2.4 Hazards and Hazardous Materials

This section presents a summary of the Phase I Environmental Site Assessment (ESA) prepared for the project by SCS Engineers. This report can be found in its entirety in this EIR as Appendix F. A Limited Phase II ESA, Soil Sampling, was also prepared for the project site. The Limited Phase II ESA Soil Sampling was completed for the subject property to determine the extent, if any, of hazardous materials contamination onsite as a result of the historic agricultural uses. This report is included as Appendix G of this EIR.

Fire hazards are also analyzed within this section of the EIR due to the potential for wildland fires at the project site. A Fire Protection Plan (FPP) was prepared by RC Biological Consulting, Inc. (January 2015) to assess the potential impacts resulting from wildland fire hazards and to identify measures necessary to mitigate those impacts adequately. The FPP is provided in accordance with Chapter 49 of the County Consolidation Fire Code, which indicates that a Fire Protection Plan shall be required for all new development within the Urban-Wildland Interface. The FPP is included as Appendix H of this EIR.

2.4.1 Existing Conditions

2.4.1.1 Regulatory Setting

Federal

Resource Conservation and Recovery Act (RCRA) of 1976, as amended by the Hazardous and Solid Waste Amendments of 1984

Federal hazardous waste laws are generally stated under RCRA. These laws provide for the "cradle to grave" regulation of hazardous wastes. Any business, institution, or other entity that generates hazardous waste is required to identify and track its hazardous waste from the point of generation until it is recycled, reused, or disposed.

U.S. Environmental Protection Agency Region 9, Preliminary Remediation Goals

Region 9 is the Pacific Southwest Division of the Environmental Protection Agency (EPA), which includes California. Preliminary remediation goals (PRGs) are tools for evaluating and cleaning up contaminated sites. PRGs for the Superfund/RCRA programs are risk-based concentrations, derived from standardized equations combining exposure information assumptions with EPA toxicity data. They are considered to be protective for humans (including sensitive groups) over a lifetime. However, PRGs are not always applicable to a particular site and do not address non-human health issues such as ecological impacts. Region 9's PRGs are viewed as agency guidelines, not legally enforceable standards.

State

Government Code Section 65962.5(a), Cortese List

The Hazardous Waste and Substance Sites Cortese List is a planning document used by the state, local agencies and developers to comply with CEQA requirements in providing information about the location of hazardous materials release sites. Government Code Section 65962.5 requires the California Environmental Protection Agency (Cal EPA) to develop at least annually an updated Cortese List. The California Department of Toxic Substances Control (DTSC) is responsible for a

portion of the information contained in the Cortese List. Other state and local government agencies are required to provide additional hazardous material release information for the Cortese List.

California Health & Safety Code, Hazardous Materials Release Response Plans and Inventory

Two programs found in the California Health & Safety Code (H&SC) Chapter 6.95 are directly applicable to the CEQA issue of risk due to hazardous substance release. In San Diego County, these two programs are referred to as the Hazardous Materials Business Program and the California Accidental Release Program (CalARP). The County's Department of Environmental Health (DEH) is responsible for the implementation of the Hazardous Materials Business Program and CalARP in San Diego County.

Hazardous Materials Business Plans

Article 1 of Chapter 6.95 of the California Health and Safety Code (Sections 25500–25520) requires that any business that handles, stores, or disposes of a hazardous substance at a given threshold quantity must prepare a hazardous materials business plan (HMBP). HMBPs are intended to minimize hazards to human health and the environment from fires, explosions, or an unplanned release of hazardous substances into air, soil, or surface water. The HMBP must be carried out immediately whenever a fire, explosion, or unplanned chemical release occurs. An HMBP includes three sections: (1) an inventory of hazardous materials, including a site map, which details their location; (2) an emergency response plan; and (3) an employee-training program. HMBPs serve as an aid to employers and employees in managing emergencies at a given facility. They also help better prepare emergency response personnel for handling a wide range of emergencies that might occur at the facility.

HMBPs are submitted to the Department of Environmental Health Hazardous Materials Division. The plans must be resubmitted, reviewed, revised, or amended as necessary every year. The HMBP must also be amended within 30 days whenever there are changes in the amount or location of stored hazardous chemicals on a site. The Hazardous Materials Division conducts routine inspections at businesses required to submit business plans. The purpose of these inspections is to (1) ensure compliance with existing laws and regulations concerning HMBP requirements, (2) identify existing safety hazards that could cause or contribute to an accidental spill or release, and (3) suggest preventative measures designed to minimize the risk of a spill or release of hazardous materials. After initial submission of an HMBP, the business must review and recertify the HMBP every year.

Risk Management Plans

Article 2 of Chapter 6.95 of the California Health and Safety Code (Sections 25531–25543.3) requires the owner or operator of a stationary source (non-transportation) with more than a threshold quantity of a regulated substance to prepare a risk management plan. The state statutes and regulations combine federal and state program requirements for the prevention of accidental releases of listed substances into the atmosphere. The incorporation of the federal and state requirements have been designated the CalARP program. CalARP requires that a risk management plan include a hazard assessment program, an accidental release prevention program, and an emergency response plan. The risk management plan must be revised every 5 years or as necessary. The majority of facilities or businesses in the County that have prepared risk management plans are ammonia refrigeration facilities, water treatment and wastewater treatment plants that handle chlorine gas and facilities that store flammable chemicals such as methane and propane.

Hazard Assessment Program

The Hazard Assessment Program identifies regulated substances and quantities on-site, includes a five-year accident history, and assesses a worst-case release scenario analysis (based on realistic parameters). The main purpose of the release scenario analysis is to identify vulnerable public receptors, such as residences, schools, child day care facilities, hospitals, businesses, prisons, and other facilities, as well as vulnerable environmental receptors, such as wildlife preserves, parks, and other natural areas. The analysis identifies the scope and needs of the vulnerable receptors in order to plan for a community response to accidents. Worst-case scenarios assume the total quantity of the regulated substance is quickly released, atmospheric conditions will maximize the effect of the event, and no mitigation or response actions are taken. Worst-case scenarios can predict long distance effects that represent a highly unlikely chain of events. Alternative release scenarios are based on more credible and predicable factors. The scenario can assume, for example, that mitigation measures operate as designed and atmospheric conditions are typical, rather than worst-case.

Accidental Release Prevention Program

In addition to requiring facilities to identify and assess hazards, CalARP requires facilities to develop accident prevention programs. RMPs management plans must contain summary information about major hazards identified, safety features and process controls to prevent releases, mitigation systems (e.g., dikes, shut-off valves, scrubbers) used to lessen the effect of any release, monitoring and detection systems, worker training, and maintenance records. Facilities must also include a summary of their five-year accident history for relevant chemical processes. The frequency and extent of past releases provides a measure of the facilities effectiveness in controlling chemical hazards.

Emergency Response Plan

The RMP must also describe emergency response procedures that are in place in the event of a release of a regulated substance. The emergency response plan must detail the actions taken by employees and other individuals on-site over the entire course of the release event. It must address the alarm system; the evacuation, assembly, and return procedures; emergency first aid; and the use of response equipment and personnel cleanup and decontamination procedures. The emergency response plan must describe the type of off-site response assistance that will be needed in the event of a release, including firefighting, security, and public notification.

California Health & Safety Code, Vector Control

Sections 116110 through 116112 of the California H&SC establishes mosquito abatement and vector control districts, which are charged to protect Californians and their communities against the threats of vector borne diseases. Locally, this is the San Diego County Vector Control Program, a branch within the DEH. These districts are responsible for developing and conducting programs for the prevention and control of vectors; surveillance of vectors and vector-borne diseases; coordinating and conducting emergency vector control, as required; training and certifying government agency vector control technicians, and disseminating information to the public regarding protection from vectors and vector-borne diseases.

Title 14 Division 1.5 of the California Code of Regulations

California Code of Regulations (CCR) Title 14 Division 1.5 establishes the regulations for the California Department of Forestry and Fire Protection (CAL FIRE) and is applicable in all State Responsibility Areas (SRA)—areas where CAL FIRE is responsible for wildfire protection. Most of the unincorporated area of San Diego County is an SRA, and any development in these areas must

comply with these regulations. Among other things, Title 14 establishes minimum standards for emergency access, fuel modification, setback to property line, signage, and water supply.

Title 22 of the California Code of Regulations & Hazardous Waste Control Law, Chapter 6.5

DTSC is responsible for implementing the RCRA program as well as California's own hazardous waste laws, which are collectively known as the Hazardous Waste Control Law. Under the Certified Unified Program Agency (CUPA) program, Cal EPA has in turn delegated enforcement authority to the County of San Diego for State law regulating hazardous waste producers or generators. The DTSC regulates the generation, transportation, treatment, storage and disposal of hazardous waste under RCRA and the California Hazardous Waste Control Law. Like RCRA, Title 22 imposes "cradle to grave" regulatory systems for handling hazardous waste in a manner that protects human health and the environment. Cal EPA has delegated some of its authority under the Hazardous Waste Control Law to county health departments and other CUPAs, including the County of San Diego DEH.

California Human Health Screening Levels

The California Human Health Screening Levels (CHHSLs) or "Chisels" are concentrations of 54 hazardous chemicals in soil or soil gas that Cal EPA considers to be below thresholds of concern for risks to human health. The CHHSLs were developed by the Office of Environmental Health Hazard Assessment on behalf of Cal EPA. The CHHSLs were developed using standard exposure assumptions and chemical toxicity values published by the EPA and Cal EPA. The CHHSLs can be used to screen sites for potential human health concerns where releases of hazardous chemicals to soils have occurred. Under most circumstances, the presence of a chemical in soil, soil gas, or indoor air at concentrations below the corresponding CHHSL can be assumed to not pose a significant health risk to people who may live or work at the site. There are separate CHHSLs for residential and commercial or industrial sites.

Emergency Response to Hazardous Materials Incidents

California has developed an Emergency Response Plan to coordinate emergency services provided by federal, state, and local government, and private agencies. The plan is administered by the California Emergency Management Agency (Cal EMA) and includes responses to hazardous materials incidents. Cal EMA coordinates the response of other agencies, including Cal EPA, California Highway Patrol (CHP), CDFW, RWQCB, SDAPCD, the City of San Diego Fire Department, and the DEH Hazardous Incident Response Team (HIRT).

Local

County of San Diego, Site Assessment and Mitigation Program

The County of San Diego DEH maintains the Site Assessment and Mitigation (SAM) list of contaminated sites that have previously or are currently undergoing environmental investigations or remedial actions. San Diego County SAM Program, within the Land and Water Quality Division of the DEH, has a primary purpose to protect human health, water resources, and the environment within San Diego County by providing oversight of assessments and cleanups in accordance with the California H&SC and the CCR. The SAM's Voluntary Assistance Program (VAP) also provides staff consultation, project oversight, and technical or environmental report evaluation and concurrence (when appropriate) on projects pertaining to properties contaminated with hazardous substances.

