redesignated as Fire Zone 3 at the discretion of the County Forester.

Portions of the Newhall Ranch Specific Plan site are situated in an area with diverse topographic features, and equally divergent vegetative communities. The Santa Clara River crosses the northern portion of the Newhall Ranch Specific Plan site on a broad and fairly flat flood plain. This corridor is dominated by fairly dense riparian vegetation fed by the perennial flows of the River. Due to the area's relatively low topographic relief, greater accessibility, more fire retardant vegetative communities, and the presence of the River, the County Forester has designated this area as Fire Zone 3, or of Moderate Fire Hazard.

The Fire Zone 3 designation extends along the SR-126/Santa Clara River Corridor from the Ventura County line to I-5, and from the base of the hills north of SR-126 across the flood plain to the base of the hills south of the Santa Clara River.

Due to the presence of vegetation, steep topography, limited access, and limited water sources on the remainder of the Specific Plan site, the County Forester has designated it as Fire Zone 4, or of High Fire Hazard.

Fire Hazard Zones 3 and 4 typically have the following vegetative types: chaparral, coastal sage, riparian, and oak woodlands vegetation communities. Wildland fires are relatively common occurrences in these plant communities, which include, but are not limited to, ceanothus, chamise, sumac, sages, and wildland grasses; these communities are similar to the types found in Santa Clarita Valley and surrounding areas. When chaparral and coastal sage growth is younger, it is more succulent, with little or no dead or dying branches, provides less horizontal fuel continuity, and has a higher average fuel moisture content; as a result, it is usually more fire retardant. As these plant species reach 20-plus years in age, their dead-to-live fuel ratio increases, creating more available fuel to carry fire with very high intensities and energy releases. These plant species have adapted to periodic wildland fire conditions, and maintain a healthy ecosystem in the regional vicinity. These plant communities pose the greatest fire threat to expanding urban development due to their high combustibility and dense biomass. However, in the areas where these plant communities border urban development, the frequency of fire events may be diminished as a result of fire prevention and fire suppression activities. Fire prevention activities include prescribed burns, vegetation thinning/removal, and creation of fuel modification zones; whereas fire suppression involves measures which control fires once they have started (*e.g.*, fuel breaks, use of firefighting equipment, *etc.*).

During the spring months, vegetation typically begins to lose its moisture content and, by the summer and fall when Santa Ana wind conditions begin to occur, wildland fire conditions become extremely high. Historically, large fires tend to burn in Fire Zones 3 and 4 every 20 to 25 years. Wildland fire events have

occurred in the regional area. Recent significant fire events occurred on and surrounding the Project area in 2003 and October 2007. During those events, in the areas adjacent to the wildfire/urban interface, *e.g.*, Stevenson Ranch and Westridge, no houses burned. Generally, fire prevention for urban development in wildland fire hazard areas focuses on restricting the types of building materials used, building design, and incorporating setbacks. An area designated as a Fire Zone 3 would have less severe fire hazard conditions than an area designated as Fire Zone 4, and, therefore, would have fewer restrictions involving building construction and site design. Development within Fire Zone 4 is required to meet the building construction requirements specified in the County Building and Safety Code, as well as the county hillside guidelines. Examples of fire code provisions which development in these areas must meet are presented in **Subsection 4.17.3.1**.

### 4.17.5 IMPACT SIGNIFICANCE CRITERIA

Two broad categories of hazards are evaluated in this section. The first is historic contamination from oil fields and other past industrial developments. The second has to do with all other types of environmental hazards. For historic contamination, the Appendix G significance criteria have been tailored to reflect that the regulatory framework calls for an initial evaluation of site conditions that makes use of screening levels that are set at values that are protective in all cases. For environmental hazards other than historic contamination, this analysis uses the significance criteria from Appendix G of the CEQA Guidelines without modification. The Corps has agreed to use the CEQA criteria presented below for purposes of this EIS/EIR, although significance conclusions are not expressly required under NEPA. The Corps also has applied additional federal requirements as appropriate in the EIS/EIR. The thresholds for significance used for the purposes of this analysis are as follows:

- **Significance Criterion 1:** Project would create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials.

- **Significance Criterion 2:** Project would create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials at concentrations that:

    - Exceed the Preliminary Remediation Goals (PRGs) set forth by the USEPA; or

    - Impair the achievement of the designated land uses by exceeding the following criteria:

        - TPH concentrations are greater than 1 mg/L in drinking water sources;

        - TPH concentrations are greater than 1,000 to 50,000 mg/kg depending on composition of oil and depth to groundwater; or

        - TPH concentrations in shallow soils (less than five feet) exceed nuisance-based levels of 1,000 mg/kg.

Screening levels related to potential site contamination are based on the USEPA Region 9 and Cal-EPA PRGs. Specifically, the PRGs have been developed to ensure that concentrations of carcinogens do not result in an excess carcinogenic risk of one in one million ($1x10^{6}$) and a non-carcinogenic risk above a

hazard index of 1.0. Exceedance of PRGs does not necessarily mean that the soils and sediments may pose a health risk, but may indicate that additional investigation and/or remediation of a site may be warranted.

- **Significance Criterion 3:** Project would emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school.

- **Significance Criterion 4:** Project would impair implementation of or interfere with an adopted emergency response plan or emergency evacuation plan.

- **Significance Criterion 5:** Project would expose people or structures to a significant risk of loss, injury, or death involving as a result of levee or dam failure.

- **Significance Criterion 6:** Project would 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.

- **Significance Criterion 7:** Project would expose people to documented health risk associated with EMFs.

This impact analysis is organized to evaluate only the relevant significance criteria for each of the impact categories: (1) direct impacts; (2) indirect impacts; and (3) secondary impacts. Direct impacts are impacts that are a direct result of the construction, operation and maintenance of the RMDP and SCP components. Indirect impacts are impacts from the development facilitated by the Specific Plan, VCC, and a portion of the Entrada planning area. Secondary impacts are potential impacts that may occur outside of the Project area as a result of the proposed Project and alternatives. Significance Criteria 1 through 7 address these indirect and secondary impacts.

Significance Criterion 1 pertains to the transportation, use and disposal of hazardous materials. The construction of proposed infrastructure projects and the development facilitated by that infrastructure would require the use of hazardous materials. The transportation of hazardous materials to the Project site would have the potential to affect areas located beyond the Project boundaries. Therefore, Significance Criterion 1 is applicable to the direct, indirect and secondary impacts of the Project.

Significance Criteria 2 through 7 generally pertain to hazards that could affect persons on and near the Project site, and are not applicable to non-habitable infrastructure projects. Therefore, Significance Criteria 2 through 7 apply only to the indirect and secondary impacts of the Project.

## 4.17.6 IMPACTS OF THE PROPOSED PROJECT AND ALTERNATIVES

### 4.17.6.1 Impacts of Alternative 1 (No Action/No Project)

Under this alternative, neither the RMDP nor the SCP would be implemented, and there would be no change to the environmental conditions that exist on the Project area.

#### 4.17.6.1.1 Direct Impacts

Under Alternative 1, there would be no direct impacts from the RMDP or SCP because the RMDP infrastructure would not be constructed, and the proposed spineflower preserves would not be established. The River and tributaries within the Project area would remain in their present condition.

#### 4.17.6.1.2 Indirect Impacts

Under Alternative 1, there would be no indirect impacts from the RMDP because Specific Plan build-out would not occur. There would be no indirect impacts from the SCP as no additional development would be facilitated on the Specific Plan site, the VCC planning area, or a portion of the Entrada planning area.

#### 4.17.6.1.3 Secondary Impacts

Under Alternative 1, there would be no secondary impacts from the RMDP or SCP because no RMDP-related infrastructure would be provided and the proposed spineflower preserves would not be established. Specific Plan build-out would not occur and no new development would be facilitated on the VCC planning area or a portion of the Entrada planning area. Therefore, environmental conditions within these areas would remain unchanged. As a result, no hazard-related impacts would have the potential to affect areas located beyond the Project area.

### 4.17.6.2 Impacts of Alternative 2 (Proposed Project)

The RMDP component of the Project consists of infrastructure in the Santa Clara River and tributaries located on the Specific Plan site that are needed to implement the approved Specific Plan. The RMDP infrastructure are comprised of various flood control features, stream bank protection (*i.e.*, buried soil cement, ungrouted rock riprap, turf reinforcement mats, and/or gunite slope lining), drainage facilities, roads, building pads, pipeline and utility river crossings, nature trails, new and widened bridges, the discharge outfall for the previously approved Newhall Ranch WRP, and drainage facility maintenance activities of the Los Angeles County Department of Public Works. The SCP component of the proposed Project would result in the establishment and maintenance of spineflower preserves. In total, approximately 167.6 acres of preserve area would be provided in the Project area.

#### 4.17.6.2.1 Direct Impacts

**RMDP Direct Impacts.** Construction of the proposed RMDP components would include the temporary transport, storage, and use of potentially hazardous materials, including fuels, lubricating fluids, cleaners, solvents, pesticides, herbicides, and other materials. The use of these standard construction supplies during construction could result in the potential for short-term hazardous materials impacts associated with construction activities.

Depending on the volume of materials stored on site, Los Angeles County could require the installation of temporary ASTs to store fuels during construction. It is likely that construction will trigger Los Angeles County requirements for storage (temporary and permanent), which include safeguards such as a Spill Prevention Control and Countermeasure Plan (SPCC). The Los Angeles County Fire Department Health Hazardous Materials Division is the local CUPA responsible for enforcing hazardous materials, waste, noise, and safety regulations in the County. Hazardous materials regulations require a business that

generates hazardous wastes to institute a "cradle to grave" management plan for the storage, transport, and disposal of the hazardous wastes.

In the unlikely event of a large-scale release of hazardous material at a construction site, a hazard to the public and/or the environment could occur. Since most the proposed infrastructure facilities would be located in or adjacent to sensitive habitat areas of the Santa Clara and its tributaries, a large release of hazardous materials would result in a significant impact. Incorporation of Mitigation Measures PH-8, PH-9, and PH-10 set forth below**,** addresses impacts from hazardous materials or conditions by providing additional protections beyond those required by regulatory compliance. The measures provide for additional planning, notification, and application of Best Management Practices. The risk of accidental releases of hazardous materials during construction would be mitigated to less-than-significant levels relative to Significance Criterion 1**.**

The proposed RMDP includes infrastructure, operation, and maintenance activities associated with the various flood control improvements, stream bank protection, drainage facilities, and storm water discharge outfalls and other infrastructure improvements. Maintenance of these facilities will include activities such as the periodic inspection of the improvements by the DPW to ensure that the structures are intact, and to monitor vegetation growth and sediment buildup at or near the structures. Long-term maintenance and operation could include activities such as the occasional use of herbicides or the operation of equipment in and around project areas. These periodic maintenance activities would not have the potential to result in significant long-term hazard- or safety-related impacts under Significance Criterion 1 since the activities would involve infrequent use of small quantities of chemicals that would be handled in accordance with applicable regulations, including those specified by the Los Angeles County Fire Department Health Hazardous Materials Division.

**SCP Direct Impacts.** Activities associated with the creation of the spineflower preserves would consist primarily of the installation of fencing and information signs. These short-term activities would not result in significant hazard- or safety-related impacts under Significance Criterion 1 since the activities would involve small quantities of chemicals, if any, that would be stored and handled in accordance with applicable regulations, including those specified by the Los Angeles County Fire Department Health Hazardous Materials Division.

Long-term preserve maintenance activities may include the occasional use of herbicides or pesticides; however, these occasional activities would not result in significant long-term hazard- or safety-related impacts under Significance Criterion 1 since the activities would involve infrequent use of small quantities of chemicals that would be handled in accordance with applicable regulations, including those specified by the Los Angeles County Fire Department Health Hazardous Materials Division.

#### 4.17.6.2.2 Indirect Impacts

**RMDP Indirect Impacts.**

**Impacts From Hazardous Material Use (Significant but Mitigable).** Build-out of the Newhall Ranch Specific Plan would include the temporary transport, storage, and use of potentially hazardous materials, including fuels, lubricating fluids, cleaners, solvents, pesticides, herbicides, and other materials. The use

of these standard construction supplies could result in the potential for significant short-term hazardous materials impacts associated with construction activities.

Depending on the volume of materials stored onsite, Los Angeles County could require the installation of temporary ASTs to store fuels during construction. It is likely that construction will trigger Los Angeles County requirements for storage (temporary and permanent), which include safeguards such as a SPCC. The Los Angeles County Health and Hazardous Materials Division is the local CUPA responsible for enforcing hazardous materials, waste, noise, and safety regulations in the County.

The Newhall Ranch Specific Plan area would include commercial, residential, and public infrastructure operation and maintenance activities. These operation and maintenance activities could result in significant long-term hazard- or safety-related impacts.

Hazardous materials regulations require a business that generates hazardous wastes to institute a "cradle to grave" management plan for the storage, transport, and disposal of the hazardous wastes. Incorporation of Mitigation Measures PH-8, PH-9, and PH-10 addresses impacts from hazardous materials or conditions by providing additional protections beyond those required by regulatory compliance. The measures provide for additional planning, notification, and application of Best Management Practices. The risk of accidental releases of hazardous materials during construction, operation, and maintenance of the Newhall Ranch Specific Plan would be mitigated to less-than-significant levels relative to Significance Criterion 1.

**Impacts from Transport of Hazardous Materials Along SR-126 (Less than Significant).** Because hazardous materials are transported on SR-126, increased traffic on this highway as a result of development under Alternative 2 could increase the potential for an accident involving a hauler of these substances, which could result in significant impacts. However, hazardous material haulers must be trained and licensed, and the transport of hazardous materials is highly regulated and monitored (see **Subsection 4.17.3**, above). Therefore, the risk of an accident involving the release of substantial amounts of explosive or inhalation materials is less than significant. The Newhall Ranch Specific Plan would not expose people, animal, or plant life populations along SR-126 to significant health hazards associated with hazardous material transport due to the application of existing regulatory controls (*e.g.*, training and licensing of drivers), and no significant impacts would occur relative to Significance Criterion 1.

**Impacts from Abandoned Oil Wells, Known or Potential Contaminated Soil, and Physical Hazards Related to Oil Development Equipment and Debris (Significant but Mitigable).** As previously discussed, the Newhall Ranch Specific Plan area is located in historic and active oil fields. As described in **Subsection 4.17.4.2** above, multiple site assessment investigations have been conducted on the Project site. Based on the results of those investigations, approximately 135 acres of development would occur under Alternative 2 within areas affected by past oil production activities. The breakdown with respect to land use is as follows:

- Commercial 4.4 acres;
- Single Family 45.7 acres;
- Multi Family 15.5 acres;

- Public Facility 12.0 acres;
- Open Space - Manufactured 32.4 acres; and,
- Open Space - Natural 25.0 acres.

A detailed discussion of potential impacts under Alternative 2 with respect to abandoned oil wells, known or potential contaminated soil, and physical hazards related to oil development equipment and debris is provided below. Major oil fields and well locations are identified on **Figure 4.17-1**.

**Impacts from Abandoned Oil Wells**. Releases have occurred near former oil wells and other infrastructure that have impacted the surrounding soils. The site assessments have identified several such wells and supporting infrastructure. As active oil fields are abandoned and cleaned up it is likely that more such wells and infrastructure will be identified. Major oil fields and well locations are identified on **Figure 4.17-1**. Specifically, there is the potential to encounter residual petroleum hydrocarbons and petrochemical contaminants. Unremediated, contaminated soil or groundwater could pose a potentially significant impact to public health and safety. Additionally, although the Project site is not located in an area of documented methane or hydrogen sulfide hazards, the former oil wells beneath the site -- if they were not properly abandoned -- could act as conduits for deep methane gas to reach the surface, resulting in a significant impact relative to Significance Criterion 2.

The California Hazardous Substances Control Act excludes unrefined petroleum and crude oil from the list of hazardous substances, unless the crude oil contains VOCs in the form of naturally-occurring benzene, toluene, ethylbenzene, or xylene. In these cases, the crude oil is considered to be hazardous waste. (See Cal. Code Regs., tit. 22.) Soils contaminated with petroleum hydrocarbons in oil fields and near abandoned wells are capable of generating methane gas through anaerobic biodegradation. In the event that on-site soils contain crude oil and VOCs, this could pose a potentially significant impact to public health and safety unless remediated to applicable federal, state, and local standards. As discussed in **Subsection 4.17.3.2**, several Phase I and Phase II investigations have been performed for the subject area. The results of these investigations indicate that there may be unknown and/or undocumented site contamination. Accordingly, in the event that contamination is encountered during Project activities, Mitigation Measures PH-11 and PH-12 require development of specific plans that address assessment and cleanup actions for contaminated soils, and as such would remediate any such contamination per regulatory standards and would reduce any associated hazards to less than significant.

Consistent with standard practices and procedures for development above abandoned oil wells, DOGGR will inspect any abandoned wells encountered during Project grading or excavation to determine if reabandonment procedures, consisting of well inspection and corrective action including up to redrilling and regrouting, are required. Reabandonment may not be required if it has been demonstrated that all steps have been taken to protect underground or surface water suitable for irrigation or other domestic uses from the infiltration or addition of any hazardous substance, and to prevent the escape of all fluids to the surface. DOGGR may also require venting and/or collection systems to be incorporated into the design of the proposed Project if any enclosed structures are built over abandoned wells (see Mitigation Measure PH-1). Implementation of Mitigation Measure PH-8 would reduce potential impacts from

abandoned oil wells to less than significant relative to Significance Criterion 2 by providing for the application of construction-related Best Management Practices.

In addition to DOGGR regulations, the Los Angeles County Building Code, section 308, subdivision (d), requires that all buildings and enclosed structures that would be constructed within the Newhall Ranch Specific Plan, located within 25 feet of oil or gas wells, be provided with methane gas protection systems. Buildings located within 25 feet and 200 feet of oil or gas wells shall, prior to the issuance of building permits by the County of Los Angeles, be evaluated in accordance with the current rules and regulations of the DOGGR (Mitigation Measure PH-2). Accordingly, potential impacts due to methane migration would be reduced to less than significant under Significance Criterion 2 with the implementation of Mitigation Measure PH-2, which requires compliance with Los Angeles County Building Code, section 308, subdivision (d).

**Impacts from Known or Potential Contaminated Soil**. Contaminants commonly associated with oil and natural gas fields include TPH; VOCs, including benzene, toluene, ethybenze, and xylenes, referred together as BTEX; SVOCs, including PAHs; PCBs; hydrogen sulfide; and metals, including arsenic, lead, mercury, vanadium, barium, and hexavalent chromium and methane gas. Exposure to such contaminants above PRG levels may result in potentially significant impacts to public health and safety.

As summarized in **Subsection 4.17.3.2**, several Phase I and Phase II investigations have been conducted on the Specific Plan site, and the VCC and Entrada planning areas. According to these reports, there is the potential for contamination within these areas.

There is the potential for the occurrence of methane gas in areas of oil production. The presence of methane gas can either be remediated (source removal) or mitigated (venting of gas and interruption of pathways). Some source removal has already occurred at the Project site as part of the Castaic Junction Oil Field abandonment and site remediation activities performed by Exxon.

As discussed above, pursuant to a negotiated settlement agreement reached in 2003 between Newhall Land and the oil and gas operators on the property, the oilfield impacts to the RSF Oil and Gas Lease area are currently being remediated, and will ultimately be fully remediated prior to construction on the potentially contaminated sites, under detailed environmental cleanup protocols. Remediation is conducted under the oversight of an independent environmental consultant that: (1) witnesses the confirmation sampling process required to demonstrate compliance with the cleanup protocols; (2) separately reviews the laboratory data resulting from that sampling; (3) has the right to require further cleanup and confirmation sampling as necessary to ensure compliance with the cleanup protocols; and (4) who ultimately issues certification that remediation has been completed in accordance with the more stringent cleanup standards required by the settlement agreement.

Completion of the required site remediation activities, as well as implementation of Mitigation Measures PH-11 and PH-12, which require development of specific plans that address assessment and cleanup actions for contaminated soils, would reduce the impact from known or unknown contaminated soil to less than significant relative to Significance Criterion 2.

**Impacts from Physical Hazards Related to Oil Development Equipment and Debris**. (Abandoned oil wells and oil field debris are located in the proposed Project area and pose potentially significant physical

hazards to public health and safety. Debris may consist of concrete, steel cables, piping, wood, wire, steel plates, or other material. Additional subsurface debris could be uncovered during Project-related construction activities. Based on current knowledge, this impact is considered to be significant. Implementation of Mitigation Measure PH-11 requires development of specific plans with performance criteria derived from regulatory requirements for assessment and cleanup actions for contaminated soils, and as such would reduce the impact from physical hazards related to oil development equipment and debris to less than significant.

In addition to development occurring in areas no longer in production, development is likely to occur in areas where oil and natural gas operations are ongoing. Such an occurrence is common in southern California and is generally not a source of significant impacts if ongoing oil and natural gas related facilities are secured from public access by proper fencing and are accessible to maintenance crews. Given that all such development-area facilities would need to be fenced and gated by state law, as detailed in Mitigation Measure PH-5, the Newhall Ranch Specific Plan would not create a potential public health hazard or involve the use, production, or disposal of any materials that pose a hazard to people, animal, or plant life populations from oil and natural gas production operations. Therefore, Specific Plan build-out would not have a significant effect on the environment relative to development at former -- or adjacent to ongoing -- oil and natural gas production relative to Significance Criterion 2.

**Impacts from High Pressure Gas Lines (Less than Significant).** The two SCGC high pressure gas main lines that traverse the Project site include a 34-inch main and a 12- to 16-inch main, which could expose the public to significant risk of upset. In areas designated High Consequence Areas, primarily highly populated areas, SCGC has implemented a rigorous Integrity Management Program, which uses the latest pipeline safety inspection tools to check pipe condition and ensure these pipelines are maintained safely. As specified in Mitigation Measure PH-6, Specific Plan build-out would meet SCGC requirements in terms of pipeline relocation, grading in the vicinity of gas mains, and development within the SCGC easements. These measures are already in place, which ensures that impacts would be less than significant. To further reduce potential impacts, Mitigation Measure PH-13 would require that all potential buyers or tenants of property in the vicinity of SCGC transmission lines be made aware of the line's presence, to assure that no permanent construction or grading occurs over, or within the vicinity of, the high-pressure gas mains. Therefore, potential public safety impacts from high pressure gas lines would be less than significant relative to Significance Criterion 2.

**Impacts from Chiquita Landfill (Less than Significant).** The proximity of the Chiquita Canyon Landfill to the Project site has the potential to subject adjacent developments to certain hazards, including groundwater contamination hazards associated with potential methane migration and increased truck traffic along the shared transportation corridor of SR-126. These issues could result in impacts to public health and safety.

As previously described, the network of environmental protection systems at the Chiquita Canyon Landfill includes a composite liner that exceeds federal requirements. The liner is made of clay and synthetic material. Two feet of clay is compacted to increase the impermeability of the liner. A geo-synthetic liner and a 40-mil high-density plastic membrane are placed over the clay. A drainage layer is installed over the liner. The liner system meets all state and federal regulations.

The facility is fully permitted by the Cal-EPA, Water Resources Board, Los Angeles County Department of Health Services, and the South Coast Air Quality Management Board. State and local inspectors regularly inspect the site. In addition, provisions of the Los Angeles County Building Code, section 308, subdivision (c), require that all building and structures located within 1,000 feet of a landfill containing decomposable material (in this case, Chiquita Canyon Landfill) be provided with a landfill gas migration protection and/or control system (Mitigation Measure PH-3). Accordingly, the environmental measures already in place, along with the implementation of this regulatory requirement, ensure that the proposed Project would not create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials at the level set forth in Significance Criterion 2. Therefore, impacts would be less than significant relative to Significance Criterion 2.

**Impacts to Existing or Proposed Schools (Significant but Mitigable).** The proposed Project, would not involve the use, generation, or disposal of substantial amounts of hazardous materials, or the emission of acutely hazardous materials or substances within one-quarter mile of an existing or proposed school in accordance with California Code of Regulations, title 5, section 14010, which specifies standards for school site selection.

Exposure to contaminants above PRG levels may result in potentially significant impacts to public health and safety within one-quarter mile of proposed school sites. Contaminants commonly associated with oil and natural gas fields include TPH; VOCs, including benzene, toluene, ethybenzene, and xylene, referred together as BTEX; SVOCs, including PAHs; PCBs; hydrogen sulfide; and metals, including arsenic, lead, mercury, vanadium, barium, and hexavalent chromium and methane gas. The Newhall Ranch Specific Plan proposes the development of five elementary schools, one junior high school, and one high school. As summarized in **Subsection 4.17.3.2,** Phase I and Phase II investigations have been conducted for portions of the Project area. Completion of the current site remediation activities reduces the possibility of siting a school within one-quarter mile of a hazardous waste site. In the unlikely event that undetected contamination is located at or near proposed school sites, a significant health and safety impact would occur. Implementation of Mitigation Measures PH-11 and PH-12, which require development of specific plans (PH-11) that address assessment and cleanup actions for contaminated soils, would reduce the impact from known or unknown contaminated soil to less than significant relative to Significance Criterion 3.

**Impacts to Adopted Emergency Response or Emergency Evacuation Plans (Less than Significant).** The build-out of the Newhall Ranch Specific Plan would increase demand on emergency response services, which could increase emergency response times and result in a significant impact to public safety if not mitigated proportionately with the planned development.

Firefighting capabilities will be provided by: (1) two fire stations within the Newhall Ranch Specific Plan area and one more in Entrada; (2) other nearby stations; (3) a system of improved roads; and (4) urban water systems with fire flows, as required by the Los Angeles County Fire Department. (See **Section 4.18**, Public Services.) Emergency access for fire prevention control is currently provided to the Los Angeles County Fire Department in the areas of the Newhall Ranch Specific Plan with the greatest risk associated with wildfire. Access will continue to be provided as the Newhall Ranch Specific Plan is

built out. In addition, all highway and pedestrian facilities will be designed to meet all county standards, including those for emergency access.

The roadway network of the Newhall Ranch Specific Plan's Mobility Plan has been designed as an extension of the regional circulation element. The circulation system will also serve the safety needs of the community by providing adequate access in the event of fire or other emergencies. In addition, all applicable safety standards pursuant to Los Angeles County codes would be met at the time of the building permit issuance.

Through the expansion of the on-site highway system and the provision of three additional fire stations as required by Section 2.5.3 (Public Services and Facilities Plan -- Public Facilities/Services), the Newhall Ranch Specific Plan ensures that emergency response will be expanded in conjunction with the additional demands placed on the emergency response personnel. In addition, the proposed Project would comply with Mitigation Measure PH-7, which requires the provision of secondary route access where necessary. With implementation of these Project-incorporated mitigation measures, impacts to public safety related to emergency response services would be less than significant relative to Significance Criterion 4.

**Impacts from Dam Inundation (Less than Significant).** Castaic and Bouquet Lakes are contained by two earthen dams located upstream from the Project area. According to FEMA, in the event of a catastrophic dam failure, the limits of dam inundation would roughly follow the outline of the 100-year flood zone within the confines of the Santa Clara River bed (see **Figure 4.17-2**). (FEMA, 1996.) Inundation of a developed Project area could result in hazards to public health and safety.

The DWR Division of Safety of Dams regularly inspects and maintains dams under state jurisdiction. Both dams are designed to resist both the maximum credible earthquake and the probable maximum precipitation flood. In addition, since the dam inundation area roughly follows the outline of the 100-year flood zone, any development in these areas would be subject to federal and local floodplain management ordinances. Therefore, impacts associated with dam inundation would be less than significant relative to Significance Criterion 5.

**Impacts from Wildland Fires (Significant but Mitigable).** Development of the proposed Newhall Ranch Specific Plan would result in the construction of residential uses, commercial uses, office uses, mixed uses, business parks, institutional uses, and public facilities in areas that have been designated as either Fire Zone 3 or 4 (of moderate or high fire hazard, respectively), which would result in potentially significant risks to public safety. Characteristics of the Newhall Ranch Specific Plan site that contribute to these conditions include: (1) limited access; (2) lack of adequate water supplies; (3) the types of vegetative cover; and (4) topography. An analysis of the site's fire hazard potential relative to these four factors is presented below.

***Access.*** The Newhall Ranch Specific Plan would include an extensive backbone vehicular circulation system which, would provide five points of access to the site via a major state highway and a federal freeway (SR-126 and I-5, respectively). The approved circulation system for the Newhall Ranch Specific Plan would be consistent with the approved Newhall Ranch Specific Plan standards and the provisions of Los Angeles County Code regarding secondary evacuation access (Mitigation Measure PH-7), as applicable (*e.g.*, roadway widths, length of single-access streets, cul-de-sac dimensions, and street parking

restrictions, *etc.*). Consequently, vehicular access-related impacts are expected to be less than significant relative to Significance Criterion 6.

***Water Supply*.** The Conceptual Backbone Water Plan for the Newhall Ranch Specific Plan proposes a dual water system, which would provide water service for domestic and nondomestic uses. This system also would provide water supplies to support fire suppression activity in the event of wildland or structural fires. The proposed backbone water supply system would include water mains and fire hydrants, and the provision of fire flows to meet County standards. Given that a long-term source of water must exist for the Newhall Ranch Specific Plan prior to the issuance of building permits, and a water supply system is proposed that would meet county fire flow requirements, no significant water-related fire hazards would occur.

