

2.9 Hazards and Hazardous Materials

Public health and safety impacts could be expected from Proposed Project implementation as a result of existing site conditions and Proposed Project features. This section focuses on potential impacts associated with hazardous materials (existing and Project-generated) and public safety risks due to wildfires and airports.

A Phase I Environmental Site Assessment (ESA) was prepared for the 48-acre southern portion of the Proposed Project area (Neighborhood 5) by GEOCON in December of 2012; a Phase I and Limited Phase II ESA was completed for the southernmost 160.19 acres of the northern area that encompasses proposed Neighborhoods 1 through 4 in 2013; and a Phase I ESA was completed for the northernmost 29.42 acres of the northern area (avocado groves) in 2014 (GEOCON 2012c, 2013b, and 2014). The reports assess the potential for “recognized environmental conditions” (RECs) to occur at the Proposed Project site through site reconnaissance, examination of databases and government document sources, review of historical records, and property owner interviews. Additionally, a Fire Protection Plan (FPP) (Firewise 2015) was prepared for the Project. These studies are summarized below, with the complete reports included in Appendices I and L, respectively, of this EIR.

2.9.1 Existing Conditions

2.9.1.1 Hazardous Materials

Site Reconnaissance

A site reconnaissance was conducted on November 27, 2012 for the southern site, proposed Neighborhood 5, of the Proposed Project site (the Fines historic complex, P-37-033262) to observe and document existing property conditions and the nature of the neighboring property development. All exterior areas of this portion of the Proposed Project site were accessible to the GEOCON representative who conducted the site reconnaissance. In general, the site is located in an area used for residential and commercial agriculture purposes. The site is developed with a commercial equestrian facility and a residence, with undeveloped land on the northern and western portions. Wood-framed wire fences encompass the site, and several structures were observed in the southwestern portion of the site. These structures included horse and grooming pens, a restroom, a storage barn, a stable, a tack building, an office, and a residential structure. A 200-gallon steel aboveground storage tank (AST) containing dyed diesel fuel was observed in the south-central portion of this site (located near the intersection of Eden Valley Lane and Mt. Whitney Road). Minimal soil staining was observed adjacent to the south of the AST. A 55-gallon hydraulic oil drum was located behind this diesel AST; however, no soil staining was observed adjacent to the oil drum. Other features present on site include, but are not limited to: a sewer manhole, a storm drain inlet, an electrical transformer, a groundwater supply well, and power line towers. Please refer to the Phase I ESA contained in Appendix I of this EIR for this portion of the Proposed Project site for more details about the site reconnaissance in this area.

A site reconnaissance for the northern portion of the Proposed Project site was conducted on June 19, 2013 to observe and document existing property conditions and the nature of the neighboring property development. An additional site reconnaissance, which primarily covered the avocado groves in the northern portion of the Project site, occurred on March 6, 2014. All areas of this portion of the Proposed Project site were accessible to the GEOCON representative who conducted the site reconnaissance, except interior portions of residential structures and densely vegetated areas in the northwestern portion of the site. This site is primarily developed as agricultural land for growing avocados and citrus fruits in the northern portion and on the western half. The eastern half of the site is largely undeveloped and covered with vegetation including grasses, shrubs and trees. Three residential structures exist adjacent to and among the groves. Pump houses and PVC pipes associated with agricultural irrigation were also observed, along with an abandoned packaging building on site. Properties surrounding the site include low-density residential properties, agricultural, and undeveloped land.

During the site reconnaissance, an approximately 500-gallon AST labeled “Diesel” was observed on site (near the intersection of Eden Valley Lane and Mt. Whitney Road). No secondary containment was present and no odors, pools of liquid, noticeably stained soil, or distressed vegetation were observed near the AST. Analysis of soil samples collected adjacent to the AST indicate a release of diesel range organics (DRO) and oil range organics (ORO) on the north end of the AST. Additionally, a water supply well was observed on site, along with the aforementioned three residential structures and abandoned packaging building. Based on the date of construction of the on-site structures (caretaker residences, and abandoned packaging building), it is possible that lead based paint (LBP) and/or asbestos containing materials (ACM) could be present in the structures. Other features present on site include, but are not limited to: an apparent water filtration system (including two polyethylene ASTs and three steel chambers adjacent to a water service), a Rincon MWD service pipeline, a plastic drainage pipe, an excavated concrete slab, a pump house, and three 5,000-gallon polyethylene ASTs that appeared to be used for water storage.

No physical evidence suggesting that off-site properties had impacted the Proposed Project site with hazardous wastes or materials was observed during the reconnaissance of the Proposed Project area.

Please refer to the ESA reports contained in Appendix I of this EIR for more details about the site reconnaissance in this area.

Database and Document Review

Environmental Data Resources, Inc. (EDR) performed a search of federal, state and local databases for the sites and surrounding areas. The search distance for the review extended one mile from the locations examined in the respective ESAs. Copies of the reports, all of which are entitled *The EDR Radius Map Report with GeoCheck* (for the Phase I ESAs, dated October 26, 2012 and February 26, 2014, and for the Phase I and Limited Phase II ESA, dated June 13, 2013) are included in the appendices of the respective ESAs (Appendix I of this EIR). The Proposed Project site is not listed in any database searched by EDR for the August 2012

Phase I ESA, the June 2013 Phase I and Limited Phase II ESA, or the March 2014 Phase I ESA reports.

Historical Land Use

A detailed summary of historical land use is provided in the ESAs for the Proposed Project sites based on historical records (Appendix I). Aerial photographs were reviewed for the years 1947, 1953, 1963, 1974, 1980, 1990, 1994, 1995, 2005, 2009, 2010, and 2012 for information regarding past subject property uses. Historical topographic maps were reviewed for the years 1893, 1901, 1904, 1947, 1949, 1968, 1983, and 1996. A review of historical aerials indicates that some areas of the Proposed Project site were used for agricultural purposes as early as 1947 to around 1974, and other areas were used for agricultural purposes as early as 1974 to the present. Images from 1990 appear to show an equestrian facility on the southern portion of the site, which seems to be further developed in later historical aerial photos (e.g., 2005 images). Please refer to Section 2.1, *Agricultural Resources*, for more detailed information.

Interviews

Interviews were conducted with persons who were expected to be reasonably knowledgeable about historical uses of the site. Ms. Melissa Krause, a client representative, completed GEOCON's Site Owner Questionnaire based on her knowledge of the Proposed Project site and its past use. She indicated that the site has been used for agricultural purposes, and she was unaware of any additional environmental issues associated with the Project site.