County of San Diego, Underground Storage Tank (UST) Program

The underground storage tank monitoring and response program is required under Chapter 6.7 of the California Health and Safety Code and Title 23 of the California Code of Regulations. The program was developed to ensure that the facilities meet regulatory requirements for design, monitoring, maintenance, and emergency response in operating or owning underground storage tanks. The DEH HMD Underground Storage Tank (UST) Program administers and enforces federal and State laws and regulations and local ordinances for the construction/installation, modification, upgrade, and removal of USTs in San Diego County. If contamination is discovered or likely to be present, owners or operators of USTs are required by law to report the contamination to the DEH HMD and SAM Programs and to take corrective action.

County of San Diego Code of Regulatory Ordinances Sections 68.401-68.406, Defensible Space for Fire Protection Ordinance

This ordinance addresses the accumulation of weeds, rubbish, and other materials on a private property found to create a fire hazard and be injurious to the health, safety, and general welfare of the public. The ordinance makes the presence of such weeds, rubbish, and other materials as a public nuisance, which must be abated in accordance with the provisions of this section. This ordinance is enforced within all County Service Areas, and in the unincorporated areas of the County outside of a fire protection district. All fire protection districts have a combustible vegetation abatement program, and many fire protection districts have adopted and enforce the County's ordinance.

County of San Diego Code of Regulatory Ordinances Sections 96.1.005 and 96.1.202, Removal of Fire Hazards

The San Diego County Fire Authority, in partnership with CAL FIRE, the Bureau of Land Management, and the U.S. Forest Service, is responsible for the enforcement of defensible space inspections. Inspectors from the fire district are responsible to ensure an adequate defensible space has been created and maintained around structures. If violations of the program requirements are noted, inspectors provide a list of required corrective measures and provide a reasonable timeframe to complete the task. If the violations still exist upon re-inspection, the local fire inspector will forward a complaint to the County for further enforcement action.

County of San Diego Consolidated Fire Code

The County of San Diego, in collaboration with the local fire protection districts, created the first Consolidated Fire Code in 2001. The Consolidated Fire Code contains the County and fire protection districts amendments to the California Fire Code. The purpose of consolidation of the County and local fire districts adoptive ordinances is to promote consistency in the interpretation and enforcement of the Consolidated Fire Code for the protection of the public health and safety, which includes permit requirements for the installation, alteration, or repair of new and existing fire protection systems, and penalties for violations of the code. The Consolidated Fire Code provides the minimum requirements for access, water supply and distribution, construction type, fire protection systems, and vegetation management. Additionally, the fire code regulates hazardous materials and associated measures to ensure that public health and safety are protected from incidents relating to hazardous substance releases.

County Department of Planning and Land Use Fire Prevention in Project Design Standards

Following the October 2003 wildfires, the County incorporated a number of fire prevention strategies into the discretionary project review process for CEQA projects. One of the more significant changes is the requirement that the majority of discretionary permits (e.g., subdivision and use permits) in

wildland urban interface areas prepare a FPP for review and approval. An FPP is a technical report that considers the topography, geology, combustible vegetation (fuel types), climatic conditions, and fire history of the project site. The plan addresses the following in terms of compliance with applicable codes and regulations including but not limited to: water supply, primary and secondary access, travel time to the nearest fire station, structure setback from property lines, ignition-resistant building features, fire protection systems and equipment, impacts to existing emergency services, defensible space, and vegetation management. Following the 2007 wildfires, in February 2008, the County amended the Fire Code and Building Code to include strengthened ignition-resistive construction requirements, modifying the previous two-tiered system and requiring "enhanced" standards for all new construction (County of San Diego 2010b).

County of San Diego General Plan – Safety Element

The purpose of the Safety Element is to include safety considerations in the planning and decision-making process by establishing policies related to future development that will minimize the risk of personal injury, loss of life, property damage, and environmental damage associated with hazards, including hazardous materials and wildfires.

As stated in the Safety Element, hazardous materials are generally associated with select commercial, industrial, and agricultural operations, and their use is highly regulated by federal and state law. The Safety Element has several goals and policies that are relevant to hazards and hazardous materials as described below.

Goal S-11

Controlled Hazardous Material Exposure. Limit human and environmental exposure to hazardous materials that pose a threat to human lives or environmental resources.

Policies

S-11.1 Land Use Location. Require that land uses involving the storage, transfer, or processing of hazardous materials be located and designed to minimize risk and comply with all applicable hazardous materials regulations.

S-11.3 Hazards-Sensitive Uses. Require that land uses using hazardous materials be located and designed to ensure sensitive uses, such as schools, hospitals, day care centers, and residential neighborhoods, are protected. Similarly, avoid locating sensitive uses near established hazardous materials users or High Impact Industrial areas where incompatibilities would result.

S-11.4 Contaminated Lands. Require areas of known or suspected contamination to be assessed prior to reuse. The reuse shall be in a manner that is compatible with the nature of the contamination and subsequent remediation efforts.

This element also contains several policies that focus on minimizing the impact of wildfires through land use planning techniques and other mitigation measures.

Goal S-3

Minimize Fire Hazards. Minimize injury, loss of life, and damage to property resulting from structural or wildland fire hazards.

Policies

S-3.1 Defensible Development. Require development to be located, designed, and constructed to provide adequate defensibility and minimize the risk of structural loss and life safety resulting from wildland fires.

S-3.3 Minimize Flammable Vegetation. Site and design development to minimize the likelihood of a wildfire spreading to structures by minimizing pockets or peninsulas, or islands of flammable vegetation within a development.

S-3.6 Fire Protection Measures. Ensure that development located within fire threat areas implement measures that reduce the risk of structural and human loss due to wildfire.

S.3.7 Fire Resistant Construction. Require all new, remodeled, or rebuilt structures to meet current ignition resistance construction codes and establish and enforce reasonable and prudent standards that support retrofitting or existing structures in high fire threat areas.

Goal S-6

Adequate Fire and Medical Services. Adequate levels of fire and emergency medical service in the unincorporated County.

Policies

S-6.1 Water Supply. Ensure that water supply systems for development are adequate to combat structural and wildland fires.

S-6.3 Funding Fire Protection Services. Require development to contribute its fair share towards funding the provision of appropriate fire and emergency medical services as determined necessary to adequately serve the project.

S-6.4 Fire Protection Services for Development. Require that new development demonstrate that fire services can be provided that meets the minimum travel times identified in Table S-1 of the General Plan (Travel Time Standards from Closest Fire Station). *Table S-1 of the General Plan established a service level standard for fire and first responder emergency medical services that is appropriate to the area where a development is located. Standards are intended to (1) help ensure development occurs in areas with adequate fire protection and/or (2) help improve fire service in areas with inadequate coverage by requiring mitigation for service-level improvements as part of project approval.*

Emergency Response and Evacuation

Emergency response plans are maintained at the federal, state, and local level for all types of disasters, including human-made and natural. Emergency response plans include elements to maintain continuity of government, emergency functions of governmental agencies, mobilization, and application of resources, mutual aid, and public information. The Unified San Diego County Emergency Services Organization has the primary responsibility for preparedness and response activities, and addresses disasters and emergency situations within the unincorporated area of San Diego County. The County of San Diego Office of Emergency Services (OES) serves as staff to the Unified Disaster Council (UDC), the governing body of the Unified San Diego County Emergency Services Organization. Emergency response and preparedness plans include the Operational Area Emergency Response Plan and the San Diego County Multi-Jurisdictional Hazard Mitigation Plan.

Operational Area Emergency Plan

The comprehensive emergency plan, known as the Operational Area Emergency Plan, would provide the framework for emergency response at the project site, in the case of an emergency. Numerous

stand-alone emergency plans for the Operational Area exist, such as the HMBP, RMP and the Multi-Jurisdictional Hazard Mitigation Plan.

Multi-Jurisdictional Hazard Mitigation Plan

This plan includes an overview of the risk assessment process, vulnerability assessments, and identifies hazards present in each jurisdiction of San Diego County. Hazards profiled in the plan include wildfire, structure fire, flood, coastal storms, erosion, tsunami, earthquakes, liquefaction, rain induced landslide, dam failure, hazardous materials, incidents, nuclear materials release, and terrorism. The plan sets forth a variety of objectives and actions based on a set of broad goals including: (1) promoting disaster-resistant future development; (2) increased public understanding and support for effective hazard mitigation; (3) building support of local capacity and commitment to become less vulnerable to hazards; (4) enhancement of hazard mitigation coordination and communication with federal, state, local and tribal governments; and (5) reducing the possibility of damage and losses to existing assets, particularly people, critical facilities or infrastructure, and County-owned facilities, due to dam failure, earthquake, coastal storm, erosion, tsunami, landslides, floods, structural fire/wildfire, and manmade hazards.

San Diego County Air Pollution Control District

The San Diego County Air Pollution Control District (SDAPCD) maintains air quality and develops and implements cost-effective programs meeting state and federal mandates. The Asbestos National Emission Standard for Hazardous Air Pollutants (NESHAP), 40 Code of Federal Regulations (CFR) 61, Subpart M is enforced locally under San Diego Air Pollution Control District Regulation XI, Subpart M – Rule 361.145). This regulation requires the owner or operator of a demolition or renovation to submit surveys for asbestos containing materials (ACMs) and lead based paint (LBP) prior to issuance of any demolition permit and an Asbestos Demolition or Renovation Operational Plan at least 10 working days before any asbestos stripping or removal work begins (such as, site preparation that would break up, dislodge, or similarly disturb asbestos containing material).

San Diego County, Vector Control Program

The San Diego County Vector Control Program is a branch within the DEH. This program monitors and controls vectors and the diseases that they carry. The primary objective of controlling vectors is to preserve or create an environment favorable to humans and animals by lessening the effect that vectors and/or nuisances have upon the quality of life. Under the powers of a vector control district, as adopted by the County Board of Supervisors, this program provides countywide vector prevention and control services funded through a voter approved benefit assessment district. Mosquito, domestic rat, fly and other vector prevention and control programs are provided to reduce the risk of diseases these vectors can transmit and to minimize nuisances they cause.

2.4.1.2 Environmental Setting

General Principles

Under Title 22 of the California Code of Regulations (CCR), the term “hazardous substance” refers to both hazardous materials and hazardous wastes, both of which are classified according to four properties: (1) toxicity; (2) ignitability; (3) corrosiveness; and, (4) reactivity (CCR Title 22, Chapter 11, Article 3). A hazardous material is defined in Title 22 of the CCR as:

> "…A substance or combination of substances which because of its quantity, concentration, or physical, chemical or infectious characteristics, may either (1) cause, or significantly contribute to an increase in mortality or an increase in serious irreversible, or incapacitating reversible, illness; or, (2) pose a substantial present or potential hazard to human health or environment when improperly treated, stored, transported or disposed of or otherwise managed (California Code of Regulations, Title 22, Section 66260.10)."

Chemical and physical properties that cause a substance to be considered hazardous, including the properties of toxicity, ignitability, corrosivity, and reactivity, are defined in the CCR, Title 22, Sections 66261.20 through 66261.24. Factors that influence the health effects of exposure to hazardous materials include the dose to which the person is exposed, the frequency of exposure, the exposure pathway, and individual susceptibility.