***Vegetative Cover*.** The portions of the Newhall Ranch Specific Plan site that have been proposed for development include, and are adjacent to, areas with moderate to heavy vegetative cover. The plant communities that make up this cover are highly combustible and, without mitigation, would present a high fire hazard to development in these areas. This would be a significant impact because development in these areas would pose a special fire protection problem. As development of the Newhall Ranch Specific Plan site occurs, fire hazards associated with the natural vegetative cover would be eliminated due to its replacement with urban landscape vegetation, which is irrigated and less combustible than the existing vegetation. However, the potential for wildland fire hazards would still exist at the wildland/urban interface due to: (1) the presence of brush; (2) increased human activity; and (3) the potential for fires due to accidental and arson-related causes. The boundaries of this interface would change over time as the proposed Newhall Ranch Specific Plan reaches build-out. With the implementation Mitigation Measure PH-14, which requires the development of a Wildfire Fuel Modification Plan to reduce potential wildland fire hazards in the Project area, the fire hazard potential in this interface zone would be reduced to less than significant relative to Significance Criterion 6**.**

***Topography*.** Topography is an issue relative to wildland fire hazards because steep slopes are not only inaccessible to firefighting vehicles, but steep canyons can create updraft conditions (much like a chimney) and a fire in a steep canyon can spread rapidly into adjacent areas. Steep canyons that are densely covered with combustible vegetation are especially hazardous, which could result in a significant risk to public safety. The Newhall Ranch Specific Plan proposes development within only the central and northern portions of the site where topographic relief is moderate, and proposes to leave those portions of the site with the greatest topographic relief, such as the High Country SMA, largely undeveloped. The wildland fire hazard impact to Specific Plan development, relative to the steep topography in the High Country SMA, would be minimal given that the High Country would be: (1) limited to human access; and (2) accessible to firefighting equipment from multiple locations as a result of the proposed vehicular circulation system (Mitigation Measure PH-7). Impacts would be less than significant. To further reduce the risk of wildland fires, the proposed Project would comply with the Wildfire Fuel Modification Plan (Mitigation Measure PH-14).

As previously indicated many state and county fire codes, standards, and guidelines exist to which all projects must adhere. It is the expectation that, as the Newhall Ranch Specific Plan builds out over the next 25 years, the fire codes, standards, and guidelines will be continually updated by the state and county agencies as the knowledge gained from past fires is increased.

The Newhall Ranch Specific Plan would be served by two on-site and one off-site fire stations, which would be funded through payment of developer fees or an alternative arrangement as part of a development agreement. Tax revenues would provide for the operation and staffing of the fire stations. The Newhall Ranch Specific Plan would implement a Wildfire Fuel Modification Plan, and meet County codes and requirements relative to providing adequate fire protection services to the site during both the construction and operational stages of the Newhall Ranch Specific Plan (Mitigation Measure PH-14). As a result, the Newhall Ranch Specific Plan would not diminish the staffing or the response times of existing fire stations in the Santa Clarita Valley, nor would it create a special fire protection requirement on the site that would result in a decline of existing service levels in the Valley. With the incorporation of Mitigation Measures PH-7 and PH-14, the Newhall Ranch Specific Plan would have a less-than-significant impact on fire protection services in the Santa Clarita Valley relative to Significance Criterion 6.

**Impacts from Electromagnetic Fields (Less than Significant).** The Specific Plan site is traversed by the SCE's 66 kV and 220 kV transmission lines within a 300-foot easement in the northern portion of the site, and 66 kV and 230 kV transmission lines within a 75- to 240-foot (total width) easement in the central portion of the site. The magnetic field strengths of the two existing transmission lines that traverse the proposed Project area are consistent with levels found along similar electrical transmission lines throughout California. Design features and EMF measurements conducted by SCE confirm this finding.

As no specific health effects of EMFs have been conclusively demonstrated, there are no health-based standards for EMF exposure. There is no current informational basis for determination of a significant adverse environmental impact associated with the proposed Project land use in relationship to the SCE transmission lines. No significant impact has been identified relative to EMF hazards and the proposed Project. However, to reduce any potential impacts, development of the Newhall Ranch Specific Plan sites would be in compliance with Mitigation Measure PH-4, which requires that all final school locations are to comply with the California State Board of Education requirement that no schools be sited within 100 feet from the edge of the right-of-way of 100 to 110 kV lines; 150 feet from 220 to 230 kV lines; and 350 feet from 500 to 550 kV lines. In addition, the Newhall Ranch Specific Plan proposes that only non-habitable structures would be located within SCE easements. Impacts related to exposure to EMFs are considered less than significant relative to Significance Criterion 7.

**SCP Indirect Impacts.** Implementation of the proposed SCP would facilitate the implementation of previously approved development on the Specific Plan site and on portions of the VCC planning area. The SCP also would facilitate proposed development on a portion of the Entrada planning area. Potential hazard-related impacts associated with the Specific Plan are evaluated above.

**Impacts from Hazardous Material Use (Significant but Mitigable).** Construction of the VCC and Entrada projects would include the temporary transport, storage, and use of potentially hazardous materials, including fuels, lubricating fluids, cleaners, solvents, pesticides, herbicides, and other materials. The use of these standard construction supplies could result in the potential for significant short-term hazardous materials impacts associated with construction activities.

Depending on the volume of materials stored on site, Los Angeles County could require the installation of temporary ASTs to store fuels during construction. It is likely that construction will trigger Los Angeles County requirements for storage (temporary and permanent), which include safeguards such as a SPCC.

The Los Angeles County Health and Hazardous Materials Division is the local CUPA responsible for enforcing hazardous materials, waste, noise, and safety regulations in the County.

The VCC and Entrada planning areas would include commercial, residential, and public infrastructure operation and maintenance activities. These operation and maintenance activities could result in significant long-term hazard- or safety-related impacts. Incorporation of Mitigation Measures PH-8, PH-9, and PH-10 addresses impacts from hazardous materials or conditions by providing additional protections beyond those required by regulatory compliance. The measures provide for additional planning, notification, and application of Best Management Practices. The risk of accidental releases of hazardous materials during construction, operation, and maintenance of the VCC and Entrada developments would be mitigated to a less-than-significant level relative to Significance Criterion 1.

**Impacts from Transport of Hazardous Materials Along SR-126 (Less than Significant).** Because hazardous materials are transported on SR-126, increased traffic on this highway, as a result of development under Alternative 2 could increase the potential for an accident involving a hauler of these substances, which could result in significant impacts. Hazardous material haulers must be trained and licensed, and the transport of hazardous materials is highly regulated and monitored (see **Subsection 4.17.3**, above). Therefore, the risk of an accident involving the release of substantial amounts of explosive or inhalation materials is less than significant. The VCC and Entrada projects would not expose people, animal, or plant life populations along SR-126 to significant health hazards associated with hazardous material transport due to the application of existing regulatory controls (*e.g.*, training and licensing of drivers), and no significant impacts would occur relative to Significance Criterion 1.

**Impacts from Abandoned Oil Wells, Known or Potential Contaminated Soil, and Physical Hazards Related to Oil Development Equipment and Debris (Significant but Mitigable).** As previously discussed, the VCC and Entrada planning areas are located in historic and active oil fields. Under Alternative 2, approximately 4.8 acres of development would occur within these oil field areas. The breakdown with respect to land use is as follows:

- Open Space - Manufactured 0.79 acres;
- Open Space – Natural 0.14 acres;
- Commercial 0.76 acres;
- Single Family 1.6 acres; and,
- Public Facility 1.5 acres.

A detailed discussion of potential impacts under Alternative 2 with respect to abandoned oil wells, known or potential contaminated soil, and physical hazards related to oil development equipment and debris is provided below.

**Impacts from Abandoned Oil Wells**. Releases have occurred near former oil wells and other infrastructure that have impacted the surrounding soils. The site assessments have identified several such wells and supporting infrastructure. As active oil fields are abandoned and cleaned up it is likely that

more such wells and infrastructure will be identified. Specifically, there is the potential to encounter residual petroleum hydrocarbons and petrochemical contaminants. Unremediated, contaminated soil or groundwater could pose a potentially significant impact to public health and safety. Additionally, although these planning areas are not located in an area of documented methane or hydrogen sulfide hazards, the former oil wells beneath the sites -- if they were not properly abandoned -- could act as conduits for deep methane gas to reach the surface, resulting in a potentially significant impact relative to Significance Criterion 2. These impacts would be the same in nature as those described under the RMDP indirect impacts identified above.

Accordingly, in the event that contamination is encountered during Project activities, the implementation of Mitigation Measures PH-11 and PH-12, which require development of specific plans that address assessment and cleanup actions for contaminated soils, would remediate any contamination per regulatory standards and would reduce any associated hazards to less than significant. In addition, the implementation of Mitigation Measure PH-8 would reduce potential impacts from abandoned oil wells to less than significant under Significance Criterion 2. The Project also would comply with Mitigation Measure PH-2, which requires that all buildings located within 25 feet of oil or gas wells, shall be provided with methane gas protection systems and buildings located within 25 feet and 200 feet of oil or gas wells shall, prior to the issuance of building permits by the County of Los Angeles, be evaluated in accordance with the current DOGGR rules and regulations. Therefore, potential impacts due to methane migration would be reduced to less than significant relative to Significance Criterion 2.

**Impacts from Known or Potential Contaminated Soil**. Contaminants commonly associated with oil and natural gas fields include TPH; VOCs, including benzene, toluene, ethybenze, and xylenes, referred together as BTEX; SVOCs, including PAHs; PCBs; hydrogen sulfide; and metals, including arsenic, lead, mercury, vanadium, barium, and hexavalent chromium. Exposure to such contaminants above PRG levels may result in potentially significant impacts to public health and safety. These impacts would be the same in nature as those described under the RMDP indirect impacts identified above. Accordingly, completion of the required site remediation activities, as well as implementation of Mitigation Measures PH-11 and PH-12, which require development of specific plans that address assessment and cleanup actions for contaminated soils, would reduce the impact from known or unknown contaminated soil to less than significant relative to Significance Criterion 2.

**Impacts from Physical Hazards Related to Oil Development Equipment and Debris**. Abandoned oil wells and oil field debris are located in the VCC and Entrada planning areas and pose potentially significant physical hazards to public health and safety. Debris may consist of concrete, steel cables, piping, wood, wire, steel plates, or other material. Additional subsurface debris could be uncovered during Project-related construction activities. Based on current knowledge, this impact is considered to be significant. The implementation of Mitigation Measure PH-11 requires development of specific plans that address assessment and cleanup actions for contaminated soils, and as such would reduce the impact from physical hazards related to oil development equipment and debris to levels below significant relative to Significance Criterion 2.

**Impacts from High Pressure Gas Lines (Less than Significant)**. The two SCGC high pressure gas main lines that traverse the Project site include a 34-inch main and a 12- to 16-inch main which could expose the public to significant risk of upset. These impacts would be the same in nature as those

described under the RMDP indirect impacts identified above. Accordingly, potential public safety impacts from high pressure gas lines are considered less than significant relative to Significance Criterion 2.

**Impacts from Chiquita Landfill (Less than Significant)**. The proximity of the Chiquita Canyon Landfill to the Project site has the potential to subject adjacent developments to certain hazards, including groundwater contamination hazards associated with potential methane migration and increased truck traffic along the shared transportation corridor of SR-126. These issues could result in impacts to public health and safety. These impacts would be the same in nature as those described under the RMDP indirect impacts identified above. Accordingly, the environmental measures already in place, along with the implementation of this regulatory requirement, would reduce any potential impacts to less than significant relative to Significance Criterion 2.

**Impacts to Existing or Proposed Schools (Significant but Mitigable).** The proposed Project would not involve the use, generation, or disposal of substantial amounts of hazardous materials, or the emission of acutely hazardous materials or substances within one-quarter mile of an existing or proposed school in accordance with California Code of Regulations, title 5, section 14010, which specifies standards for school site selection.

Exposure to contaminants above PRG levels may result in potentially significant impacts to public health and safety within one-quarter mile of proposed school sites. Contaminants commonly associated with oil and natural gas fields include TPH; VOCs, including benzene, toluene, ethybenzene, and xylene, referred together as BTEX; SVOCs, including PAHs; PCBs; hydrogen sulfide; and metals, including arsenic, lead, mercury, vanadium, barium, and hexavalent chromium and methane gas. The Newhall Ranch Specific Plan proposes the development of five elementary schools, one junior high school, and one high school. As summarized in **Subsection 4.17.3.2**, Phase I and Phase II investigations have been conducted for portions of the Project area. Completion of the current site remediation activities reduces the possibility of siting a school within one-quarter mile of a hazardous waste site. In the unlikely event that undetected contamination is located at or near proposed school sites, a significant health and safety impact would occur. Implementation of Mitigation Measures PH-11 and PH-12, which require development of specific plans (PH-11) that address assessment and cleanup actions for contaminated soils, would reduce the impact from known or unknown contaminated soil to less than significant relative to Significance Criterion 3.

**Impacts to Adopted Emergency Response or Emergency Evacuation Plans (Less than Significant).** The build-out of the VCC and Entrada planning areas would increase demand on emergency response services, which could increase emergency response times and result in a significant impact to public safety if not mitigated proportionately with the planned development. Existing and proposed site fire facilities, including one new fire station proposed in Entrada, would serve the VCC and Entrada planning areas. (See **Section 4.18**, Public Services.) Emergency access for fire prevention control is currently provided to the Los Angeles County Fire Department in the areas of the Project site with the greatest risk associated with wildfire. Access would continue to be provided as the VCC and Entrada planning areas are developed. As described in traffic **Subsection 4.8.8.2.2,** roadways on the Project site would provide adequate capacity to accommodate anticipated traffic volumes. Therefore, the proposed roadway system would provide adequate emergency vehicle access and would not result in significant impacts to

emergency vehicle response times. In addition, all highway and pedestrian facilities will be designed to meet all County standards, including those for emergency access.

The Project also proposes to comply with Mitigation Measure PH-7 by providing secondary route access where necessary, which would ensure that potential impacts to public safety related to emergency response services and emergency evacuation are less than significant relative to Significance Criterion 4.

**Impacts from Dam Inundation (Less than Significant).** Castaic and Bouquet Lakes are contained by earthen dams located upstream from the Project area. According to FEMA, in the event of a catastrophic dam failure, the limits of dam inundation would roughly follow the outline of the 100-year flood zone within the confines of the Santa Clara River bed (see **Figure 4.17-2**). (FEMA, 1996.) Inundation of a developed Project area could result in hazards to public health and safety.

The DWR Division of Safety of Dams regularly inspects and maintains dams under state jurisdiction. Both dams are designed to resist both the maximum credible earthquake and the probable maximum precipitation flood. In addition, since the dam inundation area roughly follows the outline of the 100-year flood zone, any development in these areas would be subject to federal and local floodplain management ordinances. Therefore, impacts associated with dam inundation are less than significant relative to Significance Criterion 5.

**Impacts from Wildland Fires (Significant but Mitigable).** Development of the proposed VCC and Entrada planning areas would result in the construction of residential uses, commercial uses, office uses, mixed uses, business parks, institutional uses, and public facilities in areas that have been designated as either Fire Zone 3 or 4 (of moderate or high fire hazard, respectively), which could result in significant hazards to public safety. Characteristics of the VCC and Entrada planning areas that contribute to these conditions include: (1) limited access; (2) lack of adequate water supplies; (3) the types of vegetative cover; and (4) topography. The development of the sites will potentially reduce the chance of fires in wildland areas (*i.e.,* the response time to the far areas of Hasley Canyon should be shortened due to the extension of Backer Road to SR-126). In addition, one new fire station is planned for Entrada, and the expansion of water supplies to serve the Project site will introduce new water sources to fight any fires which do occur. Development of the VCC and Entrada planning areas would have a significant impact on fire protection services in the Santa Clarita Valley based on Significance Criterion 6; however, incorporation of the measures discussed above and Mitigation Measures PH-7 and PH-14 would reduce this impact to less than significant.

**Impacts from Electromagnetic Fields (Less than Significant).** The Project site is traversed by the SCE's 66 kV and 220 kV transmission lines within a 300-foot easement in the northern portion of the site, and 66 kV and 230 kV transmission lines within a 75- to 240-foot (total width) easement in the central portion of the site. The magnetic field strengths of the two existing transmission lines that traverse the proposed Project area are consistent with levels found along similar electrical transmission lines throughout California. Design features and EMF measurements conducted by SCE confirm this finding.

As no specific health effects of EMFs have been conclusively demonstrated, there are no health-based standards for EMF exposure. There is no current informational basis for determination of a significant adverse environmental impact associated with the proposed Project land use in relationship to the SCE transmission lines. No significant impact has been identified relative to EMF hazards and the proposed

Project. However, to reduce any potential impacts, development of the Newhall Ranch Specific Plan site would be in compliance with Mitigation Measure PH-4, which requires that all final school locations are to comply with the California State Board of Education requirement that no schools be sited within 100 feet from the edge of the right-of-way of 100 to 110 kV lines; 150 feet from 220 to 230 kV lines; and 350 feet from 500 to 550 kV lines. In addition, the Newhall Ranch Specific Plan proposes that only non-habitable structures would be located within SCE easements. Impacts related to exposure to EMFs are considered less than significant relative to Significance Criterion 7**.**

#### 4.17.6.2.3 Secondary Impacts

**RMDP Secondary Impacts.**

Development on the Specific Plan site would not increase the potential for uses located beyond the project site boundaries to be affected by other hazard-related impacts. Development on the Specific Plan site would not increase hazardous material use at off-site locations; previous oil extraction operations on the Specific Plan site would not effect off-site locations; off-site locations would not be affected by the existing high pressure gas line and electrical lines located on the Specific Plan site; the Specific Plan site development would not substantially effect off-site dam inundation impacts; and on-site development would not result in hazards to off-site schools or increase the potential for impacts related to the Chiquita Canyon Landfill.

The proposed Project would result in significant direct and indirect hazard-related impacts related to the transport of hazardous materials, emergency response and evacuation, and from wildfires. Those impacts also have the potential to result in significant secondary impacts to areas located beyond the boundaries of the Project site.

**Transport of Hazardous Materials Along SR-126 (Less than Significant).** The transportation of hazardous materials to the Specific Plan site would be required during the construction of proposed infrastructure projects (direct impacts) and during the construction of facilitated development (indirect impacts). The potential for impacts to the environment and/or public resulting from a large-scale release during the transport of hazardous materials would be reduced to a less-than-significant level through the continued implementation and enforcement of existing hazardous waste transportation and handling regulations. Therefore, this impact would not be significant under the requirements of Significance Threshold 1 and no mitigation measures are required.

**Emergency Response and Emergency Evacuation Plans (Less than Significant).** Development provided on the Specific Plan site may occasionally require emergency services from Los Angeles County fire stations located beyond the project site boundaries. As described in **Subsection 4.8.9** (Traffic Mitigation), project-related impacts to off-site roadways would be reduced to a less-than-significant level with the implementation of identified road improvements. In addition, the Specific Plan development would be required to comply with applicable Los Angeles County secondary access/evacuation requirements (Mitigation Measure PH-7). With the implementation of proposed roadway operation and access requirements, the circulation system in the project region would be adequate to provide emergency response services to the Specific Plan site. Therefore, secondary emergency response or evacuation impacts would not be significant and no additional mitigation measures are required.

**Wildland Fires (Significant but Mitigable).** A fire on the Specific Plan site would have the potential to migrate off-site and effect areas located beyond the Specific Plan boundaries. Proposed Specific Plan access, water supply and fuel modification provisions would minimize the potential for wildfire impacts. In addition, proposed Mitigation Measure PH-7 ensures that adequate emergency access would be provided to serve the project site, and Mitigation Measure PH-14 provides additional requirements related to the preparation and implementation of a Wildfire Fuel Modification Plan. Implementation of these mitigation measures would reduce on-site wildfire impacts to a less-than-significant level and also reduce the potential for project-related fire impacts to surrounding areas to a less-than-significant level.

**SCP Secondary Impacts.** Establishment of the proposed spineflower preserves would not result in significant direct hazard-related impacts, and potential indirect hazard-related impacts that may result from the development that is facilitated on the Specific Plan site and portions of the VCC and Entrada sites can also be reduced to a less-than-significant level with the implementation of proposed mitigation measures. Project-related hazard and public safety impacts that have the potential to result in significant safety impacts at locations beyond the boundary of the Project site include the following.

**Emergency Response and Emergency Evacuation Plans (Less than Significant).** With the implementation of mitigation measures provided in **Subsection 4.8.9,** roadways located beyond the boundary of the Project site would provide adequate capacity to accommodate anticipated traffic volumes generated by facilitated development located on the Specific Plan, VCC, and Entrada project sites. With implementation of the identified measures, the off-site roadway system would operate at acceptable levels, provide adequate emergency vehicle access, and not result in significant impacts to emergency vehicle response times. No additional mitigation measures are required.

**Impacts to Existing and Proposed Schools (Less than Significant).** Development on the portion of the Entrada project site facilitated by the SCP would be located within one-quarter mile of existing off-site school facilities, including the Oak Hill Elementary and Rancho Pico Junior High schools. Development on the Entrada site that would occur in the vicinity of schools includes single- and multi-family residences, which would not be a significant source of hazardous or extremely hazardous materials. Therefore, the proposed land uses on the Entrada project site would not result in significant health or safety impacts to existing school facilities under the requirements of Significance Threshold 3.

**Wildland Fires (Significant but Mitigable).** A fire on the Project site would have the potential to migrate off-site and effect areas located beyond the Project boundary. Proposed Specific Plan access, water supply and fuel modification provisions would minimize the potential for wildfire impacts. In addition, proposed Mitigation Measure PH-7 ensures that adequate emergency access would be provided to serve the project site, and Mitigation Measure PH-14 provides additional requirements related to the preparation and implementation of a Wildfire Fuel Modification Plan. Implementation of these mitigation measures on the Specific Plan site, and similar measures for the VCC and Entrada sites, would reduce Project-related on-site wildfire impacts to a less-than-significant level and also reduce the potential for Project-related fire impacts to surrounding areas to a less-than-significant level.

### 4.17.6.3 Impacts of Alternative 3 (Elimination of Planned Potrero Bridge and Additional Spineflower Preserves)

Alternative 3 would result in the elimination of some of the proposed RMDP infrastructure improvements proposed for the Specific Plan area, when compared to the proposed Project, and would increase the size of proposed spineflower preserves from 167.6 to 221.8 acres. Subsequent development on the Specific Plan site, and the VCC and Entrada planning areas would be reduced, as Alternative 3 would facilitate the development of a total of 21,558 residential dwelling units on the Specific Plan site and Entrada planning area, and approximately 9.33 million square feet of nonresidential uses on the Specific Plan site, and the Entrada and VCC planning areas. Additional information regarding this alternative is provided in **Section 3.0**, Description of Alternatives, of this EIS/EIR.

#### 4.17.6.3.1 Direct Impacts

**RMDP Direct Impacts.** Construction of the RMDP components would include the temporary transport, storage, and use of potentially hazardous materials, including fuels, lubricating fluids, cleaners, solvents, pesticides, herbicides, and other materials. The use of these standard construction supplies during construction could result in the potential for short-term hazardous materials impacts associated with construction activities. Under Alternative 3, the Potrero Canyon Road bridge is not proposed and the associated bridge pier and abutment features are not required and fewer linear feet of bank stabilization would be constructed. Therefore, Alternative 3 would have lesser, but still significant, direct short-term impacts related to the use of hazardous materials during construction than Alternative 2.

As with Alternative 2, depending on the volume of materials stored on site, Los Angeles County could require the installation of temporary ASTs to store fuels during construction. It is likely that construction will trigger Los Angeles County requirements for storage (temporary and permanent), which include safeguards such as a SPCC. Hazardous materials regulations require a business that generates hazardous wastes to institute a "cradle to grave" management plan for the storage, transport, and disposal of the hazardous wastes. As with Alternative 2, in the unlikely event of a large-scale release of hazardous material at a construction site, a significant hazard to the public and/or the environment would occur. The implementation of Mitigation Measures PH-8, PH-9, and PH-10 addresses impacts from hazardous materials or conditions by providing additional protections beyond those required by regulatory compliance. The risk of accidental releases of hazardous materials during construction would be mitigated to less than significant relative to Significance Criterion 1.

As described for Alternative 2, RMDP facilities will require certain periodic maintenance that may involve use of hazardous materials. Under Alternative 3, the Potrero Canyon Road bridge is not proposed and the associated bridge pier and abutment features are not required and fewer linear feet of bank stabilization would be constructed. Accordingly, Alternative 3 would require less periodic maintenance activities than Alternative 2, and would not have the potential to result in significant long-term hazard- or safety-related impacts relative to Significance Criterion 1.

**SCP Direct Impacts.** Similar to Alternative 2, creation of the spineflower preserves would consist primarily of the installation of fencing and information signs. These short-term activities would not result in significant hazard- or safety-related impacts relative to Significance Criterion 1.

Long-term preserve maintenance activities would be similar to Alternative 2, and would not result in significant long-term hazard- or safety-related impacts relative to Significance Criterion 1.

#### 4.17.6.3.2 Indirect Impacts

**RMDP Indirect Impacts**

**Impacts from Hazardous Material Use (Significant but Mitigable).** Materials handling for construction under Alternative 3 would be similar to Alternative 2, although the development area on the Specific Plan site would be reduced from Alternative 2. Therefore, Alternative 3 would have an incrementally lesser, but still significant, direct short-term impact related to the use of hazardous materials during construction than Alternative 2.

Depending on the volume of materials stored onsite, Los Angeles County could require the installation of temporary ASTs to store fuels during construction. It is likely that construction will trigger Los Angeles County requirements for storage (temporary and permanent), which include safeguards such as a SPCC. The Los Angeles County Health and Hazardous Materials Division is the local CUPA responsible for enforcing hazardous materials, waste, noise, and safety regulations in the County.

As with Alternative 2 and as described for RMDP direct impacts, storage and use of hazardous materials during construction (short-term) and operation/maintenance (long-term) activities could result in significant hazard- or safety-related impacts.

As described for Alternative 2, incorporation of Mitigation Measures PH-8, PH-9, and PH-10 addresses impacts from hazardous materials or conditions by providing additional protections beyond those required by regulatory compliance. The measures provide for additional planning, notification, and application of Best Management Practices. This mitigation would reduce impacts to less than significant relative to Significance Criterion 1

**Impacts from Transport of Hazardous Materials Along SR-126 (Less than Significant).** As with Alternative 2, because hazardous materials are transported on SR-126, increased traffic on this highway as a result of development under Alternative 3 could increase the potential for an accident involving a hauler of these substances, which could result in significant impacts. Although Alternative 3 would result in a smaller development area than Alternative 2, the level of potential risk associated with transport of hazardous materials along SR-126 would be virtually the same. As with Alternative 2, Alternative 3 does not expose people, animal, or plant life populations along SR-126 to significant health hazards associated with hazardous material transport due to the application of existing regulatory controls (*e.g.*, training and licensing of drivers), and no significant impacts would occur relative to Significance Criterion 1.

**Impacts from Abandoned Oil Wells, Known or Potential Contaminated Soil, and Physical Hazards Related to Oil Development Equipment and Debris (Significant but Mitigable).** As previously discussed, the Newhall Ranch Specific Plan area is located in historic and active oil fields. Under Alternative 3, approximately 135 acres of development would occur within these areas. The breakdown with respect to land use is as follows:

- Commercial 4.9 acres;

- Single Family 38.9 acres;
- Multi Family 20.5 acres;
- Public Facility 11.0 acres;
- Open Space - Manufactured 33.8 acres; and,
- Open Space - Natural 25.8 acres.

A detailed discussion of potential impacts under Alternative 3 with respect to abandoned oil wells, known or potential contaminated soil, and physical hazards related to oil development equipment and debris is provided below.

**Impacts from Abandoned Oil Wells.** As described in Alternative 2, releases have occurred near former oil wells and other infrastructure that have impacted the surrounding soils. The site assessments have identified several such wells and supporting infrastructure. As active oil fields are abandoned and cleaned up it is likely that more such wells and infrastructure will be identified. Specifically, there is the potential to encounter residual petroleum hydrocarbons and petrochemical contaminants. Unremediated, contaminated soil or groundwater could pose a significant impact to public health and safety. Although Alternative 3 would result in a smaller development area than Alternative 2, the level of potential risk associated with abandoned wells would be virtually the same. Additionally, although the Project site is not located in an area of documented methane or hydrogen sulfide hazards, the former oil wells beneath the site -- if they were not properly abandoned -- could act as conduits for deep methane gas to reach the surface, resulting in a significant impact relative to Significance Criterion 2.

As discussed above, several Phase I and Phase II investigations have been performed for the subject area. The results of these investigations indicate that there may be unknown and/or undocumented site contamination. Accordingly, in the event that contamination is encountered during Project activities, the implementation of Mitigation Measures PH-11 and PH-12, which require development of specific plans that address assessment and cleanup actions for contaminated soils, would remediate any such contamination per regulatory standards and would reduce any associated hazards to less than significant.

As with Alternative 2, DOGGR standard practices and procedures for development above abandoned oil wells shall be followed, including proper abandonment procedures. DOGGR may also require venting and/or collection systems to be incorporated into the design of Alternative 3 if any enclosed structures are built over abandoned wells (see Mitigation Measure PH-1, below). Implementation of Mitigation Measure PH-8 would reduce potential impacts from abandoned oil wells to less than significant relative to Significance Criterion 2 by providing for the application of construction-related Best Management Practices.

As described for Alternative 2, potential methane gas migration shall be mitigated in accordance with Los Angeles County Building Code, section 308, subdivision (d) for all buildings and enclosed structures that would be constructed within 25 feet of oil or gas wells. Buildings located within 25 feet and 200 feet of oil or gas wells shall, prior to the issuance of building permits by the County of Los Angeles, be evaluated in accordance with the current rules and regulations of the DOGGR (Mitigation Measure PH-2).

Accordingly, with implementation of Mitigation Measure PH-2, potential impacts due to methane migration would be reduced to less than significant relative to Significance Criterion 2.

Potential impacts from contaminated soils are similar to Alternative 2, and may result in potentially significant impacts to public health and safety.

As with Alternative 2, there is the potential for the occurrence of methane gas in areas of oil production. The presence of methane gas can either be remediated (source removal) or mitigated (venting of gas and interruption of pathways). Some source removal already has occurred at the Project site as part of the Castaic Junction Oil Field abandonment and site remediation activities performed by Exxon.

As discussed above, there is an existing agreement on the RSF Oil and Gas Lease area to fully remediate the oil field prior to construction on the potentially contaminated sites, under detailed environmental cleanup protocols. Completion of the required site remediation activities, as well as implementation of Mitigation Measures PH-11 and PH-12, which require development of specific plans that address assessment and cleanup actions for contaminated soils, would reduce the impact from known or unknown contaminated soil to less than significant relative to Significance Criterion 2.

**Impacts from Physical Hazards Related to Oil Development Equipment and Debris.** Although Alternative 3 has less developed area than Alternative 2, similar to Alternative 2 abandoned oil wells and oil field debris are located in the proposed Project area, and pose potentially significant physical hazards to public health and safety. Based on current knowledge, this impact is considered to be significant. Implementation of Mitigation Measure PH-11 requires development of specific plans that address assessment and cleanup actions for contaminated soils, and as such would reduce the impact from physical hazards related to oil development equipment and debris to less than significant relative to Significance Criterion 2.