Interviews were also conducted for the previous Phase I ESA for the northern property (proposed Neighborhoods 1 through 4, only 129 acres at the time), dated November 21, 2011. Relevant site information was provided by a previous site owner, Mr. Fahr. Mr. Fahr indicated that the site has been used for agricultural purposes for over 30 years, and that a small AST was used for fertilizer storage. Water services are supplied to the site by the Rincon MWD, electricity is supplied by SDG&E, and a propane tank was used to heat the residence on site. Mr. Fahr also indicated that the well was installed by Stehly Brothers Drilling, Inc. in September of 2008.

Jane Hu, a site owner representative for "Hu Family trust 04-15-87," completed a site owner questionnaire for the Phase I ESA for the northernmost 29.42 acres of the Project site. She stated that the site was previously farmed by Henry Avocado Co., as an avocado grove for approximately 35 years. Water services are supplied to the site by the Rincon MWD. Ms. Hu stated that she is unaware of any pesticide use or any additional environmental issues associated with the site. According to her interview, evidence of former structures is located on the northern adjacent property.

Gordon Fines, the site owner of the southern site (proposed Neighborhood 5) during the time of the Phase I ESA for the southern site, also filled out a site owner questionnaire. He stated that the southern site was being used as a horse boarding and training facility, and had been used as such since he became the owner in 2002. According to Mr. Fines, the house, office, and barn on this site are over 40 years old. He stated that the site was previously used for livestock ranching and an occasional hay crop for livestock, and that there is a cistern style groundwater supply well

on the site (approximately 100 feet deep) used for livestock watering and irrigation. Mr. Fines stated that he was not aware of any environmental issues related to the site or adjacent properties.

Mr. Sam Caro, the facility manager for the southern site, was also interviewed. He stated the public restroom utilized a septic system, while the office and residential structure utilized a municipal water supply and public sewer. Mr. Caro also stated that the on-site well was used to supply water for livestock and irrigation purposes, just as Mr. Fines had discussed.

Mr. Fahr's, Ms. Hu's, Mr. Fines', and Ms. Krause's completed Site Owner Questionnaires are included in the appendices of the applicable ESAs (Appendix I of this EIR).

2.9.1.2 Airport Hazards

The Proposed Project is located within the Airport Influence Area (AIA) 2 for the Palomar McClellan Airport; the airport is located 8.4 miles to the west of the Proposed Project site.

2.9.1.3 Wildland Fire Hazards

A FPP was prepared for the Proposed Project to evaluate the potential adverse effects to the Project that could result from a wildland fire that occurs on or adjacent to the Project, as well as the positive environmental effects that may occur by developing this particular property. The FPP also evaluated the consistency of the Proposed Project with applicable fire protection regulations. The FPP addresses water supply, access, structural ignitability and fire resistive building features, fire protection systems and equipment, impacts to existing emergency services, defensible space and vegetation management.

An initial field visit was conducted on July 17, 2012 to evaluate lot layout, primary and secondary access road locations, hazardous fuels and topography. The Proposed Project is a near-urban area that would be considered wildland-urban interface (WUI). It is an area of low to highly flammable vegetation.

The Proposed Project is located within a Local Responsible Area (LRA) served by the San Marcos Fire Department (SMFD). SMFD's capacity to provide fire protection services to the Proposed Project is discussed in more detail in Section 3.1.8, *Public Services*. Escondido Fire Department (EFD) and County Service Area 107 (Elfin Forest) also have fire protection facilities within the area; SMFD has established several mutual and automatic aid agreements with these surrounding fire departments, as discussed in Section 3.1.8.

As determined by the State Fire Code, fire severity is zoned as "Very High" Fire Severity for some portions, and "Moderate" for the remainder of the Proposed Project site (located approximately 11 miles inland from the ocean). Several characteristics of the Project location, including topography, vegetation, and climate zone contribute to risk of fire at the site.

2.9.1.4 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 Proposed Project, a standard requirement is the incorporation of measures, or 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 habitat 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.

2.9.1.5 Regulatory Setting

Hazardous Substances

Resource Conservation and Recovery Act of 1976 – Federal hazardous waste laws are largely promulgated under RCRA (40 CFR, Part 260), as amended by the Hazardous and Solid Waste Amendments of 1984 (which are primarily intended to prevent releases from leaking underground storage tanks [LUSTs]). These laws provide for the “cradle to grave” regulation of hazardous wastes. Specifically, under RCRA 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 of. The U.S. Environmental Protection Agency (USEPA) has the primary responsibility for implementing RCRA, although individual states are encouraged to seek authorization to implement some or all RCRA provisions (with California an authorized RCRA state as outlined below under State Standards).

U.S. Environmental Protection Agency Region 9, Preliminary Remediation Goals – Region 9 is the Pacific Southwest Division of the USEPA, 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 USEPA toxicity data. They are considered 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 and not as legally enforceable standards.

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 (CalEPA) 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.

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, CalEPA has in turn delegated enforcement authority of state law to the County for 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. CalEPA has delegated some of its authority under the Hazardous Waste Control Law to county health departments and other CUPAs, including the DEH.

California Health and Safety Code – The CalEPA/DTSC has established rules governing the use of hazardous materials and the management of hazardous wastes. California Health and Safety Code Section 25531, et seq., incorporates the requirements of SARA and the federal Clean Air Act as they pertain to hazardous materials. Under the California Accidental Release Prevention Program (CalARP, California Health and Safety Code Section 25531 to 25545.3), certain businesses that store or handle more than 500 pounds, 55 gallons or 200 cubic feet (for gases) of acutely hazardous materials at their facilities are required to develop and submit a Risk Management Plan (RMP) to the appropriate local authorities, the designated local administering agency and the USEPA for review and approval. The RMP is intended to satisfy federal “right-to-know” requirements and provide basic information to regulators and first responders, including identification/quantification of regulated substances used or stored on site, operational and safety mechanisms in place (including employee training), potential on- and off-site consequences of a release and emergency response provisions.

Under California Health and Safety Code Section 25500-25532, businesses handling or storing certain amounts of hazardous materials are required to prepare a Hazardous Materials Business Plan (HMBP), which includes an inventory and map of hazardous materials (and related facilities) stored on site above specified quantities, an emergency response plan, and an employee training program. An HMBP is a written set of procedures and information created to help minimize the effects and extent of a release or threatened release of a hazardous material. An HMBP must be prepared prior to facility operation, with updates and amendments required for appropriate circumstances (e.g., changes in business location, ownership or pertinent operations).

Pursuant to California Health and Safety Code Chapter 6.11, CalEPA established the Unified Hazardous Waste and Hazardous Materials Management Regulatory Program (Unified Program), which consolidated a number of existing state programs related to hazards and hazardous materials. The Unified Program also allows the designation of Certified Unified Program Agencies (CUPAs) to implement associated state regulations within their jurisdiction. For businesses within the County, HMBPs are submitted to and approved by the HMD, which is the local CUPA as outlined below under County requirements.