Hazardous materials are commonly stored and used by a variety of businesses and are commonly encountered during construction activities. Hazardous materials typically require special handling, reuse, and disposal because of their potential to harm human health and the environment.

Typical adverse effects related to hazardous substances and existing contamination relate to the potential for site conditions, site contamination, or improper handling of hazardous substances to result in adverse human or environmental effects. For example, the improper handling of ACMs and LBP during building demolition may result in worker exposure to hazardous substances. Potential pathways of exposure to contaminants include direct ingestion of contaminated soils, inhalation of volatiles and fugitive dusts, and ingestion of contaminated ground water caused by migration of chemicals through soil to an underlying potable aquifer. Potential exposure to contaminants can occur to construction workers during site development and to the residents or workers that occupy the buildings constructed on the site. Similarly, the siting of a facility that could result in a significant hazard to sensitive land uses in the event of a hazardous substance release could represent a potentially significant impact, particularly for facilities that handle certain highly toxic substances near schools or day care facilities.

Environmental Conditions

Site Reconnaissance

On May 29, 2014, SCS Engineers conducted a site reconnaissance to observe and document existing site conditions. The Phase I ESA focused on potential sources of hazardous substances and petroleum produce that could be considered a recognized environmental condition (REC). Typical RECs include any evidence of contamination, distressed vegetation, petroleum-hydrocarbon staining of soil or concrete, waste drums, illegal dumping, and improper waste storage or handling.

Site Buildings

Two single-family residences and detached garages/sheds with addresses of 14109 and 14173 Olde Highway 80 were observed to be located adjacent (south) of Olde Highway 80. These residences are believed to have been constructed in 1920 and 1950, respectively. The buildings were observed to be in poor condition with broken walls and debris-covered floors. It should be noted that subsequent to the Phase I ESA, these two residences were demolished in the summer of 2015 for reasons of public safety.

Site Grounds

The site grounds were observed to be vacant land covered with natural vegetation. A storm culvert beneath Olde Highway 80 was observed adjacent to the northern edge of the site perimeter. A 55-gallon plastic drum containing an unknown liquid was observed on the project site near the intersection of Pecan Park Lane and Rios Canyon Road and piles of construction debris were observed near the residence located at 14109 Olde Highway 80. The debris appeared to be confined to the surface and there was no observed evidence of waste burial. No obvious indications of the presence of hazardous substances or petroleum products were observed in and around the inspected debris and no indications of a release from the plastic drum were observed. Therefore, there is a low likelihood that the debris and/or drum at the project site represent a REC.

Hazardous Materials/Petroleum Products

Hazardous materials and petroleum products were not observed to be used or stored at the project site.

Hazardous Wastes

No obvious indications of the generation of hazardous wastes were observed at the project site during the site reconnaissance.

Indications of Releases of Hazardous Materials/Wastes or Petroleum Products

Indications of releases of hazardous materials/wastes or petroleum products were not noted during the site reconnaissance.

On-Site Utilities

One pole-mounted San Diego Gas and Electric (SDG&E) transformer was observed to be located adjacent to the south perimeter of the project site. SDG&E was contacted regarding the possibility of polychlorinated biphenyls (PCBs) being present in transformers purchased by them. SDG&E reported that they have never specified PCBs in their transformers. A copy of a letter from SDG&E explaining this and their policy on testing for PCBs is included in Appendix F of this EIR. No high-power transmission lines were observed above or adjacent to the project site. Based on the site reconnaissance, the source of energy for heating and cooling at the site is interpreted to be SDG&E.

With the exception of the plastic drum discussed in the Site Grounds section above, no obvious indications of wells, cisterns, pits, sumps, dry wells, or bulk storage tanks were observed at the project site. No septic tanks were observed during the site reconnaissance; however, based on the rural location of the site and the reported age of the site buildings, septic tanks are interpreted to likely be present in the vicinity of the site buildings. Possible environmental concerns with septic tank systems are that, to the extent they are used for other than domestic waste purposes (i.e., chemicals released as waste water), they may act as a conduit for hazardous materials, petroleum products, and/or hazardous wastes to be released into the soil and possibly groundwater. Based on the interpreted domestic nature of the septic tank systems (associated with residential structures), there is a low likelihood that the septic tank system (if present) represents a REC.

Potential Asbestos-Containing Materials and Lead Based Paint

Asbestos was used extensively from the 1940s until the late 1970s. Although asbestos is usually safe when it is undisturbed and the ACMs are in good condition, once disturbed (such as during remodeling or demolition) the fibers can become airborne. The EPA has determined that there is no

safe exposure level to asbestos. Lead is a highly toxic metal that was used until 1978 in paint and other products found in and around residences. Lead may cause a range of health effects, from behavioral problems and learning disabilities, to seizures and death. LBP has been banned since 1978, but many older structures still have this paint on walls, woodwork, siding, windows, and doors.

During the site visit, SCS Engineers conducted a visual assessment of the readily available/observable materials at the site for potential ACMs. Potential ACMs observed at the project site included, but may not be limited to, sheet vinyl flooring material and mastic, vinyl composition tiles and mastic, drywall and joint compound, roofing materials, and exterior stucco. Based on the reported date of construction (1920 and 1950) of the two residences on the project site, in general accordance with 29 CFR, surfacing materials (such as fireproofing and sprayed-on acoustic ceilings material) and thermal system insulation must be presumed to contain asbestos if installed in structures prior to 1981, unless sampling and laboratory analysis have determined that these are not asbestos-containing. Based on the reported date of construction of the two residences, there was also a potential that these structures were constructed when LBP was commonly used in construction. Based on the age of the buildings, there was the potential for friable and non-friable ACMs, and LBP to be present.

Records Review

The County of San Diego DEH, Building Department, and ~~City of~~ Lakeside Fire ~~Department~~ District were contacted regarding regulatory files and hazardous materials/waste records for the project site. All three departments responded that there are no files or records for the project site.

Environmental Regulatory Database Search

An environmental regulatory database report (FirstSearch™ report) was prepared by Environmental Data Resources (EDR) for the project site (Appendix F). Local, state, and federal regulatory databases were reviewed for the project site and for those facilities within up to one mile of the project site. The FirstSearch™ report was reported to have been prepared in general accordance with the ASTM standard for the regulatory database review for Phase I Environmental Site Assessment. The FirstSearch™ report is included in Appendix F.

Based on a review of the FirstSearch™ report, the project site was not listed on any of the regulatory databases reviewed.

Based on the off-site source survey, several facilities in the project site vicinity were reported to have had releases of hazardous materials/waste or petroleum products. However, there is a low likelihood that a recognized environmental condition exists at the project site as a result of known and reported releases of hazardous materials/wastes or petroleum products from an off-site source. This judgment is based on one or more of the following: reported regulatory status (e.g., case closed), media affected (e.g., soil contamination only), distance from the site, direction from the site with respect to groundwater flow direction, and information obtained through a review of regulatory records.

The project site is within 2,000 feet of a property listed in the State Water Resources Control Board Geotracker (7-Eleven Food Store #16439) located at 14110 Olde Highway 80. This site was subject to soil and groundwater remediation in the 1990s and 2000s due to leaking underground storage tanks from operation of a gasoline station. The remediation was completed and the case closed in January 2014.

Historical Land Use Review

Based on a review of historical resources, it is interpreted that agricultural activity took place at the southern portion of the project site (south of Pecan Park Lane) from prior to 1953 to prior to 1981. In

addition, possibly agricultural related structures (barns or greenhouses) were present in historical aerial photographs. The agricultural activity is interpreted to have possibly taken place at the time when organochlorine pesticides such as dichlorodiphenyltrichloroethane (DDT), chlordane, and metal-based pesticides, such as copper and arsenic, were in wide general use for pest control.

Wildfire Hazards

A Wildland Urban Interface (WUI) is an area where development is located in proximity to open space or lands with native vegetation and habitat that are prone to brush fires. The WUI creates an environmental hazard that if not properly designed and maintained, can facilitate movement of fire between structural and vegetation fuels. Once homes are built within (or adjacent to) natural habitat settings, it increases the complexity of fighting wildland fires because the goal of extinguishing the wildland fire is often superseded by protecting human life and private property. The topography of the project vicinity is primarily wildland and residential with some commercial and light industrial areas. The project site falls within a WUI.

Developed lands surround the project site to the east, north, and west, and southern riparian forest borders the site to the south. The Fuel Threat Maps prepared by the California Department of Forestry show that the project site has a fuel threat ranging from little or no threat throughout the majority of the site, to areas of moderate threat along the western, northeastern, and southwestern edges (Figure 2.4-1). The fuel threat of surrounding land ranges from little or no threat to moderate and a small area to the south has a fire threat of very high to high.

Areas of significant fire hazards in the County have been mapped by CAL FIRE through their Fire and Resource Assessment Program. These maps categorize areas of the County into different Fire Hazard Severity Zones (FHSZ) based upon fuels, terrain, weather, and relevant factors. The FHSZs are divided into three levels of fire hazard severity: moderate, high, and very high. The entire project site is within a very high FHSZ (Figure 2.4-2).

The County is divided into five climate zones from the coast to the desert. These climate zones are determined by several factors: proximity to the ocean, terrain, elevation, and latitude. Using the Koppen system (ISC-Audubon, n.d.), which is the most widely used system for classifying the world's climates based on annual and monthly averages of temperature and precipitation, the metropolitan areas of Southern California have a Mediterranean climate, characterized by mild, sometimes wet winters and warm, very dry summers. The Mediterranean climate includes all coastal areas, valleys, and foothills. Annual precipitation amounts increase gradually from the coast to the mountain crests, then drop dramatically in the deserts. Most precipitation comes from winter storms between November and March. The site is located within the transitional climate zone. Table 2.4-1 represents the typical weather of a hot summer day in the transitional climate zone, Santa Ana and "peak" (or worst-case fire weather/climate) conditions.

Vectors

A vector is any insect, arthropod, rodent, or other animal of public health significance that can cause human discomfort, injury or is capable of harboring or transmitting disease. Disease causing microorganisms can be carried by a vector, such as a flea, tick, or mosquito that transfers the disease agent from its source in nature to a human host. In San Diego County, the most significant vector populations include mosquitoes, rodents, flies, and fleas.

Vector sources occur where site conditions provide habitat suitable for breeding. Within a new development such as the project, a standard requirement is the incorporation of measures, or Best Management Practices (BMPs), to reduce storm water flow rates, allow storm water to infiltrate back into the ground, and to reduce constituent concentrations in runoff. However, BMPs used to manage

runoff often provide aquatic habitats suitable for mosquitoes and other vector species as an unintended consequence of their implementation.

Ponds and reservoirs are another major source of vectors. Any source of standing water, including but not limited to natural and constructed wetlands, irrigation ponds, detention basins, percolation and infiltration basins, and other storm water conveyance systems that hold standing water can be breeding grounds for mosquitoes and other vectors resulting in adverse public health effects related to vectors and disease transmission.