In addition to development occurring in areas no longer in production, development is likely to occur in areas where oil and natural gas operations are ongoing. Given that all such development-area oil production facilities would need to be fenced and gated by state law, as detailed in Mitigation Measure PH-5, the Newhall Ranch Specific Plan would not create a potential public health hazard or involve the use, production, or disposal of any materials that pose a hazard to people, animal, or plant life populations from oil and natural gas production operations. Therefore, the Specific Plan development would not have a significant effect on the environment relative to development at former -- or adjacent to ongoing -- oil and natural gas production relative to Significance Criterion 2.

**Impacts from High Pressure Gas Lines (Less than Significant).** The two SCGC high pressure gas main lines that traverse the Project site include a 34-inch main and a 12- to 16-inch main which could expose the public to significant risk of upset. Although Alternative 3 would result in a smaller development area than Alternative 2, the level of potential risk associated with high pressure gas lines would be virtually the same.

Similar to Alternative 2, and based on Mitigation Measure PH-6, development would meet SCGC requirements in terms of pipeline relocation, grading in the vicinity of gas mains, and development within the SCGC easements to reduce any potentially significant impacts to less-than-significant levels. To further reduce impacts, Mitigation Measure PH-13 would require that all potential buyers or tenants of

property in the vicinity of SCGC transmission lines be made aware of the line's presence, to assure that no permanent construction or grading occurs over, or within the vicinity of, the high-pressure gas mains. Therefore, potential public safety impacts from high pressure gas lines would be less than significant relative to Significance Criterion 2.

**Impacts from Chiquita Landfill (Less than Significant).** The proximity of the Chiquita Canyon Landfill to the Project site has the potential to subject adjacent developments to certain hazards, including groundwater contamination hazards associated with potential methane migration and increased truck traffic along the shared transportation corridor of SR-126. These issues could result in significant impacts to public health and safety. Although Alternative 3 would result in a smaller development area than Alternative 2, the level of potential risk associated with the Chiquita Landfill would be virtually the same.

As with Alternative 2, Los Angeles County Building Code, section 308, subdivision (c) requires that all building and structures located within 1,000 feet of a landfill containing decomposable material (in this case, Chiquita Canyon Landfill) be provided with a landfill gas migration protection and/or control system (Mitigation Measure PH-3). Accordingly, the environmental measures already in place, along with implementation of this regulatory requirement, would reduce impacts to less than significant relative to Significance Criterion 2.

**Impacts to Existing or Proposed Schools (Significant but Mitigable).** Alternative 3 would not involve the use, generation, or disposal of substantial amounts of hazardous materials, or the emission of acutely hazardous materials or substances within one-quarter mile of an existing or proposed school in accordance with California Code of Regulations, title 5, section 14010, which specifies standards for school site selection.

Exposure to contaminants above PRG levels may result in potentially significant impacts to public health and safety within one-quarter mile of proposed school sites. Contaminants commonly associated with oil and natural gas fields include TPH; VOCs, including benzene, toluene, ethybenzene, and xylene, referred together as BTEX; SVOCs, including PAHs; PCBs; hydrogen sulfide; and metals, including arsenic, lead, mercury, vanadium, barium, and hexavalent chromium and methane gas. The Newhall Ranch Specific Plan proposes the development of five elementary schools, one junior high school, and one high school. As summarized in **Subsection 4.17.3.2,** Phase I and Phase II investigations have been conducted for portions of the Project area. Completion of the current site remediation activities reduces the possibility of siting a school within one-quarter mile of a hazardous waste site. In the unlikely event that undetected contamination is located at or near proposed school sites, a significant health and safety impact would occur. Implementation of Mitigation Measures PH-11 and PH-12, which require development of specific plans (PH-11) that address assessment and cleanup actions for contaminated soils, would reduce the impact from known or unknown contaminated soil to less than significant relative to Significance Criterion 3.

**Impacts to Adopted Emergency Response or Emergency Evacuation Plans (Less than Significant).** Similar to Alternative 2, Alternative 3 development would increase demand on emergency response services, which could increase emergency response times and result in a significant impact to public safety if not mitigated proportionately with the planned development.

The same firefighting capabilities would be provided by Alternative 3 as is described for Alternative 2. The roadway network of the approved Newhall Ranch Specific Plan's Mobility Plan has been designed as an extension of the regional circulation element. This plan under Alternative 3 would be required to be changed given the deletion of the Potrero Canyon Road bridge. The redesigned circulation system would provide two methods of ingress/egress to the Specific Plan site over the Santa Clara River to serve the safety needs of the community by providing adequate access in the event of fire or other emergencies. In addition, all applicable safety standards pursuant to Los Angeles County codes would be met at the time of the building permit issuance.

As with Alternative 2, expansion of the on-site highway system and the provision of three additional fire stations, would ensure that emergency response would be expanded in conjunction with the additional demands placed on the emergency response personnel under Alternative 3. In addition, Mitigation Measure PH-7 provides secondary route access where necessary. With implementation of these measures, impacts to public safety related to emergency response services would be less than significant relative to Significance Criterion 4.

**Impacts from Dam Inundation (Less than Significant).** Castaic and Bouquet Lakes are contained by earthen dams located upstream from the Project area. Inundation of a developed Project area could result in hazards to public health and safety. Alternative 3 would result in a smaller development area than Alternative 2, and as such, less developed area would potentially be subject to dam inundation. Accordingly, the level of potential risk associated with dam inundation for Alternative 3 would be incrementally less than Alternative 2. As with Alternative 2, impacts associated with dam inundation are less than significant relative to Significance Criterion 5.

**Impacts from Wildland Fires (Significant but Mitigable).** The same types of development would occur under Alternative 3, as with Alternative 2, in areas that have been designated as either Fire Zone 3 or 4 (of moderate or high fire hazard, respectively), which would result in a significant impact to public safety. Characteristics of the Newhall Ranch Specific Plan site that contribute to these conditions include: (1) limited access; (2) lack of adequate water supplies; (3) the types of vegetative cover; and (4) topography. An analysis of the site's fire hazard potential relative to these four factors is presented below.

***Access.*** The Newhall Ranch Specific Plan would include an extensive backbone vehicular circulation system which, would provide five points of access to the site via a major state highway and a federal freeway (SR-126 and I-5, respectively). The internal circulation system for the Newhall Ranch Specific Plan would be required to be changed to accommodate the deletion of the Potrero Canyon Road bridge; however, such a change would be consistent with the approved Newhall Ranch Specific Plan standards and the provisions of Los Angeles County Code Title 21, Chapter 21.24 for secondary evacuation access (Mitigation Measure PH-7) as applicable (*i.e.*, roadway widths, length of single-access streets, cul-de-sac dimensions, and street parking restrictions, *etc*.). Consequently, with implementation of the Specific Plan, vehicular access-related impacts are expected to be less than significant relative to Significance Criterion 6.

***Water Supply.*** The Conceptual Backbone Water Plan under Alternative 3 is the same as for Alternative 2. Given that a long-term source of water must exist for the Newhall Ranch Specific Plan prior to the issuance of building permits, and a water supply system is proposed that would meet county fire flow requirements, no significant water-related fire hazards would occur.

***Vegetative Cover.*** As with Alternative 2, Alternative 3 includes development adjacent to areas with moderate to heavy vegetative cover. The plant communities that make up this cover are highly combustible and, without mitigation, would present a high fire hazard to development in these areas. This would be a significant impact because development in these areas would pose a special fire protection problem. The same measures as described for Alternative 2 would be implemented. Specifically, with implementation of Mitigation Measure PH-14, which requires the development of a Wildfire Fuel Modification Plan to reduce potential wildland fire hazards in the Project area, the fire hazard potential in this interface zone would be reduced to less than significant relative to Significance Criterion 6.

***Topography.*** Topography is an issue relative to wildland fire hazards because steep slopes are not only inaccessible to firefighting vehicles, but steep canyons can create updraft conditions (much like a chimney) and a fire in a steep canyon can spread rapidly into adjacent areas. As with Alternative 2, Alternative 3 development is within only the central and northern portions of the site where topographic relief is moderate. The wildland fire hazard impact to Specific Plan development, relative to the steep topography in the High Country SMA, would be minimal given that the High Country would be: (1) limited to human access; and (2) accessible to firefighting equipment from multiple locations as a result of the proposed vehicular circulation system (Mitigation Measure PH-7). Impacts would be less than significant. To further reduce the risk of wildland fires, the project would comply with the Wildfire Fuel Modification Plan (Mitigation Measure PH-14).

Similar to Alternative 2, Alternative 3 would be served by two on-site and one off-site fire stations. The Newhall Ranch Specific Plan would implement a Wildfire Fuel Modification Plan, and meet County codes and requirements relative to providing adequate fire protection services to the site during both the construction and operational stages of the Newhall Ranch Specific Plan (Mitigation Measure PH-14). With the incorporation of Mitigation Measures PH-7 and PH-14, Alternative 3 would result in a less than significant impact on fire protection services in the Santa Clarita Valley relative to Significance Criterion 6.

**Impacts from Electromagnetic Fields (Less than Significant).** The Specific Plan site is traversed by the SCE's 66 kV and 220 kV transmission lines within a 300-foot easement in the northern portion of the site, and 66 kV and 230 kV transmission lines within a 75- to 240-foot (total width) easement in the central portion of the site. No significant impact has been identified relative to EMF hazards and Alternative 3.

To reduce any potential impacts, development in Alternative 3 would be in compliance with Mitigation Measure PH-4, which requires that all final school locations are to comply with the California State Board of Education requirement that no schools be sited within 100 feet from the edge of the right-of-way of 100 to 110 kV lines; 150 feet from 220 to 230 kV lines; and 350 feet from 500 to 550 kV lines. In addition, the Newhall Ranch Specific Plan proposes that only non-habitable structures would be located within SCE easements. Impacts related to exposure to EMFs are considered less than significant relative to Significance Criterion 7.

**SCP Indirect Impacts.** Implementation of the proposed SCP would facilitate the implementation of previously approved development on the Specific Plan site and on portions of the VCC planning area. The SCP would also facilitate proposed development on a portion of the Entrada planning area. Potential hazard-related impacts associated with the Specific Plan are evaluated above.

**Impacts from Hazardous Material Use (Significant but Mitigable).** Indirect impacts from hazardous materials under Alternative 3 are similar to Alternative 2, as construction of the VCC and Entrada projects would be similar to RMDP and Specific Plan activities. The use of construction supplies could result in the potential for significant short-term hazardous materials impacts associated with construction activities.

Depending on the volume of materials stored onsite, Los Angeles County could require the installation of temporary ASTs to store fuels during construction. It is likely that construction will trigger Los Angeles County requirements for storage (temporary and permanent), which include safeguards such as a SPCC. The Los Angeles County Health and Hazardous Materials Division is the local CUPA responsible for enforcing hazardous materials, waste, noise, and safety regulations in the County.

Similar to Alternative 2, the VCC and Entrada planning areas under Alternative 3 would include commercial, residential, and public infrastructure, operation, and maintenance activities. These operation and maintenance activities could result in significant long-term hazard- or safety-related impacts. Incorporation of Mitigation Measures PH-8, PH-9, and PH-10 would address impacts from hazardous materials or conditions by providing additional protections beyond those required by regulatory compliance. The measures provide for additional planning, notification, and application of Best Management Practices. The risk of accidental releases of hazardous materials during construction, operation, and maintenance of the VCC and Entrada projects would be mitigated to less than significant relative to Significance Criterion 1.

**Impacts from Transport of Hazardous Materials Along SR-126 (Less than Significant). As** with Alternative 2, because hazardous materials are transported on SR-126, increased traffic on this highway as a result of development under Alternative 3 could increase the potential for an accident involving a hauler of these substances, which could result in significant impacts. Although Alternative 3 would result in a smaller development area than Alternative 2, the level of potential risk associated with transport of hazardous materials along SR-126 would be virtually the same. Alternative 3 does not expose people, animal, or plant life populations along SR-126 to significant health hazards associated with hazardous material transport due to the application of existing regulatory controls (*e.g.*, training and licensing of drivers), and impacts would be less than significant relative to Significance Criterion 1.

**Impacts from Abandoned Oil Wells, Known or Potential Contaminated Soil, and Physical Hazards Related to Oil Development Equipment and Debris (Significant but Mitigable).** As previously discussed, the VCC and Entrada planning areas are located in historic and active oil fields. Under Alternative 3, approximately 4.8 acres of development would occur within these oil field areas. The breakdown with respect to land use is as follows:

- Open Space - Manufactured 0.79 acres;
- Open Space - Natural 0.14 acres;
- Commercial 0.76 acres;
- Single Family 1.6 acres; and,

- Public Facility 1.5 acres.

A detailed discussion of potential impacts under Alternative 3 with respect to abandoned oil wells, known or potential contaminated soil, and physical hazards related to oil development equipment and debris is provided below.

**Impacts from Abandoned Oil Wells.** The impacts from abandoned oil wells would be the same as described in RMDP indirect impacts above. Unremediated, contaminated soil or groundwater could pose a significant impact to public health and safety. Additionally, former oil wells beneath the site could result in potentially significant impact relative to Significance Criterion 2.

Similar to Alternative 2, implementation of Mitigation Measures PH-11 and PH-12 would remediate any contamination per regulatory standards and reduce any associated hazards to less than significant. In addition, implementation of Mitigation Measures PH-8 would reduce potential impacts from abandoned oil wells to less than significant relative to Significance Criterion 2 by providing for the application of construction-related Best Management Practices. The proposed Project would comply with Mitigation Measure PH-2, which requires that all buildings located within 25 feet of oil or gas wells, be provided with methane gas protection systems and buildings located within 25 feet and 200 feet of oil or gas wells shall, prior to the issuance of building permits by the County of Los Angeles, be evaluated in accordance with the current DOGGR rules and regulations. Therefore, potential impacts due to methane migration would be reduced to less than significant relative to Significance Criterion 2.

**Impacts from Known or Potential Contaminated Soil**. Exposure to contaminants above PRG levels may result in significant impacts to public health and safety. These impacts would be the same in nature as those described under the RMDP indirect impacts identified above.

Accordingly, completion of the required site remediation activities, as well as implementation of Mitigation Measures PH-11 and PH-12, which require development of specific plans that address assessment and cleanup actions for contaminated soils, would reduce the impact from known or unknown contaminated soil to less than significant relative to Significance Criterion 2.

**Impacts from Physical Hazards Related to Oil Development Equipment and Debris**. Although Alternative 3 has less developed area than Alternative 2, abandoned oil wells and oil field debris are located in the VCC and Entrada planning areas and pose potentially significant physical hazards to public health and safety. Based on current knowledge, this impact is considered to be significant. Implementation of Mitigation Measure PH-11 requires development of specific plans with performance criteria derived from regulatory requirements for assessment and cleanup actions for contaminated soils, and as such would reduce the impact from physical hazards related to oil development equipment and debris to less than significant relative to Significance Criterion 2.

**Impacts from High Pressure Gas Lines (Less than Significant).** The two SCGC high pressure gas main lines that traverse the Project site include a 34-inch main and a 12- to 16-inch main, which could expose the public to significant risk of upset. These impacts would be the same in nature as those described under the RMDP indirect impacts identified above. Accordingly, potential public safety impacts from high pressure gas lines are considered less than significant relative to Significance Criterion 2.

**Impacts from Chiquita Landfill (Less than Significant).** The proximity of the Chiquita Canyon Landfill to the Project site has the potential to subject adjacent developments to certain hazards, including groundwater contamination hazards associated with potential methane migration and increased truck traffic along the shared transportation corridor of SR-126. These issues could result in impacts to public health and safety. These impacts would be the same in nature as those described under the RMDP indirect impacts identified above. Accordingly, the environmental measures already in place, along with implementation of this regulatory requirement, would reduce any potential impacts to less than significant relative to Significance Criterion 2.

**Impacts to Existing or Proposed Schools (Significant but Mitigable).** Alternative 3 would not involve the use, generation, or disposal of substantial amounts of hazardous materials, or the emission of acutely hazardous materials or substances within one-quarter mile of an existing or proposed school in accordance with California Code of Regulations, title 5, section 14010, which specifies standards for school site selection.

Exposure to contaminants above PRG levels may result in potentially significant impacts to public health and safety within one-quarter mile of proposed school sites. Contaminants commonly associated with oil and natural gas fields include TPH; VOCs, including benzene, toluene, ethybenzene, and xylene, referred together as BTEX; SVOCs, including PAHs; PCBs; hydrogen sulfide; and metals, including arsenic, lead, mercury, vanadium, barium, and hexavalent chromium and methane gas. The Newhall Ranch Specific Plan proposes the development of five elementary schools, one junior high school, and one high school. As summarized in **Subsection 4.17.3.2,** Phase I and Phase II investigations have been conducted for portions of the Project area. Completion of the current site remediation activities reduces the possibility of siting a school within one-quarter mile of a hazardous waste site. In the unlikely event that undetected contamination is located at or near proposed school sites, a significant health and safety impact would occur. Implementation of Mitigation Measures PH-11 and PH-12, which require development of specific plans (PH-11) that address assessment and cleanup actions for contaminated soils, would reduce the impact from known or unknown contaminated soil to less than significant relative to Significance Criterion 3.

**Impacts to Adopted Emergency Response or Emergency Evacuation Plans (Less than Significant).** Similar to Alternative 2, VCC and Entrada planning area development facilitated by Alternative 3 would increase demand on emergency response services, which could increase emergency response times and result in a significant impact to public safety if not mitigated proportionately with the planned development. The same firefighting capabilities would be provided by Alternative 3 as is described for Alternative 2.

The Project proposes to comply with Mitigation Measure PH-7 by providing secondary route access where necessary, which would ensure that potential impacts to public safety related to emergency response services and emergency evacuation are less than significant relative to Significance Criterion 4.

**Impacts from Dam Inundation (Less than Significant).** Castaic and Bouquet Lakes are contained by earthen dams located upstream from the Project area. Inundation of a developed Project area could result in hazards to public health and safety.

Alternative 3 would result in a smaller development area than Alternative 2, and as such, less developed area would potentially be subject to dam inundation. Accordingly, the level of potential risk associated with dam inundation for Alternative 3 would be incrementally less than Alternative 2. As with Alternative 2, impacts associated with dam inundation are less than significant relative to Significance Criterion 5.

**Impacts from Wildland Fires (Significant but Mitigable).** The same types of development would occur in the VCC and Entrada planning areas under Alternative 3, as with Alternative 2, and would be located in areas that have been designated as either Fire Zone 3 or 4 (of moderate or high fire hazard, respectively), which could result in significant hazards to public safety. Characteristics of the VCC and Entrada planning areas that contribute to these conditions include: (1) limited access; (2) lack of adequate water supplies; (3) the types of vegetative cover; and (4) topography. The development of the sites would potentially reduce the chance of fires in wildland areas (*i.e.*, the response time to the far areas of Hasley Canyon should be shortened due to the extension of Backer Road to SR-126). In addition, the expansion of water supplies to serve the Project area would introduce new water sources to fight any fires which do occur. Development of the VCC and Entrada planning areas would result in a significant impact on fire protection services in the Santa Clarita Valley based on Significance Criterion 6; however, incorporation of the measures discussed above and Mitigation Measures PH-7 and PH-14 would reduce this impact to less than significant.

**Impacts from Electromagnetic Fields (Less than Significant).** The Project site is traversed by the SCE's 66 kV and 220 kV transmission lines within a 300-foot easement in the northern portion of the site, and 66 kV and 230 kV transmission lines within a 75- to 240-foot (total width) easement in the central portion of the site.

As no specific health effects of EMFs have been conclusively demonstrated, there are no health-based standards for EMF exposure. There is no current informational basis for determination of a significant adverse environmental impact associated with the proposed land use in relationship to the SCE transmission lines. No significant impact has been identified relative to EMF hazards and Alternative 3. However, to reduce any potential impacts, development of the Newhall Ranch Specific Plan site would be in compliance with Mitigation Measure PH-4, which requires that all final school locations are to comply with the California State Board of Education requirement that no schools be sited within 100 feet from the edge of the right-of-way of 100 to 110 kV lines; 150 feet from 220 to 230 kV lines; and 350 feet from 500 to 550 kV lines. In addition, the Newhall Ranch Specific Plan proposes that only non-habitable structures would be located within SCE easements. Impacts related to exposure to EMFs are considered less than significant relative to Significance Criterion 7.

#### 4.17.6.3.3 Secondary Impacts

**RMDP Secondary Impacts.** Alternative 3 has less bank protection and other RMDP facilities than Alternative 2. However, Alternative 3 would result in significant direct and indirect hazard-related impacts related to the transport of hazardous materials, emergency response and evacuation, and from wildfires. Those impacts also have the potential to result in significant secondary impacts to areas located beyond the boundaries of the Project site.

**Transport of Hazardous Materials Along SR-126 (Less than Significant).** The transportation of hazardous materials to the Specific Plan site would be required during the construction of proposed

infrastructure projects (direct impacts) and during the construction of facilitated development (indirect impacts). The potential for impacts to the environment and/or public resulting from a large-scale release during the transport of hazardous materials would be reduced to a less-than-significant level through the continued implementation and enforcement of existing hazardous waste transportation and handling regulations. Therefore, this impact would not be significant under the requirements of Significance Threshold 1 and no mitigation measures are required.

**Emergency Response and Emergency Evacuation Plans (Less than Significant).** Development provided on the Specific Plan site may occasionally require emergency services from Los Angeles County fire stations located beyond the project site boundaries. As described in **Subsection 4.8.9** (Traffic Mitigation), project-related impacts to off-site roadways would be reduced to a less-than-significant level with the implementation of identified road improvements. In addition, the Specific Plan development would be required to comply with applicable Los Angeles County secondary access/evacuation requirements (Mitigation Measure PH-7). With the implementation of proposed roadway operation and access requirements, the circulation system in the project region would be adequate to provide emergency response services to the Specific Plan site. Therefore, secondary emergency response or evacuation impacts would not be significant and no additional mitigation measures are required.

**Wildland Fires (Significant but Mitigable).** A fire on the Specific Plan site would have the potential to migrate off-site and effect areas located beyond the Specific Plan boundaries. Proposed Specific Plan access, water supply and fuel modification provisions would minimize the potential for wildfire impacts. In addition, proposed Mitigation Measure PH-7 ensures that adequate emergency access would be provided to serve the project site, and Mitigation Measure PH-14 provides additional requirements related to the preparation and implementation of a Wildfire Fuel Modification Plan. Implementation of these mitigation measures would reduce on-site wildfire impacts to a less-than-significant level and also reduce the potential for project-related fire impacts to surrounding areas to a less-than-significant level.

**SCP Secondary Impacts.** Establishment of the proposed spineflower preserves would not result in significant direct hazard-related impacts, and potential indirect hazard-related impacts that may result from the development that is facilitated on the Specific Plan site and portions of the VCC and Entrada sites can also be reduced to a less-than-significant level with implementation of the proposed mitigation measures. Project-related hazard and public safety impacts that have the potential to result in significant safety impacts at locations beyond the boundary of the Project site include the following:

- Impacts from the transport of hazardous materials along public roadways;
- Impacts to emergency response and emergency evacuation plans; and,
- Impacts from wildland fires.

**Emergency Response and Emergency Evacuation Plans (Less than Significant).** With the implementation of mitigation measures provided in **Subsection 4.8.9,** roadways located beyond the boundary of the Project site would provide adequate capacity to accommodate anticipated traffic volumes generated by facilitated development located on the Specific Plan, VCC, and Entrada project sites. With implementation of the identified measures, the off-site roadway system would operate at acceptable

levels, provide adequate emergency vehicle access, and not result in significant impacts to emergency vehicle response times. No additional mitigation measures are required.

**Impacts to Existing and Proposed Schools (Less than Significant).** Development on the portion of the Entrada project site facilitated by the SCP would be located within one-quarter mile of existing off-site school facilities, including the Oak Hill Elementary and Rancho Pico Junior High schools. Development on the Entrada site that would occur in the vicinity of schools includes single- and multi-family residences, which would not be a significant source of hazardous or extremely hazardous materials. Therefore, the proposed land uses on the Entrada project site would not result in significant health or safety impacts to existing school facilities under the requirements of Significance Threshold 3.

**Wildland Fires (Significant but Mitigable).** A fire on the Project site would have the potential to migrate off-site and effect areas located beyond the Project boundary. Proposed Specific Plan access, water supply and fuel modification provisions would minimize the potential for wildfire impacts. In addition, proposed Mitigation Measure PH-7 ensures that adequate emergency access would be provided to serve the project site, and Mitigation Measure PH-14 provides additional requirements related to the preparation and implementation of a Wildfire Fuel Modification Plan. Implementation of these mitigation measures on the Specific Plan site, and similar measures for the VCC and Entrada sites, would reduce Project-related on-site wildfire impacts to a less-than-significant level and also reduce the potential for Project-related fire impacts to surrounding areas to a less-than-significant level.

### 4.17.6.4 Impacts of Alternative 4 (Elimination of Planned Potrero Bridge and Addition of VCC Spineflower Preserve)

Alternative 4 would result in the elimination of additional infrastructure improvements included in the proposed RMDP, and increase the size of proposed spineflower preserves from 167.6 to 259.9 acres. Under this alternative, no additional development would be facilitated on the VCC planning area, and subsequent development on the Specific Plan site would be reduced. In total, Alternative 4 would facilitate the development of 21,846 residential dwelling units on the Specific Plan site and Entrada planning area, and approximately 5.93 million square feet of nonresidential uses on the Specific Plan site and on a portion of the Entrada planning area. Additional information regarding this alternative is provided in EIS/EIR **Section 3.0**.

#### 4.17.6.4.1 Direct Impacts

**RMDP Direct Impacts.** Construction of the proposed RMDP components would include the temporary transport, storage, and use of potentially hazardous materials, including fuels, lubricating fluids, cleaners, solvents, pesticides, herbicides, and other materials. The use of these standard construction supplies during construction could result in the potential for short-term hazardous materials impacts associated with construction activities. Under Alternative 4, the Potrero Canyon Road bridge is not proposed and the associated bridge pier and abutment features are not required and fewer linear feet of bank stabilization would be constructed. Therefore, Alternative 4 would have lesser, but still significant direct short-term impact related to the use of hazardous materials during construction than Alternative 2.

As with Alternative 2, depending on the volume of materials stored on site, Los Angeles County could require the installation of temporary ASTs to store fuels during construction. It is likely that construction

will trigger Los Angeles County requirements for storage (temporary and permanent), which include safeguards such as a SPCC. Hazardous materials regulations require a business that generates hazardous wastes to institute a "cradle to grave" management plan for the storage, transport, and disposal of the hazardous wastes. As with Alternative 2, in the unlikely event of a large-scale release of hazardous material at a construction site, a significant hazard to the public and/or the environment would occur. The implementation of Mitigation Measures PH-8, PH-9, and PH-10 would address impacts from hazardous materials or conditions by providing additional protections beyond those required by regulatory compliance. The risk of accidental releases of hazardous materials during construction would be mitigated to less-than-significant levels relative to Significance Criterion 1.

As described for Alternative 2, RMDP facilities would require certain periodic maintenance that may involve use of hazardous materials. Under Alternative 4, the Potrero Canyon Road bridge is not proposed and the associated bridge pier and abutment features are not required and fewer linear feet of bank stabilization would be constructed. Accordingly, Alternative 4 would require less periodic maintenance activities than Alternative 2, and would not have the potential to result in significant long-term hazard- or safety-related impacts relative to Significance Criterion 1.

**SCP Direct Impacts.** Similar to Alternative 2, creation of the spineflower preserves would consist primarily of the installation of fencing and information signs. These short-term activities would not result in significant hazard- or safety-related impacts relative to Significance Criterion 1.

Long-term preserve maintenance activities would be similar to Alternative 2, and would not result in significant long-term hazard- or safety-related impacts relative to Significance Criterion 1.

#### 4.17.6.4.2 Indirect Impacts

**RMDP Indirect Impacts.**

**Impacts from Hazardous Material Use (Significant but Mitigable).** Materials handling for construction under Alternative 4 would be similar to Alternative 2, although the development area on the Specific Plan site would be reduced from Alternative 2. Therefore, Alternative 4 would have an incrementally lesser, but still significant, direct short-term impact related to the use of hazardous materials during construction than Alternative 2.

As with Alternative 2 and as described for RMDP direct impacts, storage and use of hazardous materials during construction (short-term) and operation/maintenance (long-term) activities could result in significant hazard- or safety-related impacts.

As described for Alternative 2, incorporation of Mitigation Measures PH-8, PH-9, and PH-10 would address impacts from hazardous materials or conditions by providing additional protections beyond those required by regulatory compliance. This mitigation would reduce impacts to less than significant relative to Significance Criterion 1.

**Impacts from Transport of Hazardous Materials Along SR-126 (Less than Significant).** As with Alternative 2, because hazardous materials are transported on SR-126, increased traffic on this highway as a result of development under Alternative 4 could increase the potential for an accident involving a

hauler of these substances, which could result in significant impacts. Although Alternative 4 would result in a smaller development area than Alternative 2, the level of potential risk associated with transport of hazardous materials along SR-126 would be virtually the same. As with Alternative 2, Alternative 4 does not expose people, animal, or plant life populations along SR-126 to significant health hazards associated with hazardous material transport due to the application of existing regulatory controls (*e.g.*, training and licensing of drivers), and no significant impacts would occur relative to Significance Criterion 1.

**Impacts from Abandoned Oil Wells, Known or Potential Contaminated Soil, and Physical Hazards Related to Oil Development Equipment and Debris (Significant but Mitigable).** As previously discussed, the Newhall Ranch Specific Plan area is located in historic and active oil fields. Under Alternative 4, approximately 135 acres of development would occur within these areas. The breakdown with respect to land use is as follows:

- Commercial 5.0 acres;
- Single Family 38.6 acres;
- Multi Family 20.1 acres;
- Public Facility 11.2 acres;
- Open Space - Manufactured 34.3 acres; and,
- Open Space - Natural 25.8 acres.

A detailed discussion of potential impacts under Alternative 4 with respect to abandoned oil wells, known or potential contaminated soil, and physical hazards related to oil development equipment and debris is provided below.