California Human Health Screening Levels – The California Human Health Screening Levels (CHHSLs) are concentration thresholds established by CalEPA for 54 hazardous chemicals in soil or soil gas of concern for risks to human health. The CHHSLs were developed using standard exposure assumptions and chemical toxicity values published by the USEPA and CalEPA. 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/industrial sites.

Waste Discharge Requirements – The RWQCBs issue and/or enforce Waste Discharge Orders for numerous discharge categories pursuant to the Porter-Cologne Water Quality Control Act (California Water Code, Division 7, Section 13000, et seq.). For the proposed Project, the on-site wastewater treatment plant is the only such discharge anticipated to be subject to RWQCB regulation (other than storm water related requirements, as outlined in Section 3.1.3 of this EIR, Hydrology/Water Quality). Depending on the facility design and nature of associated discharge, the proposed treatment plant would likely be regulated under one or more existing orders of the San Diego RWQCB, or through a site-specific Waste Discharge Order. Specific requirements associated with such orders may include effluent testing and surface and/or groundwater monitoring to ensure conformance with applicable water quality standards.

Investigation and Cleanup of Contaminated Sites – The oversight of hazardous materials release sites often involves several different agencies that may have overlapping authority and jurisdiction. The DTSC and RWQCB are the two primary state agencies responsible for issues pertaining to hazardous material release sites. Investigation and remediation activities that would involve potential disturbance or release of hazardous materials must comply with applicable federal, state and local hazardous materials laws and regulations. DTSC has developed standards for the investigation of sites where hazardous materials contamination has been identified or could exist based on current or past uses. These regulations would be applied during grading activities if, for example, previously unknown underground tanks or other potential contaminant sources were uncovered.

California Fire Code – The California Fire Code (CFC) is Chapter 9 of Title 24 of the California Code of Regulations (CCR). It was created by the California Building Standards Commission and is based on the International Fire Code created by the International Code Council. It is the primary means for authorizing and enforcing procedures and mechanisms to ensure the safe handling and storage of any substance that may pose a threat to public health and safety. The CFC regulates the use, handling, and storage requirements for hazardous materials at fixed

facilities. The CFC and the California Building Code use a hazard classification system to determine what protective measures are required to protect fire and life safety. These measures may include construction standards, separations from property lines, and specialized equipment. To ensure that these safety measures are met, the CFC employs a permit system based on hazard classification. The CFC is updated every 3 years.

County of San Diego, Site Assessment and Mitigation Program – The DEH maintains the Site Assessment and Mitigation (SAM) list of contaminated sites that have previously or are currently undergoing environmental investigations or remedial actions. The 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 Health and Safety Code and the CCR. The SAM’s Voluntary Assistance Program 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.

Wildfire

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 in 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 (SDCFA), in partnership with CalFire, 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 for ensuring 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 time frame to complete the task. If the violations still exist upon reinspection, 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 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 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. The most recent adoption of the Consolidated Fire Code occurred in 2014.

County Required 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 WUI areas prepare a Fire Protection Plan (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 Proposed Project location. 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.

Airport Hazards

State Aeronautics Act (Public Utilities Code Section 21670, et seq.) – The State Public Utilities Code (PUC) establishes requirements for the creation of airport land use commissions in every county with an airport served by a scheduled airline. Additionally, these sections of the Code mandate the preparation of Comprehensive Land Use Plans (CLUPs) to provide for the orderly growth of public airports and the surrounding areas. Specific CLUP goals include providing airport safety guidelines, protecting the general public and ensuring the welfare of inhabitants in the airport vicinity.

Emergency Response

County of San Diego, Community Protection and Evacuation Plan (January 2006) – This plan provides a template and information for the unincorporated areas in San Diego County to prepare their own community protection and evacuation plan in the event of a major emergency or disaster. The Pala Pauma community plan area does not have an adopted community protection and evacuation plan.

Vectors

California Health and Safety Code, Vector Control. Sections 116110 through 116112 of the California Health & Safety Code 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 Vector Control Program, a branch within the DEH. These districts are responsible for developing and conducting programs for the prevention and control 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.

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 they carry. The primary objective of controlling vectors is to preserve and 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 protection and control programs are provided to reduce the risk of disease these vectors can transmit and to minimize nuisances they cause.

2.9.2 Analysis of Project Effects and Determination as to Significance

2.9.2.1 Release of Existing Hazardous Substances

Guideline for the Determination of Significance

A significant impact to public safety or the environment would occur if:

1. The Proposed Project is located on or within one-quarter mile from a site identified in one of the regulatory databases compiled pursuant to Government Code Section 65962.5 or is otherwise known to have been the subject of a release of hazardous substances, and as a result the Project may result in a significant hazard to the public or the environment.

Guideline Source

This guideline is based on County Guidelines for Determining Significance – Hazardous Materials and Existing Contamination (2007f).

Analysis (Guideline 1)

As mentioned previously, EDR performed a search of federal, state, and local databases for the sites and surrounding areas. The search distance for the review extended one mile from locations in the northern and southern areas of the Proposed Project site. Copies of the reports summarizing the results of these searches are included in the appendices of the respective ESAs (Appendix I of this EIR). No sites identified in any federal, state or local database searched by EDR are located within the bounds of the Proposed Project site. Based on information provided for the listed properties, their locations, and the databases on which the properties were listed, there are **no impacts to the Project site from these identified properties.**

Historical use on the Proposed Project site has involved the application of pesticides and storage of diesel fuel in ASTs. Potential hazards associated with these prior hazardous materials are discussed below under Guideline No. 4.

2.9.2.2 Airport Hazards

Guidelines for the Determination of Significance

A significant impact to public safety or the environment would occur if:

2. For a project located within an airport land use plan or, where such a plan has not been adopted, within 2 miles of a public airport or public use airport, the project result in a safety hazard for people residing or working in the project area.
3. For a project within the vicinity of a private airstrip, the project result in a safety hazard for people residing or working in the project area.

Guideline Source

This guideline is based on County Guidelines for Determining Significance – Airport Hazards (2007g).

Analysis (Guideline 2)

As mentioned above, the Proposed Project is located within the AIA 2 for the Palomar McClellan Airport, which is 8.4 miles to the west. The AIA 2 portion of the Project is an overflight notification area and requires FAA notification for hazards to airport safety. That process requires the applicant to file notice to the FAA under 14 Code of Federal Regulations (CFR), part 77 pursuant to 49 U.S.C., Section 44718 (the highest topographic point of the Proposed Project with the tallest potential structure allowed by the proposed zoning height designator). Note that the maximum height of proposed buildings on site would not exceed 35 feet. The applicant filed a notice with the FAA. The FAA conducted an aeronautical study and made a determination that the proposed land use action would result in no hazard to air navigation (FAA 2014). Therefore, **impacts associated with airport hazards would be less than significant.**

Analysis (Guideline 3)

The Proposed Project site is not within the vicinity of a private airstrip and therefore, the Project would not result in a safety hazard for people residing or working in proximity to a private airstrip.