2.4.2 Analysis of Project Effects and Determination as to Significance

Issue Areas Requiring No Further Analysis in EIR

The following environmental issue areas ~~where~~ were determined in the Notice of Preparation (NOP) and Initial Study (see Appendix A) to result in no impact or less than significant impact and will not require further review in the EIR. Please refer to Appendix A of this EIR for a copy of the NOP and Initial Study and additional information regarding these issue areas:

Emergency Response and Evacuation Plans

- Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan.

Airport Hazards

- For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?
- For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?

Issue Areas Requiring Further Analysis in EIR

For the purpose of this EIR, the basis for the determination of significance is the County's Guidelines for the Determination of Significance, Hazardous Materials and Existing Contamination (County of San Diego 2007e); County's Guidelines for Determining Significance, Wildland Fire and Fire Protection (County of San Diego 2010b); County's Guidelines for Determining Significance, Vectors (County of San Diego 2009c); and CEQA Guidelines. The project would result in a significant impact if it would:

1. *Hazardous Substance Handling*: Create a significant hazard to the public through the use of hazardous substances.
2. *Existing On-site Contamination*: Expose the public or environment to hazardous materials or contaminated soils that exist on-site.
3. *Wildland Fires*: Expose people or structures to a significant risk involving wildfires.
4. *Vectors*: Substantially increase human exposure to vectors.

2.4.2.1 Issue 1: Hazardous Substance Handling

Guidelines for Determination of Significance

Based on Appendix G of the CEQA Guidelines, the project would have a significant impact if it would: create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials; or create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment; or if it would emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school, in non-compliance with existing hazardous substance regulations.

Based on the County's Guidelines for Determining Significance, Hazardous Materials and Existing Contamination (County of San Diego 2007e), a significant impact would also occur if the project is a business, operation, or facility that proposes to handle hazardous substances in excess of the threshold quantities listed in Chapter 6.95 of the H&SC, generate hazardous waste regulated under Chapter 6.5 of the H&SC, and/or store hazardous substances in underground storage tanks regulated under Chapter 6.7 of the H&SC and the project will not be able to comply with applicable hazardous substance regulations; or if the project is a business, operation, or facility that would handle regulated substances subject to an HMBP or CalARP RMP requirements in the event of a release could adversely affect the public health or children's health due to the presence of a school or day care within one-quarter mile of the facility.

Impact Analysis

The proposed project would involve transport, use and disposal of hazardous materials associated with routine commercial cleaning and maintenance for the restaurant, gas station and car wash, and retail buildings. However, the transport, use and disposal of these materials would be handled in compliance with all applicable laws and regulations and would not create a significant hazard to the public (including children's health) or the environment.

The project also includes a retail gasoline station and car wash, which involves the routine use and storage of hazardous materials. An underground storage tank would store gas and diesel fuel on the project site. Fueling areas would have impermeable floors (i.e., Portland cement concrete or equivalent smooth impervious surface) that are: a) graded at the minimum slope necessary to prevent ponding; and, b) separated from the rest of the site by a grade break that prevents run-on stormwater to the maximum extent practicable. Commercial car wash systems create wash wastewater that can impact the environment if not properly managed and discharged. Contaminants in wash wastewater include oil and grease, detergents, phosphates, chemicals and debris. An underground clarifier storage tank would be required to recycle and filter the water from the car wash before it is discharged into the sanitary sewer system. Wash wastewater would not be discharged to the storm drain system. All storage, handling, transport, emission and disposal of hazardous substances would be in full compliance with local, State, and Federal regulations. California Government Code

§65850.2 requires that no final certificate of occupancy or its substantial equivalent be issued unless there is verification that the owner or authorized agent has met, or is meeting, the applicable requirements of the Health and Safety Code, Division 20, Chapter 6.95, Article 2, Section 25500-25520.

The operation of the gas station and car wash would require the preparation of a HMBP. The San Diego County DEH HMD is the CUPA for San Diego County responsible for enforcing Chapter 6.95 of the Health and Safety Code. As the CUPA, the DEH HMD is required to regulate HMBPs and chemical inventory, hazardous waste and tiered permitting, underground storage tanks, and RMPs. The HMBP is required to contain basic information on the location, type, quantity and health risks of hazardous materials stored, used, or disposed of onsite. The plan also contains an emergency response plan which describes the procedures for mitigating a hazardous release, procedures and equipment for minimizing the potential damage of a hazardous materials release, and provisions for immediate notification of the HMD, the Office of Emergency Services, and other emergency response personnel such as the local Fire Agency having jurisdiction. Implementation of the emergency response plan facilitates rapid response in the event of an accidental spill or release, thereby reducing potential adverse impacts. Furthermore, the DEH HMD is required to conduct ongoing routine inspections to ensure compliance with existing laws and regulations; to identify safety hazards that could cause or contribute to an accidental spill or release; and to suggest preventative measures to minimize the risk of a spill or release of hazardous substances. Based on conformance with the described requirements for hazardous materials, the project would result in less than significant impacts related to use of hazardous substances.

The project is located within approximately one-quarter mile of existing Rios Elementary School which is located southeast of the project site. Although hazardous materials would be used and stored in proximity to the school site, uses of such materials would be required to conform to applicable hazardous materials regulations, including the preparation and implementation of an HMBP. Existing regulations also require the DEH to conduct ongoing routine inspections of applicable hazardous materials use and storage sites to ensure conformance with associated laws and regulations, identify safety hazards that could cause or contribute to an accidental spill or release, and suggest preventative measures to minimize the risk of such a spill or release. Therefore, based on conformance with the described requirements for hazardous materials, the proposed project would result in less than significant impacts related to the location of the school site.

Therefore, due to the strict requirements that regulate the handling and operation of hazardous substances outlined above, and the fact that the initial planning, ongoing monitoring, and inspections would occur in compliance with local, state, and federal regulation; the project would not result in potentially significant impacts related to the routine transport, use, and disposal of hazardous substances or related to the accidental explosion or release of hazardous substances. Overall, impacts related to hazardous substance handling use would be less than significant.

2.4.2.2 Issue 2: Existing On-site Contamination

Guidelines for Determination of Significance

Based on Appendix G of the CEQA Guidelines, the project would have a significant impact if it would be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would create a significant hazard to the public or the environment.

Based on the County's Guidelines for Determining Significance, Hazardous Materials and Existing Contamination (County of San Diego 2007e), a significant impact would also occur if the project includes structure(s) for human occupancy and/or significant linear excavation within 1,000 feet of

an open, abandoned, or closed landfill; if development is proposed on or within 250 feet of the boundary of a parcel identified as containing burn ash (from the historic burning of trash); if the project is located on or within 1,000 feet of a Formerly Used Defense Site (FUDS); if human or environmental exposure to soils or groundwater in exceedance of EPA Region 9 PRGs, Cal/EPA HHSLs, or Primary State or Federal Maximum Contaminant Levels (MCLs) for applicable contaminants would occur; or if the project would involve the demolition of commercial, industrial or residential structures that contain ACM, LBP, and/or other hazardous materials.

Impact Analysis

Sites Listed Pursuant to Government Code Section 65962.5

An environmental regulatory database report (FirstSearch™ report) was prepared by Environmental Data Resources (EDR) for the project site (Appendix F). Local, state, and federal regulatory databases were reviewed for the project site and for those facilities within up to one mile of the project site. Based on a review of the FirstSearch™ report, the project site was not listed on any of the regulatory databases reviewed.

The project site is within 2,000 feet of a property listed in the State Water Resources Control Board Geotracker (7-11 Food Store #16439) located at 14110 Olde Highway 80. This site was subject to soil and groundwater remediation in the 1990s and 2000s due to leaking underground storage tanks from operation of a gasoline station. The remediation was completed and the case closed in January 2014. Therefore, the proposed project would not create a significant hazard to the public or the environment involving a hazardous materials site.

Landfill

The Phase I ESA prepared for the project did not identify any open, abandoned, or closed landfill within 1,000 feet of any of the properties surveyed. Therefore, the project would be located neither on nor within 1,000 feet of an open, abandoned, or closed landfill. As such, the proposed project would not create a significant hazard to the public or the environment related to landfills. No impact is identified for this issue area.

Burn Ash Site

The Phase I ESA prepared for the project did not identify any burn ash related to the historic burning of trash. Therefore, the project would neither be located on nor within 250 feet of the boundary of a parcel identified as containing burn ash. Thus, the proposed project would not create a significant hazard to the public or the environment related to a burn ash site. No impact is identified for this issue area.

Formerly Used Defense Site

Based on a review of the FirstSearch™ report, which includes the listing of military facilities, the project site is not located on or within 1,000 feet of a FUDS. Therefore, the proposed project would not create a significant hazard to the public or the environment with regard to a FUDS. No impact is identified for this issue area.

Contaminated Soils

Based on a review of historical resources, it is interpreted that agricultural activity took place at the southern portion of the project site (south of Pecan Park Lane) from prior to 1953 to prior to 1981. In addition, possibly agricultural related structures (barns or greenhouses) were present in historical aerial photographs. The agricultural activity is interpreted to have possibly taken place at the time

when organochlorine pesticides such as DDT, chlordane, and metal-based pesticides, such as copper and arsenic, were in wide general use for pest control.

A Limited Phase II ESA was conducted for the project site. The Limited Phase II ESA was completed for the subject property to determine the extent, if any, of hazardous materials contamination onsite as a result of the historic agricultural uses. The Phase II assessment included field sampling of surficial soils from 12 locations, at depths of 6 inches to 18 inches below ground surface (bgs) on the property. The Phase II findings concluded that there is no human health exposure concern on the subject property (see Appendix G). Therefore, impacts associated with pesticides would be less than significant.

Demolition of Existing Structures

A significant impact would occur if the project would involve the demolition of commercial, industrial, or residential structures that may contain ACM, LBP, and/or other hazardous materials and as a result, the project would represent a significant hazard to the public or the environment.

Lead is a highly toxic metal that was used until 1978 in paint and other products found in and around residences. Lead may cause a range of health effects, from behavioral problems and learning disabilities, to seizures and death. LBP has been banned since 1978, but many older structures still have this paint on walls, woodwork, siding, windows, and doors. Construction and demolition workers can be exposed to lead contamination by cutting, scraping, sanding, heating, burning, or blasting LBP from building components. Asbestos was used extensively from the 1940s until the late 1970s. Although asbestos is usually safe when it is undisturbed and the ACMs are in good condition, once disturbed (such as during remodeling or demolition) the fibers can become airborne. The EPA has determined that there is no safe exposure level to asbestos.