**Impacts from Abandoned Oil Wells**. As described in Alternative 2, releases have occurred near former oil wells and other infrastructure that have impacted the surrounding soils. The site assessments have identified several such wells and supporting infrastructure. As active oil fields are abandoned and cleaned up it is likely that more such wells and infrastructure will be identified. Specifically, there is the potential to encounter residual petroleum hydrocarbons and petrochemical contaminants. Unremediated, contaminated soil or groundwater could pose a potentially significant impact to public health and safety. Although Alternative 4 would result in a smaller development area than Alternative 2, the level of potential risk associated with abandoned wells would be virtually the same. Additionally, although the Project site is not located in an area of documented methane or hydrogen sulfide hazards, the former oil wells beneath the site -- if they were not properly abandoned -- could act as conduits for deep methane gas to reach the surface, resulting in a potentially significant impact relative to Significance Criterion 2.

As discussed above, several Phase I and Phase II investigations have been performed for the Project area. The results of these investigations indicate that there may be unknown and/or undocumented site contamination. Accordingly, in the event that contamination is encountered during Project activities, implementation of Mitigation Measures PH-11 and PH-12, which require development of specific plans

that address assessment and cleanup actions for contaminated soils, would remediate any such contamination per regulatory standards and reduce any associated hazards to less than significant.

As with Alternative 2, DOGGR standard practices and procedures for development above abandoned oil wells shall be followed, including proper abandonment procedures. DOGGR may also require venting and/or collection systems to be incorporated into the design of Alternative 4 if any enclosed structures are built over abandoned wells (see Mitigation Measure PH-1, below). Implementation of Mitigation Measure PH-8 would reduce potential impacts from abandoned oil wells to less than significant relative to Significance Criterion 2 by providing for the application of construction-related Best Management Practices.

As described for Alternative 2, potential methane gas migration shall be mitigated in accordance with Los Angeles County Building Code, section 308, subdivision (d) for all buildings and enclosed structures that would be constructed within 25 feet of oil or gas wells. Buildings located within 25 feet and 200 feet of oil or gas wells shall, prior to the issuance of building permits by the County of Los Angeles, be evaluated in accordance with the current rules and regulations of the DOGGR (Mitigation Measure PH-2). Accordingly, with the implementation of Mitigation Measure PH-2, potential impacts due to methane migration would be reduced to less than significant under Significance Criterion 2.

Potential impacts from contaminated soils are similar to Alternative 2, and may result in potentially significant impacts to public health and safety.

As with Alternative 2, there is the potential for the occurrence of methane gas in areas of oil production. The presence of methane gas can either be remediated (source removal) or mitigated (venting of gas and interruption of pathways). Some source removal already has occurred at the Project site as part of the Castaic Junction Oil Field abandonment and site remediation activities performed by Exxon.

As discussed above, there is an existing agreement on the RSF Oil and Gas Lease area to fully remediate the oil field prior to construction on the potentially contaminated sites, under detailed environmental cleanup protocols. Completion of the required site remediation activities, as well as implementation of Mitigation Measures PH-11 and PH-12, which require development of specific plans that address assessment and cleanup actions for contaminated soils, would reduce the impact from known or unknown contaminated soil to less than significant relative to Significance Criterion 2.

**Impacts from Physical Hazards Related to Oil Development Equipment and Debris**. Although Alternative 4 has less developed area than Alternative 2, abandoned oil wells and oil field debris are located in the proposed Project area, and pose potentially significant physical hazards to public health and safety. Based on current knowledge, this impact is considered to be significant. Implementation of Mitigation Measure PH-11 requires development of specific plans that address assessment and cleanup actions for contaminated soils, and as such would reduce the impact from physical hazards related to oil development equipment and debris to less than significant relative to Significance Criterion 2.

In addition to development occurring in areas no longer in production, development is likely to occur in areas where oil and natural gas operations are ongoing. Given that all such development-area oil production facilities would need to be fenced and gated by state law, as detailed in Mitigation Measure PH-5, the Newhall Ranch Specific Plan would not create a potential public health hazard or involve the

use, production, or disposal of any materials that pose a hazard to people, animal, or plant life populations from oil and natural gas production operations. Therefore, the Specific Plan development would not have a significant effect on the environment relative to development at former -- or adjacent to ongoing -- oil and natural gas production relative to Significance Criterion 2.

**Impacts from High Pressure Gas Lines (Less than Significant).** The two SCGC high pressure gas main lines that traverse the Project site include a 34-inch main and a 12- to 16-inch main which could expose the public to significant risk of upset. Although Alternative 4 would result in a smaller development area than Alternative 2, the level of potential risk associated with high pressure gas lines would be virtually the same.

Similar to Alternative 2, and based on Mitigation Measure PH-6, development would meet SCGC requirements in terms of pipeline relocation, grading in the vicinity of gas mains, and development within the SCGC easements, to reduce any potentially significant impacts to less than-significant levels. To further reduce impacts, Mitigation Measure PH-13 would require that all potential buyers or tenants of property in the vicinity of SCGC transmission lines be made aware of the line's presence, to assure that no permanent construction or grading occurs over, or within the vicinity of, the high-pressure gas mains. Therefore, potential public safety impacts from high pressure gas lines would be less than significant relative to Significance Criterion 2.

**Impacts from Chiquita Landfill (Less than Significant).** The proximity of the Chiquita Canyon Landfill to the Project site has the potential to subject adjacent developments to certain hazards, including groundwater contamination hazards associated with potential methane migration and increased truck traffic along the shared transportation corridor of SR-126. These issues could result in significant impacts to public health and safety. Although Alternative 4 would result in a smaller development area than Alternative 2, the level of potential risk associated with the Chiquita Landfill would be virtually the same.

As with Alternative 2, Los Angeles County Building Code, section 308, subdivision (c) requires that all building and structures located within 1,000 feet of a landfill containing decomposable material (in this case, Chiquita Canyon Landfill) be provided with a landfill gas migration protection and/or control system (Mitigation Measure PH-3). Accordingly, the environmental measures already in place, along with the implementation of this regulatory requirement, would reduce any potential impacts to less than significant relative to Significance Criterion 2.

**Impacts to Existing or Proposed Schools (Significant but Mitigable).** Alternative 4 would not involve the use, generation, or disposal of substantial amounts of hazardous materials, or the emission of acutely hazardous materials or substances within one-quarter mile of an existing or proposed school in accordance with California Code of Regulations, title 5, section 14010, which specifies standards for school site selection.

Exposure to contaminants above PRG levels may result in potentially significant impacts to public health and safety within one-quarter mile of proposed school sites. Contaminants commonly associated with oil and natural gas fields include TPH; VOCs, including benzene, toluene, ethybenzene, and xylene, referred together as BTEX; SVOCs, including PAHs; PCBs; hydrogen sulfide; and metals, including arsenic, lead, mercury, vanadium, barium, and hexavalent chromium and methane gas. The Newhall Ranch Specific Plan proposes the development of five elementary schools, one junior high school, and one high school.

As summarized in **Subsection 4.17.3.2,** Phase I and Phase II investigations have been conducted for portions of the Project area. Completion of the current site remediation activities reduces the possibility of siting a school within one-quarter mile of a hazardous waste site. In the unlikely event that undetected contamination is located at or near proposed school sites, a significant health and safety impact would occur. Implementation of Mitigation Measures PH-11 and PH-12, which require development of specific plans (PH-11) that address assessment and cleanup actions for contaminated soils, would reduce the impact from known or unknown contaminated soil to levels below significant relative to Significance Criterion 3.

**Impacts to Adopted Emergency Response or Emergency Evacuation Plans (Less than Significant).** Similar to Alternative 2, Alternative 4 development would increase demand on emergency response services, which could increase emergency response times and result in a significant impact to public safety if not mitigated proportionately with the planned development.

The same firefighting capabilities would be provided by Alternative 4 as is described for Alternative 2.

The roadway network of the approved Newhall Ranch Specific Plan's Mobility Plan has been designed as an extension of the regional circulation element. This plan under Alternative 4 would be required to be changed given the deletion of the Potrero Canyon Road bridge. The redesigned circulation system would provide two methods of ingress/egress to the Specific Plan site over the Santa Clara River to serve the safety needs of the community by providing adequate access in the event of fire or other emergencies. In addition, all applicable safety standards pursuant to Los Angeles County Codes would be met at the time of the building permit issuance.

As with Alternative 2, expansion of the on-site highway system and the provision of three additional fire stations, ensures that emergency response would be expanded in conjunction with the additional demands placed on the emergency response personnel under Alternative 4. In addition, Mitigation Measure PH-7 provides secondary route access where necessary. With implementation of these Project-incorporated measures, impacts to public safety related to emergency response services would be less than significant relative to Significance Criterion 4.

**Impacts from Dam Inundation (Less than Significant).** Castaic and Bouquet Lakes are contained by earthen dams located upstream from the Project area. Inundation of a developed Project area could result in hazards to public health and safety. Alternative 4 would result in a smaller development area than Alternative 2, and as such, less developed area would potentially be subject to dam inundation. Accordingly, the level of potential risk associated with dam inundation for Alternative 4 would be incrementally less than Alternative 2. As with Alternative 2, impacts associated with dam inundation are less than significant relative to Significance Criterion 5.

**Impacts from Wildland Fires (Significant but Mitigable).** The same types of development would occur under Alternative 4, as with Alternative 2, in areas that have been designated as either Fire Zone 3 or 4 (of moderate or high fire hazard, respectively), which would result in a significant impact to public safety. Characteristics of the Newhall Ranch Specific Plan site that contribute to these conditions include: (1) limited access; (2) lack of adequate water supplies; (3) the types of vegetative cover; and (4) topography. An analysis of the site's fire hazard potential relative to these four factors is presented below.

***Access.*** The Newhall Ranch Specific Plan would include an extensive backbone vehicular circulation system which, would provide five points of access to the site via a major state highway and a federal freeway (SR-126 and I-5, respectively). The internal circulation system for the Newhall Ranch Specific Plan would be required to be changed to accommodate the deletion of the Potrero Canyon Road bridge; however, such a change would be consistent with the approved Newhall Ranch Specific Plan standards and the provisions of Los Angeles County Code, title 21, chapter 21.24 for secondary evacuation access (Mitigation Measure PH-7) as applicable (*i.e.*, roadway widths, length of single-access streets, cul-de-sac dimensions, and street parking restrictions, *etc*.). Consequently, with implementation of the Specific Plan, vehicular access-related impacts are expected to be less than significant relative to Significance Criterion 6.

***Water Supply.*** The Conceptual Backbone Water Plan under Alternative 4 is the same as for Alternative 2. Given that a long-term source of water must exist for the Newhall Ranch Specific Plan prior to the issuance of building permits, and a water supply system is proposed that would meet County fire flow requirements, no significant water-related fire hazards would occur.

***Vegetative Cover.*** As with Alternative 2, Alternative 4 includes development adjacent to areas with moderate to heavy vegetative cover. The plant communities that make up this cover are highly combustible and, without mitigation, would present a high fire hazard to development in these areas. This would be a significant impact because development in these areas would pose a special fire protection problem. The same measures as described for Alternative 2 would be implemented. Specifically, with the implementation Mitigation Measure PH-14, which requires the development of a Wildfire Fuel Modification Plan to reduce potential wildland fire hazards in the Project area, the fire hazard potential in this interface zone would be reduced to less than significant relative to Significance Criterion 6.

***Topography.*** Topography is an issue relative to wildland fire hazards because steep slopes are not only inaccessible to firefighting vehicles, but steep canyons can create updraft conditions (much like a chimney) and a fire in a steep canyon can spread rapidly into adjacent areas. As with Alternative 2, Alternative 4 development is within only the central and northern portions of the site where topographic relief is moderate. The wildland fire hazard impact to Specific Plan development, relative to the steep topography in the High Country SMA, would be minimal given that the High Country would be: (1) limited to human access; and (2) accessible to firefighting equipment from multiple locations as a result of the proposed vehicular circulation system (Mitigation Measure PH-7). Impacts would be less than significant. To further reduce the risk of wildland fires, the proposed Project would comply with the Wildfire Fuel Modification Plan (Mitigation Measure PH-14). Similar to Alternative 2, Alternative 4 would be served by two on-site and one off-site fire stations. The Newhall Ranch Specific Plan would implement a Wildfire Fuel Modification Plan, and meet County codes and requirements relative to providing adequate fire protection services to the site during both the construction and operational stages of the Newhall Ranch Specific Plan (Mitigation Measure PH-14). Alternative 4, with the incorporation of Mitigation Measures PH-7 and PH-14, would have a less than significant impact on fire protection services in the Santa Clarita Valley relative to Significance Criterion 6.

**Impacts from Electromagnetic Fields (Less than Significant).** The Specific Plan site is traversed by the SCE's 66 kV and 220 kV transmission lines within a 300-foot easement in the northern portion of the site, and 66 kV and 230 kV transmission lines within a 75- to 240-foot (total width) easement in the

central portion of the site. No significant impact has been identified relative to EMF hazards and Alternative 4.

Same as Alternative 2, to reduce any potential impacts, development in Alternative 4 would be in compliance with Mitigation Measure PH-4, which requires that all final school locations are to comply with the California State Board of Education requirement that no schools be sited within 100 feet from the edge of the right-of-way of 100 to 110 kV lines; 150 feet from 220 to 230 kV lines; and 350 feet from 500 to 550 kV lines. In addition, the Newhall Ranch Specific Plan proposes that only non-habitable structures would be located within SCE easements. Impacts related to exposure to EMFs are considered less than significant relative to Significance Criterion 7.

**SCP Indirect Impacts.** Implementation of the proposed SCP would facilitate implementation of previously approved development on the Specific Plan site and on portions of the Entrada planning area. Under this alternative, the VCC planning area would not be developed. Potential hazard-related impacts associated with the Specific Plan are evaluated above.

**Impacts from Hazardous Material Use (Significant but Mitigable).** Indirect impacts from hazardous materials under Alternative 4 are similar to Alternative 2, as construction of the Entrada project would be similar to RMDP and Specific Plan activities. The use of construction supplies could result in the potential for significant short-term hazardous materials impacts associated with construction activities.

Depending on the volume of materials stored onsite, Los Angeles County could require the installation of temporary ASTs to store fuels during construction. It is likely that construction will trigger Los Angeles County requirements for storage (temporary and permanent), which include safeguards such as a SPCC. The Los Angeles County Health and Hazardous Materials Division is the local CUPA responsible for enforcing hazardous materials, waste, noise, and safety regulations in the County.

Similar to Alternative 2, the Entrada planning area under Alternative 4 would include commercial, residential, and public infrastructure, operation, and maintenance activities. These operation and maintenance activities could result in significant long-term hazard- or safety-related impacts. Incorporation of Mitigation Measures PH-8, PH-9, and PH-10 addresses impacts from hazardous materials or conditions by providing additional protections beyond those required by regulatory compliance. The measures provide for additional planning, notification, and application of Best Management Practices. The risk of accidental releases of hazardous materials during construction, operation, and maintenance of the Entrada project would be mitigated to less than significant relative to Significance Criterion 1.

**Impacts from Transport of Hazardous Materials Along SR-126 (Less than Significant).** As with Alternative 2, because hazardous materials are transported on SR-126, increased traffic on this highway as a result of development under Alternative 2 could increase the potential for an accident involving a hauler of these substances, which could result in significant impacts. Although Alternative 4 would result in a smaller development area than Alternative 2, the level of potential risk associated with transport of hazardous materials along SR-126 would be virtually the same. Alternative 4 does not expose people, animal, or plant life populations along SR-126 to significant health hazards associated with hazardous material transport due to the application of existing regulatory controls (*e.g.*, training and licensing of drivers), and no significant impacts would occur relative to Significance Criterion 1.

**Impacts from Abandoned Oil Wells, Known or Potential Contaminated Soil, and Physical Hazards Related to Oil Development Equipment and Debris (Significant but Mitigable).** As previously discussed, the Entrada planning area is located in historic and active oil fields. Under Alternative 4, approximately 4.8 acres of development would occur within these oil field areas. The breakdown with respect to land use is as follows:

- Open Space - Manufactured 0.79 acres;
- Open Space - Natural 1.1 acres;
- Single Family 1.6 acres; and,
- Public Facility 1.3 acres.

A detailed discussion of potential impacts under Alternative 4 with respect to abandoned oil wells, known or potential contaminated soil, and physical hazards related to oil development equipment and debris is provided below.

**Impacts from Abandoned Oil Wells**. The impacts from abandoned oil wells would be the same as described in RMDP indirect impacts above. Unremediated, contaminated soil or groundwater could pose a significant impact to public health and safety. Additionally, former oil wells beneath the site could result in a significant impact relative to Significance Criterion 2.

Similar to Alternative 2, implementation of Mitigation Measures PH-11 and PH-12 would remediate any contamination per regulatory standards and reduce any associated hazards to less than significant. In addition, implementation of Mitigation Measures PH-8 would reduce potential impacts from abandoned oil wells to less than significant relative to Significance Criterion 2 by providing for the application of construction-related Best Management Practices. The proposed Project also would comply with Mitigation Measure PH-2, which requires that all buildings located within 25 feet of oil or gas wells, be provided with methane gas protection systems and buildings located within 25 feet and 200 feet of oil or gas wells shall, prior to the issuance of building permits by the County of Los Angeles, be evaluated in accordance with the current DOGGR rules and regulations. Therefore, potential impacts due to methane migration would be reduced to less than significant relative to Significance Criterion 2.

**Impacts from Known or Potential Contaminated Soil**. Exposure to contaminants above PRG levels may result in significant impacts to public health and safety. These impacts would be the same in nature as those described under the RMDP indirect impacts identified above.

Accordingly, completion of the required site remediation activities, as well as implementation of Mitigation Measures PH-11 and PH-12, which require development of specific plans that address assessment and cleanup actions for contaminated soils, would reduce the impact from known or unknown contaminated soil to less than significant relative to Significance Criterion 2.

**Impacts from Physical Hazards Related to Oil Development Equipment and Debris**. Although Alternative 4 has less developed area than Alternative 2, abandoned oil wells and oil field debris are located in the Entrada planning area and pose potentially significant physical hazards to public health and

safety. Based on current knowledge, this impact is considered to be significant. Implementation of Mitigation Measure PH-11 requires development of specific plans with performance criteria derived from regulatory requirements for assessment and cleanup actions for contaminated soils, and as such would reduce the impact from physical hazards related to oil development equipment and debris to less than significant relative to Significance Criterion 2.

**Impacts from High Pressure Gas Lines (Less than Significant).** The two SCGC high pressure gas main lines that traverse the Project site include a 34-inch main and a 12- to 16-inch main, which could expose the public to significant risk of upset. These impacts would be the same in nature as those described under the RMDP indirect impacts identified above. Accordingly, potential public safety impacts from high pressure gas lines are considered less than significant relative to Significance Criterion 2.

**Impacts from Chiquita Landfill (Less than Significant).** The proximity of the Chiquita Canyon Landfill to the Project site has the potential to subject adjacent developments to certain hazards, including groundwater contamination hazards associated with potential methane migration and increased truck traffic along the shared transportation corridor of SR-126. These issues could result in impacts to public health and safety. These impacts would be the same in nature as those described under the RMDP indirect impacts identified above. Accordingly, the environmental measures already in place, along with the implementation of this regulatory requirement, would reduce any potential impacts to less than significant relative to Significance Criterion 2.

**Impacts to Existing or Proposed Schools (Significant but Mitigable).** Alternative 4 would not involve the use, generation, or disposal of substantial amounts of hazardous materials, or the emission of acutely hazardous materials or substances within one-quarter mile of an existing or proposed school in accordance with California Code of Regulations, title 5, section 14010, which specifies standards for school site selection.

Exposure to contaminants above PRG levels may result in potentially significant impacts to public health and safety within one-quarter mile of proposed school sites. Contaminants commonly associated with oil and natural gas fields include TPH; VOCs, including benzene, toluene, ethybenzene, and xylene, referred together as BTEX; SVOCs, including PAHs; PCBs; hydrogen sulfide; and metals, including arsenic, lead, mercury, vanadium, barium, and hexavalent chromium and methane gas. The Newhall Ranch Specific Plan proposes the development of five elementary schools, one junior high school, and one high school. As summarized in **Subsection 4.17.3.2**, Phase I and Phase II investigations have been conducted for portions of the Project area. Completion of the current site remediation activities reduces the possibility of siting a school within one-quarter mile of a hazardous waste site. In the unlikely event that undetected contamination is located at or near proposed school sites, a significant health and safety impact would occur. Implementation of Mitigation Measures PH-11 and PH-12, which require development of specific plans (PH-11) that address assessment and cleanup actions for contaminated soils, would reduce the impact from known or unknown contaminated soil to levels below significant relative to Significance Criterion 3.

**Impacts to Adopted Emergency Response or Emergency Evacuation Plans (Less than Significant).** Similar to Alternative 2, Entrada planning area development facilitated by Alternative 4 would increase demand on emergency response services, which could increase emergency response times and result in a

significant impact to public safety if not mitigated proportionately with the planned development. The same firefighting capabilities would be provided by Alternative 4 as is described for Alternative 2.

The Project would comply with Mitigation Measure PH-7 by providing secondary route access, where necessary, which would ensure that potential impacts to public safety related to emergency response services and emergency evacuation are less than significant relative to Significance Criterion 4.

**Impacts from Dam Inundation (Less than Significant).** Castaic and Bouquet Lakes are contained by earthen dams located upstream from the Project area. Inundation of a developed Project area could result in hazards to public health and safety. Alternative 4 would result in a smaller development area than Alternative 2, and as such, less developed area would potentially be subject to dam inundation. Accordingly, the level of potential risk associated with dam inundation for Alternative 4 would be incrementally less than Alternative 2. As with Alternative 2, impacts associated with dam inundation are less than significant relative to Significance Criterion 5.

**Impacts from Wildland Fires (Significant but Mitigable).** The same types of development would occur in the Entrada planning area under Alternative 4, as with Alternative 2, and would be located in areas that have been designated as either Fire Zone 3 or 4 (of moderate or high fire hazard, respectively), which could result in significant hazards to public safety. Characteristics of the Entrada planning area that contribute to these conditions include: (1) limited access; (2) lack of adequate water supplies; (3) the types of vegetative cover; and (4) topography. The development of the sites would potentially reduce the chance of fires in wildland areas (*i.e.*, the response time to the far areas of Hasley Canyon should be shortened due to the extension of Backer Road to SR-126). In addition, the expansion of water supplies to serve the Project site would introduce new water sources to fight any fires that do occur. Development of the Entrada planning area would have a significant impact on fire protection services in the Santa Clarita Valley based on Significance Criterion 6; however, incorporation of the measures discussed above and Mitigation Measures PH-7 and PH-14 would reduce this impact to less than significant.

**Impacts from Electromagnetic Fields (Less than Significant).** The Project site is traversed by the SCE's 66 kV and 220 kV transmission lines within a 300-foot easement in the northern portion of the site, and 66 kV and 230 kV transmission lines within a 75- to 240-foot (total width) easement in the central portion of the site.

As no specific health effects of EMFs have been conclusively demonstrated, there are no health-based standards for EMF exposure. There is no current informational basis for determination of a significant adverse environmental impact associated with the proposed land use in relationship to the SCE transmission lines. No significant impact has been identified relative to EMF hazards and Alternative 4. However, to reduce any potential impacts, development of the Newhall Ranch Specific Plan site would be in compliance with Mitigation Measure PH-4, which requires that all final school locations are to comply with the California State Board of Education requirement that no schools be sited within 100 feet from the edge of the right-of-way of 100 to 110 kV lines; 150 feet from 220 to 230 kV lines; and 350 feet from 500 to 550 kV lines. In addition, the Newhall Ranch Specific Plan proposes that only non-habitable structures would be located within SCE easements. Impacts related to exposure to EMFs are considered less than significant relative to Significance Criterion 7.

#### 4.17.6.4.3 Secondary Impacts

**RMDP Secondary Impacts.** Alternative 4 has less bank protection and other RMDP facilities than Alternative 2. However, Alternative 4 would result in significant direct and indirect hazard-related impacts related to the transport of hazardous materials, emergency response and evacuation, and from wildfires. Those impacts also have the potential to result in significant secondary impacts to areas located beyond the boundaries of the Project site.

**Transport of Hazardous Materials Along SR-126 (Less than Significant).** The transportation of hazardous materials to the Specific Plan site would be required during the construction of proposed infrastructure projects (direct impacts) and during the construction of facilitated development (indirect impacts). The potential for impacts to the environment and/or public resulting from a large-scale release during the transport of hazardous materials would be reduced to a less-than-significant level through the continued implementation and enforcement of existing hazardous waste transportation and handling regulations. Therefore, this impact would not be significant under the requirements of Significance Threshold 1 and no mitigation measures are required.

**Emergency Response and Emergency Evacuation Plans (Less than Significant).** Development provided on the Specific Plan site may occasionally require emergency services from Los Angeles County fire stations located beyond the project site boundaries. As described in **Subsection 4.8.9** (Traffic Mitigation), project-related impacts to off-site roadways would be reduced to a less-than-significant level with the implementation of identified road improvements. In addition, the Specific Plan development would be required to comply with applicable Los Angeles County secondary access/evacuation requirements (Mitigation Measure PH-7). With the implementation of proposed roadway operation and access requirements, the circulation system in the project region would be adequate to provide emergency response services to the Specific Plan site. Therefore, secondary emergency response or evacuation impacts would not be significant and no additional mitigation measures are required.

**Wildland Fires (Significant but Mitigable).** A fire on the Specific Plan site would have the potential to migrate off-site and effect areas located beyond the Specific Plan boundaries. Proposed Specific Plan access, water supply and fuel modification provisions would minimize the potential for wildfire impacts. In addition, proposed Mitigation Measure PH-7 ensures that adequate emergency access would be provided to serve the project site, and Mitigation Measure PH-14 provides additional requirements related to the preparation and implementation of a Wildfire Fuel Modification Plan. Implementation of these mitigation measures would reduce on-site wildfire impacts to a less-than-significant level and also reduce the potential for project-related fire impacts to surrounding areas to a less-than-significant level.

**SCP Secondary Impacts.** Establishment of the proposed spineflower preserves would not result in significant direct hazard-related impacts, and potential indirect hazard-related impacts that may result from the development that is facilitated on the Specific Plan and portions of the Entrada site can also be reduced to a less-than-significant level with implementation of proposed mitigation measures. Project-related hazard and public safety impacts that have the potential to result in significant safety impacts at locations beyond the boundary of the Project site include the following.

**Emergency Response and Emergency Evacuation Plans (Less than Significant).** With the implementation of mitigation measures provided in **Subsection 4.8.9**, roadways located beyond the

boundary of the Project site would provide adequate capacity to accommodate anticipated traffic volumes generated by facilitated development located on the Specific Plan and Entrada project sites. With implementation of the identified measures, the off-site roadway system would operate at acceptable levels, provide adequate emergency vehicle access, and not result in significant impacts to emergency vehicle response times. No additional mitigation measures are required.

**Impacts to Existing and Proposed Schools (Less than Significant).** Development on the portion of the Entrada project site facilitated by the SCP would be located within one-quarter mile of existing off-site school facilities, including the Oak Hill Elementary and Rancho Pico Junior High schools. Development on the Entrada site that would occur in the vicinity of schools includes single- and multi-family residences, which would not be a significant source of hazardous or extremely hazardous materials. Therefore, the proposed land uses on the Entrada project site would not result in significant health or safety impacts to existing school facilities under the requirements of Significance Threshold 3.

**Wildland Fires (Significant but Mitigable).** A fire on the Project site would have the potential to migrate off-site and effect areas located beyond the Project boundary. Proposed Specific Plan access, water supply and fuel modification provisions would minimize the potential for wildfire impacts. In addition, proposed Mitigation Measure PH-7 ensures that adequate emergency access would be provided to serve the project site, and Mitigation Measure PH-14 provides additional requirements related to the preparation and implementation of a Wildfire Fuel Modification Plan. Implementation of these mitigation measures on the Specific Plan site, and similar measures for the Entrada site, would reduce Project-related on-site wildfire impacts to a less-than-significant level and also reduce the potential for Project-related fire impacts to surrounding areas to a less-than-significant level.

### 4.17.6.5 Impacts of Alternative 5 (Widen Tributary Drainages and Addition of VCC Spineflower Preserve)

Alternative 5 would result in the elimination of additional RMDP infrastructure included in the proposed RMDP, and increase the size of proposed spineflower preserves from 167.6 to 338.6 acres. Under this alternative, no additional development would be facilitated on the VCC planning area, and subsequent development on the Specific Plan site would be reduced. In total, Alternative 5 would facilitate the development of 21,155 residential dwelling units on the Specific Plan site and Entrada planning area, and approximately 5.87 million square feet of nonresidential uses on the Specific Plan site and on a portion of the Entrada planning area. Additional information regarding this alternative is provided in **Section 3.0** of this EIS/EIR.

#### 4.17.6.5.1 Direct Impacts

**RMDP Direct Impacts.** Construction of the proposed RMDP components would include the temporary transport, storage, and use of potentially hazardous materials, including fuels, lubricating fluids, cleaners, solvents, pesticides, herbicides, and other materials. The use of these standard construction supplies during construction could result in the potential for short-term hazardous materials impacts associated with construction activities. Under Alternative 5, fewer linear feet of bank stabilization would be constructed. Therefore, Alternative 5 would have lesser, but still significant, direct short-term impacts related to the use of hazardous materials during construction than Alternative 2.

As with Alternative 2, depending on the volume of materials stored on site, Los Angeles County could require the installation of temporary ASTs to store fuels during construction. It is likely that construction will trigger Los Angeles County requirements for storage (temporary and permanent), which include safeguards such as a SPCC. Hazardous materials regulations require a business that generates hazardous wastes to institute a "cradle to grave" management plan for the storage, transport, and disposal of the hazardous wastes. As with Alternative 2, in the unlikely event of a large-scale release of hazardous material at a construction site, a significant hazard to the public and/or the environment would occur. The implementation of Mitigation Measures PH-8, PH-9, and PH-10 addresses impacts from hazardous materials or conditions by providing additional protections beyond those required by regulatory compliance. The risk of accidental releases of hazardous materials during construction would be mitigated to less than significant relative to Significance Criterion 1.