2.9.2.3 Human or Environmental Exposure to Hazardous Materials

Guideline for the Determination of Significance

A significant impact to public safety or the environment would occur if:

4. The Proposed Project could result in human or environmental exposure to soils or groundwater that exceed the USEPA Region 9 Preliminary Remediation Goals,

California Environmental Protection Agency California Human Health Screening Levels, or Primary State or Federal Maximum Contaminant Levels for applicable contaminants and the exposure would represent a hazard to the public or the environment.

Guideline Source

This guideline is based on County Guidelines for Determining Significance – Hazardous Materials and Existing Contamination (2007f).

Analysis (Guideline 4)

San Diego County requires that septic tanks on site utilized for existing and historic structures be abandoned in accordance with health requirements. The southern area of the site (Neighborhood 5) is currently developed with an active equestrian facility, support buildings and a residential structure. A diesel AST, 2,000-gallon water AST, and a groundwater supply well are also located on the site. The Phase I ESA prepared for the southern area of the Proposed Project site did not identify any RECs on the site or adjacent properties during the site reconnaissance of the area. While only minimal staining was observed near the diesel AST, GEOCON recommended that if evidence of hydrocarbon contamination (soil staining or odors) were observed during grading operations, the areas should be sampled and tested to determine if further action is warranted.

The review of historical aerial photographs conducted for the Phase I ESA prepared for the northern area of the site (Neighborhoods 1 through 4) indicate that the site was used for agricultural purposes from as early as 1947 to around 1974. The western area appears to have been used for agricultural purposes from as early as 1974 to the present. A previous pesticide assessment was conducted in 2005 (12 hand-auger borings); however, review of the grading plan indicated that proposed residences would be constructed in locations that had not yet been assessed.

A limited assessment for the locations where residences are proposed was conducted to evaluate potential residual contaminants in the soil. Thirteen hand-auger borings (designated B13 through B25) were conducted on June 21, 2013 at Proposed Project site locations associated with former and/or current agricultural operations and near the diesel AST location. All of the samples were taken from the northern portion of the Project site (see Figure 3 of the Phase I and Limited Phase II ESA contained in Appendix I of this EIR for boring sites and the locations of the ASTs).

The soil samples near the prior agricultural areas were tested for organochlorine pesticides (OCPs) and arsenic. Contaminant levels were not detected at or above the laboratory reporting limit and are thus below the California EPA California Human Health Screening Levels for residential use in all the samples collected.

The samples taken near the ASTs were analyzed for gasoline range organics (GRO), DRO, and ORO. Results from the hydrocarbon and VOC analysis for the soil samples collected from two sites near the AST indicated that soils have been impacted with petroleum hydrocarbons (DRO and ORO) at or above laboratory reporting limits. GEOCON concluded that further assessment

to identify lateral and vertical limits of the DRO and ORO impacted soils may be required prior to redevelopment in the vicinity of boring AST 2. Therefore, **impacts related to potentially contaminated soils near the on-site ASTs are potentially significant. (Impact HZ-1)**

A summary of typical pollutant sources and loadings for various land use types is provided in Table 3.1.3-1, *Summary of Typical Pollutant Sources for Urban Storm Water Runoff*, and Table 3.1.3-2, *Typical Loadings for Selected Pollutants in Runoff from Various Land Uses*, of the Hydrology/Water Quality section of this EIR. The chemical character and content of groundwater in the Escondido area is listed as “variable” in the Project ESAs, with range of local total dissolved solids (TDS) levels for the Escondido Valley Groundwater Basin given as between 250 and 5,000 milligrams per liter (mg/l; GEOCON 2013b, DWR 2003). The previously noted well located approximately 0.7 mile east of the site had a reported TDS level of 1,200 mg/l in May 2002 (GEOCON 2013b). Additionally, while no specific water quality data are known to be available for the on-site well, it is assumed that associated groundwater quality is generally good or moderate due to the noted use of this well for irrigation of on-site avocado orchards. From the local aquifer and well data noted above, as well the use of local groundwater for on-site agricultural irrigation, groundwater quality in the Project site and immediate vicinity is anticipated to be generally moderate to good. Consequently, **impacts associated with groundwater contamination would be less than significant.**

2.9.2.4 Handling and Storage of Hazardous Materials

Guideline for the Determination of Significance

A significant impact to public safety or the environment would occur if:

5. The Proposed 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 California Health and Safety Code (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.
6. The Proposed Project is a business, operation, or facility that would handle regulated substances subject to California Accidental Release Prevention (CalARP) Risk Management Plan requirements that in the event of a release could adversely affect children’s health due to the presence of a school or day care within one-quarter mile of the facility.

Guideline Source

This guideline is based on County Guidelines for Determining Significance – Hazardous Materials and Existing Contamination (2007f).

Analysis (Guideline 5)

The Proposed Project includes a WTWRF that would be located at the southeasterly portion of the Project. This type of land use could require the handling and storage of hazardous materials for operations.

Prior to building permit approval, the proposed WTWRF would be required to prepare a Hazardous Material Business Plan and a Risk Management Plan to document the type of materials proposed for plant operations, as well as proposed storage and handling procedures; and procedures for transport of materials. The Risk Management Plan and Business Plan would be prepared and approved by the County DEH HMD, as noted in Chapter 1.0, which is responsible for regulating hazardous materials business plans and chemical inventories, hazardous wastes, permitting, and Risk Management Plans. Implementation of the Risk Management Plan and Business Plan would minimize the potential for accidental release of hazardous materials and the associated potential risk to public safety. Additionally, the WTWRF would not be located within one-quarter mile of an existing or proposed school site. Therefore, **impacts related to the handling and storage of hazardous waste associated with the proposed on-site WTWRF would be less than significant.**

Analysis (Guideline 6)

As discussed previously, the Proposed Project includes a WTWRF that would be located at the southeasterly portion of the Project. This type of land use could require the handling and storage of hazardous materials for operations and would require preparation of CalARP Risk Management Plan.

In addition, the Proposed Project would include an agricultural easement which may include partial retention of the existing viable avocado orchards, as well as additional potential uses such as vineyards and/or other orchards (e.g., citrus, pomegranates, nuts and olives). These agricultural uses could involve the use of pesticides.

