3.8 Hazards and Hazardous Materials

This section describes the potential adverse impacts on human health and the environment from hazards that could result from the project during construction and operation. The analysis also includes hazards associated with any historic contamination on-site, and the project location relative to wildland fire risks. An overview of the regulatory framework related to hazardous materials and high fire hazard areas is followed by an analysis of potential impacts and mitigation measures, if applicable, necessary to reduce impacts to less than significant levels. The following analysis is based on various resources including the Phase 1 Environmental Site Assessment Reports for both phases (Arcadis 2016), the Fire Behavior Analysis Report, Fire Master Plan, and Fuel Modification Plan, which are provided in Appendix F and Appendix G of this EIR, respectively.

3.8.1 Environmental Setting

Existing Conditions

Phase 1 (south parcel) consists of gently sloping terrain in the southern portion of the parcel, to steep rugged terrain in the northern portion of the parcel. The majority of Phase 1 (south parcel) is undisturbed and supports dense chaparral habitat, as well as scattered patches of oak woodland. Disturbance is limited to a network of dirt roads and trails.

Phase 2 (north parcel) consists of gently sloping terrain in the northeast portion of the parcel to steep, rugged terrain in the remainder of the parcel. Elevations range from 2,020 to 3,040 feet amsl. The majority of the parcel is undisturbed and supports dense chaparral habitat with large rock outcroppings and large areas of oak woodland. Existing disturbance areas are limited to a network of dirt roads and trails throughout the parcel, and a currently occupied residence in the southwest corner of Phase 2 (north parcel) that would be vacant by the time that project construction would commence. One residence is located just east of the boundary of Phase 2 (north parcel).

In addition, the southern portion of the Phase 2 (north parcel) contains the previously used McConville Airstrip (FAA Identifier CA42) (see Figure 2-2). The private airstrip was developed in the late 1960s / early 1970s, is approximately 1,000 feet long, unpaved, and lies in a northeast to southwest direction on a slope. The private airstrip was previously used for training of landing small aircraft in rural areas; however, the airstrip has not been used since at least 2003, and cannot be used without permission from the landowner (https://www.airnav.com/airport/CA42). Several abandoned structures (such as a storage shed, hangar/maintenance structure, and bunker) that were used for the airstrip are also located in this portion of the site. The airstrip portion of Phase 2 (north parcel) receives electricity service and there are two active water wells and water storage tanks onsite.

Hazardous Materials Concerns

The project site is generally vacant and undeveloped. A Phase 1 Environmental Site Assessment Report (Arcadis 2016) was prepared in August 2016 to identify any potentially hazardous materials exist on the site, which is included as Appendix F of this EIR. The Phase 1 reviewed

regulatory database lists to identify any leaking underground storage tanks (USTs), aboveground storage tanks (ASTs), hazardous waste sites, and abandoned hazardous materials sites on or near the project site. The project site was not listed on any of the regulatory databases (Arcadis 2016).

The Phase 1 included a site visit on August 31, 2016, which identified that the Phase 1 (south parcel) has some non-hazardous debris and wood pallets; however, no hazardous substances or materials were identified.

The Phase 2 (north parcel) was found to contain a hangar/maintenance structure and a small storage shed near the southern end of the airstrip. The hangar contained multiple 55-gallon drums (most of them empty) and smaller size containers of various oils, lubricants, sprays, a propane canister, etc. (Arcadis 2016). There are also tools and various pieces of small equipment in the hangar. The floor of the hangar consisted of soil; and minor surficial staining was observed beneath some of the stored containers (Arcadis 2016). The interior of the shed also contained numerous containers of oils, gasoline cans, paints, spray paints, and many unlabeled containers (contents unknown). Several batteries were observed on the ground outside the shed (Arcadis 2016). The Phase 1 also identified a small bunker located near the western boundary of Phase 2 (north parcel) that formerly contained dynamite. Dynamite releases perchlorate, a hazardous compound, to the environment.

In addition, several areas within Phase 2 (north parcel) are being used to store numerous dilapidated vehicles that contain motor vehicle fluids (Arcadis 2016). Also, in proximity to the areas of stored cars, the Phase 1 Report identified numerous debris piles that contained metal and wood pieces, 55-gallon drums (most of them empty), tires, small pieces of equipment, glass, pails and buckets (some containing unknown substances), piping, etc.

The Phase 2 (north parcel) also contains two trash pits. Trash that was generated at a camp to the west of the project site, was burned within two unlined pits onsite near the entrance to Phase 2 (north parcel). The pits were used up until the 1950s or 1960s. They are currently covered over by soil and vegetation, and their exact location is unknown (Arcadis 2016).

Wildland Fires Concern

The Cleveland National Forest and private holdings within the forest are subject to wildland fires due to steep terrain, highly flammable chaparral vegetation of the Santa Ana Mountains, and the Santa Ana winds that occur during seasonal dry periods. According to the Orange County Public Safety Map, the project site is located within a high fire hazard zone, and is designated as a Very High Fire Hazard Severity Zone by the Orange County Fire Authority (OCFA), and within a County designated Special Fire Protection Area (SFPA) (OCFA, 2016). In fire hazard zones, the OCFA requires implementation and maintenance of detailed fuel modification programs.