As described for Alternative 2, RMDP facilities will require certain periodic maintenance that may involve use of hazardous materials. Under Alternative 5, fewer linear feet of bank stabilization would be constructed. Accordingly, Alternative 5 would require less periodic maintenance activities than Alternative 2, and would not have the potential to result in significant long-term hazard- or safety-related impacts relative to Significance Criterion 1.

**SCP Direct Impacts.** Similar to Alternative 2, creation of the spineflower preserves would consist primarily of the installation of fencing and information signs. These short-term activities would not result in significant hazard- or safety-related impacts relative to Significance Criterion 1.

Long-term preserve maintenance activities would be similar to Alternative 2, and would not result in significant long-term hazard- or safety-related impacts relative to Significance Criterion 1.

#### 4.17.6.5.2 Indirect Impacts

**RMDP Indirect Impacts.**

**Impacts from Hazardous Material Use (Significant but Mitigable).** Materials handling for construction under Alternative 5 would be similar to Alternative 2, although the development area on the Specific Plan site would be reduced from Alternative 2. Therefore, Alternative 5 would have an incrementally lesser, but still significant, direct short-term impact related to the use of hazardous materials during construction than Alternative 2.

Depending on the volume of materials stored onsite, Los Angeles County could require the installation of temporary ASTs to store fuels during construction. It is likely that construction will trigger Los Angeles County requirements for storage (temporary and permanent), which include safeguards such as a SPCC. The Los Angeles County Health and Hazardous Materials Division is the local CUPA responsible for enforcing hazardous materials, waste, noise, and safety regulations in the County.

As with Alternative 2 and as described for RMDP direct impacts, storage and use of hazardous materials during construction (short-term) and operation/maintenance (long-term) activities could result in significant hazard- or safety-related impacts.

As described for Alternative 2, incorporation of Mitigation Measures PH-8, PH-9, and PH-10 addresses impacts from hazardous materials or conditions by providing additional protections beyond those required by regulatory compliance mitigating impacts to a level of less than significant relative to Significance Criterion 1. The measures provide for additional planning, notification, and application of Best Management Practices.

**Impacts from Transport of Hazardous Materials Along SR-126 (Less than Significant).** As with Alternative 2, because hazardous materials are transported on SR-126, increased traffic on this highway as a result of development under Alternative 5 could increase the potential for an accident involving a hauler of these substances, which could result in significant impacts. Although Alternative 5 would result in a smaller development area than Alternative 2, the level of potential risk associated with transport of hazardous materials along SR-126 would be virtually the same. As with Alternative 2, Alternative 5 does not expose people, animal, or plant life populations along SR-126 to significant health hazards associated with hazardous material transport due to the application of existing regulatory controls (*e.g.*, training and licensing of drivers), and no significant impacts would occur relative to Significance Criterion 1.

**Impacts from Abandoned Oil Wells, Known or Potential Contaminated Soil, and Physical Hazards Related to Oil Development Equipment and Debris (Significant but Mitigable).** As previously discussed, the Newhall Ranch Specific Plan area is located in historic and active oil fields. Under Alternative 5, approximately 135 acres of development would occur within these areas. The breakdown with respect to land use is as follows:

- Commercial 5.1 acres;
- Single Family 37.1 acres;
- Multi Family 20.3 acres;
- Public Facility 10.7 acres;
- Open Space - Manufactured 36.1 acres; and,
- Open Space - Natural 25.9 acres.

A detailed discussion of potential impacts under Alternative 5 with respect to abandoned oil wells, known or potential contaminated soil, and physical hazards related to oil development equipment and debris is provided below.

**Impacts from Abandoned Oil Wells**. As described in Alternative 2, releases have occurred near former oil wells and other infrastructure that have impacted the surrounding soils. The site assessments have identified several such wells and supporting infrastructure. As active oil fields are abandoned and cleaned up it is likely that more such wells and infrastructure will be identified. Specifically, there is the potential to encounter residual petroleum hydrocarbons and petrochemical contaminants. Unremediated, contaminated soil or groundwater could pose a potentially significant impact to public health and safety. Although Alternative 5 would result in a smaller development area than Alternative 2, the level of potential risk associated with abandoned wells would be virtually the same. Additionally, although the

Project site is not located in an area of documented methane or hydrogen sulfide hazards, the former oil wells beneath the site -- if they were not properly abandoned -- could act as conduits for deep methane gas to reach the surface, resulting in a potentially significant impact relative to Significance Criterion 2.

As discussed above, several Phase I and Phase II investigations have been performed for the subject area. The results of these investigations indicate that there may be unknown and/or undocumented site contamination. Accordingly, in the event that contamination is encountered during Project activities, the implementation of Mitigation Measures PH-11 and PH-12, which require development of specific plans that address assessment and cleanup actions for contaminated soils, would remediate any such contamination per regulatory standards and would reduce any associated hazards to less than significant.

As with Alternative 2, DOGGR standard practices and procedures for development above abandoned oil wells shall be followed, including proper abandonment procedures. DOGGR may also require venting and/or collection systems to be incorporated into the design of Alternative 5 if any enclosed structures are built over abandoned wells (see Mitigation Measure PH-1, below). The implementation of Mitigation Measure PH-8 would reduce potential impacts from abandoned oil wells to less than significant relative to Significance Criterion 2, by providing for the application of construction-related Best Management Practices.

As described for Alternative 2, potential methane gas migration shall be mitigated in accordance with Los Angeles County Building Code, section 308, subdivision (d) for all buildings and enclosed structures that would be constructed within 25 feet of oil or gas wells. Buildings located within 25 feet and 200 feet of oil or gas wells shall, prior to the issuance of building permits by the County of Los Angeles, be evaluated in accordance with the current rules and regulations of the DOGGR (Mitigation Measure PH-2). Accordingly, potential impacts due to methane migration would be reduced to less than significant under Significance Criterion 2 with implementation of Mitigation Measure PH-2.

Potential impacts from contaminated soils are similar to Alternative 2, and may result in significant impacts to public health and safety.

As with Alternative 2, there is the potential for the occurrence of methane gas in areas of oil production. The presence of methane gas can either be remediated (source removal) or mitigated (venting of gas and interruption of pathways). Some source removal already has occurred at the Project site as part of the Castaic Junction Oil Field abandonment and site remediation activities performed by Exxon.

As discussed above, there is an existing agreement on the RSF Oil and Gas Lease area to fully remediate the oil field prior to construction on the potentially contaminated sites, under detailed environmental cleanup protocols. Completion of the required site remediation activities, as well as implementation of Mitigation Measures PH-11 and PH-12, which require development of specific plans that address assessment and cleanup actions for contaminated soils, would reduce the impact from known or unknown contaminated soil to less than significant relative to Significance Criterion 2.

**Impacts from Physical Hazards Related to Oil Development Equipment and Debris**. Although Alternative 5 has less developed area than Alternative 2, abandoned oil wells and oil field debris are located in the proposed Project area, and pose potentially significant physical hazards to public health and safety. Based on current knowledge, this impact is considered to be significant. Implementation of

Mitigation Measure PH-11 requires development of specific plans that address assessment and cleanup actions for contaminated soils, and as such would reduce the impact from physical hazards related to oil development equipment and debris to less than significant relative to Significance Criterion 2.

In addition to development occurring in areas no longer in production, development is likely to occur in areas where oil and natural gas operations are ongoing. Given that all such development-area oil production facilities would need to be fenced and gated by state law, as detailed in Mitigation Measure PH-5, the Newhall Ranch Specific Plan would not create a potential public health hazard or involve the use, production, or disposal of any materials that pose a hazard to people, animal, or plant life populations from oil and natural gas production operations. Therefore, the Specific Plan development would not have a significant effect on the environment relative to development at former -- or adjacent to ongoing -- oil and natural gas production relative to Significance Criterion 2.

**Impacts from High Pressure Gas Lines (Less than Significant)**. The two SCGC high pressure gas main lines that traverse the Project site include a 34-inch main and a 12- to 16-inch main which could expose the public to significant risk of upset. Although Alternative 5 would result in a smaller development area than Alternative 2, the level of potential risk associated with high pressure gas lines would be virtually the same.

Similar to Alternative 2, Mitigation Measure PH-6, development would meet SCGC requirements in terms of pipeline relocation, grading in the vicinity of gas mains, and development within the SCGC easements to reduce any potentially significant impacts to less-than-significant levels prior to mitigation. To further reduce impacts, Mitigation Measure PH-13 would require that all potential buyers or tenants of property in the vicinity of SCGC transmission lines be made aware of the line's presence, to assure that no permanent construction or grading occurs over, or within the vicinity of, the high-pressure gas mains. Therefore, potential public safety impacts from high pressure gas lines would be less than significant relative to Significance Criterion 2.

**Impacts from Chiquita Landfill (Less than Significant)**. The proximity of the Chiquita Canyon Landfill to the Project site has the potential to subject adjacent developments to certain hazards, including groundwater contamination hazards associated with potential methane migration and increased truck traffic along the shared transportation corridor of SR-126. These issues could result in significant impacts to public health and safety. Although Alternative 5 would result in a smaller development area than Alternative 2, the level of potential risk associated with the Chiquita Landfill would be virtually the same.

As with Alternative 2, Los Angeles County Building Code, section 308, subdivision (c) requires that all building and structures located within 1,000 feet of a landfill containing decomposable material (in this case, Chiquita Canyon Landfill) be provided with a landfill gas migration protection and/or control system (Mitigation Measure PH-3). Accordingly, the environmental measures already in place, along with the implementation of this regulatory requirement, would reduce any potential impacts to less than significant relative to Significance Criterion 2.

**Impacts to Existing or Proposed Schools (Significant but Mitigable).** Alternative 5 would not involve the use, generation, or disposal of substantial amounts of hazardous materials, or the emission of acutely hazardous materials or substances within one-quarter mile of an existing or proposed school in

accordance with California Code of Regulations, title 5, section 14010, which specifies standards for school site selection.

Exposure to contaminants above PRG levels may result in potentially significant impacts to public health and safety within one-quarter mile of proposed school sites. Contaminants commonly associated with oil and natural gas fields include TPH; VOCs, including benzene, toluene, ethybenzene, and xylene, referred together as BTEX; SVOCs, including PAHs; PCBs; hydrogen sulfide; and metals, including arsenic, lead, mercury, vanadium, barium, and hexavalent chromium and methane gas. The Newhall Ranch Specific Plan proposes the development of five elementary schools, one junior high school, and one high school. As summarized in **Subsection 4.17.3.2**, Phase I and Phase II investigations have been conducted for portions of the Project area. Completion of the current site remediation activities reduces the possibility of siting a school within one-quarter mile of a hazardous waste site. In the unlikely event that undetected contamination is located at or near proposed school sites, a significant health and safety impact would occur. Implementation of Mitigation Measures PH-11 and PH-12, which require development of specific plans (PH-11) that address assessment and cleanup actions for contaminated soils, would reduce the impact from known or unknown contaminated soil to less than significant relative to Significance Criterion 3.

**Impacts to Adopted Emergency Response or Emergency Evacuation Plans (Less than Significant).** Similar to Alternative 2, Alternative 5 development would increase demand on emergency response services, which could increase emergency response times and result in a significant impact to public safety if not mitigated proportionately with the planned development.

The same firefighting capabilities would be provided by Alternative 5 as is described for Alternative 2. The roadway network of the approved Newhall Ranch Specific Plan's Mobility Plan has been designed as an extension of the regional circulation element. This plan under Alternative 5 would be required to be changed given the deletion of the Potrero Canyon Road bridge. The redesigned circulation system would provide two methods of ingress/egress to the Specific Plan site over the Santa Clara River to serve the safety needs of the community by providing adequate access in the event of fire or other emergencies. In addition, all applicable safety standards pursuant to Los Angeles County codes would be met at the time of the building permit issuance.

As with Alternative 2, expansion of the on-site highway system and the provision of three additional fire stations, ensures that emergency response would be expanded in conjunction with the additional demands placed on the emergency response personnel under Alternative 5. In addition, Mitigation Measure PH-7 provides secondary route access where necessary. With implementation of these measures, impacts to public safety related to emergency response services would be less than significant relative to Significance Criterion 4.

**Impacts from Dam Inundation (Less than Significant).** Castaic and Bouquet Lakes are contained by earthen dams located upstream from the Project area. Inundation of a developed Project area could result in hazards to public health and safety. Alternative 5 would result in a smaller development area than Alternative 2, and as such, less developed area would potentially be subject to dam inundation. Accordingly, the level of potential risk associated with dam inundation for Alternative 5 would be incrementally less than Alternative 2. As with Alternative 2, impacts associated with dam inundation would be less than significant relative to Significance Criterion 5.

**Impacts from Wildland Fires (Significant but Mitigable).** The same types of development will occur under Alternative 5, as with Alternative 2, in areas that have been designated as either Fire Zone 3 or 4 (of moderate or high fire hazard, respectively), which would result in a potentially significant impact to public safety. Characteristics of the Newhall Ranch Specific Plan site that contribute to these conditions include: (1) limited access; (2) lack of adequate water supplies; (3) the types of vegetative cover; and (4) topography. An analysis of the site's fire hazard potential relative to these four factors is presented below.

***Access.*** The Newhall Ranch Specific Plan would include an extensive backbone vehicular circulation system which, would provide five points of access to the site via a major state highway and a federal freeway (SR-126 and I-5, respectively). The internal circulation system for the Newhall Ranch Specific Plan would be required to be changed to accommodate the deletion of the Potrero Canyon Road bridge; however, such a change would be consistent with the approved Newhall Ranch Specific Plan standards and the provisions of Los Angeles County Code, title 21, chapter 21.24, for secondary evacuation access (Mitigation Measure PH-7) as applicable (*i.e.*, roadway widths, length of single-access streets, cul-de-sac dimensions, and street parking restrictions, *etc*.). Consequently, vehicular access-related impacts are expected to be less than significant relative to Significance Criterion 6 as a result of Newhall Ranch Specific Plan implementation.

***Water Supply.*** The Conceptual Backbone Water Plan under Alternative 5 is the same as for Alternative 2. Given that a long-term source of water must exist for the Newhall Ranch Specific Plan prior to the issuance of building permits, and a water supply system is proposed that would meet county fire flow requirements, no significant water-related fire hazards would occur.

***Vegetative Cover.*** As with Alternative 2, Alternative 5 includes development adjacent to areas with moderate to heavy vegetative cover. The plant communities that make up this cover are highly combustible and, without mitigation, would present a high fire hazard to development in these areas. This would be a significant impact because development in these areas would pose a special fire protection problem. The same measures as described for Alternative 2 would be implemented. Specifically, with implementation Mitigation Measure PH-14, which requires the development of a Wildfire Fuel Modification Plan to reduce potential wildland fire hazards in the Project area, the fire hazard potential in this interface zone would be reduced to less than significant relative to Significance Criterion 6.

***Topography.*** Topography is an issue relative to wildland fire hazards because steep slopes are not only inaccessible to firefighting vehicles, but steep canyons can create updraft conditions (much like a chimney) and a fire in a steep canyon can spread rapidly into adjacent areas. As with Alternative 2, Alternative 5 development is within only the central and northern portions of the site where topographic relief is moderate. The wildland fire hazard impact to Specific Plan development, relative to the steep topography in the High Country SMA, would be minimal given that the High Country would be: (1) limited to human access; and (2) accessible to firefighting equipment from multiple locations as a result of the proposed vehicular circulation system (Mitigation Measure PH-7). Impacts would be less than significant. To further reduce the risk of wildland fires, the proposed Project would comply with the Wildfire Fuel Modification Plan (Mitigation Measure PH-14).

Similar to Alternative 2, Alternative 5 would be served by two on-site and one off-site fire stations. The Newhall Ranch Specific Plan would implement a Wildfire Fuel Modification Plan, and meet County codes and requirements relative to providing adequate fire protection services to the site during both the

construction and operational stages of the Newhall Ranch Specific Plan (Mitigation Measure PH-14). With the incorporation of Mitigation Measures PH-7 and PH-14, Alternative 5 would have a less than significant impact on fire protection services in the Santa Clarita Valley relative to Significance Criterion 6.

**Impacts from Electromagnetic Fields (Less than Significant).** The Specific Plan site is traversed by the SCE's 66 kV and 220 kV transmission lines within a 300-foot easement in the northern portion of the site, and 66 kV and 230 kV transmission lines within a 75- to 240-foot (total width) easement in the central portion of the site. No significant impact has been identified relative to EMF hazards and Alternative 5.

To reduce any potential impacts, development in Alternative 5 would be in compliance with Mitigation Measure PH-4, which requires that all final school locations are to comply with the California State Board of Education requirement that no schools be sited within 100 feet from the edge of the right-of-way of 100 to 110 kV lines; 150 feet from 220 to 230 kV lines; and 350 feet from 500 to 550 kV lines. In addition, the Newhall Ranch Specific Plan proposes that only non-habitable structures would be located within SCE easements. Impacts related to exposure to EMFs are considered less than significant relative to Significance Criterion 7.

**SCP Indirect Impacts.** Implementation of the proposed SCP would facilitate implementation of previously approved development on the Specific Plan site and on portions of the Entrada planning area. Under this alternative, the VCC planning area would not be developed. Potential hazard-related impacts associated with the Specific Plan are evaluated above.

**Impacts from Hazardous Material Use (Significant but Mitigable).** Indirect impacts from hazardous materials under Alternative 5 are similar to Alternative 2, as construction of the Entrada project would be similar to RMDP and Specific Plan activities. The use of construction supplies could result in the potential for significant short-term hazardous materials impacts associated with construction activities.

Similar to Alternative 2, the Entrada planning area under Alternative 5 would include commercial, residential, and public infrastructure, operation, and maintenance activities. These operation and maintenance activities could result in significant long-term hazard- or safety-related impacts. Incorporation of Mitigation Measures PH-8, PH-9, and PH-10 would address impacts from hazardous materials or conditions by providing additional protections beyond those required by regulatory compliance. The measures provide for additional planning, notification, and application of Best Management Practices. The risk of accidental releases of hazardous materials during construction, operation, and maintenance of the Entrada project would be mitigated to a less-than-significant level relative to Significance Criterion 1.

**Impacts from Transport of Hazardous Materials Along SR-126 (Less than Significant).** As with Alternative 2, because hazardous materials are transported on SR-126, increased traffic on this highway as a result of development under Alternative 5 could increase the potential for an accident involving a hauler of these substances, which could result in significant impacts. Although Alternative 5 would result in a smaller development area than Alternative 2, the level of potential risk associated with transport of hazardous materials along SR-126 would be virtually the same. Alternative 5 does not expose people, animal, or plant life populations along SR-126 to significant health hazards associated with hazardous

material transport due to the application of existing regulatory controls (*e.g.*, training and licensing of drivers), and impacts would be less than significant relative to Significance Criterion 1.

**Impacts from Abandoned Oil Wells, Known or Potential Contaminated Soil, and Physical Hazards Related to Oil Development Equipment and Debris (Significant but Mitigable).** As previously discussed, the Entrada planning area is located in historic and active oil fields. Under Alternative 5, approximately 4.8 acres of development would occur within these oil field areas. The breakdown with respect to land use is as follows:

- Open Space - Manufactured 0.97 acres;
- Open Space - Natural 1.6 acres;
- Single Family 1.3 acres; and,
- Public Facility 0.94 acres.

A detailed discussion of potential impacts under Alternative 5 with respect to abandoned oil wells, known or potential contaminated soil, and physical hazards related to oil development equipment and debris is provided below.

**Impacts from Abandoned Oil Wells**. The impacts from abandoned oil wells would be the same as described in RMDP indirect impacts above. Unremediated, contaminated soil or groundwater could pose a significant impact to public health and safety. Additionally, former oil wells beneath the site could result in potentially significant impact relative to Significance Criterion 2.

Similar to Alternative 2, implementation of Mitigation Measures PH-11 and PH-12 would remediate any contamination per regulatory standards and reduce any associated hazards to less than significant. In addition, implementation of Mitigation Measures PH-8 would reduce potential impacts from abandoned oil wells to less than significant relative to Significance Criterion 2 by providing for the application of construction-related Best Management Practices. The proposed Project also would comply with Mitigation Measure PH-2, which requires that all buildings located within 25 feet of oil or gas wells, be provided with methane gas protection systems and buildings located within 25 feet and 200 feet of oil or gas wells shall, prior to the issuance of building permits by the County of Los Angeles, be evaluated in accordance with the current DOGGR rules and regulations. Therefore, potential impacts due to methane migration would be reduced to less than significant relative to Significance Criterion 2.

**Impacts from Known or Potential Contaminated Soil**. Exposure to contaminants above PRG levels may result in potentially significant impacts to public health and safety. These impacts would be the same in nature as those described under the RMDP indirect impacts identified above.

Accordingly, completion of the required site remediation activities, as well as implementation of Mitigation Measures PH-11 and PH-12, which require development of specific plans that address assessment and cleanup actions for contaminated soils, would reduce the impact from known or unknown contaminated soil to less than significant relative to Significance Criterion 2.

**Impacts from Physical Hazards Related to Oil Development Equipment and Debris.** Although Alternative 5 has less developed area than Alternative 2, abandoned oil wells and oil field debris are located in the Entrada planning area and pose potentially significant physical hazards to public health and safety. Based on current knowledge, this impact is considered to be significant. Implementation of Mitigation Measure PH-11 requires development of specific plans with performance criteria derived from regulatory requirements for assessment and cleanup actions for contaminated soils, and as such would reduce the impact from physical hazards related to oil development equipment and debris to less than significant relative to Significance Criterion 2.

**Impacts from High Pressure Gas Lines (Less than Significant).** The two SCGC high pressure gas main lines that traverse the Project site include a 34-inch main and a 12- to 16-inch main, which could expose the public to significant risk of upset. These impacts would be the same in nature as those described under the RMDP indirect impacts identified above. Accordingly, potential public safety impacts from high pressure gas lines are considered less than significant relative to Significance Criterion 2.

**Impacts from Chiquita Landfill (Less than Significant).** The proximity of the Chiquita Canyon Landfill to the Project site has the potential to subject adjacent developments to certain hazards, including groundwater contamination hazards associated with potential methane migration and increased truck traffic along the shared transportation corridor of SR-126. These issues could result in impacts to public health and safety. These impacts would be the same in nature as those described under the RMDP indirect impacts identified above. Accordingly, the environmental measures already in place, along with implementation of this regulatory requirement, would reduce any potential impacts to less than significant relative to Significance Criterion 2.

**Impacts to Existing or Proposed Schools (Significant but Mitigable).** Alternative 5 would not involve the use, generation, or disposal of substantial amounts of hazardous materials, or the emission of acutely hazardous materials or substances within one-quarter mile of an existing or proposed school in accordance with California Code of Regulations, title 5, section 14010, which specifies standards for school site selection.

Exposure to contaminants above PRG levels may result in potentially significant impacts to public health and safety within one-quarter mile of proposed school sites. Contaminants commonly associated with oil and natural gas fields include TPH; VOCs, including benzene, toluene, ethybenzene, and xylene, referred together as BTEX; SVOCs, including PAHs; PCBs; hydrogen sulfide; and metals, including arsenic, lead, mercury, vanadium, barium, and hexavalent chromium and methane gas. The Newhall Ranch Specific Plan proposes the development of five elementary schools, one junior high school, and one high school. As summarized in **Subsection 4.17.3.2**, Phase I and Phase II investigations have been conducted for portions of the Project area. Completion of the current site remediation activities reduces the possibility of siting a school within one-quarter mile of a hazardous waste site. In the unlikely event that undetected contamination is located at or near proposed school sites, a significant health and safety impact would occur. Implementation of Mitigation Measures PH-11 and PH-12, which require development of specific plans (PH-11) that address assessment and cleanup actions for contaminated soils, would reduce the impact from known or unknown contaminated soil to less than significant relative to Significance Criterion 3.

**Impacts to Adopted Emergency Response or Emergency Evacuation Plans (Less than Significant).** Similar to Alternative 2, Entrada planning area development facilitated by Alternative 5 would increase demand on emergency response services, which could increase emergency response times and result in a significant impact to public safety if not mitigated proportionately with the planned development. The same firefighting capabilities would be provided by Alternative 5 as is described for Alternative 2.

The Project proposes to comply with Mitigation Measure PH-7 by providing secondary route access where necessary, which would ensure that potential impacts to public safety related to emergency response services and emergency evacuation are less than significant relative to Significance Criterion 4.

**Impacts from Dam Inundation (Less than Significant).** Castaic and Bouquet Lakes are contained by earthen dams located upstream from the Project area. Inundation of a developed Project area could result in hazards to public health and safety.

Alternative 5 would result in a smaller development area than Alternative 2, and as such, less developed area would potentially be subject to dam inundation. Accordingly, the level of potential risk associated with dam inundation for Alternative 5 would be incrementally less than Alternative 2. As with Alternative 2, impacts associated with dam inundation are less than significant relative to Significance Criterion 5.

**Impacts from Wildland Fires (Significant but Mitigable).** The same types of development would occur in the Entrada planning area under Alternative 5, as with Alternative 2, and would be located in areas that have been designated as either Fire Zone 3 or 4 (of moderate or high fire hazard, respectively), which could result in significant hazards to public safety. Characteristics of the Entrada planning area that contribute to these conditions include: (1) limited access; (2) lack of adequate water supplies; (3) the types of vegetative cover; and (4) topography. The development of the sites will potentially reduce the chance of fires in wildland areas (*i.e.*, the response time to the far areas of Hasley Canyon should be shortened due to the extension of Backer Road to SR-126). In addition, the expansion of water supplies to serve the Project site would introduce new water sources to fight any fires that do occur. Development of the Entrada planning area would have a significant impact on fire protection services in the Santa Clarita Valley based on Significance Criterion 6; however, incorporation of the measures discussed above and Mitigation Measures PH-7 and PH-14 would reduce this impact to less than significant.

**Impacts from Electromagnetic Fields (Less than Significant).** The Project site is traversed by the SCE's 66 kV and 220 kV transmission lines within a 300-foot easement in the northern portion of the site, and 66 kV and 230 kV transmission lines within a 75- to 240-foot (total width) easement in the central portion of the site.

As no specific health effects of EMFs have been conclusively demonstrated, there are no health-based standards for EMF exposure. There is no current informational basis for determination of a significant adverse environmental impact associated with the proposed land use in relationship to the SCE transmission lines. No significant impact has been identified relative to EMF hazards and Alternative 5. However, to reduce any potential impacts, development of the Newhall Ranch Specific Plan site would be in compliance with Mitigation Measure PH-4, which requires that all final school locations are to comply with the California State Board of Education requirement that no schools be sited within 100 feet from the edge of the right-of-way of 100 to 110 kV lines; 150 feet from 220 to 230 kV lines; and 350 feet from 500 to 550 kV lines. In addition, the Newhall Ranch Specific Plan proposes that only non-habitable structures

would be located within SCE easements. Impacts related to exposure to EMFs are considered less than significant relative to Significance Criterion 7.

#### 4.17.6.5.3 Secondary Impacts

**RMDP Secondary Impacts.** Alternative 5 has less bank protection and other RMDP facilities than Alternative 2. However, Alternative 5 would result in significant direct and indirect hazard-related impacts related to the transport of hazardous materials, emergency response and evacuation, and from wildfires. Those impacts also have the potential to result in significant secondary impacts to areas located beyond the boundaries of the Project site.

**Transport of Hazardous Materials Along SR-126 (Less than Significant).** The transportation of hazardous materials to the Specific Plan site would be required during the construction of proposed infrastructure projects (direct impacts) and during the construction of facilitated development (indirect impacts). The potential for impacts to the environment and/or public resulting from a large-scale release during the transport of hazardous materials would be reduced to a less-than-significant level through the continued implementation and enforcement of existing hazardous waste transportation and handling regulations. Therefore, this impact would not be significant under the requirements of Significance Threshold 1 and no mitigation measures are required.

**Emergency Response and Emergency Evacuation Plans (Less than Significant).** Development provided on the Specific Plan site may occasionally require emergency services from Los Angeles County fire stations located beyond the project site boundaries. As described in **Subsection 4.8.9** (Traffic Mitigation), project-related impacts to off-site roadways would be reduced to a less-than-significant level with the implementation of identified road improvements. In addition, the Specific Plan development would be required to comply with applicable Los Angeles County secondary access/evacuation requirements (Mitigation Measure PH-7). With the implementation of proposed roadway operation and access requirements, the circulation system in the project region would be adequate to provide emergency response services to the Specific Plan site. Therefore, secondary emergency response or evacuation impacts would not be significant and no additional mitigation measures are required.

**Wildland Fires (Significant but Mitigable).** A fire on the Specific Plan site would have the potential to migrate off-site and effect areas located beyond the Specific Plan boundaries. Proposed Specific Plan access, water supply and fuel modification provisions would minimize the potential for wildfire impacts. In addition, proposed Mitigation Measure PH-7 ensures that adequate emergency access would be provided to serve the project site, and Mitigation Measure PH-14 provides additional requirements related to the preparation and implementation of a Wildfire Fuel Modification Plan. Implementation of these mitigation measures would reduce on-site wildfire impacts to a less-than-significant level and also reduce the potential for project-related fire impacts to surrounding areas to a less-than-significant level.

**SCP Secondary Impacts.** Establishment of the proposed spineflower preserves would not result in significant direct hazard-related impacts, and potential indirect hazard-related impacts that may result from the development that is facilitated on the Specific Plan site and a portion of the Entrada site can also be reduced to a less-than-significant level with implementation of the proposed mitigation measures. Project-related hazard and public safety impacts that have the potential to result in significant safety impacts at locations beyond the boundary of the Project site include the following:

**Emergency Response and Emergency Evacuation Plans (Less than Significant).** With the implementation of mitigation measures provided in **Subsection 4.8.9,** roadways located beyond the boundary of the Project site would provide adequate capacity to accommodate anticipated traffic volumes generated by facilitated development located on the Specific Plan and Entrada project sites. With implementation of the identified measures, the off-site roadway system would operate at acceptable levels, provide adequate emergency vehicle access, and not result in significant impacts to emergency vehicle response times. No additional mitigation measures are required.

**Impacts to Existing and Proposed Schools (Less than Significant).** Development on the portion of the Entrada project site facilitated by the SCP would be located within one-quarter mile of existing off-site school facilities, including the Oak Hill Elementary and Rancho Pico Junior High schools. Development on the Entrada site that would occur in the vicinity of schools includes single- and multi-family residences, which would not be a significant source of hazardous or extremely hazardous materials. Therefore, the proposed land uses on the Entrada project site would not result in significant health or safety impacts to existing school facilities under the requirements of Significance Threshold 3.