Prior to building permit approval, the proposed WTWRF would be required to prepare a Hazardous Material Business Plan and a Risk Management Plan to document the type of materials proposed for plant operations, as well as proposed storage and handling procedures; and procedures for transport of materials. Implementation of the Risk Management Plan and Business Plan would minimize the potential for accidental release of hazardous materials and the associated potential risk to public safety. The type of agricultural uses proposed for the agricultural easement are minor in scale and unlikely to be commercial in nature. Additionally, the WTWRF and the proposed agricultural easement would not be located within one-quarter mile of an existing or proposed school site.

Therefore, **impacts related to the handling and storage of hazardous waste associated with the proposed on-site WTWRF and proposed agricultural uses would be less than significant.**

2.9.2.5 Demolition of Structures that May Contain ACM, LBP, and/or Other Hazardous Materials

Guideline for the Determination of Significance

A significant impact to public safety or the environment would occur if:

7. The Proposed Project would involve the demolition of commercial, industrial or residential structures that may contain asbestos containing materials (ACM), lead based paint (LBP) and/or other hazardous materials and as a result, the Project would represent a significant hazard to the public or the environment.

Guideline Source

This guideline is based on County Guidelines for Determining Significance – Hazardous Materials and Existing Contamination (2007f).

Analysis (Guideline 7)

Asbestos was used extensively in the United States, especially from the 1940s until the late 1970s. The material was used in buildings for fireproofing, acoustical insulation, condensation control, and decoration. It can be found in products such as asphalt roofing products, insulation inside fuse boxes and old wire insulation, shingles and siding, and floor tile. Its use was largely discontinued after 1980. Lead based paint was used up until 1978 in paint and other products, and is found on the walls, woodwork, windows and doors of many older structures. Stained soils, pitted concrete, and leaking containers/drums on sites can indicate the presence of other sources of contamination. It appears that structures at the site were built around 1948. As such, it is possible that LBP and/or ACM are present in the structures. Therefore, **a potentially significant impact related to the demolition of these structures could occur. (Impact HZ-2)**

2.9.2.6 Wildland Fire Hazards

Guideline for the Determination of Significance

A significant impact to public safety or the environment would occur if:

8. The project cannot demonstrate compliance with all applicable fire codes.
9. A comprehensive FPP has been accepted, and the project is inconsistent with its recommendations.

Guideline Source

This guideline is based on County Guidelines for Determining Significance – Wildland Fire and Fire Protection (2011c).

Analysis (Guidelines 8 and 9)

A comprehensive FPP was prepared for the Proposed Project (Appendix L). The report found that the Project complies with all applicable fire regulations, including but not limited to the California Fire Code, California Code of Regulations, County Fire Code, or the County Consolidated Fire Code. The comprehensive FPP and the Project are consistent with the County recommendations, including fuel modification.

In the FPP, several scenarios were developed to determine the potential fire behavior of a wildland fire that might occur in the vicinity of the Proposed Project. Fire Behavior calculations were used to determine clearance requirements, allowable distances of vegetation treatment and maintenance requirements. The distances and requirements are delineated as Fuel Modification Zones (FMZ). This FPP would provide design considerations (discussed below) based on the sequencing and approval of construction. The timing of construction for each phase would be determined at a later time but would be required to comply with the design considerations contained in the FPP. In addition, the reader is referred to Section 3.1.8, *Public Services*, of this document for a discussion of wildfire impacts as they relate to fire protection services (e.g., station locations, capacities, travel times, etc.).

Fuel Modification Zones

On-site, the perimeter buffer and FMZ would consist of a minimum of 50-foot irrigated zone from the edge of all structures in the proposed development. All vegetation would be removed that is not fire resistant and re-planted with irrigated fire-resistant landscaping. This would be defined as Zone 1.

Unless included in Zone 1, the area between 50 to 150 feet from the edge of Zone 1, all dead and dying vegetation shall be removed. Where native- and non-native vegetation exists within this Zone, it may remain provided that the vegetation is modified so that combustible vegetation does not occupy more than 50 percent of the square footage of this area. In this Zone the actively managed and irrigated orchard (mostly avocado) presently located within the proposed development may be integrated into the zone.

The FMZ shall be a minimum of a 150-foot area, or as approved by the SMFD, surrounding and extending in all directions from all structures, in which flammable vegetation or other combustible growth is cleared away or modified, except for:

- Single specimens of trees or other vegetation that are well pruned and maintained;
- Non-irrigated grass and other vegetation located more than 50 feet from the structure and less than 18 inches in height above the ground; and
- All ornamental landscaping that is consistent with San Diego County acceptable plants for a defensible space in fire prone areas plant list (Appendix L).

- A Non-irrigated Zone 2 fuel modification is less than 100 feet from Zone 1 onsite with one of the following: (1) with approved Project Design Measures requested by the SMFD and outlined below when fuel modification is over 100 feet but less than 150 feet from RPO buffers and the edge of structures; (2) fuel modification on adjacent property which provides the additional distance to meet Zone 2 criteria; (3) where adjacent managed and irrigated agricultures crops/orchards provide fuel modification to meet Zone 2 fuel modification requirements; (4) where twice the calculated fire flame length is less than the zone width; (5) where calculated fireline intensities would not create a significant hazard to ignition-resistant structures; or (6) where Zone 2 fuel modification criteria is applied to 20 feet on either side of roadways.

The Proposed Project shall also provide fuel modification for 20 feet on either side of roadways, pursuant to the County's Consolidated Fire Code and the California Fire Code for clearance of brush and vegetative growth from roadways using Zone 2 fuel modification criteria described below. This requirement for modified fuel combustible vegetation shall apply to on-site and off-site private ingress and egress roadways.

Below are the definitions and required treatments for FMZs. Each of these zones is discussed below and are depicted on Figure 1-25 in Chapter 1 of this EIR. Additionally, all zones would include fuel maintenance; this shall be performed year-round, and is also described in greater detail in Appendix L. A negotiated and approved agreement for the management and maintenance of the Biological Open Space areas would be implemented.

- Zone 1. This zone comprises the first 50 feet beyond each residence. Roads and other "non-structure" improvements are allowed in this zone. Manufactured slopes would be included in this zone when present. It is an irrigated zone, free of combustible construction and materials.
- Zone 2. This zone is the area 50 to 150 feet beyond Zone 1, except 50 to 100 feet to interior islands of natural fuels. Roads and other "non-structure" improvements are allowed in this zone. Zone 2 fuel management shall also be applied to all roadways, including private controlled access roadways. Manufactured slopes would be included in this zone when present. Irrigation would be used only if needed to establish and maintain fire-resistive landscaping.
- Zone 3. This zone is the off-site perimeter parcels that provide required 150-foot fuel treatment zones for select Project perimeter structures. As stated earlier, there are two scenarios for off-site parcels to provide Project protection: (1) adjacent properties with a responsibility to meet hazard abatement/fuel modification for their property (e.g., required modification of hazardous fuels 150 feet from off-site structures, active agriculture activities, or perimeter fuel hazard abatement); and (2) perimeter off-site properties when the owner does not or fails to modify hazardous fuels along their property. Where the off-site 150-foot required fuel modification is not associated with any structure, the Project could be inconsistent with the FPP recommendations for fuel management. The APNs of parcels on which modification is needed are as follows: 232-491-01, 232-491-42, and 232-492-02. However, impacts are expected to be less than

significant upon completion and execution City of San Marcos Grant of Easement forms to modify hazardous fuels on adjacent property(s).