In 1989, the Ortega Fire, which consumed a total of 7,880 acres in the area, burned the southern portion of the project site. In addition, on September 23, 2010, a fire burned adjacent to the project site along Long Canyon Road. This fire started during fuel abatement work by the forest service along the roadway. It burned upslope and away from the project site.

Regulatory Setting

Federal

Primary federal agencies with responsibility for hazardous materials management include United States Environmental Protection Agency (USEPA), Department of Labor Occupational Health and Safety Administration (OSHA), and Department of Transportation (DOT).

Resource Conservation and Recovery Act of 1976

Federal hazardous waste regulations are generally promulgated under the Resource Conservation and Recovery Act (RCRA). Pursuant to RCRA, the USEPA regulates the generation, transportation, treatment, storage, and disposal of hazardous waste in a "cradle to grave" manner. RCRA was designed to protect human health and the environment, reduce/eliminate the generation of hazardous waste, and conserve energy and natural resources.

The Hazardous and Solid Waste Amendments of 1984 both expanded the scope of RCRA and increased the level of detail in many of its provisions, reaffirming the regulation from generation to disposal and to prohibiting the use of certain techniques for hazardous waste disposal. The USEPA has largely delegated responsibility for implementing the RCRA program to the State of California, which implements this program through the California Hazardous Waste Control Act (described below under state regulations).

RCRA regulates landfill siting, design, operation, and closure (including identifying liner and capping requirements) for licensed landfills. In California, RCRA landfill requirements are delegated to the California Department of Resources Recycling and Recovery (CalRecycle), which is discussed in detail below.

RCRA allows the USEPA to oversee the closure and post-closure of landfills. Additionally, the federal Safe Drinking Water Act, 40 CFR Part 141 gives the USEPA the power to establish water quality standards and beneficial uses for waters from below- or above-ground sources of contamination. Water quality standards are administered by the Regional Water Quality Control Board (RWQCB).

Emergency Planning and Community Right-to-Know Act of 1986

Through the Emergency Planning and Community Right-to-Know Act of 1986 (also known as Title III of Superfund), the USEPA also imposes requirements that hazardous materials are properly handled in order to prevent or mitigate risk to human or environmental health in the event of an accidental release.

Occupational Safety and Health Act of 1970

The Occupational Safety and Health Act of 1970 (amended), which is implemented by the U.S. Occupational Safety and Health Administration (OSHA) developed Code 29 of Federal Regulations (29 CFR), which requires special training of handlers of hazardous materials; notification to employees who work in the vicinity of hazardous materials; acquisition from the manufacturer of material safety data sheets (MSDS) that describe the proper use of hazardous materials; and training of employees to remediate any hazardous material accidental releases.

OSHA also establishes standards regarding safe exposure limits for chemicals to which construction workers may be exposed. Safety and Health Regulations for Construction (29 CFR 1926.65 Appendix C) contains requirements for construction activities, which include occupational health and environmental controls to protect worker health and safety. The guidelines describe the health and safety plan(s) that must be developed and implemented during construction, including associated training, protective equipment, evacuation plans, chains of command, and emergency response procedures.

Due to the existence of potentially hazardous materials within Phase 2 (north parcel), adherence to applicable hazard-specific OSHA standards would be required to maintain worker safety.

Hazardous Materials Transportation Act

The transportation of hazardous materials is regulated by the Hazardous Materials Transportation Act, which was enacted in 1975 and was amended and reauthorized in 1990, 1994, and 2005; and is administered by the Research and Special Programs Administration (RSPA) of the US Department of Transportation (USDOT). The Hazardous Materials Transportation Act provides USDOT with a broad mandate to regulate the transport of hazardous materials, with the purpose of adequately protecting against risk to life and property, which is inherent in the commercial transportation of hazardous materials. The Hazardous Materials Transportation Act governs the safe transportation of hazardous materials by all modes, excluding bulk transportation by water. The Research and Special Programs Administration carries out these responsibilities by prescribing regulations and managing a user-funded grant program for planning and training grants for states and Indian tribes. USDOT regulations that govern the transportation of hazardous materials are applicable to any person who transports, ships, causes to be transported or shipped, or are involved in any way with the manufacture or testing of hazardous materials packaging or containers. USDOT regulations pertaining to the actual movement govern every aspect of the movement, including packaging, handling, labeling, marking, placarding, operational standards, and highway routing. Additionally, USDOT is responsible for developing curriculum to train for emergency response, and administers grants to states and Indian tribes for ensuring the proper training of emergency responders.

State

In the regulation of hazardous waste management, California law often mirrors or is more stringent than federal law. The California Environmental Protection Agency (CalEPA) and California Occupational Safety and Health Administration (CalOSHA) are the primary state agencies responsible for hazardous materials management. Additionally, the California Emergency Management Agency (CalEMA) administers the California Accidental Release Prevention (CalARP) program. The California Department of Toxic Substances Control (DTSC), which is a branch of CalEPA, regulates the generation, transportation, treatment, storage, and disposal hazardous waste, as well as the investigation and remediation of hazardous waste sites. The California DTSC program incorporates the provisions of both federal (RCRA) and state hazardous waste laws.