**Wildland Fires (Significant but Mitigable).** A fire on the Project site would have the potential to migrate off-site and effect areas located beyond the Project boundary. Proposed Specific Plan access, water supply and fuel modification provisions would minimize the potential for wildfire impacts. In addition, proposed Mitigation Measure PH-7 ensures that adequate emergency access would be provided to serve the project site, and Mitigation Measure PH-14 provides additional requirements related to the preparation and implementation of a Wildfire Fuel Modification Plan. Implementation of these mitigation measures on the Specific Plan site, and similar measures for the Entrada site, would reduce Project-related on-site wildfire impacts to a less-than-significant level and also reduce the potential for Project-related fire impacts to surrounding areas to a less-than-significant level.

### 4.17.6.6 Impacts of Alternative 6 (Elimination of Planned Commerce Center Drive Bridge and Maximum Spineflower Expansion/Connectivity)

Alternative 6 would result in additional reductions in the RMDP infrastructure, and increase the size of proposed spineflower preserves from 167.6 to 891.2 acres. Under this alternative, no additional development would be facilitated on the VCC planning area, and subsequent development on the Specific Plan site would be reduced. In total, Alternative 6 would facilitate the development of 20,212 residential dwelling units on the Specific Plan site and Entrada planning area, and approximately 5.78 million square feet of nonresidential uses on the Specific Plan site and on a portion of the Entrada planning area. Additional information regarding this alternative is provided in EIS/EIR **Section 3.0**.

#### 4.17.6.6.1 Direct Impacts

**RMDP Direct Impacts.** Construction of the proposed RMDP components would include the temporary transport, storage, and use of potentially hazardous materials, including fuels, lubricating fluids, cleaners, solvents, pesticides, herbicides, and other materials. The use of these standard construction supplies during construction could result in the potential for short-term hazardous materials impacts associated with construction activities. Under Alternative 6, the Potrero Canyon Road bridge is pulled back on the north bank further than Alternative 6 and the south bank abutment has been removed. The soil cement bank protection has the same alignment as in Alternative 2, except the south bank abutments at

Commerce Center Drive and Potrero have been removed, and the north bank abutment at Potrero has been pulled back to avoid permanent impacts. In addition, the Commerce Center Drive Bridge is not proposed and the associated bridge pier and abutment features are not required and fewer linear feet of bank stabilization would be constructed. Therefore, Alternative 6 would have lesser, but still significant, direct short-term impacts related to the use of hazardous materials during construction than Alternative 2.

As with Alternative 2, depending on the volume of materials stored on site, Los Angeles County could require the installation of temporary ASTs to store fuels during construction. It is likely that construction will trigger Los Angeles County requirements for storage (temporary and permanent), which include safeguards such as a SPCC. Hazardous materials regulations require a business that generates hazardous wastes to institute a "cradle to grave" management plan for the storage, transport, and disposal of the hazardous wastes. As with Alternative 2, in the unlikely event of a large-scale release of hazardous material at a construction site, a significant hazard to the public and/or the environment would occur. The implementation of Mitigation Measures PH-8, PH-9, and PH-10 addresses impacts from hazardous materials or conditions by providing additional protections beyond those required by regulatory compliance. The risk of accidental releases of hazardous materials during construction would be mitigated to less than significant relative to Significance Criterion 1.

As described for Alternative 2, RMDP facilities will require certain periodic maintenance that may involve use of hazardous materials. Under Alternative 6, fewer linear feet of bank stabilization would be constructed. Accordingly, Alternative 6 would require less periodic maintenance activities than Alternative 2, and would not have the potential to result in significant long-term hazard- or safety-related impacts relative to Significance Criterion 1.

**SCP Direct Impacts.** Similar to Alternative 2, creation of the spineflower preserves would consist primarily of the installation of fencing and information signs. These short-term activities would not result in significant hazard- or safety-related impacts relative to Significance Criterion 1.

Long-term preserve maintenance activities would be similar to Alternative 2, and would not result in significant long-term hazard- or safety-related impacts relative to Significance Criterion 1.

#### 4.17.6.6.2 Indirect Impacts

**RMDP Indirect Impacts.**

**Impacts from Hazardous Material Use (Significant but Mitigable).** Materials handling for construction under Alternative 6 would be similar to Alternative 2, although the development area on the Specific Plan site would be reduced from Alternative 2. Therefore, Alternative 6 would have an incrementally lesser, but still significant, direct short-term impact related to the use of hazardous materials during construction than Alternative 2.

Depending on the volume of materials stored onsite, Los Angeles County could require the installation of temporary ASTs to store fuels during construction. It is likely that construction will trigger Los Angeles County requirements for storage (temporary and permanent), which include safeguards such as a SPCC. The Los Angeles County Health and Hazardous Materials Division is the local CUPA responsible for enforcing hazardous materials, waste, noise, and safety regulations in the County.

As with Alternative 2 and as described for RMDP direct impacts, storage and use of hazardous materials during construction (short-term) and operation/maintenance (long-term) activities could result in significant hazard- or safety-related impacts.

**Impacts from Transport of Hazardous Materials Along SR-126 (Less than Significant).** As with Alternative 2, because hazardous materials are transported on SR-126, increased traffic on this highway as a result of development under Alternative 6 could increase the potential for an accident involving a hauler of these substances, which could result in significant impacts. Although Alternative 6 would result in a smaller development area than Alternative 2, the level of potential risk associated with transport of hazardous materials along SR-126 would be virtually the same. As with Alternative 2, Alternative 6 does not expose people, animal, or plant life populations along SR-126 to significant health hazards associated with hazardous material transport due to the application of existing regulatory controls (*e.g.*, training and licensing of drivers), and no significant impacts would occur relative to Significance Criterion 1.

**Impacts from Abandoned Oil Wells, Known or Potential Contaminated Soil, and Physical Hazards Related to Oil Development Equipment and Debris (Significant but Mitigable).** As previously discussed, the Newhall Ranch Specific Plan area is located in historic and active oil fields. Under Alternative 6, approximately 135 acres of development would occur within these areas. The breakdown with respect to land use is as follows:

- Commercial 5.0 acres;
- Single Family 24.0 acres;
- Multi Family 17.7 acres;
- Public Facility 10.2 acres;
- Open Space - Manufactured 39.1 acres; and,
- Open Space - Natural 39.2 acres.

A detailed discussion of potential impacts under Alternative 6 with respect to abandoned oil wells, known or potential contaminated soil, and physical hazards related to oil development equipment and debris is provided below.

**Impacts from Abandoned Oil Wells**. As described in Alternative 2, releases have occurred near former oil wells and other infrastructure that have impacted the surrounding soils. The site assessments have identified several such wells and supporting infrastructure. As active oil fields are abandoned and cleaned up it is likely that more such wells and infrastructure will be identified. Specifically, there is the potential to encounter residual petroleum hydrocarbons and petrochemical contaminants. Unremediated, contaminated soil or groundwater could pose a potentially significant impact to public health and safety. Although Alternative 6 would result in a smaller development area than Alternative 2, the level of potential risk associated with abandoned wells would be virtually the same. Additionally, although the Project site is not located in an area of documented methane or hydrogen sulfide hazards, the former oil

wells beneath the site -- if they were not properly abandoned -- could act as conduits for deep methane gas to reach the surface, resulting in a potentially significant impact relative to Significance Criterion 2.

As discussed above, several Phase I and Phase II investigations have been performed for the subject area. The results of these investigations indicate that there may be unknown and/or undocumented site contamination. Accordingly, in the event that contamination is encountered during Project activities, the implementation of Mitigation Measures PH-11 and PH-12, which require development of specific plans that address assessment and cleanup actions for contaminated soils, would remediate any such contamination per regulatory standards and reduce any associated hazards to less than significant.

As with Alternative 2, DOGGR standard practices and procedures for development above abandoned oil wells shall be followed, including proper abandonment procedures. DOGGR may also require venting and/or collection systems to be incorporated into the design of Alternative 6 if any enclosed structures are built over abandoned wells (see Mitigation Measure PH-1, below). Implementation of Mitigation Measure PH-8 would reduce potential impacts from abandoned oil wells to less than significant relative to Significance Criterion 2 by providing for the application of construction-related Best Management Practices.

As described for Alternative 2, potential methane gas migration shall be mitigated in accordance with Los Angeles County Building Code, section 308, subdivision (d) for all buildings and enclosed structures that would be constructed within 25 feet of oil or gas wells. Buildings located within 25 feet and 200 feet of oil or gas wells shall, prior to the issuance of building permits by the County of Los Angeles, be evaluated in accordance with the current rules and regulations of the DOGGR (Mitigation Measure PH-2). Accordingly, potential impacts due to methane migration would be reduced to less than significant under Significance Criterion 2 with implementation of Mitigation Measure PH-2.

Potential impacts from contaminated soils are similar to Alternative 2, and may result in potentially significant impacts to public health and safety.

As with Alternative 2, there is the potential for the occurrence of methane gas in areas of oil production. The presence of methane gas can either be remediated (source removal) or mitigated (venting of gas and interruption of pathways). Some source removal already has occurred at the Project site as part of the Castaic Junction Oil Field abandonment and site remediation activities performed by Exxon.

As discussed above, there is an existing agreement on the RSF Oil and Gas Lease area to fully remediate the oil field prior to construction on the potentially contaminated sites, under detailed environmental cleanup protocols. Completion of the required site remediation activities, as well as implementation of Mitigation Measures PH-11 and PH-12, which require development of specific plans that address assessment and cleanup actions for contaminated soils, would reduce the impact from known or unknown contaminated soil to less than significant relative to Significance Criterion 2.

**Impacts from Physical Hazards Related to Oil Development Equipment and Debris**. Although Alternative 6 has less developed area than Alternative 2, abandoned oil wells and oil field debris are located in the proposed Project area, and pose potentially significant physical hazards to public health and safety. Based on current knowledge, this impact is considered to be significant. Implementation of Mitigation Measure PH-11 requires development of specific plans that address assessment and cleanup

actions for contaminated soils, and as such would reduce the impact from physical hazards related to oil development equipment and debris to less than significant relative to Significance Criterion 2.

In addition to development occurring in areas no longer in production, development is likely to occur in areas where oil and natural gas operations are ongoing. Given that all such development-area oil production facilities would need to be fenced and gated by state law, as detailed in Mitigation Measure PH-5, the Newhall Ranch Specific Plan would not create a potential public health hazard or involve the use, production, or disposal of any materials that pose a hazard to people, animal, or plant life populations from oil and natural gas production operations. Therefore, the Specific Plan development would not have a significant effect on the environment relative to development at former -- or adjacent to ongoing -- oil and natural gas production relative to Significance Criterion 2.

**Impacts from High Pressure Gas Lines (Less than Significant).** The two SCGC high pressure gas main lines that traverse the Project site include a 34-inch main and a 12- to 16-inch main which could expose the public to significant risk of upset. Although Alternative 6 would result in a smaller development area than Alternative 2, the level of potential risk associated with high pressure gas lines would be virtually the same.

Similar to Alternative 2, Mitigation Measure PH-6, development would meet SCGC requirements in terms of pipeline relocation, grading in the vicinity of gas mains, and development within the SCGC easements, to reduce any potentially significant impacts to less-than-significant levels. To further reduce potential impacts, Mitigation Measure PH-13 would require that all potential buyers or tenants of property in the vicinity of SCGC transmission lines be made aware of the line's presence, to assure that no permanent construction or grading occurs over, or within the vicinity of, the high-pressure gas mains. Therefore, potential public safety impacts from high pressure gas lines would be less than significant relative to Significance Criterion 2.

**Impacts from Chiquita Landfill (Less than Significant).** The proximity of the Chiquita Canyon Landfill to the Project site has the potential to subject adjacent developments to certain hazards, including groundwater contamination hazards associated with potential methane migration and increased truck traffic along the shared transportation corridor of SR-126. These issues could result in significant impacts to public health and safety. Although Alternative 6 would result in a smaller development area than Alternative 2, the level of potential risk associated with the Chiquita Landfill would be virtually the same.

As with Alternative 2, Los Angeles County Building Code, section 308, subdivision (c) requires that all building and structures located within 1,000 feet of a landfill containing decomposable material (in this case, Chiquita Canyon Landfill) be provided with a landfill gas migration protection and/or control system (Mitigation Measure PH-3). Accordingly, the environmental measures already in place, along with implementation of this regulatory requirement, would reduce any potential impacts to less than significant relative to Significance Criterion 2.

**Impacts to Existing or Proposed Schools (Significant but Mitigable).** Alternative 6 would not involve the use, generation, or disposal of substantial amounts of hazardous materials, or the emission of acutely hazardous materials or substances within one-quarter mile of an existing or proposed school in accordance with California Code of Regulations, title 5, section 14010, which specifies standards for school site selection.

Exposure to contaminants above PRG levels may result in potentially significant impacts to public health and safety within one-quarter mile of proposed school sites. Contaminants commonly associated with oil and natural gas fields include TPH; VOCs, including benzene, toluene, ethybenzene, and xylene, referred together as BTEX; SVOCs, including PAHs; PCBs; hydrogen sulfide; and metals, including arsenic, lead, mercury, vanadium, barium, and hexavalent chromium and methane gas. The Newhall Ranch Specific Plan proposes the development of five elementary schools, one junior high school, and one high school. As summarized in **Subsection 4.17.3.2**, Phase I and Phase II investigations have been conducted for portions of the Project area. Completion of the current site remediation activities reduces the possibility of siting a school within one-quarter mile of a hazardous waste site. In the unlikely event that undetected contamination is located at or near proposed school sites, a significant health and safety impact would occur. Implementation of Mitigation Measures PH-11 and PH-12, which require development of specific plans (PH-11) that address assessment and cleanup actions for contaminated soils, would reduce the impact from known or unknown contaminated soil to less than significant relative to Significance Criterion 3.

**Impacts to Adopted Emergency Response or Emergency Evacuation Plans (Less than Significant).** Similar to Alternative 2, Alternative 6 development would increase demand on emergency response services, which could increase emergency response times and result in a significant impact to public safety if not mitigated proportionately with the planned development.

The same firefighting capabilities would be provided by Alternative 6 as is described for Alternative 2. The roadway network of the approved Newhall Ranch Specific Plan's Mobility Plan has been designed as an extension of the regional circulation element. This plan under Alternative 6 would be required to be changed given the deletion of the Potrero Canyon Road bridge. The redesigned circulation system would provide two methods of ingress/egress to the Specific Plan site over the Santa Clara River to serve the safety needs of the community by providing adequate access in the event of fire or other emergencies. In addition, all applicable safety standards pursuant to Los Angeles County Codes would be met at the time of the building permit issuance.

As with Alternative 2, expansion of the on-site highway system and the provision of three additional fire stations, would ensure that emergency response would be expanded in conjunction with the additional demands placed on the emergency response personnel under Alternative 6. In addition, Mitigation Measure PH-7 provides secondary route access where necessary. With implementation of these measures, impacts to public safety related to emergency response services would be less than significant relative to Significance Criterion 4.

**Impacts from Dam Inundation (Less than Significant).** Castaic and Bouquet Lakes are contained by earthen dams located upstream from the Project area. Inundation of a developed Project area could result in hazards to public health and safety. Alternative 6 would result in a smaller development area than Alternative 2, and as such, less developed area would potentially be subject to dam inundation. Accordingly, the level of potential risk associated with dam inundation for Alternative 6 would be incrementally less than Alternative 2. As with Alternative 2, impacts associated with dam inundation are less than significant relative to Significance Criterion 5.

**Impacts from Wildland Fires (Significant but Mitigable).** The same types of development will occur under Alternative 6, as with Alternative 2, in areas that have been designated as either Fire Zone 3 or 4 (of

moderate or high fire hazard, respectively), which would result in a potentially significant impact to public safety. Characteristics of the Newhall Ranch Specific Plan site that contribute to these conditions include: (1) limited access; (2) lack of adequate water supplies; (3) the types of vegetative cover; and (4) topography. An analysis of the site's fire hazard potential relative to these four factors is presented below.

***Access.*** The Newhall Ranch Specific Plan would include an extensive backbone vehicular circulation system which, would provide five points of access to the site via a major state highway and a federal freeway (SR-126 and I-5, respectively). The internal circulation system for the Newhall Ranch Specific Plan would be required to be changed to accommodate the deletion of the Potrero Canyon Road bridge; however, such a change would be consistent with the approved Newhall Ranch Specific Plan standards and the provisions of Los Angeles County Code Title 21, Chapter 21.24 for secondary evacuation access (Mitigation Measure PH-7) as applicable (*i.e.*, roadway widths, length of single-access streets, cul-de-sac dimensions, and street parking restrictions, *etc.*). Consequently, with implementation of the Newhall Ranch Specific Plan, vehicular access-related impacts are expected to be less than significant relative to Significance Criterion 6.

***Water Supply.*** The Conceptual Backbone Water Plan under Alternative 6 is the same as for Alternative 2. Given that a long-term source of water must exist for the Newhall Ranch Specific Plan prior to the issuance of building permits, and a water supply system is proposed that would meet county fire flow requirements, no significant water-related fire hazards would occur.

***Vegetative Cover.*** As with Alternative 2, Alternative 6 includes development adjacent to areas with moderate to heavy vegetative cover. The plant communities that make up this cover are highly combustible and, without mitigation, would present a high fire hazard to development in these areas. This would be a significant impact because development in these areas would pose a special fire protection problem. The same measures as described for Alternative 2 would be implemented. Specifically, with implementation Mitigation Measure PH-14, which requires the development of a Wildfire Fuel Modification Plan to reduce potential wildland fire hazards in the Project area, the fire hazard potential in this interface zone would be reduced to less than significant relative to Significance Criterion 6.

***Topography.*** Topography is an issue relative to wildland fire hazards because steep slopes are not only inaccessible to firefighting vehicles, but steep canyons can create updraft conditions (much like a chimney) and a fire in a steep canyon can spread rapidly into adjacent areas. As with Alternative 2, Alternative 6 development is within only the central and northern portions of the site where topographic relief is moderate. The wildland fire hazard impact to Specific Plan development, relative to the steep topography in the High Country SMA, would be minimal given that the High Country would be: (1) limited to human access; and (2) accessible to firefighting equipment from multiple locations as a result of the proposed vehicular circulation system (Mitigation Measure PH-7). Impacts would be less than significant. To further reduce the risk of wildland fires, the project would comply with the Wildfire Fuel Modification Plan (Mitigation Measure PH-14).

Similar to Alternative 2, Alternative 6 would be served by two on-site and one off-site fire stations. The Newhall Ranch Specific Plan would implement a Wildfire Fuel Modification Plan, and meet County codes and requirements relative to providing adequate fire protection services to the site during both the construction and operational stages of the Newhall Ranch Specific Plan (Mitigation Measure PH-14). With the incorporation of Mitigation Measures PH-7 and PH-14, Alternative 6 would have a less than

significant impact on fire protection services in the Santa Clarita Valley based on Significance Criterion 6.

**Impacts from Electromagnetic Fields (Less than Significant).** The Specific Plan site is traversed by the SCE's 66 kV and 220 kV transmission lines within a 300-foot easement in the northern portion of the site, and 66 kV and 230 kV transmission lines within a 75- to 240-foot (total width) easement in the central portion of the site. No significant impact has been identified relative to EMF hazards and Alternative 6.

To reduce any potential impacts, development in Alternative 6 would be in compliance with Mitigation Measure PH-4, which requires that all final school locations are to comply with the California State Board of Education requirement that no schools be sited within 100 feet from the edge of the right-of-way of 100 to 110 kV lines; 150 feet from 220 to 230 kV lines; and 350 feet from 500 to 550 kV lines. In addition, the Newhall Ranch Specific Plan proposes that only non-habitable structures would be located within SCE easements. Impacts related to exposure to EMFs are considered less than significant relative to Significance Criterion 7.

**SCP Indirect Impacts.** Implementation of the proposed SCP would facilitate implementation of previously approved development on the Specific Plan site and on portions of the Entrada planning area. Under this alternative, the VCC planning area would not be developed. Potential hazard-related impacts associated with the Specific Plan are evaluated above.

**Impacts from Hazardous Material Use (Significant but Mitigable).** Indirect impacts from hazardous materials under Alternative 6 are similar to Alternative 2, as construction of the Entrada project would be similar to RMDP and Specific Plan activities. The use of construction supplies could result in the potential for significant short-term hazardous materials impacts associated with construction activities.

Depending on the volume of materials stored onsite, Los Angeles County could require the installation of temporary ASTs to store fuels during construction. It is likely that construction will trigger Los Angeles County requirements for storage (temporary and permanent), which include safeguards such as a SPCC. The Los Angeles County Health and Hazardous Materials Division is the local CUPA responsible for enforcing hazardous materials, waste, noise, and safety regulations in the County.

Similar to Alternative 2, the Entrada planning area under Alternative 6 would include commercial, residential, and public infrastructure, operation, and maintenance activities. These operation and maintenance activities could result in significant long-term hazard- or safety-related impacts. Incorporation of Mitigation Measures PH-8, PH-9, and PH-10 addresses impacts from hazardous materials or conditions by providing additional protections beyond those required by regulatory compliance. The measures provide for additional planning, notification, and application of Best Management Practices. The risk of accidental releases of hazardous materials during construction, operation, and maintenance of the Entrada project would be mitigated to less than significant relative to Significance Criterion 1.

**Impacts from Transport of Hazardous Materials Along SR-126 (Less than Significant).** As with Alternative 2, because hazardous materials are transported on SR-126, increased traffic on this highway as a result of development under Alternative 6 could increase the potential for an accident involving a

hauler of these substances, which could result in significant impacts. Although Alternative 6 would result in a smaller development area than Alternative 2, the level of potential risk associated with transport of hazardous materials along SR-126 would be virtually the same. Alternative 6 does not expose people, animal, or plant life populations along SR-126 to significant health hazards associated with hazardous material transport due to the application of existing regulatory controls (*e.g.*, training and licensing of drivers), and impacts would be less than significant relative to Significance Criterion 1.

**Impacts from Abandoned Oil Wells, Known or Potential Contaminated Soil, and Physical Hazards Related to Oil Development Equipment and Debris (Significant but Mitigable).** As previously discussed, the Entrada planning area is located in historic and active oil fields. Under Alternative 6, approximately 4.8 acres of development would occur within these oil field areas. The breakdown with respect to land use is as follows:

- Open Space - Manufactured 0.98 acres;
- Open Space - Natural 1.6 acres;
- Single Family 1.5 acres; and,
- Public Facility 0.71 acres.

A detailed discussion of potential impacts under Alternative 6 with respect to abandoned oil wells, known or potential contaminated soil, and physical hazards related to oil development equipment and debris is provided below.

**Impacts from Abandoned Oil Wells**. The impacts from abandoned oil wells would be the same as described in RMDP indirect impacts above. Unremediated, contaminated soil or groundwater could pose a potentially significant impact to public health and safety. Additionally, former oil wells beneath the site could result in potentially significant impact relative to Significance Criterion 2.

Similar to Alternative 2, implementation of Mitigation Measures PH-11 and PH-12 would remediate any contamination per regulatory standards and reduce any associated hazards to less than significant. In addition, implementation of Mitigation Measures PH-8 would reduce potential impacts from abandoned oil wells to less than significant relative to Significance Criterion 2 by providing for the application of construction-related Best Management Practices. The proposed Project also would comply with Mitigation Measure PH-2, which requires that all buildings located within 25 feet of oil or gas wells, be provided with methane gas protection systems and buildings located within 25 feet and 200 feet of oil or gas wells shall, prior to the issuance of building permits by the County of Los Angeles, be evaluated in accordance with the current DOGGR rules and regulations. Therefore, potential impacts due to methane migration would be reduced to less than significant relative to Significance Criterion 2.

**Impacts from Known or Potential Contaminated Soil**. Exposure to contaminants above PRG levels may result in potentially significant impacts to public health and safety. These impacts would be the same in nature as those described under the RMDP indirect impacts identified above.

Accordingly, completion of the required site remediation activities, as well as implementation of Mitigation Measures PH-11 and PH-12, which require development of specific plans that address assessment and cleanup actions for contaminated soils, would reduce the impact from known or unknown contaminated soil to less than significant relative to Significance Criterion 2.

**Impacts from Physical Hazards Related to Oil Development Equipment and Debris.** Although Alternative 6 has less developed area than Alternative 2, abandoned oil wells and oil field debris are located in the Entrada planning area and pose potentially significant physical hazards to public health and safety. Based on current knowledge, this impact is considered to be significant. Implementation of Mitigation Measure PH-11 requires development of specific plans with performance criteria derived from regulatory requirements for assessment and cleanup actions for contaminated soils, and as such would reduce the impact from physical hazards related to oil development equipment and debris to less than significant relative to Significance Criterion 2.

**Impacts from High Pressure Gas Lines (Less than Significant).** The two SCGC high pressure gas main lines that traverse the Project site include a 34-inch main and a 12- to 16-inch main, which could expose the public to significant risk of upset. These impacts would be the same in nature as those described under the RMDP indirect impacts identified above. Accordingly, potential public safety impacts from high pressure gas lines are considered less than significant relative to Significance Criterion 2.

**Impacts from Chiquita Landfill (Less than Significant).** The proximity of the Chiquita Canyon Landfill to the Project site has the potential to subject adjacent developments to certain hazards, including groundwater contamination hazards associated with potential methane migration and increased truck traffic along the shared transportation corridor of SR-126. These issues could result in impacts to public health and safety. These impacts would be the same in nature as those described under the RMDP indirect impacts identified above. Accordingly, the environmental measures already in place, along with implementation of this regulatory requirement, would reduce any potential impacts to less than significant relative to Significance Criterion 2.

**Impacts to Existing or Proposed Schools (Significant but Mitigable).** Alternative 6 would not involve the use, generation, or disposal of substantial amounts of hazardous materials, or the emission of acutely hazardous materials or substances within one-quarter mile of an existing or proposed school in accordance with California Code of Regulations, title 5, section 14010, which specifies standards for school site selection.

Exposure to contaminants above PRG levels may result in potentially significant impacts to public health and safety within one-quarter mile of proposed school sites. Contaminants commonly associated with oil and natural gas fields include TPH; VOCs, including benzene, toluene, ethybenzene, and xylene, referred together as BTEX; SVOCs, including PAHs; PCBs; hydrogen sulfide; and metals, including arsenic, lead, mercury, vanadium, barium, and hexavalent chromium and methane gas. The Newhall Ranch Specific Plan proposes the development of five elementary schools, one junior high school, and one high school. As summarized in **Subsection 4.17.3.2**, Phase I and Phase II investigations have been conducted for portions of the Project area. Completion of the current site remediation activities reduces the possibility of siting a school within one-quarter mile of a hazardous waste site. In the unlikely event that undetected contamination is located at or near proposed school sites, a significant health and safety impact would

occur. Implementation of Mitigation Measures PH-11 and PH-12, which require development of specific plans (PH-11) that address assessment and cleanup actions for contaminated soils, would reduce the impact from known or unknown contaminated soil to less than significant relative to Significance Criterion 3.

**Impacts to Adopted Emergency Response or Emergency Evacuation Plans (Less than Significant).** Similar to Alternative 2, Entrada planning area development facilitated by Alternative 6 would increase demand on emergency response services, which could increase emergency response times and result in a significant impact to public safety if not mitigated proportionately with the planned development. The same firefighting capabilities would be provided by Alternative 6 as is described for Alternative 2.

The Project proposes to comply with Mitigation Measure PH-7 by providing secondary route access, where necessary, which would ensure that potential impacts to public safety related to emergency response services and emergency evacuation are less than significant relative to Significance Criterion 4.

**Impacts from Dam Inundation (Less than Significant).** Castaic and Bouquet Lakes are contained by earthen dams located upstream from the Project area. Inundation of a developed Project area could result in hazards to public health and safety.

Alternative 6 would result in a smaller development area than Alternative 2, and as such, less developed area would potentially be subject to dam inundation. Accordingly, the level of potential risk associated with dam inundation for Alternative 6 would be incrementally less than Alternative 2. As with Alternative 2, impacts associated with dam inundation are less than significant relative to Significance Criterion 5.

**Impacts from Wildland Fires (Significant but Mitigable).** The same types of development would occur in the Entrada planning area under Alternative 6, as with Alternative 2, and would be located in areas that have been designated as either Fire Zone 3 or 4 (of moderate or high fire hazard, respectively), which could result in significant hazards to public safety. Characteristics of the Entrada planning area that contribute to these conditions include: (1) limited access; (2) lack of adequate water supplies; (3) the types of vegetative cover; and (4) topography. The development of the sites would potentially reduce the chance of fires in wildland areas (*i.e.*, the response time to the far areas of Hasley Canyon should be shortened due to the extension of Backer Road to SR-126). In addition, the expansion of water supplies to serve the Project site would introduce new water sources to fight any fires that do occur. Development of the Entrada planning area would have a significant impact on fire protection services in the Santa Clarita Valley based on Significance Criterion 6; however, incorporation of the measures discussed above and Mitigation Measures PH-7 and PH-14 would reduce this impact to less than significant.

**Impacts from Electromagnetic Fields (Less than Significant).** The Project site is traversed by the SCE's 66 kV and 220 kV transmission lines within a 300-foot easement in the northern portion of the site, and 66 kV and 230 kV transmission lines within a 75- to 240-foot (total width) easement in the central portion of the site.

As no specific health effects of EMFs have been conclusively demonstrated, there are no health-based standards for EMF exposure. There is no current informational basis for determination of a significant adverse environmental impact associated with the proposed land use in relationship to the SCE transmission lines. No significant impact has been identified relative to EMF hazards and Alternative 6.

However, to reduce any potential impacts, development of the Newhall Ranch Specific Plan site would be in compliance with Mitigation Measure PH-4, which requires that all final school locations are to comply with the California State Board of Education requirement that no schools be sited within 100 feet from the edge of the right-of-way of 100 to 110 kV lines; 150 feet from 220 to 230 kV lines; and 350 feet from 500 to 550 kV lines. In addition, the Newhall Ranch Specific Plan proposes that only non-habitable structures would be located within SCE easements. Impacts related to exposure to EMFs are considered less than significant relative to Significance Criterion 7.