Proposed Plant Species

Plant species planted for the Proposed Project would include those listed in Appendix A of the FPP – San Diego County Approved Plant List for High Fire Hazard Areas (Appendix L). Highly flammable, non-fire resistive vegetation would be removed and not re-planted within the area. Three specific non-fire resistive plants that would not be permitted to grow in the Fuel Management Zones, even as specimen plants, because of their flammability are:

- California sagebrush, *Artemisia californica*;
- Flat-topped buckwheat, *Eriogonum fasciculatum*; and,
- Black sage, *Salvia mellifera*

Building Materials

All newly constructed structures would be built to ignition-resistive building requirements, as specified in the FPP. The installation of automatic interior fire sprinkler systems would be required (per National Fire Protection Association Standard 13D and 2013 California Building Standards Code). All glass or other transparent, translucent or opaque glazing materials, including skylights, shall be constructed of tempered glass or dual glazed windows with minimally one pane of tempered glass.

Continued Maintenance

Each lot owner would be individually responsible for the fuel modification maintenance on property lots, including all measures included in the FPP. Property owners would be members of a legally constituted HOA which would support the maintenance of common areas (including roadsides) in perpetuity. Please refer to Appendix L for specific requirements for the ongoing fuel modification maintenance.

Project Design Features for Homes with Reduced Defensible Space

The following Project Design Features would be included for each dwelling within the Project site that provides more than a 100-foot defensible space, but less than 150-foot defensible space required by the SMFD.

- The following lots fall below the 150-foot defensible space requirement: 1, 3, 4, 119-123, 127, 135, 149, 150, 158, 162, 163, 170, 171, 258, 268 and 289 and shall be called out on a separate plan sheet in plan submittal. The plan sheet for these dwelling units shall list the following requirements shown below.
- The exterior walls of the dwelling unit facing the open space that fall within the area that is less than the 150-foot defensible space requirement shall be two-hour fire rated. A

detail sheet on plan that identifies two-hour rated exterior walls as approved by ICC Evaluation Services shall be provided.

- All roofs shall be Class ‘A’ material. Roof or floor coverings for patio covers or balconies shall also be Class ‘A’ rated or non-combustible material.
- All eaves, overhangs or projections shall be non-combustible material. No exposed wood allowed.
- All windows shall be dual pane, with both window panes being tempered glass. This also applies to any skylights being installed.
- All vents shall be ember-resistant type with Baffles, Brandguard, O’Hagan or equivalent. No vents shall be on side of dwelling facing vegetation.
- Any accessory attachments or structures, such as patio covers, decks, partially enclosed exterior patios, sheds, play structures, etc., shall be non-combustible or heavy timber and comply with the Office of the State Fire Marshal (OSFM) requirements for fire resistive materials; this would only apply to the area of the lot that falls below the 150-foot setback requirement.
- Exterior fire sprinklers would be required for any projection from dwelling that exceeds four feet in width and/or length.
- All spaces of dwelling shall be sprinklered throughout; including attic and concealed spaces, closets or other areas.
- Exterior fences attached to dwellings shall be non-combustible material on the side of the dwelling facing open space that is within the 150’ defensible space.
- No fire pits would be allowed. Enclosed exterior fireplaces may be allowed on case by case basis.
- In areas that fall within the 150-foot defensible space requirement: (1) new trees shall be planted a minimum of 40 feet from dwelling; (2) no tree canopy at full maturity shall grow within 20 feet of any wall of dwelling; and (3) trees shall be planted in a manner that tree canopies at full maturity shall be spaced a minimum of 30 feet from each other.
- Any new vegetation planted shall be fire resistive, drought tolerant and meet San Diego County list of requirements for plants, shrubs and trees.

Other Design Measures

Additional features of the Proposed Project that would reduce risks from wildland fires include the approval of a submitted grading plan by SMFD, the setback of single-story structures at a minimum of 15 horizontal feet from the top of a slope, fire access roadways throughout the

development free of speed control devices, the removal of brush and flammable vegetation prior to the commencement of any construction activity, and a lighted directory map installed near the entrance with approval from SMFD, the review of specific plans related to gates should they be proposed, and a continuous water supply.

Fire Protection Travel Times

SMFD's capacity to meet the emergency response objectives identified in the Public Facilities Element of the County General Plan for the Proposed Project is discussed in detail in Section 3.1.8, *Public Services*. The Section 3.1.8 analysis concludes that substantial fire protection facilities are and will be appropriately available in the Project vicinity. With the construction and operation of the proposed Harmony Grove Fire Station, potential service impacts are avoided for the portion of the Project outside of the EFD's Station #6 five-minute travel time coverage.

The Project could be inconsistent with the FPP if there is no service agreement between the Applicant, CSA/HGF authority, and SMFD to facilitate service. Therefore, prior to occupancy of any structure that does not meet the five minute travel time according to Figure 7 of the approved FPP, either the Harmony Grove Fire Station must be in operation and providing service, or alternate mitigation measures must be provided to the satisfaction of the County Fire Authority and the PDS Director. The fire station construction is expected to be funded by mid-2016 and operational by 2017. A two-acre lot has been transferred to the County for the new fire station and a Community Facilities District (CFD) has been established as the funding mechanism. Impacts are less than significant with completion of the service agreement and construction and operation of the fire station.