Hazardous Waste Control Act

The Hazardous Waste Control Act was passed in 1972 and established the California Hazardous Waste Control Program within the Department of Health Services. California's hazardous waste regulatory effort became the model for the federal Resource Conservation and Recovery Act (RCRA). California's program, however, was broader and more comprehensive than the federal system, regulating wastes and activities not covered by the federal program. California's Hazardous Waste Control Law was followed by emergency regulations in 1973 that clarified and defined the hazardous waste program, as follows:

- Included definitions of what was a waste and what was hazardous as well as what was necessary for appropriate handling, processing, and disposal of hazardous and extremely hazardous waste in a manner that would protect the public and wildlife from hazards to health and safety.
- The early regulations also established a tracking system for the handling and transportation of hazardous waste from the point of waste generation to the point of ultimate disposition, as well as a system of fees to cover the costs of operating the hazardous waste management program.
- Advancing the newly developing awareness of hazardous waste management issues, the program established a technical reference center, for public and private use, dealing with all aspects of hazardous waste management.

Title 8 of the California Code of Regulations, CalOSHA

CalOSHA administers federal occupational safety requirements and additional state requirements in accordance with California Code of Regulations Title 8. CalOSHA requires preparation of an Injury and Illness Prevention Program (IIPP), which is an employee safety program that provides inspections, procedures to correct unsafe conditions, employee training, and occupational safety communication. This program is administered via inspections by the local CalOSHA enforcement unit.

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

The Department of Toxic Substances Control regulates the generation, transportation, treatment, storage, and disposal of hazardous waste under RCRA and the California Hazardous Waste Control Law. Both laws impose "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 Certified Unified Program Agencies.

Title 27 of the California Code of Regulations, Solid Waste

Title 27 of the California Code of Regulations contains a waste classification system that applies to solid wastes that cannot be discharged directly or indirectly to waters of the state and which therefore must be discharged to waste management sites for treatment, storage, or disposal. CalRecycle and its certified Local Enforcement Agency regulate the operation, inspection,

permitting, and oversight of maintenance activities at active and closed solid waste management sites and operations.

California 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 the 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 Department of Toxic Substances Control 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.

Unified Hazardous Waste and Hazardous Materials Management Regulatory Program

In 1996, CalEPA adopted the Unified Hazardous Waste and Hazardous Materials Management Regulatory Program (Unified Program). The Unified Program consolidates and coordinates the six state programs that regulate business and industry use, storage, handling, and disposal of hazardous materials and wastes. The OCFA provides the regulatory oversight for federal, state, and local laws and regulations related to hazardous materials use and disposal within the unincorporated County areas. The OCFA protects the public health and the environment from accidental releases and improper handling, storage, transportation, and disposal of hazardous materials and wastes through coordinated efforts of inspections, emergency response, enforcement, and site mitigation oversight.

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 CalEPA 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 CalEPA. The CHHSLs were developed using standard exposure assumptions and chemical toxicity values published by the EPA 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.

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 and includes response to hazardous materials incidents. The California Emergency Management Agency coordinates the response of other agencies, including CalEPA, California Highway Patrol, California Department of Fish and Wildlife, Regional Water Quality Control Board, South Coast Air Quality Management District, and OCFA.

California Emergency Services Act

The California Emergency Services Act was adopted to establish the state's roles and responsibilities during human-made or natural emergencies that result in conditions of disaster and/or extreme peril to life, property, or the resources of the state. This act is intended to protect health and safety by preserving the lives and property of the people of the state.

State Fire Regulations

State fire regulations are set forth in Section 13000 et seq. of the California Health and Safety Code, which include regulations concerning building standards (as also set forth in the California Building Code), fire protection and notification systems, fire protection devices such as extinguishers and smoke alarms, high-rise building and childcare facility standards, and fire suppression training. The state fire marshal enforces these regulations and building standards in all state-owned buildings, state-occupied buildings, and state institutions throughout California.

Databases Relating to Hazardous Waste

The CalEPA compiles, maintains, and updates specified lists of hazardous material release sites in accordance with Government Code Section 65962.5. CEQA Section 21092.6 requires each lead agency to consult the lists to determine whether the project and any alternatives are identified on any of the lists which include the following lists or databases:

- USEPA National Priorities List. This list includes all the sites under USEPA's Superfund program, which was established to fund clean-up of contaminated sites that pose risk to human health and the environment.
- USEPA Comprehensive Environmental Response, Compensation, and Liability Information System. This list contains 15,000 sites nationally identified as hazardous sites. This would also involve a review for archived sites that have been removed from CERCLIS due to No Further Remedial Action Planned status.
- USEPA Resource Conservation and Recovery Act Information System. This database provides a national inventory of hazardous waste handlers. Generators, transporters, handlers, and disposers of hazardous waste are required to provide information for this database.
- Department of Toxic Substances Control (DTSC) Cortese List. The Department of Toxic Substance Control (DTSC) maintains the Hazardous Waste and Substances Sites List for use by state and local agencies to provide information about hazardous release sites. This list includes the Site Mitigation and Brownfields Reuse Program Database.
- DTSC HazNet. DTSC uses this database to track hazardous waste shipments.
- State Water Resources Control Board Leaking Underground Storage Tank Information System. The SWRCB maintains an inventory of underground storage tanks and leaking underground storage tanks. This database also tracks unauthorized releases.