#### 4.17.6.6.3 Secondary Impacts

**RMDP Secondary Impacts.** Alternative 6 has less bank protection and other RMDP facilities than Alternative 2. However, Alternative 6would result in significant direct and indirect hazard-related impacts related to the transport of hazardous materials, emergency response and evacuation, and from wildfires. Those impacts also have the potential to result in significant secondary impacts to areas located beyond the boundaries of the Project site.

**Transport of Hazardous Materials Along SR-126 (Less than Significant).** The transportation of hazardous materials to the Specific Plan site would be required during the construction of proposed infrastructure projects (direct impacts) and during the construction of facilitated development (indirect impacts). The potential for impacts to the environment and/or public resulting from a large-scale release during the transport of hazardous materials would be reduced to a less-than-significant level through the continued implementation and enforcement of existing hazardous waste transportation and handling regulations. Therefore, this impact would not be significant under the requirements of Significance Threshold 1 and no mitigation measures are required.

**Emergency Response and Emergency Evacuation Plans (Less than Significant).** Development provided on the Specific Plan site may occasionally require emergency services from Los Angeles County fire stations located beyond the project site boundaries. As described in **Subsection 4.8.9** (Traffic Mitigation), project-related impacts to off-site roadways would be reduced to a less-than-significant level with the implementation of identified road improvements. In addition, the Specific Plan development would be required to comply with applicable Los Angeles County secondary access/evacuation requirements (Mitigation Measure PH-7). With the implementation of proposed roadway operation and access requirements, the circulation system in the project region would be adequate to provide emergency response services to the Specific Plan site. Therefore, secondary emergency response or evacuation impacts would not be significant and no additional mitigation measures are required.

**Wildland Fires (Significant but Mitigable).** A fire on the Specific Plan site would have the potential to migrate off-site and effect areas located beyond the Specific Plan boundaries. Proposed Specific Plan access, water supply and fuel modification provisions would minimize the potential for wildfire impacts. In addition, proposed Mitigation Measure PH-7 ensures that adequate emergency access would be provided to serve the project site, and Mitigation Measure PH-14 provides additional requirements related to the preparation and implementation of a Wildfire Fuel Modification Plan. Implementation of these mitigation measures would reduce on-site wildfire impacts to a less-than-significant level and also reduce the potential for project-related fire impacts to surrounding areas to a less-than-significant level.

**SCP Secondary Impacts.** Establishment of the proposed spineflower preserves would not result in significant direct hazard-related impacts, and potential indirect hazard-related impacts that may result from the development that is facilitated on the Specific Plan site and a portion of the Entrada site can also be reduced to a less-than-significant level with implementation of the proposed mitigation measures. Project-related hazard and public safety impacts that have the potential to result in significant safety impacts at locations beyond the boundary of the Project site include the following.

**Emergency Response and Emergency Evacuation Plans (Less than Significant).** With implementation of mitigation measures provided in **Subsection 4.8.9,** roadways located beyond the boundary of the Project site would provide adequate capacity to accommodate anticipated traffic volumes generated by facilitated development located on the Specific Plan, and Entrada project sites. With implementation of the identified measures, the off-site roadway system would operate at acceptable levels, provide adequate emergency vehicle access, and not result in significant impacts to emergency vehicle response times. No additional mitigation measures are required.

**Impacts to Existing and Proposed Schools (Less than Significant).** Development on the portion of the Entrada project site facilitated by the SCP would be located within one-quarter mile of existing off-site school facilities, including the Oak Hill Elementary and Rancho Pico Junior High schools. Development on the Entrada site that would occur in the vicinity of schools includes single- and multi-family residences, which would not be a significant source of hazardous or extremely hazardous materials. Therefore, the proposed land uses on the Entrada project site would not result in significant health or safety impacts to existing school facilities under the requirements of Significance Threshold 3.

**Wildland Fires (Significant but Mitigable).** A fire on the Project site would have the potential to migrate off-site and effect areas located beyond the Project boundary. Proposed Specific Plan access, water supply and fuel modification provisions would minimize the potential for wildfire impacts. In addition, proposed Mitigation Measure PH-7 ensures that adequate emergency access would be provided to serve the project site, and Mitigation Measure PH-14 provides additional requirements related to the preparation and implementation of a Wildfire Fuel Modification Plan. Implementation of these mitigation measures on the Specific Plan site, and similar measures for the Entrada site, would reduce Project-related on-site wildfire impacts to a less-than-significant level and also reduce the potential for Project-related fire impacts to surrounding areas to a less-than-significant level.

#### 4.17.6.7 Impacts of Alternative 7 (Avoidance of 100-Year Floodplain, Elimination of Two Planned Bridges, and Avoidance of Spineflower)

Alternative 7 would result in a substantial reduction in the RMDP infrastructure when compared to the proposed Project, and increase the size of proposed spineflower preserves from 167.6 to 660.6 acres. Under this alternative, no additional development would be facilitated on the VCC planning area, and subsequent development on the Specific Plan site would be reduced. In total, Alternative 7 would facilitate the development of 17,323 residential dwelling units on the Specific Plan site and Entrada planning area, and approximately 3.82 million square feet of nonresidential uses on the Specific Plan site and on a portion of the Entrada planning area. Additional information regarding this alternative is provided in **Section 3.0**, Description of Alternatives, of this EIS/EIR.

#### 4.17.6.7.1 Direct Impacts

**RMDP Direct Impacts**. Construction of the proposed RMDP components would include the temporary transport, storage, and use of potentially hazardous materials, including fuels, lubricating fluids, cleaners, solvents, pesticides, herbicides, and other materials. The use of these standard construction supplies during construction could result in the potential for short-term hazardous materials impacts associated with construction activities. Under Alternative 7, the Potrero Canyon Road and Commerce Center Drive Bridges are not proposed and the associated bridge pier and abutment features are not required. In addition, the bank stabilization for the western half of the Landmark Village site has been pulled back from the existing conditions 100-year floodplain and CDFG jurisdictional limit to avoid permanent impacts. In general, the bank stabilization locations were designed to avoid Corps and CDFG jurisdictional areas and the project reach. Since fewer bridge pier and abutment features and fewer linear feet of bank stabilization would be constructed, Alternative 7 would have lesser, but still significant, direct short-term impacts related to the use of hazardous materials during construction than Alternative 2.

As with Alternative 2, depending on the volume of materials stored on site, Los Angeles County could require the installation of temporary ASTs to store fuels during construction. It is likely that construction will trigger Los Angeles County requirements for storage (temporary and permanent), which include safeguards such as a SPCC. Hazardous materials regulations require a business that generates hazardous wastes to institute a "cradle to grave" management plan for the storage, transport, and disposal of the hazardous wastes. As with Alternative 2, in the unlikely event of a large-scale release of hazardous material at a construction site, a significant hazard to the public and/or the environment would occur. The implementation of Mitigation Measures PH-8, PH-9, and PH-10 addresses impacts from hazardous materials or conditions by providing additional protections beyond those required by regulatory compliance. The risk of accidental releases of hazardous materials during construction would be mitigated to less than significant relative to Significance Criterion 1.

As described in Alternative 2, RMDP facilities will require certain periodic maintenance that may involve use of hazardous materials. Under Alternative 7, the Potrero Canyon Road and Commerce Center Drive bridges are not proposed and the associated bridge pier and abutment features are not required and fewer linear feet of bank stabilization would be constructed. Accordingly, Alternative 7 would require less periodic maintenance activities than Alternative 2, and would not have the potential to result in significant long-term hazard- or safety-related impacts relative to Significance Criterion 1.

**SCP Direct Impacts.** Similar to Alternative 2, creation of the spineflower preserves would consist primarily of the installation of fencing and information signs. These short-term activities would not result in significant hazard- or safety-related impacts relative to Significance Criterion 1.

Long-term preserve maintenance activities would be similar to Alternative 2, and would not result in significant long-term hazard- or safety-related impacts relative to Significance Criterion 1.

### 4.17.6.7.2 Indirect Impacts

**RMDP Indirect Impacts.**

**Impacts from Hazardous Material Use (Significant but Mitigable).** Materials handling for construction under Alternative 7 would be similar to Alternative 2, although the development area on the Specific Plan site would be reduced from Alternative 2. Therefore, Alternative 7 would have an incrementally lesser, but still significant, direct short-term impact related to the use of hazardous materials during construction than Alternative 2.

Depending on the volume of materials stored onsite, Los Angeles County could require the installation of temporary ASTs to store fuels during construction. It is likely that construction will trigger Los Angeles County requirements for storage (temporary and permanent), which include safeguards such as a SPCC. The Los Angeles County Health and Hazardous Materials Division is the local CUPA responsible for enforcing hazardous materials, waste, noise, and safety regulations in the County.

As with Alternative 2 and as described for direct impacts, storage and use of hazardous materials during construction (short-term) and operation/maintenance (long-term) activities could result in significant hazard- or safety-related impacts.

As described for Alternative 2, incorporation of Mitigation Measures PH-8, PH-9, and PH-10 addresses impacts from hazardous materials or conditions by providing additional protections beyond those required by regulatory compliance. The measures provide for additional planning, notification, and application of Best Management Practices. This mitigation would reduce impacts to less than significant relative to Significance Criterion 1.

**Impacts from Transport of Hazardous Materials Along SR-126 (Less than Significant).** As with Alternative 2, because hazardous materials are transported on SR-126, increased traffic on this highway as a result of development under Alternative 7 could increase the potential for an accident involving a hauler of these substances, which could result in significant impacts. Although Alternative 7 would result in a smaller development area than Alternative 2, the level of potential risk associated with transport of hazardous materials along SR-126 would be virtually the same. As with Alternative 2, Alternative 7 does not expose people, animal, or plant life populations along SR-126 to significant health hazards associated with hazardous material transport due to the application of existing regulatory controls (*e.g.*, training and licensing of drivers), and no significant impacts would occur relative to Significance Criterion 1.

**Impacts from Abandoned Oil Wells, Known or Potential Contaminated Soil, and Physical Hazards Related to Oil Development Equipment and Debris (Significant but Mitigable).** As previously discussed, the Newhall Ranch Specific Plan area is located in historic and active oil fields. Under Alternative 7, approximately 135 acres of development would occur within these areas. The breakdown with respect to land use is as follows:

- Commercial 4.7 acres;
- Single Family 18.9 acres;
- Multi Family 12.6 acres;

- Public Facility 7.3 acres;
- Open Space - Manufactured 37.5 acres; and,
- Open Space - Natural 54.0 acres.

A detailed discussion of potential impacts under Alternative 7 with respect to abandoned oil wells, known or potential contaminated soil, and physical hazards related to oil development equipment and debris is provided below.

**Impacts from Abandoned Oil Wells**. As described in Alternative 2, releases have occurred near former oil wells and other infrastructure that have impacted the surrounding soils. The site assessments have identified several such wells and supporting infrastructure. As active oil fields are abandoned and cleaned up it is likely that more such wells and infrastructure will be identified. Specifically, there is the potential to encounter residual petroleum hydrocarbons and petrochemical contaminants. Unremediated, contaminated soil or groundwater could pose a potentially significant impact to public health and safety. Although Alternative 7 would result in a smaller development area than Alternative 2, the level of potential risk associated with abandoned wells would be virtually the same. Additionally, although the Project site is not located in an area of documented methane or hydrogen sulfide hazards, the former oil wells beneath the site -- if they were not properly abandoned -- could act as conduits for deep methane gas to reach the surface, resulting in a significant impact relative to Significance Criterion 2.

As discussed above, several Phase I and Phase II investigations have been performed for the subject area. The results of these investigations indicate that there may be unknown and/or undocumented site contamination. Accordingly, in the event that contamination is encountered during Project activities, the implementation of Mitigation Measures PH-11 and PH-12, which require development of specific plans that address assessment and cleanup actions for contaminated soils, would remediate any such contamination per regulatory standards and reduce any associated hazards to less than significant.

As with Alternative 2, DOGGR standard practices and procedures for development above abandoned oil wells shall be followed, including proper abandonment procedures. DOGGR also may require venting and/or collection systems to be incorporated into the design of Alternative 7 if any enclosed structures are built over abandoned wells (see Mitigation Measure PH-1, below). Implementation of Mitigation Measure PH-8 would reduce potential impacts from abandoned oil wells to less than significant relative to Significance Criterion 2 by providing for the application of construction-related Best Management Practices.

As described for Alternative 2, potential methane gas migration shall be mitigated in accordance with Los Angeles County Building Code, section 308, subdivision (d) for all buildings and enclosed structures that would be constructed within 25 feet of oil or gas wells. Buildings located within 25 feet and 200 feet of oil or gas wells shall, prior to the issuance of building permits by the County of Los Angeles, be evaluated in accordance with the current rules and regulations of the DOGGR (Mitigation Measure PH-2). Accordingly, with implementation of Mitigation Measure PH-2, potential impacts due to methane migration would be reduced to less than significant relative to Significance Criterion 2.

Potential impacts from contaminated soils are similar to Alternative 2, and may result in potentially significant impacts to public health and safety.

As with Alternative 2, there is the potential for the occurrence of methane gas in areas of oil production. The presence of methane gas can either be remediated (source removal) or mitigated (venting of gas and interruption of pathways). Some source removal already has occurred at the Project site as part of the Castaic Junction Oil Field abandonment and site remediation activities performed by Exxon.

As discussed above, there is an existing agreement on the RSF Oil and Gas Lease area to fully remediate the oil field prior to construction on the potentially contaminated sites, under detailed environmental cleanup protocols. Completion of the required site remediation activities, as well as implementation of Mitigation Measures PH-11 and PH-12, which require development of specific plans that address assessment and cleanup actions for contaminated soils, would reduce the impact from known or unknown contaminated soil to less than significant relative to Significance Criterion 2.

**Impacts from Physical Hazards Related to Oil Development Equipment and Debris**. Although Alternative 7 has less developed area than Alternative 2, abandoned oil wells and oil field debris are located in the proposed Project area, and pose potentially significant physical hazards to public health and safety. Based on current knowledge, this impact is considered to be significant. Implementation of Mitigation Measure PH-11 requires development of specific plans that address assessment and cleanup actions for contaminated soils, and as such would reduce the impact from physical hazards related to oil development equipment and debris to less than significant relative to Significance Criterion 2.

In addition to development occurring in areas no longer in production, development is likely to occur in areas where oil and natural gas operations are ongoing. Given that all such development-area oil production facilities would need to be fenced and gated by state law, as detailed in Mitigation Measure PH-5, the Newhall Ranch Specific Plan would not create a potential public health hazard or involve the use, production, or disposal of any materials that pose a hazard to people, animal, or plant life populations from oil and natural gas production operations. Therefore, the Specific Plan development would not have a significant effect on the environment relative to development at former -- or adjacent to ongoing -- oil and natural gas production relative to Significance Criterion 2.

**Impacts from High Pressure Gas Lines (Less than Significant).** The two SCGC high pressure gas main lines that traverse the Project site include a 34-inch main and a 12- to 16-inch main which could expose the public to significant risk of upset. Although Alternative 7 would result in a smaller development area than Alternative 2, the level of potential risk associated with high pressure gas lines would be virtually the same.

Similar to Alternative 2, and based on Mitigation Measure PH-6, development would meet SCGC requirements in terms of pipeline relocation, grading in the vicinity of gas mains, and development within the SCGC easements to reduce any significant impacts to less-than-significant levels prior to mitigation. To further reduce impacts, Mitigation Measure PH-13 would require that all potential buyers or tenants of property in the vicinity of SCGC transmission lines be made aware of the line's presence, to assure that no permanent construction or grading occurs over, or within the vicinity of, the high-pressure gas mains. Therefore, potential public safety impacts from high pressure gas lines would be less than significant relative to Significance Criterion 2.

**Impacts from Chiquita Landfill (Less than Significant).** The proximity of the Chiquita Canyon Landfill to the Project site has the potential to subject adjacent developments to certain hazards, including groundwater contamination hazards associated with potential methane migration and increased truck traffic along the shared transportation corridor of SR-126. These issues could result in significant impacts to public health and safety. Although Alternative 7 would result in a smaller development area than Alternative 2, the level of potential risk associated with the Chiquita Landfill would be virtually the same.

As with Alternative 2, Los Angeles County Building Code, section 308, subdivision (c) requires that all building and structures located within 1,000 feet of a landfill containing decomposable material (in this case, Chiquita Canyon Landfill) be provided with a landfill gas migration protection and/or control system (Mitigation Measure PH-3). Accordingly, the environmental measures already in place, along with implementation of this regulatory requirement, would reduce any potential impacts to less than significant relative to Significance Criterion 2.

**Impacts to Existing or Proposed Schools (Significant but Mitigable).** Alternative 7 would not involve the use, generation, or disposal of substantial amounts of hazardous materials, or the emission of acutely hazardous materials or substances within one-quarter mile of an existing or proposed school in accordance with California Code of Regulations, title 5, section 14010, which specifies standards for school site selection.

Exposure to contaminants above PRG levels may result in potentially significant impacts to public health and safety within one-quarter mile of proposed school sites. Contaminants commonly associated with oil and natural gas fields include TPH; VOCs, including benzene, toluene, ethybenzene, and xylene, referred together as BTEX; SVOCs, including PAHs; PCBs; hydrogen sulfide; and metals, including arsenic, lead, mercury, vanadium, barium, and hexavalent chromium and methane gas. The Newhall Ranch Specific Plan proposes the development of five elementary schools, one junior high school, and one high school. As summarized in **Subsection 4.17.3.2,** Phase I and Phase II investigations have been conducted for portions of the Project area. Completion of the current site remediation activities reduces the possibility of siting a school within one-quarter mile of a hazardous waste site. In the unlikely event that undetected contamination is located at or near proposed school sites, a significant health and safety impact would occur. Implementation of Mitigation Measures PH-11 and PH-12, which require development of specific plans (PH-11) that address assessment and cleanup actions for contaminated soils, would reduce the impact from known or unknown contaminated soil to less than significant relative to Significance Criterion 3.

**Impacts to Adopted Emergency Response or Emergency Evacuation Plans (Significant and Unavoidable).** Similar to Alternative 2, Alternative 7 development would increase demand on emergency response services, which could increase emergency response times and result in a significant impact to public safety if not mitigated proportionately with the planned development.

The same firefighting capabilities will be provided by Alternative 7 as is described for Alternative 2. The roadway network of the approved Newhall Ranch Specific Plan's Mobility Plan has been designed as an extension of the regional circulation element. This plan under Alternative 7 would be required to be changed given the deletion of the Potrero Canyon Road and Commerce Center Drive bridges. The redesigned circulation system would provide only one method of ingress/egress to the Specific Plan site over the Santa Clara River to serve the safety needs of the community by providing adequate access in the

event of fire or other emergencies, which would impair access across the Santa Clara River in the event of an emergency or evacuation relative to Significance Criterion 4. Thus, impacts to public safety related to emergency response services would be significant and unavoidable relative to Significance Criterion 4.

**Impacts from Dam Inundation (Less than Significant).** Castaic and Bouquet Lakes are contained by earthen dams located upstream from the Project area. Inundation of a developed Project area could result in hazards to public health and safety. Alternative 7 would result in a smaller development area than Alternative 2, and as such, less developed area would potentially be subject to dam inundation. Accordingly, the level of potential risk associated with dam inundation for Alternative 7 would be incrementally less than Alternative 2. As with Alternative 2, impacts associated with dam inundation are less than significant relative to Significance Criterion 5.

**Impacts from Wildland Fires (Significant and Unavoidable).** The same types of development would occur under Alternative 7, as with Alternative 2, in areas that have been designated as either Fire Zone 3 or 4 (of moderate or high fire hazard, respectively), which would result in a potentially significant impact to public safety. Characteristics of the Newhall Ranch Specific Plan site that contribute to these conditions include: (1) limited access; (2) lack of adequate water supplies; (3) the types of vegetative cover; and (4) topography. An analysis of the site's fire hazard potential relative to these four factors is presented below.

***Access.*** The Newhall Ranch Specific Plan would include an extensive backbone vehicular circulation system which, would provide five points of access to the site via a major state highway and a federal freeway (SR-126 and I-5, respectively). The internal circulation system for the Newhall Ranch Specific Plan would be required to be changed to accommodate the deletion of the Potrero Canyon Road and the Commerce Center Drive bridges. Such changes would not be consistent with the approved Newhall Ranch Specific Plan. By not constructing the two bridges to accommodate the Specific Plan, access across the Santa Clara River would be impaired in the event of fire. Consequently, vehicular access-related impacts are expected to be significant and unavoidable relative to Significance Criterion 6.

***Water Supply.*** The Conceptual Backbone Water Plan under Alternative 7 is the same as for Alternative 2. Given that a long-term source of water must exist for the Newhall Ranch Specific Plan prior to the issuance of building permits, and a water supply system is proposed that would meet County fire flow requirements, no significant water-related fire hazards would occur.

***Vegetative Cover.*** As with Alternative 2, Alternative 7 includes development adjacent to areas with moderate to heavy vegetative cover. The plant communities that make up this cover are highly combustible and, without mitigation, would present a high fire hazard to development in these areas. This would be a significant impact because development in these areas would pose a special fire protection problem. The same measures as described for Alternative 2 would be implemented. Specifically, with implementation Mitigation Measure PH-14, which requires the development of a Wildfire Fuel Modification Plan to reduce potential wildland fire hazards in the Project area, the fire hazard potential in this interface zone would be reduced to less than significant relative to Significance Criterion 6.

***Topography.*** Topography is an issue relative to wildland fire hazards because steep slopes are not only inaccessible to firefighting vehicles, but steep canyons can create updraft conditions (much like a chimney) and a fire in a steep canyon can spread rapidly into adjacent areas. As with Alternative 2,

Alternative 7 development is within only the central and northern portions of the site where topographic relief is moderate. The wildland fire hazard impact to Specific Plan development, relative to the steep topography in the High Country SMA, would be minimal given that the High Country would be: (1) limited to human access; and (2) accessible to firefighting equipment from multiple locations as a result of the proposed vehicular circulation system (Mitigation Measure PH-7). Impacts would be less than significant. To further reduce the risk of wildland fires, the proposed Project would comply with the Wildfire Fuel Modification Plan (Mitigation Measure PH-14).

Similar to Alternative 2, Alternative 7 would be served by two on-site and one off-site fire stations. The Newhall Ranch Specific Plan would implement a Wildfire Fuel Modification Plan, and meet County codes and requirements relative to providing adequate fire protection services to the site during both the construction and operational stages of the Newhall Ranch Specific Plan (Mitigation Measure PH-14).

**Impacts from Electromagnetic Fields (Less than Significant).** The Specific Plan site is traversed by the SCE's 66 kV and 220 kV transmission lines within a 300-foot easement in the northern portion of the site, and 66 kV and 230 kV transmission lines within a 75- to 240-foot (total width) easement in the central portion of the site. No significant impact has been identified relative to EMF hazards and Alternative 7.

To reduce any potential impacts, development in Alternative 7 would be in compliance with Mitigation Measure PH-4, which requires that all final school locations are to comply with the California State Board of Education requirement that no schools be sited within 100 feet from the edge of the right-of-way of 100 to 110 kV lines; 150 feet from 220 to 230 kV lines; and 350 feet from 500 to 550 kV lines. In addition, the Newhall Ranch Specific Plan proposes that only non-habitable structures would be located within SCE easements. Impacts related to exposure to EMFs are considered less than significant relative to Significance Criterion 7.

**SCP Indirect Impacts.** Implementation of the proposed SCP would facilitate the implementation of previously approved development on the Specific Plan site and on portions of the Entrada planning area. Under this alternative, the VCC planning area would not be developed. Potential hazard-related impacts associated with the Specific Plan are evaluated above.

**Impacts from Hazardous Material Use (Significant but Mitigable).** Indirect impacts from hazardous materials under Alternative 7 are similar to Alternative 2, as construction of the Entrada project would be similar to RMDP and Specific Plan activities. The use of construction supplies could result in the potential for significant short-term hazardous materials impacts associated with construction activities.

Depending on the volume of materials stored on site, Los Angeles County could require the installation of temporary ASTs to store fuels during construction. It is likely that construction will trigger Los Angeles County requirements for storage (temporary and permanent), which include safeguards such as a SPCC. The Los Angeles County Health and Hazardous Materials Division is the local CUPA responsible for enforcing hazardous materials, waste, noise, and safety regulations in the County.

Similar to Alternative 2, the Entrada planning area under Alternative 7 would include commercial, residential, and public infrastructure, operation, and maintenance activities. These operation and maintenance activities could result in significant long-term hazard- or safety-related impacts.

Incorporation of Mitigation Measures PH-8, PH-9, and PH-10 addresses impacts from hazardous materials or conditions by providing additional protections beyond those required by regulatory compliance. The measures provide for additional planning, notification, and application of Best Management Practices. The risk of accidental releases of hazardous materials during construction, operation, and maintenance of the Entrada project would be reduced to less than significant relative to Significance Criterion 1.

**Impacts from Transport of Hazardous Materials Along SR-126 (Less than Significant).** As with Alternative 2, because hazardous materials are transported on SR-126, increased traffic on this highway as a result of development under Alternative 7 could increase the potential for an accident involving a hauler of these substances, which could result in significant impacts. Although Alternative 7 would result in a smaller development area than Alternative 2, the level of potential risk associated with transport of hazardous materials along SR-126 would be virtually the same. Alternative 7 does not expose people, animal, or plant life populations along SR-126 to significant health hazards associated with hazardous material transport due to the application of existing regulatory controls (*e.g.*, training and licensing of drivers), and impacts would be less than significant relative to Significance Criterion 1.

**Impacts from Abandoned Oil Wells, Known or Potential Contaminated Soil, and Physical Hazards Related to Oil Development Equipment and Debris (Significant but Mitigable).** As previously discussed, the Entrada planning area is located in historic and active oil fields. Under Alternative 7, approximately 4.8 acres of development would occur within these oil field areas. The breakdown with respect to land use is as follows:

- Open Space - Manufactured 0.82 acres;
- Open Space - Natural 1.4 acres;
- Single Family 1.3 acres; and,
- Public Facility 1.2 acres.

A detailed discussion of potential impacts under Alternative 7 with respect to abandoned oil wells, known or potential contaminated soil, and physical hazards related to oil development equipment and debris is provided below.

**Impacts from Abandoned Oil Wells**. The impacts from abandoned oil wells would be the same as described in RMDP indirect impacts above. Unremediated, contaminated soil or groundwater could pose a potentially significant impact to public health and safety. Additionally, former oil wells beneath the site could result in potentially significant impact relative to Significance Criterion 2.

Similar to Alternative 2, implementation of Mitigation Measures PH-11 and PH-12 would remediate any contamination per regulatory standards and reduce any associated hazards to less than significant. In addition, implementation of Mitigation Measures PH-8 would reduce potential impacts from abandoned oil wells to less than significant relative to Significance Criterion 2 by providing for the application of construction-related Best Management Practices. The proposed Project also proposes to comply with Mitigation Measure PH-2, which requires that all buildings located within 25 feet of oil or gas wells, be

provided with methane gas protection systems and buildings located within 25 feet and 200 feet of oil or gas wells shall, prior to the issuance of building permits by the County of Los Angeles, be evaluated in accordance with the current DOGGR rules and regulations. Therefore, potential impacts due to methane migration would be reduced to less than significant relative to Significance Criterion 2.

**Impacts from Known or Potential Contaminated Soil**. Exposure to contaminants above PRG levels may result in potentially significant impacts to public health and safety. These impacts would be the same in nature as those described under the RMDP indirect impacts identified above.

Accordingly, completion of the required site remediation activities, as well as implementation of Mitigation Measures PH-11 and PH-12, which require development of specific plans that address assessment and cleanup actions for contaminated soils, would reduce the impact from known or unknown contaminated soil to less than significant relative to Significance Criterion 2.

**Impacts from Physical Hazards Related to Oil Development Equipment and Debris.** Although Alternative 7 has less developed area than Alternative 2, abandoned oil wells and oil field debris are located in the Entrada planning area and pose potentially significant physical hazards to public health and safety. Based on current knowledge, this impact is considered to be significant. Implementation of Mitigation Measure PH-11 requires development of specific plans with performance criteria derived from regulatory requirements for assessment and cleanup actions for contaminated soils, and as such would reduce the impact from physical hazards related to oil development equipment and debris to less than significant relative to Significance Criterion 2.

**Impacts from High Pressure Gas Lines (Less than Significant).** The two SCGC high pressure gas main lines that traverse the Project site include a 34-inch main and a 12- to 16-inch main, which could expose the public to significant risk of upset. These impacts would be the same in nature as those described under the RMDP indirect impacts identified above. Accordingly, potential public safety impacts from high pressure gas lines are considered less than significant relative to Significance Criterion 2.

**Impacts from Chiquita Landfill (Less than Significant).** The proximity of the Chiquita Canyon Landfill to the Project site has the potential to subject adjacent developments to certain hazards, including groundwater contamination hazards associated with potential methane migration and increased truck traffic along the shared transportation corridor of SR-126. These issues could result in impacts to public health and safety. These impacts would be the same in nature as those described under the RMDP indirect impacts identified above. Accordingly, the environmental measures already in place, along with implementation of this regulatory requirement, would reduce any potential impacts to less than significant relative to Significance Criterion 2.

**Impacts to Existing or Proposed Schools (Significant but Mitigable).** Alternative 7 would not involve the use, generation, or disposal of substantial amounts of hazardous materials, or the emission of acutely hazardous materials or substances within one-quarter mile of an existing or proposed school in accordance with California Code of Regulations, title 5, section 14010, which specifies standards for school site selection.

Exposure to contaminants above PRG levels may result in potentially significant impacts to public health and safety within one-quarter mile of proposed school sites. Contaminants commonly associated with oil and natural gas fields include TPH; VOCs, including benzene, toluene, ethybenzene, and xylene, referred together as BTEX; SVOCs, including PAHs; PCBs; hydrogen sulfide; and metals, including arsenic, lead, mercury, vanadium, barium, and hexavalent chromium and methane gas. The Newhall Ranch Specific Plan proposes the development of five elementary schools, one junior high school, and one high school. As summarized in **Subsection 4.17.3.2,** Phase I and Phase II investigations have been conducted for portions of the Project area. Completion of the current site remediation activities reduces the possibility of siting a school within one-quarter mile of a hazardous waste site. In the unlikely event that undetected contamination is located at or near proposed school sites, a significant health and safety impact would occur. Implementation of Mitigation Measures PH-11 and PH-12, which require development of specific plans (PH-11) that address assessment and cleanup actions for contaminated soils, would reduce the impact from known or unknown contaminated soil to less than significant relative to Significance Criterion 3.