The Phase I ESA prepared for the project indicated two residences located on the project site were likely constructed between 1920 and 1950. There is a potential for friable and non-friable ACMs, and LBP to be present in any structure constructed prior to 1978. Based on the reported date of construction of the two residences, there is a potential for friable and non-friable ACMs, and LBP to be present. The potential presence of ACMs and LBP on the project site is a significant impact to the public and environment, specifically when the two residences were demolished. Demolition of the two residences occurred in the summer of 2015 and these demolition activities complied with SDAPCD Rules 361.140- 361.156. Prior to demolition of the two residences, a Hazardous Materials Assessment was performed to determine the presence or absence of ACMs/LBP located in the buildings to be demolished. The ACM survey was conducted by a person certified by California Division of Occupational Safety and Health (Cal/OSHA). The LBP survey was conducted by a person certified by the California Department of Health Services. Copies of the surveys were provided to the County DEH HAZ and APCD once completed. The SDAPCD reviewed and approved the surveys for ACMs and LBP prior to issuance of the demolition permit. The SDAPCD was also notified in writing at least 10 days in advance of any demolition. Based on compliance with SDAPCD Rules, impacts associated with ACMs/LBP would be less than significant.

SDG&E Transformer

One pole-mounted SDG&E transformer was observed to be located adjacent to the south perimeter of the project site. SDG&E was contacted regarding the possibility of PCBs being present in transformers purchased by them. SDG&E reported that they have never specified PCBs in their transformers. No high-power transmission lines were observed above or adjacent to the project site.

Based on this consideration, the transformer is not expected to represent a significant environmental concern. Therefore, impacts associated with on-site utilities would be less than significant.

On-site Septic Systems

Although no septic tanks were observed during the site reconnaissance, based on the rural location of the site and the reported age of the site buildings, septic tanks are interpreted to likely be present in the vicinity of the site buildings. Possible environmental concerns with septic tank systems are that, to the extent they are used for other than domestic waste purposes (i.e., chemicals released as waste water), they may act as a conduit for hazardous materials, petroleum products, and/or hazardous wastes to be released into the soil and possibly groundwater. Based on the interpreted domestic nature of the septic tank systems (associated with residential structures), there is a low likelihood that the septic tank system (if present) represents a REC.

In the event that septic tanks are discovered on the project site, the septic system would require abandonment per San Diego County Code (Section 1, Title 6, Division 8, Chapter 3). When a septic tank is disconnected, the discontinued system shall be deemed abandoned. In that case, any septic tank, holding tank, or seepage pit shall be destroyed within 30 days from the date the system or system component is deemed abandoned. "Destroy," according to the ordinance, means that the property owner has had a licensed septic waste hauler remove the contents from any abandoned septic tank, holding tank or seepage pit and the property owner has backfilled the component with sand, gravel, or other clean fill material. The project would abandon and destroy all septic systems on-site in accordance with the County Code. Therefore, impacts associated with on-site septic systems are less than significant.

Pipeline

An existing 6 inch asbestos cement pipe (ACP) water pipeline located underneath Pecan Park Lane would be removed as part of the project. ACP was used widely in the mid-1900s in potable water distribution systems and in sewer lines. Removal of the 6 inch ACP during construction could pose a health hazard and risk of upset due to potential dispersal of asbestos. Sensitive receptors are located in close proximity to the project site. Private residences are located approximately 150 feet from the project site, Rios Elementary School is located approximately 0.25 miles southeast of the project site, and East Valley Christian Fellowship is located less than one mile west of the project site. The EPA has determined that there is no completely safe level of exposure to asbestos. Asbestos is usually safe when it is undisturbed, and the ACMs are in good condition. Once ACMs are disturbed, the fibers can become airborne (friable). Exposure to asbestos occurs when its fibers are released into the air and inhaled. The danger occurs when smaller fibers in the air become embedded in the lungs, and the body has no way to remove them. Therefore, the presence and removal of the ACP is considered a potentially significant impact (**Impact HZ-1**).

2.4.2.3 Issue 3: Wildland Fires

Guidelines for Determination of Significance

Based on Appendix G of the CEQA Guidelines, a significant impact would occur if the 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.

Based on the County's Guidelines for Determining Significance, Wildland Fire and Fire Protection (County of San Diego 2010b), a significant impact would also occur if the project cannot

demonstrate compliance with all applicable fire codes; or if a comprehensive FPP has been accepted, and the project is inconsistent with its recommendations.

Based on the County's Guidelines for Determining Significance, Wildland Fire and Fire Protection (County of San Diego 2010b), a significant impact would also occur if the project does not meet the emergency response objectives identified in the Public Facilities Element of the County General Plan or offer feasible alternatives that achieve comparable emergency response objectives.

Impact Analysis

The project site falls within an Urban-Wildland Interface. The Fuel Threat Maps prepared by the California Department of Forestry show that the project site has a fuel threat ranging from little or no threat throughout the majority of the site, to areas of moderate threat along the western, northeastern, and southwestern edges. The fire threat of surrounding land ranges from little or no threat to moderate and a small area to the south has a fire threat of very high to high (Figure 2.4-1). The entire project site is within a very high FHSZ (Figure 2.4-2).

Fuel Modeling

The greatest threat to people and structures would come from the ignition of vegetation on the project site. In order to determine the fuel threat posed by the vegetation being created within the open space, fuel modeling was performed for three types of weather conditions, a Santa Ana weather condition, a peak weather condition and a summer weather condition. Weather data for the Santa Ana, peak and summer conditions were determined by the Standard Weather Parameters for the Transitional Zone from the County of San Diego Guidelines for Determining Significance and Report Format and Content Requirements for Wildland Fire and Fire Protection.

Fuel modeling was performed using the U.S. Department of Agriculture (USDA) Forest Service BehavePlus Version 4.0. Two fuel models were run, GS2, which is a moderate load, dry climate grass/shrub habitat and SCAL18, which is for coastal sage scrub. The GS2 model better represents the intended results of the revegetation; however, the coastal sage scrub model was also run for a more conservative estimate. The full results of the modeling are included in Appendix H. A summary of the results for each weather period is provided below.

Santa Ana Conditions

A Santa Ana weather condition is potentially the worst weather for fire. Santa Ana's typically occur from September to May. The fall Santa Ana's can create extremely dangerous fire conditions because they are associated with high temperatures, high winds coming from the north/northeast, and low humidity. They also occur after long periods of no rain when the vegetation is in a drought stress condition. The soft shrubs that compose habitats such as coastal sage scrub are semi-drought deciduous and have typically lost the majority of their foliage by the end of summer.

Modeling was performed using the Santa Ana weather conditions identified in Table 2.4-1. The model results are presented in Table 2.4-2.

Peak Conditions

Peak conditions are the extreme conditions during a Santa Ana event. The peak winds represent the gusts that occur during a Santa Ana.

The fire behavior would be essentially the same as during a Santa Ana. However, the gusts could significantly increase the rate of spread and the distance that fire brands travel during the time that they are occurring.

Modeling was performed using the Peak weather conditions identified in Table 2.4-1. The model results are presented in Table 2.4-3.

Summer Weather Conditions

Summer weather conditions consist of an onshore flow from the southwest. This condition has a lower temperature and higher humidity than does a Santa Ana condition.

A fire under summer conditions is typically a fuel driven fire. However, wind will also contribute to the rate of spread. A fire that started off-site to the south would also be influenced by topography. The winds would have to push the fire uphill.

Modeling was performed using the summer weather conditions identified in Table 2.4-1. The model results are presented in Table 2.4-4.

Fuel Modeling Conclusions

Based on the fuel modeling, the greatest anticipated flame length is from the vegetation burning during Peak conditions. The resulting flame length would be 34 feet according to the modeling. The remaining flame lengths are less than 34 feet. The model is a conservative estimate of the flame lengths that can be anticipated on the project site. Actual fire behavior can be more or less intensive. The results of the fire modeling indicate an average flame length of 16 feet for the Grass/Shrub model and 34 feet for the coastal sage scrub model.

A minimum of 40 feet up to 80 feet of fuel modification is provided north of the 6-foot non-combustible wall that would be constructed 10 feet north of the open space. The non-combustible wall would be constructed 10 feet north of the open space area and would be constructed of 8-inch block and finished with stucco. The 10 feet south of the wall and north of the open space would be an equestrian trail that would not contain any fuel and would result in a minimum of 40 feet and up to 80 feet in the fuel management zone. This distance is greater than the flame length for either model.

The use of fire resistive construction, the non-combustible wall, and fire sprinklers would reduce the potential for the structures to burn. Additionally, the fire would be pushed away from the structures under a Santa Ana condition. Therefore, the fuel modification zone for this project may include areas less than 100 feet in width adjacent to on-site open space. Several factors were taken into consideration when determining the fuel management zone, including topography, degree of exposure, parcel size, and proximity to biological open space.

While the structures proposed by the project would incorporate fire resistive design features, and the fuel modification buffer is wider than the anticipated flame length, there is a potential for the project to exposure people or structures to a significant risk of loss, injury of death involving wildland fires. Therefore, a potentially significant impact is identified for this issue area (**Impact HZ-2**).

Project Design Features

As a result of the findings of the fire modeling, project design features would be incorporated into the project, including the creation of a fire management zone (FMZ); the use of ignition resistance building materials; fire and building code requirements for the protection of non-residential structures; the provision of emergency access roads, and adequate water supply for fire hydrants. Each of these features is discussed in detail below and provided in Table 2.4-5. The FPP also addresses the adequacy of available emergency services, including travel time requirements pursuant to the County's General Plan. Details of the fire behavior modeling are discussed in the FPP (see Appendix H).

Fuel Modification Zone

A minimum of 40 feet up to 80 feet of fuel modification is provided north of the 6-foot non-combustible wall that would be constructed 10 feet north of the open space. The non-combustible wall would be constructed 10 feet north of the open space area and would be constructed of 8-inch block and finished with stucco. The 10 feet south of the wall and north of the open space would be an equestrian trail that would not contain any fuel and would result in a minimum of 40 feet and up to 80 feet in the FMZ. This distance is greater than the flame length for either model.

The fuel modification zone will be composed of fully landscaped and irrigated plantings north of the non-combustible wall and the 10-foot equestrian trail south of the wall. Plantings in this zone shall not create fire hazards near structures. The Conceptual Landscape Plan developed by James P. Beneditti, Landscape Architect (JPBLA) conforms to the required measures set forth in the FPP. The following measures will ensure that fire hazards near buildings are reduced:

- Highly flammable plants adjacent to structures will be prohibited.
- Plants will only be selected from the County of San Diego "Acceptable Plants for a Defensible Space in Fire Prone Areas" or other as approved by the Fire Marshal (see Appendix D of Appendix H).
- Plants on the County's Undesirable Plant List (see Appendix E of Appendix H) shall not be planted.

Trees planted for perimeter screening may be clustered in groups of no more then three, with the mature foliage of any group separated by a minimum horizontal distance of 10 feet.

Revegetation Area. The portion of the open space within 100 feet of the proposed structures would be re-vegetated with low fuel native plants. The revegetation site is located between the northern limits of open space and southern riparian forest. The revegetation area varies in width from 25 feet to 55 feet and would provide a low fuel native buffer for the southern riparian forest. The plan proposes a sparsely planted buffer to provide habitat suitable for raptor foraging. The revegetation area would be planted with a combination of container plants and hydro-seed mix to create a sparse shrub/grassland community. Additionally, invasive exotic plant species such as Arundo donax would be removed from the open space. This would be limited to the removal of plant species included on the California Invasive Plant Council (Cal-IPC) Invasive Plant Inventory (included in the Revegetation Plan). The purpose of the invasive exotic plant removal is to return the wetland to a healthy condition, which would also be less flammable then the current condition.