County of Orange Codified Ordinances

Section 3-3-1, Fire code adopted, of the County Codified Ordinances provides for adoption of the California Fire Code for the purpose of prescribing regulations governing conditions that could be hazardous to life and property from fire and explosion. In addition, the regulation states that it shall be enforced by OCFA.

Section 7-9-289, Fire protection, of the County Codified Ordinances provides the following requirements:

a) Any subdivision proposed to be located in an area shown on the Safety Element to be a state designated Local Responsibility Area (LRA) or State Responsibility Area (SRA), Very High Fire Hazard Severity Zone, High Fire Hazard Severity Zone, or Moderate Fire Hazard Severity Zone, and including areas not designated by the state that are subject to brush fires or wildfires, shall provide appropriate fire protection by means of firebreaks, fuel modification programs, access and egress roads, gates, sufficient water supply, secured fire protection agreements, landscaping and open spaces, and such other methods that the Fire Chief has determined will insure the public health, safety and welfare of the future occupants of the subdivision and the adjacent area.

b) The designing of any required fuel modification program shall include landscape architectural planning encompassing visual quality standards, watershed impact and erosion control, and wildlife impact and other design features described in the fire hazard reduction design criteria. Results of wildlife impacts shall be sufficiently mitigated by the subdivider to only occur outside of the approved fuel modification zone. Said program shall include provisions for landscape architectural construction observation, inspection and maintenance.

c) The cost of the design and implementation of any fuel modification program shall be the responsibility of the subdivider.

d) A method or procedure for assuring continued maintenance of any required fuel modification program shall be provided by the subdivider and approved by the Fire Chief and the Director.

2010 Hazard Mitigation Plan

The 2010 County of Orange Hazard Mitigation Plan, adopted in March 2011, includes resources and information to assist County residents, public and private sector organizations, and others interested in participating in planning for natural hazards. The mitigation plan provides a list of activities that may assist the County of Orange in reducing risk and preventing loss in future hazard events. The mitigation action items address multi-hazard issues and specific activities for flood/storm, wildland fire, earthquakes, dam failure, epidemic, urban fire, vector control, mud/landslide, tornado, and tsunami.

Orange County Pesticide Regulation Program

The Pesticide Regulation Program enforces state pesticide laws and regulations to protect the urban and agricultural environment and to protect people working with and around pesticides

from exposure to hazardous pesticide levels. This is accomplished through an ongoing inspection program focused on commercial pesticide use that would be applicable to the vineyard. The inspections performed are designed to ensure compliance with all state laws and regulations which include: the appropriate pesticide being used on the site, using the required protective equipment, application equipment is appropriate and in good repair, and the environment and public is adequately protected. The California Department of Pesticide Regulation oversees the County's Pesticide Regulation Program (Orange County, 2014a).

Orange County Household Hazardous Waste Program

The County operates four Household Hazardous Waste Collection centers for the proper disposal of paints, pesticides and other household toxic products. Center locations include: Anaheim, Huntington Beach, Irvine and San Juan Capistrano (Orange County, 2014b). In addition, waste haulers have services to pick up and dispose of household hazardous wastes.

County of Orange General Plan Safety Element

The following goals, policies, and objectives of the Orange County Safety Element that are relevant to the proposed project are listed below.

Goal 1: Provide for a safe living and working environment consistent with available resources.

Objective 1.1: To identify public safety hazards and determine the relative threat to people and property in Orange County.

Goal 2: Minimize the effects of public safety hazards through implementation of appropriate regulations and standards which maximize protection of life and property.

Objective 2.1: To create and maintain plans and programs which mitigate the effects of public safety hazards.

Objective 2.2: To encourage the development and utilization of technologies that minimize the effects of public safety hazards.

Goal 3: Raise the awareness of Orange County residents, workers, and visitors to the potential threat of public safety hazards.

Objective 3.1: To provide information, training, and assistance to reduce loss of life and injury and to protect private and public property from public safety dangers.

Fire Component

Goal 1: Provide a safe living environment, ensuring adequate fire protection facilities and resources to prevent and minimize the loss of life and property fire.

Policy 2: To establish improved development standards for location of new construction, structural design, emergency vehicular access, and detection hardware.

Policy 6: To provide technical and policy information regarding structural and wildland fire hazards to developers, interested parties and the general public through all available media.

Policy 9: To encourage improvement of fire defense systems in hazardous areas.

Policy 11: To maintain fire hazard information in the County's Buyer Notification Program.