Potential conflicts with the FPP could occur, as follows: 1) Certain areas offsite (APNs 232-491-01, 232-491-42, and 232-492-02) will require ongoing fuel modification and these areas may not be within control of the Applicant; 2) Certain Project areas specified above will require a service agreement with the Fire Marshal of the Harmony Grove Fire Station. **Impacts are potentially significant. (Impact HZ-3)**

Fire Protection Plan Conclusions

The FPP concluded that any wind or topography driven wildfire burning under a northeast (Santa Ana) wind pattern creates a very high wildland fire hazard, especially for wildland fires starting off-site north and northeast of the Proposed Project site. The primary threat during this scenario would be flying fire embers. In addition, a typical fire day with a southwest wind would create a high wildland wildfire hazard. Fuel treatment and setback would all but eliminate direct fire impingement and radiant heat from around the perimeter of the structures. Additionally, with the proposed fuel modification treatments, "firewise" landscaping contained in the FPP, and the use of ignition resistive building construction standards, the wildfire threat would be mitigated to less than significant levels. As a result, the potential loss of any structure due to direct flame impingement, wind driven embers, or radiant heat around the perimeter of any planned house is extremely low. Further, the Project would specify maintenance requirements to provide fire safety. Fire protection travel times would be met with the proposed

Harmony Grove Fire Station. With the above considerations, **impacts associated with wildland fire hazards would be less than significant.**

2.9.2.7 Emergency Response

Guideline for the Determination of Significance

A significant impact to emergency response or the environment would occur if:

10. The project does not meet the emergency response objectives identified in the Public Facilities Element of the County General Plan.
11. The project impairs implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan, or proposes a structure or tower 100 feet or greater in height on a peak or other location where no structures or towers of similar height already exist and as a result, the project could cause hazards to emergency response aircraft resulting in interference with the implementation of an emergency response.

Guideline Source

These guidelines are based on County Guidelines for Determining Significance –County’s Guidelines for Determining Significance - Emergency Response Plans (County of San Diego 2007I).

Analysis (Guidelines 10 and 11)

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 Hazardous Material Plan and the Multi-Jurisdictional Hazard Mitigation Plan.

The 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, tsunamis, 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, tsunamis, landslides, floods, structural fire/wildfire, and manmade hazards.

Helicopters and small planes are used in a variety of emergency response actions such as search and rescue operations and retrieving water to extinguish wildfires. During an emergency response, aircraft tend to fly low to the ground thus increasing the potential hazards to aircraft from towers and other objects within airspace. CalFire and the County of San Diego Sheriff's Department Aerial Support Detail, Air Support to Regional Enforcement Agencies (ASTREA) base carry out emergency response actions.

In addition, the Proposed Project does not propose a structure or tower 100 feet or greater in height on a peak or other location where no structures or towers of similar height already exist. **Impacts associated with emergency response are less than significant.**

2.9.2.8 Vectors

Guideline for the Determination of Significance

A significant impact would occur if the Project substantially increased human exposures to vectors capable of spreading disease by:

12. 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
13. Proposing a vector breeding source, including but not limited to, composting or manure management facilities, confined animal facilities, animal boarding/breeding/training operations; or
14. Proposing a substantial increase in the number of residents located within one-quarter mile of a significant off-site vector breeding source.

Guideline Source

This guideline is based on County Guidelines for Determining Significance – Vectors (2009c).

Analysis (Guideline 12)

The Proposed Project could have a significant public health and safety impact if the proposed equestrian facilities, the WTWRF or wet weather storage ponds significantly increase vector populations to a level that could harm the health of the public.

A Manure Management and Fly/Vector Control Plan would be prepared prior to approval of the first Final Map, as required by the D designator site plan for the equestrian center, the WTWRF, and the wet weather storage pond parcels. The Plan would be submitted to and be approved by DEH and include operational procedures to minimize on-site fly, mosquito and vector production. Staff at the on-site equestrian facilities would be given instruction by the facility owner ranch manager and/or HOA maintenance department on the importance and methods of managing flies, mosquitoes and rodents. A summary of standard vector control procedures is provided below:

- Staff education; training shall be conducted during equestrian ranch operations, with training sessions (including stormwater management training as well) to be held every 6 months at a minimum.
- Removing opportunities for vector breeding (e.g., standing water, wet manure, proper feed storage)
- Extensive manure management and disposal; such as using appropriate materials for indoor stall floors (rubber mats and decomposed granite) and bedding (pine shavings), as well as outdoor stall floors (felt and decomposed granite) and bedding (rice hulls); installing covers on all corrals; cleaning all corrals and stalls twice daily; cleaning all pastures daily; disposing of all waste directly into commercial dumpsters located on impervious surfaces with appropriate berming; disposing of dumpster contents in an approved landfill or recycling area twice per week
- Using as much bedding material as possible in stalls to reduce odors
- Installation of fly control system: the system would automatically release non-toxic, environmentally safe, natural flying insect killer (insects that breathe through their skin and are exposed to this mist are eliminated, including mosquitoes that carry West Nile virus)
- Maintaining good drainage to avoid standing water
- Utilization of automatic horse watering devices – refilling on demand
- Remove damp or spilled feed from around bins, tanks and feed troughs
- Store all garbage, fruit and vegetable wastes in tight lid containers until disposal off site
- Control weeds, allow sun penetration and air movement to keep grounds dry
- Store feed in vector and rodent-proof containers
- Application of insecticide (Py-Tech or a similar product) by a licensed pest control company to control fly and mosquito breeding, as necessary
- Yellow jacket and fly traps would be installed if these insects become a problem

- Use of snap traps or live traps for rodent control
- Use of wet clean-up methods to remove rodent droppings
- Use of hydrated lime if necessary to reduce odors and fly breeding
- Store hay in a separate three-sided (i.e., open) enclosure with a concrete floor to provide adequate ventilation and reduce combustion potential
- Use tightly covered metal bins located in a specified room within the main barn structure to store all feed supplements (e.g., grain and vitamins)

The proposed WTWRF would implement a number of measures to reduce attraction to flies, mosquitoes and vectors in general. Vector attraction would be limited to two primary components of the reclamation process, the screening process and the wet weather storage pond.

- Screened material would be removed from the facility two to three times per week. The screening process would take place indoors, with screened material disposed of in a commercial dumpster that would be housed indoors until transported off site. Routine removal of material would minimize fly attraction/propagation.

The wet weather storage pond would be designed to store up to 6.4 million and would be pumped into the pond beginning around November and ending in February or March, with the water completely used/drained by approximately the end of June. Thus, during wet weather years, the pond could maintain water for up to eight months. It is not expected that the wet weather storage would be used every year and it may be dry for up to two to three years at a time. The following measures would be implemented to reduce attraction to flies, mosquitoes, rodents and other vectors:

- Synthetic pesticides (e.g., methoprene and cyromazine), biochemical pesticides (i.e., Bti: *Bacillus thuringiensis israeliensis*), and/or biological controls (e.g., mosquito fish) would be applied to the wet weather storage area to control attraction/propagation of mosquitoes;
- Chlorine addition to the treated water would be increased for long-term storage, reducing attraction to flies and mosquitoes; and
- The wet weather storage pond would be disked annually in the Fall to remove vegetation around the perimeter of the pond to limit rodent habitat.