The plant palette would be composed of native plants suitable for the location of the project site. Factors taken into account when selecting the plants for the site included local climate, ability to naturalize, and low flammability. Table 2.4-6 identifies the plant palette for the revegetation effort. The complete revegetation plan is included in Appendix C of the Draft EIR.

***Irrigation*.** Permanent irrigation shall be provided in the fuel management zone. Irrigation within this area will conform to any applicable County Landscape Requirements.

Maintenance. Maintenance within this zone shall be performed year-round and shall include the following tasks:

- All portions of trees shall be removed a minimum distance of 10 feet, measured on a horizontal plane, with unobstructed clearance from ground level to the sky, from all chimneys or fireplaces installed or built on the proposed project site.

- Any portions of trees overhanging buildings shall be maintained free of dead wood or other dead vegetative matter.
- Vegetation thinning ("lacing") of all trees, removal of dead vegetative matter, and trimming of hanging limbs shall be performed at a minimum of annually or on an as needed basis.
- Trees overhanging roads must be maintained with a minimum of 13 feet 6 inches of vertical clearance at all times.
- As maturity allows, tree limbs shall be trimmed to provide a minimum of 6 feet of vertical clearance between the limb and ground, or trimmed to provide clearance of three times the height of the understory plant material, whichever is higher.
- Roofs and drainage gutters shall be maintained free of needles, leaves and other dead vegetative matter.
- Trash and combustible debris shall be cleared from around structures.
- Irrigation systems will be maintained to ensure that they function properly and plantings are watered sufficiently to maintain succulent growth.
- Debris and trimmings produced by thinning and pruning shall be removed from the site.

The proposed project would comply with the fuel modification requirements. No impact associated with noncompliance with fuel modification would result.

Ignition-Resistance Construction and Fire Protection Systems

The Lakeside Fire Protection District (LFPD) may require fire-resistive construction when allowing the fuel modification zone to be less than 100 feet in width from the structure, of the LFPD Ordinance 02-01, or as an alternative to increasing fire flow as described in Section 903.4.5, or when the development is located above a slope that will influence fire behavior and with dense chaparral or highly combustible trees. Due to a proposed fuel management zone of 40 to 80 feet, all structures on-site shall be required to be composed of enhanced fire-resistive construction as defined by the County of San Diego Building Code.

The proposed buildings have been designed to use non-combustible materials, including stucco siding and tile roofs. The project is required to conform to existing regulations pertaining to fire safety, including Section 902.9 of the California Fire Code (CFC) as well as to the ignition-resistant standards of the County of San Diego Building Code. In addition, all of the buildings for the project would be constructed in conformance with Chapter 7A of the County Consolidated Fire Code. A manual and automatic local fire alarm system shall be provided for each building or portion thereof in accordance with the most current edition of the California Fire and Building Codes.

A 6-foot non-combustible block wall with stucco covering would be placed along the southern edge of development, adjacent to the equestrian trail to provide increased fire resistance and protection from the proposed open space.

Section 4.4 of the FPP outlines specific fire-resistive building features that would be used in all structures. These measures would be included in the site plan and implemented through the building permits. LFPD would review building permits for compliance with these building features. Therefore, the proposed project would comply with the recommendations of the FPP, and no impacts associated with noncompliance with use of ignition-resistance building materials would result.

Fire Access

Fire apparatus access roads are required in conformance with Section 902.2 of the County Fire Code. The fire apparatus access road(s) shall meet the following specifications:

1. Fire Apparatus Access Roads (also known as "Fire Lanes") shall have a minimum unobstructed width of not less than twenty-four (24) feet.
2. Fire Apparatus Access Roads shall be provided with an approved driving surface such as Asphaltic base, prior to bringing any combustible building product onsite.
3. Any road widths less than thirty-six (36) foot improved paved width shall be posted with signs and red curbs with white stenciling indicating it is a Fire Lane that is plainly visible from a vehicle. This information shall be recorded as a covenant on the Parcel Map.
4. All gates or other structures or devices which could obstruct Fire Apparatus Access Roads or otherwise hinder emergency operations are prohibited unless they meet standards approved by the District, and receive specific plan approval.
5. Numbers and addresses shall be placed on all new or existing buildings in such a position as to be plainly visible and legible from the street or road fronting the property to the satisfaction of the LFPD.

The proposed project would comply with County Consolidated Fire Code, recommendations of the FPP, and project conditions, and no impacts associated with noncompliance with road standards or emergency access would result.

Water Supply

The proposed project required a formal annexation process with the LAFCO of the County of San Diego to annex a small portion of the project site from the Helix Water District to the Padre Dam Municipal Water District (PDMWD). On December 1, 2014, the LAFCO approved: (1) the detachment of "territory" (approximately 1.165 acres of the project site) from the Helix Water District; and (2) the annexation of this territory to the PDMWD. The project has obtained a Service Availability letter from the PDMWD. Fire hydrants together with the required fire flow of 2,500 gallons per minute at 20 psi residual shall be installed in accordance with the PDMWD, the LFPD, and San Diego County Standards.

1. The number, type, and location of fire hydrants is to be determined by the LFPD prior to issuance of building permits.
2. On paved roads, a blue reflective pavement marker shall be installed to indicate the location of the fire hydrants.
3. Design of the water supply shall be submitted to the LFPD and the PDMWD for approval prior to the issuance of a building permit.
4. The developer shall provide a letter from the PDMWD stating the required fire flow in gallons per minute is available to the site.
5. Water supply system and hydrants shall be installed and tested prior to bringing any combustible building product onsite.
6. Fire sprinkler systems are required for interior protection of all structures in accordance with the specifications of the National Fire Protection Association pamphlet #13. Automatic sprinklers shall also be provided in all areas beneath covered parking areas, garages, and trash enclosures.

The fire sprinkler system shall be supervised (monitored twenty-four hours a day) and provided with a local fire alarm that will notify all occupants on the activation of any flow of water or the operation of a manual pull station.

The project would comply with the Consolidated Fire Code, recommendations of the FPP and project conditions, and no impacts associated with noncompliance with water supply/fire hydrant requirements would result.

Conformance with Emergency Response Objectives

The project site is located within the jurisdictional boundary of the Lakeside Fire Protection District (LFPD). The LFPD covers 50 square miles and has a population of 65,000 persons. LFPD Station No. 3 is located approximately 0.5 mile from the project site at 14008 Highway 8 Business. Equipment at this station includes a Type 1 Engine with a 65 foot aerial ladder and aerial device, and a brush engine. Each of these trucks contains a three-member crew. The station also has two paramedics and a fire chief. Additional fire protection resources are available from Station No. 26 on Oak Creek Road in the Blossom Valley area and from Station No. 1 on Riverview Street in downtown Lakeside.

Travel Time

An indicator of adequate regional fire protection and emergency medical services is the ability to respond to every emergency within acceptable time parameters. Travel time is defined as the estimated time it would take for responding emergency personnel to reach the furthest structures in a proposed development project. Travel time is defined as the estimated time it will take for the "closest fire station" to reach the furthest structure in a proposed development project. As shown in Table S-1 of the Safety Element of the County's General Plan, the maximum allowable emergency travel times for the project would be within five minutes.

LFPD Station No. 3: The "closest" fire station is LFPD Station No. 3 located approximately 0.5 mile from the project site at 14008 Highway 8 Business. Based on the Project Facility Availability – Fire form (see Appendix A of the FPP), the San Diego County Fire Authority Deputy Fire Marshal, James Pine, indicates the following:

- The project is in the District and is eligible for service.
- Based on the capacity and capability of the District's existing and planned facilities, fire protection facilities are currently adequate to serve the proposed project. The expected emergency travel time to the proposed project is 1.5 minutes.

The LFPD has determined that fire protection would be available for the project. In particular, one of those factors is that travel time from the closest fire station – Station No. 3 – would meet the travel time identified by the County General Plan. The project would also comply with General Plan Policies regarding water supply (S-6.1), the payment of a project's fair share (S-6.3), and require that staffing, facilities, and equipment necessary to serve development are operating prior to, or in conjunction with, the development (S-6.5). Additionally, the General Plan requires the improvement of fire service in areas with inadequate coverage by requiring mitigation for service level improvements as part of project approval (S-6.4). Based on these considerations, the proposed project would meet the emergency response objectives identified in the General Plan.

2.4.2.4 Issue 4: Vectors

Guidelines for Determination of Significance

Based on the County's Guidelines for Determining Significance, Vectors (County of San Diego 2009c), a significant impact would occur if the project substantially increased human exposure to vectors capable of spreading disease by:

a. Proposing a vector breeding source, including but not limited to, sources of standing water for more than 72 hours (e.g., ponds, storm water management facilities, constructed wetlands); or

b. Proposing a vector breeding source, including but not limited to, composting or manure management facilities, confined animal facilities, animal boarding/breeding/training operations; or

c. Proposing a substantial increase in the number of residents located within one-quarter mile of a significant existing off-site vector breeding source.

The project would not involve the use, production, or storage of manure, nor does the project propose a composting or manure management facility. The project is not located within one-quarter mile of a significant existing off-site vector breeding source, and it does not propose an increase in the number of residents located within one-quarter mile of a significant existing off-site vector breeding source.
The proposed project would include a stormwater runoff system that would include bioretention areas and stormwater storage. The bio retention facilities would utilize a growing media mix which would have an infiltration rate of 0.5 inches/hour and have the ultimate requirement of fully discharging within 72 hours in order to mitigate any vector issue concerns. Therefore, a less than significant impact is identified for this issue area.

2.4.3 Cumulative Impact Analysis

2.4.3.1 Issue 1: Hazardous Substance Handling

The cumulative impact study area for this issue would be the localized study area that includes the four cumulative projects (see Table 1-3 and Figure 1-9). The gas station and car wash associated with the project would handle regulated substances subject to the CalARP, which is administered locally by the County DEH HMD. The project would not result in a significant hazard to the public or environment because all storage, handling, transport, emission and disposal of hazardous substances will be in full compliance with federal, state and County regulations. The Eastern Service Area Secondary Connection Project would handle substances used to maintain and operate construction equipment (such as fuel, lubricants, adhesives, solvents, and asphalt). The Lakeside Tractor Supply Project, Lake Jennings Park Road Subdivision Project, and Peter Rios Estates Apartment Complex Project within the localized study area are also anticipated to routinely transport, use, or disposal of hazardous materials associated with commercial and residential uses. However, these projects would also be subject to all federal, state and County regulations. Therefore, due to the strict requirements that regulate hazardous substances and the fact that the initial planning, ongoing monitoring, and inspections occur in compliance with federal, state and County regulations, the project's contribution to any potential cumulative impact would be less than cumulatively considerable.