3.8.2 Thresholds of Significance

The *CEQA Guidelines* Appendix G provides guidance for assessing the significance of potential environmental impacts. Relative to hazards and hazardous materials, a project could have a significant effect on the environment if it would:

- Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials;
- Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment;
- Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school;
- Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment;
- For a project located within an airport land use plan or, where such 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 private airstrip, would the project result in a safety hazard for people residing or working in the project area;
- Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan; or
- 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.

As described in the Notice of Preparations/Initial Studies prepared for the proposed project (Appendices A1 and A2 of this EIR), the project would not result in impacts related to emissions or handling of hazardous materials within one-quarter mile of an existing or proposed school, be included on a list of hazardous materials sites pursuant to Government Code Section 65962.5, be located within an airport land use plan or within two miles of a public airport, or be located within the vicinity of a private use airstrip. Therefore, these issues are not discussed in the impact analysis below.

3.8.3 Methodology

The significance determination for the hazards analysis is based on consideration of the potential for hazardous materials exposure related to construction and operation of the proposed project as well as the risks to people and structures related to wildfires. As discussed in this EIR, the term "hazardous materials" refers to both hazardous substances and hazardous wastes. Under federal

and state laws, any material, including wastes, may be considered hazardous if it is specifically listed by statute as such or if it is toxic (causes adverse human health effects), ignitable (has the ability to burn), corrosive (causes severe burns or damage to materials), or reactive (causes explosions or generates toxic gases). The term "hazardous material" is defined as any material that, because of quantity, concentration, or physical or chemical characteristics, poses a significant present or potential hazard to human health and safety or to the environment if released into the workplace or the environment.[1]

Impacts related to wildland fires are evaluated through identification of the existing hazards related to wildland fires and the project's features that would reduce the potential risks. Impacts related to wildland fires are considered significant if the project, with inclusion of required fire reduction features and project design features would expose people or structures to a significant risk of loss, injury or death involving wildland fires

3.8.4 Project Impacts

Impact 3.8-1: Would the project create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?

Less than Significant Impact. The proposed project would consist of residential and open space/vineyard uses. Residential uses are associated with the routine transport, use, and disposal of hazardous materials such as household cleaning products, paint, oil/gasoline for vehicles or yard maintenance equipment, chemicals for the maintenance of pools and spas, and fertilizers for landscaping. Although residents of the project would utilize common types of hazardous materials generally classified as household hazardous waste, normal routine use of these products would not result in a significant hazard to residents or workers in the vicinity of the project.

Operation of the vineyards could require the use of fertilizers, pesticides, insecticides, and rodenticides. Vineyards and landscaping areas would be maintained by the HOA; if necessary, hazardous chemicals would be used by trained agricultural professionals and in compliance with applicable usage regulations, and substantial quantities of hazardous materials would not be used or stored for vineyard or landscaping uses. Therefore, operation of the proposed project would not result in a significant hazard to the public or to the environment through the routine transport, use, or disposal of hazardous waste. Impacts would be less than significant.

Impact 3.8-2: Would the project 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?

Less than Significant Impact with Mitigation Incorporated. As described above, the Phase 2 (north parcel), contains storage areas with various size containers of oils, lubricants, sprays, a propane canister, gasoline cans, paints, spray paints, batteries, and many unlabeled containers (contents unknown). These substances may have leaked, as areas of ground surfaces are stained (Arcadis 2016). The Phase 2 (north parcel) also includes a small bunker that is located near the

[1] State of California, Health and Safety Code, Chapter 6.95, Section 25501(o).

western boundary of the parcel, which was formerly used to store dynamite. Dynamite releases perchlorate, a hazardous compound, to the environment. Hence, it is possible that perchlorate could have been released from the dynamite storage area and leached into soils under or around the bunker.

In addition, several areas within Phase 2 (north parcel) are being used to store numerous dilapidated cars that contain motor vehicle fluids and debris piles 55-gallon drums, tires, equipment, glass, pails and buckets (some containing unknown substances), piping, etc. (Arcadis 2016). The Phase 2 (north parcel) also contains two trash pits that used up until the 1950s or 1960s to burn trash. They are currently covered over by soil and vegetation, and their exact location is unknown (Arcadis 2016).

Due to the existence of these hazardous materials, implementation of the proposed project has the potential to result in the accidental release of hazardous materials into the environment. Construction workers and the public could be exposed to the substances that are present within the containers and vehicles being stored onsite. Additionally, exposure to unanticipated hazardous substances could occur from unearthing the trash pits or excavating contaminated soil that may be present from existing or past uses, such as the storage areas near the airstrip and the bunker that was formerly used to store dynamite. As a result, Mitigation Measure MM 3.8-1 would be implemented to reduce the potential risks related to accidental release and exposure of people and the environment to these hazardous materials.

Mitigation Measure MM 3.8-1 requires a certified hazardous waste hauler to remove all trash pit debris, potentially hazardous materials, wastes, and abandoned dilapidated vehicles on Phase 2 (north parcel). Upon removal, soil samples would be collected at the airport hangar/maintenance area and its storage shed, at the storage bunker previously used dynamite, at the vehicle storage areas, and at other debris piles located throughout the Phase 2 (north parcel). The soils would be analyzed for contaminants of concern with concentrations above worker safety thresholds established by the Regional Water Quality Control Board (RWQCB). Any soils with residual agricultural chemicals exceeding the RWQCB Environmental Screening Levels (ESLs) for residential uses or hazardous waste limits would be characterized, removed, and disposed of off-site at a licensed hazardous materials disposal facility in compliance with state regulations.