**Impacts to Adopted Emergency Response or Emergency Evacuation Plans (Less than Significant).** Similar to Alternative 2, Entrada planning area development facilitated by Alternative 7 would increase demand on emergency response services, which could increase emergency response times and result in a significant impact to public safety if not mitigated proportionately with the planned development. The same firefighting capabilities would be provided by Alternative 7 as is described for Alternative 2.

It is anticipated that the Entrada project would be required to implement measures similar to the requirements of Mitigation Measure PH-7, and provide a secondary route access where necessary. This would ensure that potential impacts to public safety related to emergency response services and emergency evacuation, are less than significant relative to Significance Criterion 4.

**Impacts from Dam Inundation (Less than Significant).** Castaic and Bouquet Lakes are contained by earthen dams located upstream from the Project area. Inundation of a developed Project area could result in hazards to public health and safety.

Alternative 7 would result in a smaller development area than Alternative 2, and as such, less developed area would potentially be subject to dam inundation. Accordingly, the level of potential risk associated with dam inundation for Alternative 7 would be incrementally less than Alternative 2. As with Alternative 2, impacts associated with dam inundation are less than significant relative to Significance Criterion 5.

**Impacts from Wildland Fires (Significant but Mitigable).** The same types of development would occur in the Entrada planning area under Alternative 7, as with Alternative 2, and would be located in areas that have been designated as either Fire Zone 3 or 4 (of moderate or high fire hazard, respectively), which could result in significant hazards to public safety. Characteristics of the Entrada planning area that contribute to these conditions include: (1) limited access; (2) lack of adequate water supplies; (3) the types of vegetative cover; and (4) topography. The development of the sites would potentially reduce the chance of fires in wildland areas (*i.e.*, the response time to the far areas of Hasley Canyon should be shortened due to the extension of Backer Road to SR-126). In addition, the expansion of water supplies to serve the Project area would introduce new water sources to fight fires that do occur. Development of the Entrada planning area would result in a significant impact on fire protection services in the Santa

Clarita Valley based on Significance Criterion 6; however, incorporation of the measures discussed above and Mitigation Measures PH-7 and PH-14 would reduce this impact to less than significant.

**Impacts from Electromagnetic Fields (Less than Significant).** The Project site is traversed by the SCE's 66 kV and 220 kV transmission lines within a 300-foot easement in the northern portion of the site, and 66 kV and 230 kV transmission lines within a 75- to 240-foot (total width) easement in the central portion of the Specific Plan site.

As no specific health effects of EMFs have been conclusively demonstrated, there are no health-based standards for EMF exposure. There is no current informational basis for determination of a significant adverse environmental impact associated with the proposed Project land use in relationship to the SCE transmission lines. No significant impact has been identified relative to EMF hazards and Alternative 7. However, to reduce any potential impacts, development of the Newhall Ranch Specific Plan site would be in compliance with Mitigation Measure PH-4, which requires that all final school locations are to comply with the California State Board of Education requirement that no schools be sited within 100 feet from the edge of the right-of-way of 100 to 110 kV lines; 150 feet from 220 to 230 kV lines; and 350 feet from 500 to 550 kV lines. In addition, the Newhall Ranch Specific Plan proposes that only non-habitable structures would be located within SCE easements. Impacts related to exposure to EMFs are considered less than significant relative to Significance Criterion 7.

#### 4.17.6.7.3 Secondary Impacts

**RMDP Secondary Impacts.** Alternative 7 has less bank protection and other RMDP facilities than Alternative 2. However, Alternative 7 would result in significant direct and indirect hazard-related impacts related to the transport of hazardous materials, emergency response and evacuation, and from wildfires. Those impacts also have the potential to result in significant secondary impacts to areas located beyond the boundaries of the Project site.

**Transport of Hazardous Materials Along SR-126 (Less than Significant).** The transportation of hazardous materials to the Specific Plan site would be required during the construction of proposed infrastructure projects (direct impacts) and during the construction of facilitated development (indirect impacts). The potential for impacts to the environment and/or public resulting from a large-scale release during the transport of hazardous materials would be reduced to a less-than-significant level through the continued implementation and enforcement of existing hazardous waste transportation and handling regulations. Therefore, this impact would not be significant under the requirements of Significance Threshold 1 and no mitigation measures are required.

**Emergency Response and Emergency Evacuation Plans (Significant and Unavoidable).** The previously approved Specific Plan includes an extensive vehicle circulation system that provides five points of access to the site *via* a major state highway and a federal freeway (SR-126 and I-5, respectively). Under Alternative 7, the internal circulation system for the Specific Plan would be changed and the Potrero Canyon Road and the Commerce Center Drive bridges would be deleted. By not constructing the two bridges, only one access across the Santa Clara River would be provided to accommodate the Specific Plan, and access to and from the project site in the event of an emergency would be impaired. Providing only one bridge access from the Specific Plan site to SR-126 would have the potential to result

in significant evacuation-related impacts to the highway. Consequently, evacuation and emergency response impacts would be significant and unavoidable relative to Significance Criterion 4.

**Wildland Fires (Significant and Unavoidable).** The previously approved Specific Plan includes an extensive vehicle circulation system that provides five points of access to the site *via* a major state highway and a federal freeway (SR-126 and I-5, respectively). Under Alternative 7, the internal circulation system for the Specific Plan would be changed and the Potrero Canyon Road and the Commerce Center Drive bridges would be deleted. By not constructing the two bridges, only one access across the Santa Clara River would be provided to accommodate the Specific Plan, and access to and from the project site in the event of a fire would be impaired. Providing only one bridge access from the Specific Plan site to SR-126 would have the potential to result in significant fire suppression/site access impacts, which could contribute to a fire migrating beyond the Specific Plan boundary. Consequently, access-related impacts related to fire suppression would be significant and unavoidable relative to Significance Criterion 6.

**SCP Secondary Impacts.** Establishment of the proposed spineflower preserves would not result in significant direct hazard-related impacts. Indirect hazard-related impacts that may result from the development that is facilitated on the Specific Plan site is evaluated above and would be significant and unavoidable. Facilitated development on a portion of the Entrada site would likely be reduced to a less-than-significant level with implementation of mitigation measures similar to those proposed for the Specific Plan. Project-related hazard and public safety impacts that have the potential to result in significant safety impacts at locations beyond the boundary of the Project site include the following:

**Emergency Response and Emergency Evacuation Plans (Less than Significant).** With the implementation of mitigation measures provided in **Subsection 4.8.9,** roadways located beyond the boundary of the Project site would provide adequate capacity to accommodate anticipated traffic volumes generated by facilitated development located on the Specific Plan and Entrada project sites. With implementation of the identified measures, the off-site roadway system would operate at acceptable levels, provide adequate emergency vehicle access, and not result in significant impacts to emergency vehicle response times. No additional mitigation measures are required.

**Impacts to Existing and Proposed Schools (Less than Significant).** Development on the portion of the Entrada project site facilitated by the SCP would be located within one-quarter mile of existing off-site school facilities, including the Oak Hill Elementary and Rancho Pico Junior High schools. Development on the Entrada site that would occur in the vicinity of schools includes single- and multi-family residences, which would not be a significant source of hazardous or extremely hazardous materials. Therefore, the proposed land uses on the Entrada project site would not result in significant health or safety impacts to existing school facilities under the requirements of Significance Threshold 3.

**Wildland Fires (Significant but Mitigable).** A fire on the Entrada site would have the potential to migrate off-site and effect areas located beyond the Project boundary. Implementation of mitigation measures for the Entrada site that are similar the measures required for the Specific Plan site would reduce Project-related on-site wildfire impacts to a less-than-significant level and also reduce the potential for Project-related fire impacts to surrounding areas to a less-than-significant level.

## 4.17.7 MITIGATION MEASURES

The Newhall Ranch Specific Plan Program EIR recommended implementation of Mitigation Measures SP-4.5-1, SP-4.5-3, SP-4.5-5, SP-4.5-7, SP-4.5-8, and SP-4.5-9 to ensure compliance with all plan and regulatory requirements. In addition, to ensure avoidance of hazards, hazardous materials, and public safety impacts resulting from construction and operation of the approved WRP, the Newhall Ranch Specific Plan Program EIR recommended implementation of Mitigation Measures SP-5.0-22 through SP-5.0-29. The Los Angeles County Board of Supervisors found that adoption of the recommended mitigation measures would ensure compliance with all plan and regulatory requirements. The Newhall Ranch mitigation program was adopted by Los Angeles County in findings and in the revised Mitigation Monitoring Plans for the Specific Plan and WRP.

In addition to the mitigation measures previously adopted by the Los Angeles County Board of Supervisors, this EIS/EIR recommends mitigation measures that will reduce significant impacts to less-than-significant levels.

### 4.17.7.1 Mitigation Measures Already Required by the Adopted Newhall Ranch Specific Plan EIR

The County of Los Angeles previously adopted mitigation measures to minimize impacts to hazards, hazardous materials, and public safety within the Specific Plan area as part of its adoption of the Newhall Ranch Specific Plan and WRP. These measures are found in the previously the certified Newhall Ranch Specific Plan Program EIR and the adopted Mitigation Monitoring Plans for the Specific Plan and WRP (May 2003), and are summarized above in **Table 4.17-1.** In addition, these mitigation measures are set forth in full below, and preceded by "SP," which stands for Specific Plan.

**SP-4.5-1** All final school locations are to comply with the California State Board of Education requirement that no schools be sited within 100 feet from the edge of the right-of-way of 100-110 kV lines; 150 feet from 220-230 kV lines; and 250 feet from 345 kV lines.

**SP-4.5-2** Only non-habitable structures shall be located within SCE easements.

**SP-4.5-3** Prior to issuance of grading permits, all abandoned oil and natural gas-related sites must be remediated to the satisfaction of the California Department of Oil and Gas, the Los Angeles County Hazardous Materials Control Program, the South Coast Air Quality Management District, and/or the Regional Water Quality Control Board (Los Angeles region).

**SP-4.5-4** All on-going oil and natural gas operational sites adjacent to or in close proximity to residential, mixed-use, commercial, business park, schools, and local and Community Parks shall be secured by fencing and emergency access to these locations shall be provided.

**SP-4.5-5** The Specific Plan is to meet the requirements of SCGC in terms of pipeline relocation, grading in the vicinity of gas mains, and development within Southern California Gas

Company easements. These requirements would be explicitly defined by SCGC at the future tentative map stage.

**SP-4.5-6** All potential buyers or tenants of property in the vicinity of Southern California Gas Company transmission lines are to be made aware of the line's presence in order to assure that no permanent construction or grading occurs over and within the vicinity of the high-pressure gas mains.

**SP-4.5-7** In accordance with the provisions of the Los Angeles County Building Code, Section 308(d), all buildings and enclosed structures that would be constructed within the Specific Plan located within 25 feet of oil or gas wells shall be provided with methane gas protection systems. Buildings located between 25 feet and 200 feet of oil or gas wells shall, prior to the issuance of building permits by the County of Los Angeles, be evaluated in accordance with the current rules and regulations of the State of California Division of Oil and Gas.

**SP-4.5-8** In accordance with the provisions of the Los Angeles County Building Code, Section 308(c), all buildings and structures located within 1,000 feet of a landfill containing decomposable material (in this case the Chiquito Canyon Landfill) shall be provided with a landfill gas migration protection and/or control system.

**SP-4.5-9** In accordance with the provisions of the Los Angeles County Code, Title 11, Division 4, Underground Storage of Hazardous Materials regulations, the County of Los Angeles Department of Public Works shall review, prior to the issuance of building permits by the County of Los Angeles, any plans for underground hazardous materials storage facilities (*e.g.*, gasoline) that may be constructed or installed within the Specific Plan.

**Water Reclamation Plant**

**SP-5.0-22** Design and operate the WRP in accordance with an NPDES Permit that must be obtained from the California Regional Water Quality Control Board, Los Angeles Region.

**SP-5.0-23** Prepare and implement worker safety programs in accordance with Cal-OSHA requirements.

**SP-5.0-24** Prepare and implement preventive and contingency plans for controlling accidental discharges of wastewater or chemicals used and stored at the WRP, and for minimizing the effects of such events. Such plans shall be integrated into the CSDLAC's overall preventive (fail-safe) and contingency (emergency response) plans and programs.

**SP-5.0-25** A Stormwater Pollution Prevention Plan (SWPPP) shall be prepared and implemented, in accordance with the U.S. Environmental Protection Agency's Industrial Stormwater Permit.

**SP-5.0-26** Any industrial wastewater that may be produced from manufacturing, commercial processing operations, acute care medical facilities and laboratories, *etc.*, that would be

allowed in the Commercial, Mixed-Use or Business Park land use designations as regulated by the Specific Plan, shall comply with the Wastewater Ordinance of the County Sanitation Districts of Los Angeles County (April 1, 1972, as amended November 1, 1989). A permit from the CSDLAC would be required for any such facility to allow discharge into the Newhall Ranch sewer system.

**SP-5.0-27** Prepare and implement an "Integrated Emergency Response Plan" (IERP). The IERP provides procedures for personnel medical emergencies, evacuation procedures and mitigation and abatement procedures for hazardous chemicals. The plan must conform to multiple regulatory requirements, including Title 8 § 3220, Emergency Action Plan, § 3221, Fire Prevention Plan, § 5192 Emergency Response to Hazardous Substances Releases, and Title 22, §§ 66265.50-66265.56, Contingency Plan and Emergency Procedures.

**SP-5.0-28** Biosolids treatment and disposal methods shall meet California Title 22, Division 4.5, Chapter 11, Article 3, which contains Toxicity Characteristic Leaching Procedure (TCLP) and Soluble Threshold Limit Concentration (STLC) limits.

**SP-5.0-29** Obtain permits to construct and operate all new sources of air toxic emissions, at each stage of WRP development, and whenever any new sources are added or replaced, pursuant to SCAQMD Regulation XIV.

### 4.17.7.2 Mitigation Measures Already Required by the Adopted VCC EIR

The County of Los Angeles adopted mitigation measures to minimize hazards-related impacts within the VCC planning area as part of approval of the VCC project. These measures are found in the previously certified VCC EIR (April 1990), and are summarized in **Table 4.17-2**, above. In addition, these mitigation measures are set forth in full below, and preceded by "VCC-PH," which stands for Valencia Commerce Center - Public Safety/Hazards.

At the time of adoption, the VCC mitigation measures represented the best available mitigation imposed by Los Angeles County. Moreover, as noted in **Subsection 4.17.1.2.1**, above, additional environmental review will be conducted by Los Angeles County with respect to the VCC planning area, because the applicant recently submitted the last tentative parcel map for build-out of the VCC planning area. Implementation of the previously-adopted applicable VCC mitigation measures and additional mitigation requirements (*e.g.,* measures similar to those previously adopted for the Specific Plan area and/or recommended for the proposed Project) would ensure that significant hazards-related impacts within the VCC planning area are reduced to the extent feasible.

**VCC-PH-1** Businesses that handle hazardous materials will be required to comply with all applicable federal, state, and local rules and regulations and to obtain all permits necessary from the various regulatory agencies involved. Pertinent rules and regulations include:

- Business Plans,
- Proposition 65,

- Air Toxic Hot Spots,
- Risk Management and Prevention Programs, and
- Tanner/Waters Bill AB 3205.

**VCC-PH-2** Industrial businesses handling hazardous materials and within 1000' of the elementary school will have to develop Risk Management and Prevention Programs (RMPP). The RMPP plan must be submitted to and approved by the County Fire Department prior to building occupancy.

### 4.17.7.3 Mitigation Measures Relating to the Entrada Planning Area

The County of Los Angeles has not yet prepared or released a draft EIR for the proposed development within the portion of the Entrada planning area that would be facilitated by approval of the SCP component of the proposed Project. As a result, there are no previously adopted mitigation measures for the Entrada planning area. However, the adoption and implementation of measures similar to those previously adopted for the Specific Plan area and/or recommended for the proposed Project would ensure that potential impacts to hazard, hazardous materials, and public safety within the Entrada planning area would be reduced to the extent feasible.

### 4.17.7.4 Regulatory Mitigation Measures Incorporated by this EIS/EIR

The following subsection identifies and incorporates the applicable mitigation measures that would apply to the proposed Project, alternatives, and all subsequent facilitated development. The application of these mitigation measures would ensure that any potentially significant hazards, hazardous materials, and public safety impacts remain less than significant. These regulatory mitigation measures are preceded by "PH," to designate that each measure is related to public safety and health.

**PH-1** During the earthwork phase of construction, all known abandoned oil wells located beneath the Project site shall be exposed to allow DOGGR to examine the well heads, assess any potential for methane, and determine if reabandonment of any wells will be required. Additionally, any unknown (*i.e.*, "wildcat") wells encountered during earthwork shall also be subject to investigation and potential reabandonment requirements of DOGGR as described below:

- File Notice of Intent to re-abandon well;
- Excavate and expose several feet of well casing;
- Perform hot tap -- a method of drilling a hole into the casing under control in order to deal with possible pressure;
- Install a wellhead and blow out prevention equipment;
- Move drill rig into place and drill out any surface cement plug or any other cement plug to reach a minimum clean-out as required by DOGGR;
- Place cement plugs of varying lengths as required by DOGGR;

- All portions of well not plugged with cement are to be filled with inert mud fluid having a density of 70 pounds per cubic foot and a gel strength of 25 pounds per 100 square feet;
- Move out drill rig;
- Cut off casing at least five feet below final finished grade;
- Weld a steel plate on top of the wellhead;
- Backfill and compact excavation and clean up location;
- Survey the center point of the buried well using GPS instrumentation;
- Place a permanent survey mark at the surface, demarcating a buried, abandoned oil well; and
- Submit the re-abandonment record to DOGGR within 60 days upon completion of work.

Additionally, proposed development plans shall be evaluated by means of the Construction-Site Plan Review Program and comply with setbacks from oil and gas wells as determined by DOGGR. Recommendations by DOGGR regarding abandonment procedures shall be incorporated into the final development plans for the Project, if applicable.

**PH-2** In accordance with the provisions of the Los Angeles County Building Code, section 308, subdivision (d), all buildings and enclosed structures that would be constructed within the Newhall Ranch Specific Plan, located within 25 feet of oil or gas wells, shall be provided with methane gas protection systems. Buildings located within 25 feet and 200 feet of oil or gas wells shall, prior to the issuance of building permits by the County of Los Angeles, be evaluated in accordance with the current DOGGR rules and regulations.

**PH-3** In accordance with the provisions of the Los Angeles County Building Code, section 308, subdivision (c), all building and structures located within 1,000 feet of a landfill containing decomposable material (in this case, Chiquita Canyon Landfill) shall be provided with a landfill gas migration protection and/or control system.

**PH-4** All final school locations are to comply with the California State Board of Education requirement that no schools be sited within 100 feet from the edge of the right-of-way of 100 to 110 kV lines; 150 feet from 220 to 230 kV lines; and 350 feet from 500 to 550 kV lines.

**PH-5** All ongoing oil and natural gas operational sites adjacent or in proximity to residential, mixed use, commercial, business park, schools, and local and community parks shall be secured by fencing, and emergency access to these locations shall be provided in accordance with the California Code of Regulations, title 14, sections 1774 and 1778.

**PH-6** All activities associated with pipeline relocation, grading in the vicinity of gas mains, and development with the SCGC easements would be conducted in conformance with the requirements of SCGC. These requirements would be explicitly defined by SCGC prior to implementation of the Newhall Ranch Specific Plan.

**PH-7** All development of the Newhall Ranch Specific Plan site and the VCC and Entrada planning areas shall be in compliance the provisions of Los Angeles County Code, title 21, chapter 21.24, for secondary evacuation access.

### 4.17.7.5 Additional Mitigation Measures Proposed by this EIS/EIR

Based on the analysis above, the following mitigation measures are proposed to further minimize the potential for hazards, hazardous materials, and public safety impacts. These proposed mitigation measures are to be implemented in addition to those previously adopted by the County of Los Angeles in connection with its approval of the Specific Plan, WRP, and VCC projects. The following additional mitigation measures are preceded by "PH," to designate that they are public safety/health-related mitigation.

**PH-8** To reduce potentially hazardous conditions and minimize the impacts from handling potentially hazardous materials, the owner shall include the following in its construction contract documents prior to the initiation of construction activities:

- The Contractor(s) shall enforce strict on-site handling rules to keep construction and maintenance materials out of receiving waters and storm drains per the County's NPDES guidelines and as outlined in the Stormwater Pollution and Prevention Plan; and
- The Contractor(s) shall prepare a Health and Safety Plan. The plan shall include measures to be taken in the event of an accidental spill. In addition, the Contractor(s) shall store all reserve fuel supplies only within the confines of a designated construction staging area, refuel equipment only within the designated construction staging area, and regularly inspect all construction equipment for leaks.

**PH-9** The applicant shall prepare and implement a Spill Prevention Plan prior to all construction-related activities. The Spill Prevention Plan shall contain specific details on reporting requirements, cleanup processes, appropriate use and storage of hazardous materials (such as the use of proper container types and storage requirements), and waste containment and disposal. The plan shall include specific measures and performance standards to ensure that appropriate measures are taken to adequately mitigate any releases. The plan will require approval from the Los Angeles County Fire Department Health Hazardous Materials Division prior to the start of any Project-related construction.

**PH-10** Prior to initiation of construction activities, the applicant shall prepare a Chemical Inventory for construction and maintenance of the Project. The Chemical Inventory shall be submitted to the Los Angeles County Fire Department Health Hazardous Materials Division for evaluation to determine whether a Hazardous Materials Business Plan is required. If a Hazardous Materials Business Plan is required, the plan shall address handling and potential releases of hazardous materials from the sites. It shall also include: (1) an inventory of all hazardous material and waste handled on site; (2) emergency response plans; (3) procedures in the event of a reportable or threatened release of a hazardous material; and (4) safety procedure training for all employees in the event of a release or threatened release of a hazardous material.

**PH-11** In the event that previously unidentified, obvious, or suspected hazardous materials, contamination, debris, or other features or materials that could present a threat to human health or the environment are discovered during construction, construction activities shall cease immediately until the affected area is evaluated by a qualified professional. A remediation plan shall be developed in consultation with the appropriate regulatory authorities and the remediation identified shall be completed. Work shall not resume in the affected area until appropriate actions have been implemented in accordance with the remediation plan. The remediation action plan shall include the following:

- Remediation goals and cleanup criteria that could include, but are not necessarily limited to, excavation and on-site treatment, excavation and off-site treatment, and/or removal of contaminated soil and/or groundwater;
- A detailed description of the access points and haul-out routes for remedial activities; remediation methods and procedures; mitigation of dust; minimization or avoidance of disturbance to sensitive ecosystems; and verification soil sampling and analysis. Included in the discussion shall be information on disposal sites, transport and disposal methods, as well as recordkeeping methods for documenting remediation, regulatory compliance, and health and safety programs for on-site workers; and
- Removal of oil development equipment and debris.

**PH-12** A Soil Management Plan for the residential development envelopes and recreational construction areas shall be developed and implemented, as appropriate. The objective of the Soil Management Plan is to provide guidance for the proper handling, on-site management, and disposal of impacted soil that may be encountered during construction activities (*i.e.*, excavation and grading). The plan shall include practices that are consistent with the California Division of Occupational Safety and Health regulations, California Code of Regulations, title 8, as well as Certified Unified Program Agency remediation standards that are protective of the planned use. Appropriately trained professionals will be on site during preparation, grading, and related earthwork activities to monitor soil conditions encountered. In order to confirm the absence or presence of hazardous substances associated with former land use, a sampling strategy shall be implemented. The sampling strategy shall include procedures regarding logging/sampling and laboratory analyses. The Soil Management Plan will outline guidelines for the following:

- Identifying impacted soil;
- Assessing impacted soil;
- Soil excavation;
- Impacted soil storage;
- Verification sampling; and
- Impacted soil characterization and disposal.

In the event that potentially contaminated soils are encountered within the footprint of construction, soils will be tested and stockpiled. The Certified Unified Program Agency will determine whether further assessment is warranted. The Certified Unified Program Agency shall determine and oversee the handling and disposal of impacted soils.

**PH-13** All potential buyers or tenants of property in the vicinity of SCGC transmission lines are to be made aware of the line's presence in order to assure that no permanent construction or grading occurs over, or within the vicinity of, the high-pressure gas mains.

**PH-14** At the time of final subdivision maps permitting construction in development areas that are adjacent to Open Area and the High Country SMAs, a Wildfire Fuel Modification plan shall be prepared in accordance with the fuel modification ordinance standards in effect at that time and shall be submitted for approval to the Los Angeles County Fire Department. The Wildfire Fuel Modification plan shall depict a fuel modification zone, the size of which shall be consistent with the Los Angeles County fuel modification ordinance requirements. Within the zone, tree pruning, removal of dead plant material and weed and grass cutting shall take place as required by the fuel modification ordinance. The Wildfire Fuel Modification plan shall include the following construction period requirements: (a) a fire watch during welding operations; (b) spark arresters on all equipment or vehicles operating in a high fire hazard area; (c) designated smoking and non-smoking areas; and (d) water availability pursuant to the Los Angeles County Fire Department requirements. The fuel modification zone will not extend onto any spineflower preserve.

As a result of these recommended mitigation measures, the previously adopted Specific Plan, WRP, and VCC project mitigation measures, and the incorporation of all applicable mitigation measures identified above, potential impacts to hazards, hazardous materials, and public safety would be reduced to less than significant.

### 4.17.8 SUMMARY OF SIGNIFICANCE FINDINGS

Using the significance criteria identified in this section, it has been determined that the proposed Project and alternatives would result in potentially significant but mitigable impacts related to hazards, hazardous materials, and public safety, except for Alternative 7, which would have a significant unavoidable impact related to access/fire safety. **Table 4.17-4** presents a summary of the significance criteria relating to each of the Project alternatives, and the reduced level of impact that would be achieved for each alternative by applying the above mitigation measures.

**Table 4.17-4**
**Summary of Significant Hazards Impacts - Pre- and Post-Mitigation**

| Significance Criteria | Applicable Mitigation Measures | Planning Area | Impact of Alternatives - Pre/Post-Mitigation | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | Alt 1 | Alt 2 | Alt 3 | Alt 4 | Alt 5 | Alt 6 | Alt 7 |
| 1: Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials. | PH-8; PH-9; PH-10 | NRSP | NI | SI/M | SI/M | SI/M | SI/M | SI/M | SI/M |
| | | VCC | NI | SI/M | SI/M | NI | NI | NI | NI |
| | | Entrada | NI | SI/M | SI/M | SI/M | SI/M | SI/M | SI/M |
| 2: Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials at concentrations that: Exceed PRGs set forth by the USEPA; or Impair the achievement of the designated land uses by exceeding the following criteria: TPH concentrations are greater than 1 mg/L in drinking water sources; TPH concentrations are greater than 1,000 to 50,000 mg/kg depending on composition of oil and depth to groundwater; or TPH concentrations in shallow soils (less than 5 feet) exceed nuisance-based levels of 1,000 mg/kg. | PH-1, 2, 3, 5, 6; PH-9; PH-11; PH-12; PH-13 | NRSP | NI | SI/M | SI/M | SI/M | SI/M | SI/M | SI/M |
| | | VCC | NI | SI/M | SI/M | NI | NI | NI | NI |
| | | Entrada | NI | SI/M | SI/M | SI/M | SI/M | SI/M | SI/M |
| 3: Project would emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school. | PH-11; PH-12 | NRSP | NI | SI/M | SI/M | SI/M | SI/M | SI/M | SI/M |
| | | VCC | NI | SI/M | SI/M | NI | NI | NI | NI |
| | | Entrada | NI | SI/M | SI/M | SI/M | SI/M | SI/M | SI/M |

**Table 4.17-4**
**Summary of Significant Hazards Impacts - Pre- and Post-Mitigation**

| Significance Criteria | Applicable Mitigation Measures | Planning Area | Impact of Alternatives - Pre/Post-Mitigation | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | Alt 1 | Alt 2 | Alt 3 | Alt 4 | Alt 5 | Alt 6 | Alt 7 |
| 4: Project would impair implementation of or interfere with an adopted emergency response plan or emergency evacuation plan. | PH-7 | NRSP | NI | NS/NS | NS/NS | NS/NS | NS/NS | NS/NS | SI/SU |
| | | VCC | NI | NS/NS | NS/NS | NI | NI | NI | NI |
| | | Entrada | NI | NS/NS | NS/NS | NS/NS | NS/NS | NS/NS | NS/NS |
| 5: Project would expose people or structures to a significant risk of loss, injury, or death involving as a result of levee or dam failure. | None Required | NRSP | NI | NS/NS | NS/NS | NS/NS | NS/NS | NS/NS | NS/NS |
| | | VCC | NI | NS/NS | NS/NS | NI | NI | NI | NI |
| | | Entrada | NI | NS/NS | NS/NS | NS/NS | NS/NS | NS/NS | NS/NS |
| 6: Project would 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. | PH-7; PH-14 | NRSP | NI | SI/M | SI/M | SI/M | SI/M | SI/M | SI/SU |
| | | VCC | NI | SI/M | SI/M | NI | NI | NI | NI |
| | | Entrada | NI | SI/M | SI/M | SI/M | SI/M | SI/M | SI/M |
| 7: Project would expose people to documented health risk associated with EMFs. | PH-4 | NRSP | NI | NS/NS | NS/NS | NS/NS | NS/NS | NS/NS | NS/NS |
| | | VCC | NI | NS/NS | NS/NS | NI | NI | NI | NI |
| | | Entrada | NI | NS/NS | NS/NS | NS/NS | NS/NS | NS/NS | NS/NS |

SU = Significant unavoidable impact
SI = Significant impact
SI/M = Significant impact, but mitigated to less-than-significant level
NS = Not significant. No mitigation required.
NI = No impact, and no mitigation required

## 4.17.9 SIGNIFICANT UNAVOIDABLE IMPACTS

With implementation of the identified mitigation measures, the hazards, hazardous materials, and public safety impacts of the proposed Project and the "build" alternatives would be reduced to less-than-significant levels, except for Alternative 7, which would have a significant unavoidable impact related to access/fire safety.