Implementation of all procedures in a Manure Management and Fly/Vector Control Plan required as a condition of approval of the first Final Map would avoid the potential for an increase in vector populations at the WTWRF and wet weather storage pond. Furthermore, the management measures associated with the equestrian facility and the WTWRF would become conditions of approval for each proposed use, ensuring that they would be implemented and enforced. **Impacts related to increase in vector populations to a level that could harm the health of the public are considered potentially significant. (Impact HZ-4)**

2.9.3 Cumulative Impact Analysis

Impacts associated with hazardous materials and vectors are generally site-specific. Potentially significant impacts from contaminated soils due to the on-site ASTs, and LBP and asbestos-containing structures would be mitigated through additional testing and removal (as necessary) in accordance with local, state and federal regulations and would not contribute to a cumulative impact after mitigation. Potentially significant impacts from vectors are mitigated at the source through compliance with DEH regulations. Also as noted, the Proposed Project would not result in significant impacts related to airport hazards, which is also site specific and highly regulated. Cumulative projects in the site vicinity would be required to implement, as appropriate, similar site-specific measures to address potential impacts from hazardous materials and airport hazards. These kinds of impacts do not combine together to increase effects. Therefore, there would be **less than significant cumulative impacts from hazardous materials and airport hazards.**

The potentially significant impact associated with wildfire has a potential to combine with other projects' impacts to form a significant cumulative impact. The cumulative projects identified in Section 1.7 and listed in Table 1-4 were considered in order to determine if these projects, when combined with the Proposed Project, would result in significant cumulative impacts to wildland fire hazards. As with the Proposed Project, the 66 cumulative projects in the study area, along with any future projects, would be required to implement site-specific measures to address potential impacts from wildfires.

Additionally, the Proposed Project site is adjacent to land that has the potential to support wildland fires; however, with implementation of the FPP recommendations, as well as implementation of mitigation measure M-HZ-3 (refer to Section 2.9.5 below), the Proposed Project would decrease the risk of loss to surrounding uses (Firewise 2014) and would not contribute to a cumulative wildland fire risk. Under mitigation measure M-HZ-3, the Proposed Project would provide a fair share contribution to funding the proposed Harmony Grove Fire Station, which would ultimately result in an increase in service availability and a reduction in the travel times for fire service calls in the cumulative project area.

Based on this conclusion that after implementation of mitigation measure M-HZ-3, the Proposed Project would not contribute to a cumulative wildland fire risk, and on the requirement that future projects in the vicinity would also implement preventative wildfire measures, **cumulative impacts from wildland fire hazards would be less than significant.**

2.9.4 Significance of Impacts Prior to Mitigation

Impact HZ-1 Analytical results for soil samples collected near the AST in the northern area of the site (Neighborhood 1) indicate a historical release of DRO and ORO. Additionally, there was minimal staining observed adjacent to the 200-gallon diesel AST located near the southeastern area (Neighborhood 5) of the Proposed Project site.

Impact HZ-2 Based upon the age of the on-site structures (approximately 60 years), the potential exists for ACM and/or LCP to be present on both the northern (Neighborhoods 1 through 4) and southern (Neighborhood 5) sites assessed.

Impact HZ-3 Potential conflicts with the FPP could occur, as follows: (a) Certain areas offsite (APNs 232-491-01, 232-491-42, and 232-492-02) will require ongoing fuel modification and these areas may not be within control of the Applicant; (b) Certain Project areas (for occupation of structures in Neighborhoods 2, 4 and portions of Neighborhood 3 as shown on Figure 7 of the approved FPP) do not currently have fire service meeting the County's required 5-minute travel time.

Impact HZ-4 The equestrian facility, WTWRF and wet weather storage ponds could have a significant public health and safety impact if they significantly increase vector populations to a level that could harm the health of the public.

2.9.5 Mitigation

M-HZ-1a Excavation and/or grading activities near the location of the on-site AST in Neighborhood 5 shall be actively monitored by a Registered Environmental Assessor (REA) for the potential presence of hydrocarbon contaminated soils. In the event of encountering contaminated soils, these soils shall be properly tested, managed, and disposed of at a licensed facility in accordance with County DEH requirements.

M-HZ-1b Soils near the on-site AST within Neighborhood 1 shall be assessed to identify the vertical and lateral limits of DRO and ORO contaminated soils. Contaminated soils shall be disposed of at a licensed facility in accordance with County DEH requirements.

M-HZ-2 Potential impacts related to the possible presence of ACM and/or LCP in the structures on site shall be mitigated by additional assessment in the form of an ACM and LCP survey conducted prior to demolition activities. This survey shall be utilized to confirm the absence or presence of these materials. Additionally, it shall be used to determine appropriate health and safety requirements for demolition, and appropriate disposal methods for demolition debris.

M-HZ-3a Prior to approval of the first Final Map: 1) the Project shall complete City of San Marcos Grant of Easement forms to modify hazardous fuels on adjacent properties, specifically APNs 232-491-01, 232-491-42, and 232-492-02.

M-HZ-3b Prior to occupancy of any structure that does not meet the five minute travel time according to Figure 7 of the approved FPP, either the Harmony Grove Fire Station must be in operation and providing service, or alternate mitigation measures must be provided to the satisfaction of the County Fire Authority and the PDS Director.

M-HZ-4 Prior to approval of the first Final Map, a Manure Management and Fly/Vector Control Plan would be prepared according to applicable standards and submitted to the DEH for approval. The Plan would include operational procedures to minimize on-site fly, mosquito and vector production and would be enforced by DEH.

2.9.6 Conclusion

Based on the field reconnaissance, review of government documents and databases, and results of adjacent site testing, it can be concluded that the Proposed Project would result in potentially significant on-site hazards impacts. Specifically, there is a potential for impacts to soil related to on-site ASTs, and for impacts related to possible ACM and/or LCP presence in on-site structures. Mitigation measures proposed include additional assessment and remediation. Impacts would be reduced to less than significant levels because the hazards would be removed or remediated in accordance with safety regulations, prior to exposure by the Project's occupants.

The recommendations and requirements included in the FPP have been incorporated into Project design. These measures, in combination with mitigation measure M-HZ-3, would ensure that Project implementation would result in less than significant impacts relating to wildfire hazards and compliance with applicable codes and regulations because the mitigation would clarify how fuel treatment and setbacks would be enforced to adequately reduce direct fire impingement and radiant heat from around the perimeter of the structures. The mitigation would also clarify how the specified adequate five minute travel time response would be achieved so that the potential loss of structures to wildfire hazards would be extremely low.

Implementation of all procedures in the Manure Management and Fly/Vector Control Plan (M-HZ-4) would reduce potential impacts to less than significant because the potential for an increase in vector populations at the WTWRF and wet weather storage pond would be avoided. Furthermore, ongoing management measures associated with the equestrian facility and the WTWRF including the storage pond, would be required, implemented, and enforced by DEH through the standard measures of the required Control Plan(s).

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