2.4.3.2 Issue 2: Existing On-site Contamination

Impacts from existing on-site hazardous materials would be less than significant through compliance with the existing regulatory framework set forth by federal, state, and local agencies. Similar

compliance would be required for the Lakeside Tractor Supply Project, Lake Jennings Park Road Subdivision Project, Peter Rios Estates Apartment Complex Project, and Eastern Service Area Secondary Connection Project under consideration. Therefore, the project's contribution to any potential cumulative impact would be less than cumulatively considerable.

2.4.3.3 Issue 3: Wildland Fires

Due to the unpredictable and damaging nature of a wildfire, the entirety of the undeveloped portions of San Diego County could be considered the cumulative impact area for wildland fire hazard impacts. The Lake Jennings Park Road Subdivision Project is within the Wildland-Urban Interface zone and the Peter Rios Estates Apartment Complex Project is adjacent to wildlands that have the potential to support wildland fires. The Eastern Service Area Secondary Connection Project and Lakeside Tractor Supply Project are located in developed areas and not adjacent to wildland areas.

Throughout the County of San Diego, projects are required to comply with the County Consolidated Fire Code. These regulations have been implemented in order to help reduce the spread of wildfires within the unincorporated County. Generally, when a project is constructed it results in the removal of available flammable fuels for wildfire to consume and breaks up fuel continuity. This effectively gives fire suppression resources an opportunity to contain and control a wildfire. The project has prepared an FPP that addresses the project's specific risk for wildfire impacts. The FPP reduces wildfire impacts through design measures, landscaping standards, and operational procedures. Additionally, the project is required to adhere to Fire Code standards of construction and land development. Based on the FPP, associated landscaping plans, and implementation of mitigation measures related to FMZs, the project's contribution to a potential cumulative impact would be less than cumulatively considerable. The Lake Jennings Park Road Subdivision and Peter Rios Estates Apartment Complex Project are also required to comply with regulations relating to emergency access, water supply, and defensible space specified in the Consolidated Fire Code. Therefore, the project's contribution to any potential cumulative impact would be less than cumulatively considerable.

2.4.3.4 Issue 4: Vectors

The cumulative impact study area for this issue would be the localized study area that includes the four cumulative projects (see Table 1-3 and Figure 1-9). The proposed project would include a stormwater runoff system that would include bioretention areas and stormwater storage. However, the bio retention facilities would utilize a growing media mix which would have an infiltration rate of 0.5 inches/hour and have the ultimate requirement of fully discharging within 72 hours in order to mitigate any vector issue concerns. The Lakeside Tractor Supply Project proposes a retail store and the Lake Jennings Park Road Subdivision Project and Peter Rios Estates Apartment Complex Project propose residential development. These developments would likely be required to use BMPs for water quality issues, which in turn, have the potential to attract vectors. The Evergreen Nursery also involves uses that have the potential to support vectors, including rodents, flies, and mosquitos. However, the County would require these projects to demonstrate that design measures would remove opportunities for vector breeding, similar to measures implemented by the proposed project. The County Department of Environmental Health requires a Vector Control Management Plan for all projects per Health and Safety Code Section 2060-2067. A Vector Management Plan could include the following vector management practices: elimination of rodent food sources, elimination of rodent hiding places, and elimination of obscure water sources. Existing regulations regarding vectors, and implementation of project design features would ensure that the project's contribution to any potential cumulative impact would be less than cumulatively considerable.

2.4.4 Significance of Impacts Prior to Mitigation

Impact HZ-1: An existing 6 inch ACP running underneath Pecan Park Lane would be removed as part of the project. Removal of the existing 6 inch ACP during construction could pose a health hazard and risk of upset due to potential dispersal of asbestos.

Impact HZ-2: While the structures proposed by the project would incorporate fire resistive design features, and the fuel modification buffer is wider than the anticipated flame length, there is a potential for the project to expose people or structures to a significant risk of loss, injury or death involving wildland fires.

2.4.5 Mitigation

M-HZ-1 During removal of the existing 6 inch ACP running underneath Pecan Park Lane, under the oversight of the San Diego Air Pollution Control District, a licensed asbestos abatement consultant or Certified Inspector shall be retained during all asbestos cement pipe removal to provide recommendations regarding maintaining the pipe in a non-friable state, and generally supervise the removal operation. If any pipe becomes friable, the licensed asbestos abatement consultant or Certified Inspector shall conduct perimeter air monitoring, and ensure proper disposal of the friable asbestos. All asbestos containing material removed onsite shall be transported by a Cal-OSHA registered asbestos abatement contractor to handle asbestos-containing materials and disposed of at a licensed receiving facility and under proper manifest. In addition, if more than 260 linear feet of pipe is removed that becomes friable, a National Emissions Standard for Hazardous Air Pollutants notification shall be filed.

M-HZ-2 Per conditions in the Tentative Map, the project applicant will be required to construct a 6-foot non-combustible block wall with stucco covering along the southern edge of the development area, north of the equestrian trail. A minimum of 40 feet up to 80 feet of fuel modification will be required north of the 6-foot non-combustible wall that will be constructed 10 feet north of the open space. Per conditions in the Site Plan, the project applicant will be required to ensure perpetual maintenance of the revegetation area to provide a low fuel native buffer for the southern riparian forest.

2.4.6 Conclusion

The project proposes a retail gasoline station and car wash which involves the routine use and storage of hazardous materials. However, the operation of the gas station and car wash would require the preparation of a HMBP. The DEH HMD is required to conduct ongoing routine inspections to ensure compliance with existing laws and regulations; to identify safety hazards that could cause or contribute to an accidental spill or release; and to suggest preventative measures to minimize the risk of a spill or release of hazardous substances. Based on conformance with the described requirements for hazardous materials, the project would result in less than significant impacts related to use of hazardous substances.

The Phase I ESA prepared for the project indicated two residences located on the project site that were likely constructed between 1920 and 1950. There is a potential for friable and non-friable ACMs, and LBP to be present in any structure constructed prior to 1978. Demolition of the two residences occurred in August 2015 and complied with SDAPCD Rules 361.140- 361.156. Based on compliance with SDAPCD Rules, impacts associated with ACMs/LBP would be less than significant.

An existing 6 inch ACP located underneath Pecan Park Lane would be removed as part of the project. Removal of the existing 6 inch ACP during construction could pose a health hazard and risk

of upset due to potential dispersal of asbestos. Therefore, the presence and removal of the ACP is considered a potentially significant impact. However, Mitigation Measure HZ-1 requires a licensed asbestos abatement consultant or Certified Inspector be present during ACP removal. In addition, all asbestos containing material removed onsite shall be transported by a Cal-OSHA registered asbestos abatement contractor to handle asbestos-containing materials and disposed of at a licensed receiving facility and under proper manifest. This mitigation measure would reduce impacts to less than significant.

The project site falls within an Urban-Wildland Interface. While the structures proposed by the project would incorporate fire resistive design features, and the fuel modification buffer is wider than the anticipated flame length, there is a potential for the project to expose people or structures to a significant risk of loss, injury or death involving wildland fires. Therefore, a potentially significant impact is identified for this issue area. Mitigation Measure HZ-2 requires the construction of a 6-foot non-combustible wall and a minimum of 40 feet up to 80 feet of fuel modification north of the 6-foot non-combustible wall. This mitigation measure would reduce impacts to wildland fires to less than significant.

Compliance with federal, state and local laws and regulations would ensure that both the project and nearby projects reduce their impacts associated with hazards and hazardous materials to less than significant levels. Therefore, the project's contribution to a potential cumulative impact with regard to hazards and hazardous materials would not be cumulatively considerable.