Mitigation Measure MM 3.8-1 also requires that a qualified consultant prepare a Soil Management Plan (SMP) to be used by to address any soil contamination concerns identified during soil grading and preparation of the Phase 2 (north parcel). These areas include, but are not limited to, the: airport hangar/maintenance area and its storage shed, the previously used dynamite storage bunker, the vehicle storage areas, and other debris piles.

Excavated soil containing hazardous substances would be classified as a hazardous waste if they exhibit the characteristics of ignitability, corrosivity, reactivity, or toxicity (CCR, Title 22, Division 4.5, Chapter 11, Article 3). The state and federal laws listed and described above, that include: the Occupational Safety and Health Act regarding worker safety, Hazardous Materials Transportation Act regarding transportation of hazardous substances, Hazardous Waste Control Act regarding handling of hazardous materials, Title 8 of the California Code of Regulations (CalOSHA) regarding worker safety, and Titles 22 and 27 of the California Code of Regulations that regulate hazardous solid waste require detailed planning and specific hazardous waste

handling measures to ensure that hazardous materials are properly used, stored, and disposed of, and in the event that such materials are accidentally released, to prevent or to mitigate injury to health or the environment.

The California Integrated Waste Management Board and the RWQCB also specifically address management of hazardous materials and waste handling in their adopted regulations (CCR, Title 14 and CCR, Title 27). This includes implementation of construction BMPs that would be required by a Storm Water Pollution Prevention Plan (SWPPP) to prevent a hazardous materials release and to promptly contain and clean up any spills, which would minimize the potential for harmful exposures. With implementation of Mitigation Measure MM 3.8-1 and compliance to these existing laws and regulations, the project's construction-related impacts to public or the environment from accident conditions involving the release of hazardous materials into the environment would be less than significant.

Mitigation Measure

MM 3.8-1: Prior to issuance of grading permits for Phase 2 (north parcel), a Site Management Plan (SMP) shall be prepared by a qualified hazardous materials consultant and shall detail procedures and protocols for management of onsite hazardous materials, including:

- A certified hazardous waste hauler shall remove all potentially hazardous materials, wastes, trash pit debris, and abandoned dilapidated vehicles, which shall be disposed of at an appropriate solid waste facility based on the content of the materials. All recyclable materials shall be separated and disposed of at a recycling facility. Hazardous materials shall be transported per California Hazardous Waste Regulations to a landfill permitted by the state to accept hazardous materials.
- After removal of the potentially hazardous materials soils samples shall be taken at the airport hangar/maintenance area, storage shed, bunker, vehicle storage areas, trash pits, and at other debris areas to identify any contaminated soils with concentrations above worker safety thresholds established by the Regional Water Quality Control Board (RWQCB) Environmental Screening Levels (ESLs). Any samples identified to exceed the RWQCB ESL limits shall be characterized, removed, and disposed of off-site at a licensed hazardous materials disposal facility according to California Hazardous Waste Regulations. A report of the findings shall be provided to the County for review and approval prior to issuance of grading permits for the Phase 2 (north parcel).
- Any subsurface materials exposed during construction activities that appear suspect of contamination, either from visual staining or suspect odors, shall require immediate cessation of excavation activities. Soils suspected of contamination shall be segregated from other soils to be tested for potential contamination. If contamination is found to be present Environmental Screening Levels (ESLs), any further proposed groundbreaking activities within areas of identified or suspected contamination shall be conducted according to California Hazardous Waste Regulations.
- A Health and Safety Plan (HSP) shall be prepared for each contractor that addresses potential safety and health hazards and includes the requirements and procedures for

employee protection. The HSP shall also outline proper soil handling procedures and health and safety requirements to minimize worker and public exposure to hazardous materials during construction.

- All SMP measures shall be printed on the construction documents, contracts, and project plans prior to issuance of grading permits.

Impact 3.8-3: Would the project impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?

Less than Significant Impact. As described under the Regulatory Setting above, Orange County's Hazard Mitigation Plan identifies the major hazards that exist within Orange County and establishes the response plans for emergency events related to these hazards. The Hazard Mitigation Plan focuses on measures that would prevent, to the extent possible, loss of life or property related to these hazards and identifies the resources available for responding to emergency events. In addition, the Emergency Operations Center of the Orange County Sheriff's Department is responsible for implementing a response plan to any major emergency event and coordinating the response, which includes evacuation plans (OCSD, 2014). As described throughout this EIR, the proposed project would be consistent with regulations related to preventing or minimizing the threat of or damage related to the primary hazards within the project area, such as fire hazards (including preparation of a Fuel Modification Plan, and Fire Master Plan described further under Impact 3.8-4) and geologic hazards (including, at a minimum, preparation of geotechnical report and compliance with the CBC (see Section 3.6, *Geology and Soils*)). Thus, the proposed project would be consistent with, and would not impair implementation of, the County's emergency response plans.