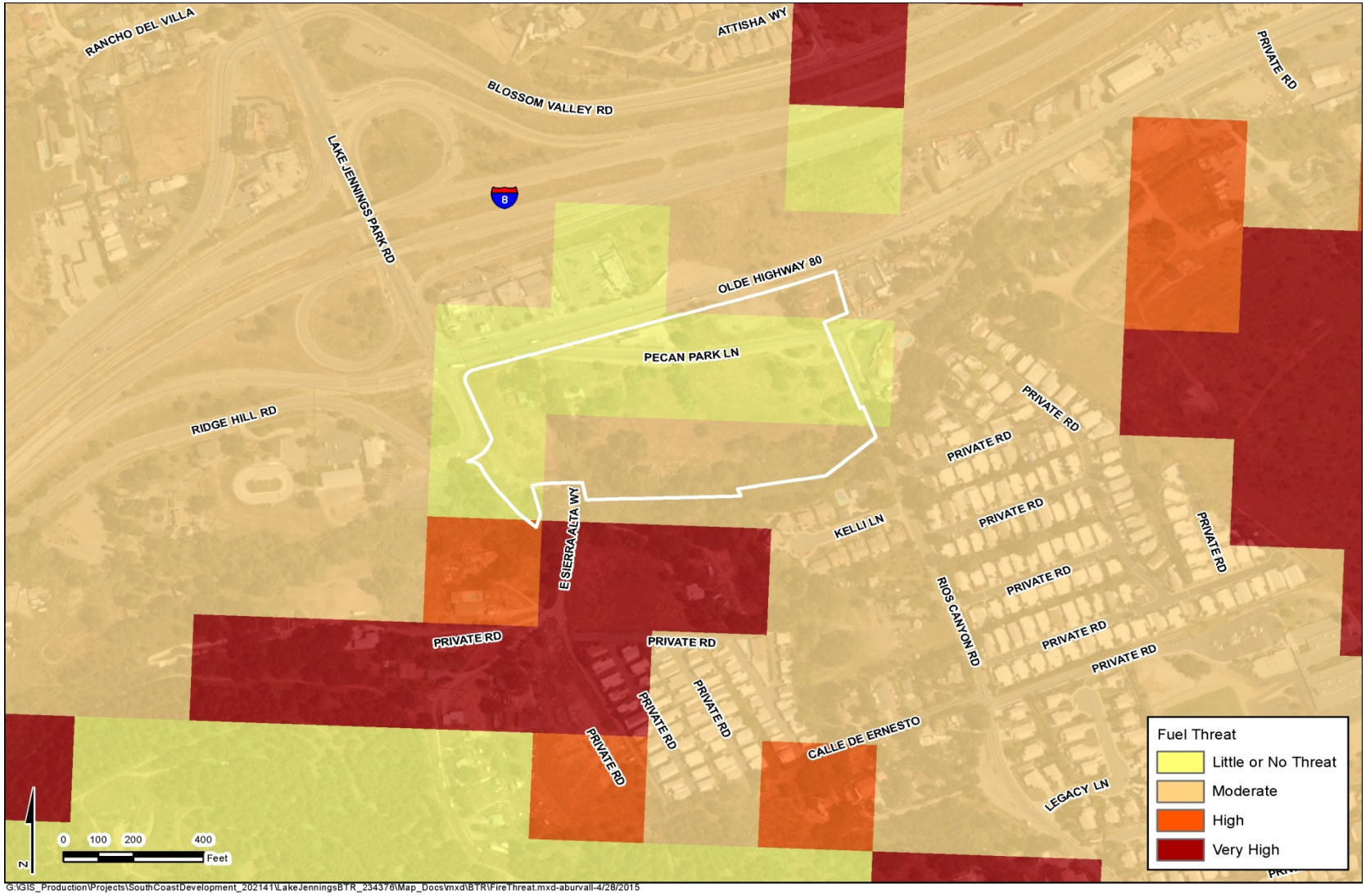

Figure 2.4-1.
Fuel Threat Map

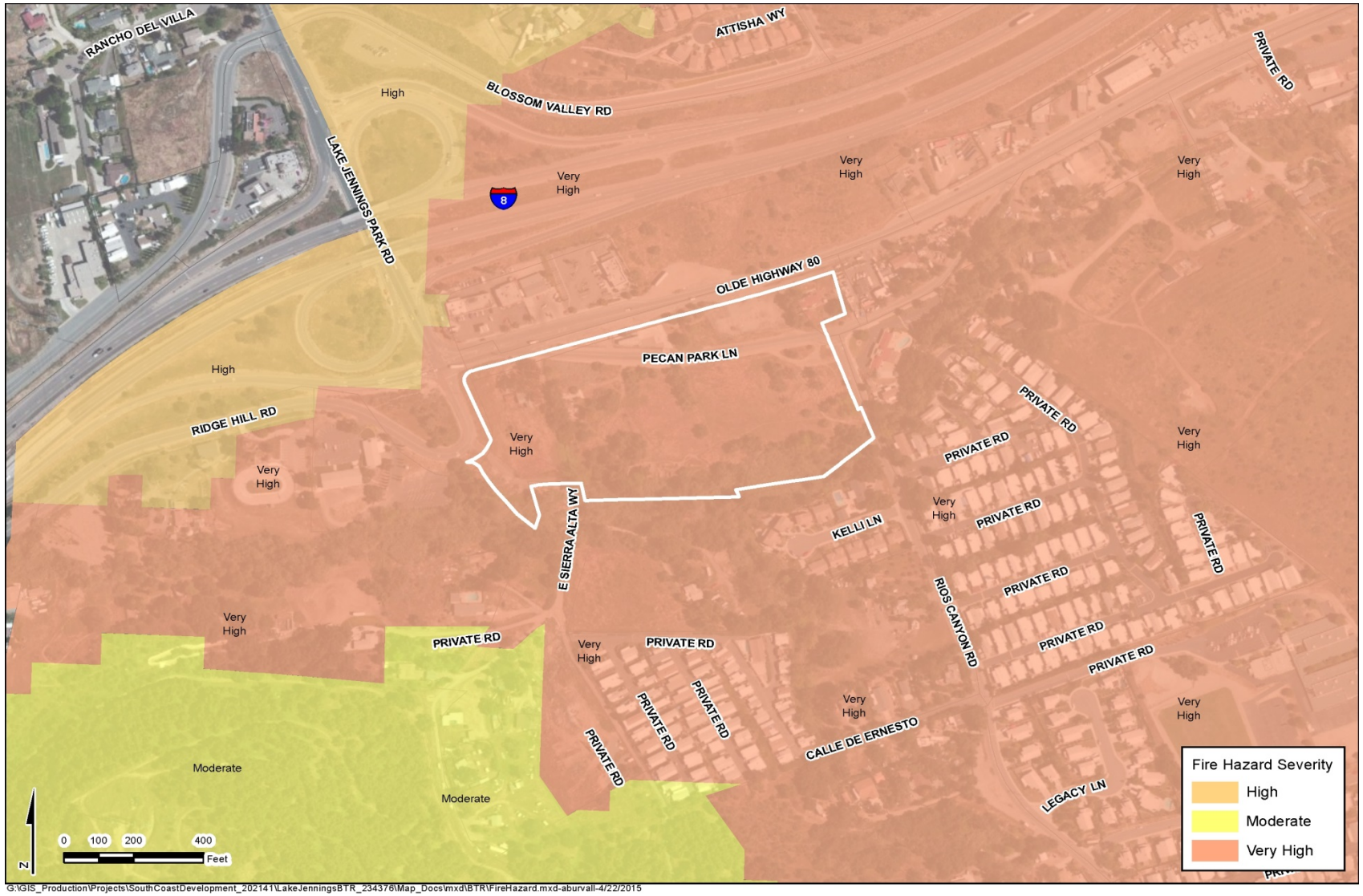

Figure 2.4-2.
Fire Hazard Severity Map

Table 2.4-1.
Transitional Climate Zone Typical Weather Conditions

Period	Temperature	Relative Humidity	Sustained Wind Speed	Burning Index (99%)
Summer	90-109°F	10-14%	19 mph	119
Santa Ana	90-109°F	5-9%	28 mph	145
Peak	90-109°F	5-9%	41 mph	-

Source: County of San Diego 2010b

Table 2.4-2.
Results for a Santa Ana Fire Conditions

	Grass/Shrub	Coastal Sage Scrub
Flame Length	12'	29'
Rate of Spread (Chains/hour)	122'	114'

Source: RC Biological Consulting, Inc. 2015

Table 2.4-3.
Results for Peak Conditions

	Grass/Shrub	Coastal Sage Scrub
Flame Length	16'	34'
Rate of Spread (Chains/hour)	212'	162'

Source: RC Biological Consulting, Inc. 2015

Table 2.4-4.
Results for Summer Conditions

	Grass/Shrub	Coastal Sage Scrub
Flame Length	10'	25'
Rate of Spread (Chains/hour)	70'	81'

Source: RC Biological Consulting, Inc. 2015

Table 2.4-5.
Project Design Features

Access
Fire Apparatus Access Roads (also known as "Fire Lanes" shall have a minimum unobstructed width of not less than twenty-four (24) feet.
Fire Apparatus Access Roads shall be provided with an approved driving surface prior to bringing any combustibles building products onsite.
Any road widths less than thirty-six (36) foot improved paved width shall be posted with signs and red curbs with white stenciling indicating it is a Fire Lane that is plainly visible from a vehicle. This information shall be recorded as a covenant on the Parcel Map.
All gates or other structures or devises that could obstruct Fire Apparatus Access Roads or otherwise hinder emergency operations are prohibited unless they meet the standards approved by the Lakeside Fire Protection District (LFPD), and receive specific plan approval.
Numbers and addresses shall be placed on all new or existing buildings in such a position as to be plainly visible and legible from the street or road fronting the property to the satisfaction of the LFPD.
Water
The LFPD shall determine the number, type and location of fire hydrants to be installed by the project applicant prior to issuance of building permits. Fire hydrants shall have a required fire-flow of 2,500 gallons per minute at 20 pound per square inch (psi), and shall be installed in accordance with the specifications of the LFPD, Padre Dam Municipal Water District (PDMWD), and San Diego County Standards.
On paved roads, a blue reflective pavement marker shall be installed to indicate the location of the fire hydrants.
Design of the water supply shall be submitted to LFPD and PDMWD for approval prior to the issuance of building permits.
The project applicant shall provide a letter from PDMWD stating that the required fire flow in gallons per minute is available to the site.
The water supply system and hydrants shall be installed and tested prior to bringing any combustible building materials onsite.
Ignition-Resistant Construction and Fire Protection Systems
Fire sprinkler systems are required for interior protection of all structures in accordance with the specifications of the National Fire Protection Association pamphlet #13. Automatic sprinklers shall also be provided in all areas beneath covered parking areas, garages, and trash enclosures.
The fire sprinkler system shall be supervised (monitored for twenty-four hours a day) and provided with a local fire alarm that will notify all occupants on the activation of any flow of water or the operation of a manual pull station.
The project shall conform to the existing regulations pertaining to fire safety, including section 902.9 of the California Fire Code (CFC) as well as on-site structures shall be required to conform to the ignition-resistant standards of the County Building Code.
A manual and automatic local fire alarm system shall be provided for each building or portion thereof in accordance with the most current edition of the California Fire and Building Codes.
A six-foot non-combustible block wall with stucco covering will be placed along the southern edge of development, adjacent to the equestrian trail to provide increased fire resistance and protection from the proposed open space.
Vegetative Fuels Management
Highly flammable plants adjacent to structures are prohibited.
Plants will only be selected from the County's "Acceptable Plants for a Defensible Space in Fire Prone Areas" or other as approved by the Fire Marshal.
Plants on the County's "Undesirable Plant List" shall not be planted.
Trees planted for perimeter screening may be clustered in groups of no more than three with the mature foliage of any group separated by a minimum horizontal distance of ten feet.
Permanent irrigation shall be provided in the fuel management zone in conformance with any applicable County Landscape Requirements.

Maintenance within the fuel management zone shall be performed year-round and include the following tasks: (1) all portions of trees shall be removed to a minimum distance of ten feet, measured on horizontal plane, with unobstructed clearance from ground level to the sky, from all chimney or fireplaces installed or built on the proposed project site; (2) any portion of trees overhanging buildings shall be maintained free of dead wood or other dead vegetative matter; (3) vegetation thinning ("lacing") of all trees, removal of dead vegetative matter, trimming of hanging limbs shall be performed at a minimum annually or on an as needed basis; (4) trees overhanging roads must be maintained with a minimum 13 feet 6 inches of vertical clearance at all times; (5) as maturity allows, tree limbs shall be trimmed to provide a minimum of six feet of vertical clearance between the limb and ground, or trimmed to provide clearance of three times the height of the under story plant material, whichever is higher; (6) roofs and drainage gutters shall be maintained free of needles, leaves and other dead vegetative matter; (7) trash and combustible debris shall be cleared from around structures; (8) irrigation systems shall be maintained to ensure that they function properly and plantings are watered sufficiently to maintain succulent growth; and (9) debris and trimmings produced by thinning and pruning shall be removed from the site.

Source: RC Biological Consulting, Inc. 2015

Table 2.4-6.
Species Composition for the Proposed Buffer Revegetation

Species	Number/Acre	Number Planted	Size
Blue dicks (*Dichelostemma capitatum*)	1 lb/ac	1.14 lb	Seed
Blue-eyed grass (*Sisyrinchium bellum*)	1 lb/ac	1.14 lb	Seed
California blackberry (*Rubus ursinus*)	36/ac	41	1 Gallon
California rose (*Rosa californica*)	36/ac	41	1 Gallon
Douglas mugwort (*Artemisia douglasiana*)	1 lb/ac	1.14 lb	Seed
Deerweed (*Acmispon glaber*)	36/ac	41	1 Gallon
California poppy (*Eschscholzia californica*)	1 lb/ac	1.14 lb	Seed
Lupine (*Lupinus bicolor*)	1 lb/ac	1.14 lb	Seed
Purple needle grass (*Stipa pulchra*)	8 lb/ac	9 lbs	Seed
Owl's clover (*Castilleja exserta*)	1 lb/ac	1.14 lb	Seed
Sticky monkeyflower (*Mimulus aurantiacus*)	36/ac	41	1 Gallon

Notes: lb = pound
ac = acre
Source: RC Biological Consulting, Inc. 2015