In addition, the proposed project would not physically interfere with primary routes in the project area that would be used for evacuation purposes. As described, the project area is generally undeveloped within a very rural area that is regionally served by Ortega Highway. Locally, the project site would utilize Long Canyon Road in case of an emergency, which is also used to access the U.S. Forest Service El Cariso Hotshot Camp (forest service fire-fighting complex); the Cleveland National Forest Blue Jay Campground (with 50 campsites); and the Los Pinos Conservation Camp, which is a residential education center. The El Cariso Hotshot Camp is operated by approximately 20 firefighters specially trained in hand crew wildfire suppression tactics by using chainsaws, hand tools, ignition devices, and water delivery equipment. Hotshot crews typically work in forest lands and engage in all phases of wildfire response, from initial attack to mop-up. Thus, in the case of a wildfire emergency the hotshot crew would move into the forest toward the fire, and would not conflict with residents of the proposed project evacuating the forest area.

The project would result in development of 72 new single-family residences, which are anticipated to house approximately 230 new residents. As described in Section 3.15, *Transportation and Traffic,* Long Canyon Road would operate at an LOS of A with operation of the proposed project. Thus, the proposed project would not generate roadway capacity impacts

that could result in impairment of evacuation of the Blue Jay Campground and the Los Pinos Conservation Camp via on Long Canyon Road.

In addition, the proposed project includes roadway improvements to Ortega Highway at Long Canyon Road to accommodate increased ingress and egress to and from the project site without adversely affecting traffic along Ortega Highway. These improvements would aid in emergency evacuation of the project vicinity. Furthermore, as described in Section 3.15, *Transportation and Traffic*, the project would contribute less than two percent to new traffic at the study area intersections. Therefore, the proposed project would not increase traffic on the major thoroughfares within the project area such that interference with emergency response or evacuations plans would occur.

To ensure appropriate emergency access to and within both project phases, the project would adhere to the requirements to the Fire Code. Specifically, section 5.3.2.1.1, specifies access requirements for safety including minimum roadway widths of 28 feet for emergency access within a Very High Fire Hazard Severity Zone. In addition, the project would be required to adhere to Codified Ordinance Section 7-9-289 that requires appropriate means of protection in fire hazard areas, such as the project site. Furthermore, per the County's standard application review process, the project plans, and Fuel Modification Plan and Fire Master Plan (required by Project Design Features PDF-10 and PDF-11) as described further under Impact 3.8-4, have been approved by OCFA. Compliance with the existing fire code requirements along with review and approval of tract maps through OCFA and the County's permitting process would ensure that the project is implemented appropriately to provide emergency access, and not interfere with an emergency response plan. Therefore, the proposed project would not impair or interfere with an adopted emergency response plan or emergency evacuation plan, and impacts would be less than significant.

Impact 3.8-4: Would the project 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?

Less than Significant Impact with Mitigation Incorporated. The proposed project is located in a Very High Fire Hazard Severity Zone/Special Fire Protection Area and has dense chaparral, oak woodland, and other areas subject to fire. As described by OCFA, proper management of vegetation in areas at risk from wildfires is a major factor in reducing the chances of homes burning, especially when combined with construction techniques designed to protect a home from flames and burning embers. Over the past 30 years these approaches have contributed to saving hundreds of homes during major wildfires in Orange County (OCFA, 2011b).

As listed in the Project Design Features described in Chapter 2*, Project Description*, the proposed project includes a Fuel Modification Plan (Project Design Feature PDF-10) and a Fire Master Plan (Project Design Feature PDF-11) in accordance with OFCA's Guideline C-05, *Vegetation Management Technical Design for New Construction Fuel Modification Plans and Maintenance Program*, which are included in Appendix G of this EIR.

The BEHAVE (a computer program that models fire behavior) modeling was used to prepare a fire protection plan for the project site, including a Fire Master Plan, and a Precise Fuel Modification Plan and Fire Behavior/Fire Protection Plan included in the Fire Behavior Analysis, which is included as Appendix G of this EIR. Through the use of the BEHAVE modeling, project site fuel modification zones were tailored to maximize the protection of the project site and the surrounding area, while minimizing impacts on the wildlands. Fuel modification zones include:

- Zone A is within the graded pad area of the individual lots and would vary from approximately 15 to 100 feet in width depending on the lot's location within the project, the overall combined fuel modification width inclusive of adjacent zones and the exposure to wildland fuel areas. Within this zone, each homeowner would be responsible for plant selection and maintenance, in conformance with CR&Rs that are implemented by the HOA. Automatic irrigation systems would be required to maintain healthy vegetation with high moisture content. Plants in this zone must be highly fire resistant. Trees are not permitted within 10 feet of combustible structures (measured from the edge of a full growth crown). Only noncombustible construction can occur in Zone A.
- Zone B would be irrigated and maintained by the HOA. The width of Zone B is a minimum of 150 feet as measured from the boundary of Zone A, based on Zone B's location within the project. Most of the engineered slopes that surround project site are in this category. In this zone, all dead and downed plant materials would be removed, and trees and tree-form shrubs would be spaced and pruned for crown reduction. Noncombustible materials would be used within 100 feet from any structure in this zone. This area would contain two different planting palettes, dependent upon the source of irrigation water. The area of Zone B closest to the residences would be irrigated with treated effluent (with domestic water compensating for effluent irrigation shortages during warmer months). In the treated effluent irrigation area, the plant palette would be made up of moderate water use plants. The portions of Zone B not adjacent to residences would use domestic water for irrigation and have a plant palette consisting of low water use plants.
    - Vineyards are an alternative application for the Zone B areas, and would require the clearing of land and the planting of vine rows irrigated by means of a drip or bubbler system. The ground plane would be kept virtually bare, cleared of dead branches and other combustible debris, with only low growing grasses and ground covers allowed so as not to compete with the vines. Additionally, vineyard installation would include the development of service roads and paths, thereby giving the fire department easier and quicker access to these areas.
- Zone C would consist of brush clearance and thinning areas. This would be a non-irrigated zone with a minimum width of 50 feet. It would be maintained by the HOA. In this area, the fuel mass would be reduced by 50 percent and the dead and downed materials would be removed. Fine dead fuels for seasonal grasses would be managed to reduce the ability of the fire to travel from one stand of fuel to the next.

In Zone A, the use of highly resistant vegetation and maintaining a distance between trees and combustible structure would reduce fire mobility. Zone B would be kept clear of combustible materials and would be maintained to have space between vegetation, thereby preventing the formation of a contiguous fuel mass. In Zone C, brush removal would decrease the mobility of fire, as brush serves as combustible connections between trees. Vegetation thinning involves the removal of selected trees (usually classified by their diameter) to reduce the overall vegetation density in an area, thereby reducing crown fire hazard. Crown fires refer to the spreading of fire from treetop to treetop, which can lead to an entire stand of trees engulfed in flames (PNW, 2009). The Fire Master Plan details required access (street length, turnarounds, street width, turning radius, surface type, gates and fire access points for entry into the wildland) hose pulls, and laddering requirement for residences, location of fire hydrant and fire department connections, as applicable. Additionally, the Fire Master Plan provides appropriate ingress and egress as well as establishing construction requirements.

Water for the project would be supplied by EVMWD and would be stored in two reservoirs on the project site (See Section 3.16, *Utilities and Service Systems,* for more information on proposed water supply and infrastructure). These reservoirs have been appropriately sized for peak flow demand and state fire flow requirements as outlined in Appendix B of the 2013 California Fire Code and required by EVMWD and OCFA. This includes the ability of the water pipelines to deliver 1,000 gallons per minute (gpm) and water storage to provide four hours of water at 1,000 gpm.

The proposed project would also include construction features, such as fire sprinklers for each home (Project Design Feature PDF-11), per Section R327 of the 2010 CBC, and slopes would be revegetated with drought tolerant and predominately native species in accordance with the OCFA plant palettes (Project Design Feature PDF-10). The proposed project would comply with all sections of the Orange County Fire Code, such as Section 7-9-289 that outlines development and fuel modification requirements for areas within a designated Very High Fire Hazard Severity Zone/Special Fire Protection Area. In addition, the project plans, a Fire Master Plan (Project Design Feature PDF-11) and a Fuel Modification Plan (Project Design Feature PDF-10) have been approved by OCFA. Finally, as a required by OCFA in Guideline C-05, which defines the requirements for fuel modification and maintenance programs, OCFA would require written proof that the fuel modification areas and fire maintenance program has been incorporated into the covenants, conditions and restrictions (CC&Rs) for the HOA, which would identify OCFA as a third party beneficiary who has the right to enforce the Fire Prevention Maintenance duties, and written disclosures that new homeowners are aware of, and required to comply with, the fuel modification zones on their land.

Also, the Mutual Aid Agreement between OCFA and the Riverside County Fire Department (see Section 3.13, *Public Services*) requires that both agencies respond to emergency alarms within the project area as designated on the Automatic Aid Boundaries Map and the Mutual Threat Zone Maps contained within the Mutual Aid Agreement (included within Appendix G of this EIR). In addition, Mitigation Measure MM 3.13-1 has been included (in Section 3.13, *Public Services*) to require specifications to roadways, access, and fire hydrant spacing to be included in the Secure Fire Protection Agreement with OCFA, which would reduce potential impacts related to fire hazard impacts. With implementation of the Project Design Features (described above),

requirements for development within the wildfire zone, and Mitigation Measure MM 3.13-1, impacts related to wildland fire hazards would be less than significant.

Mitigation Measure

Mitigation Measure MM 3.13-1 (*provided in Section 3.13, Public Services, under Impact 3.13-1*)

3.8.5 Cumulative Impacts

As described above, the project would result in a less-than-significant hazardous materials impact to the public or the environment with implementation of mitigation and adherence to existing regulations. Hazardous material impacts typically occur in a local or site-specific context versus a cumulative context combined with other development projects; although it is possible for combined effects of transporting and disposal of hazardous materials to be affected by adjacent cumulative development. The projects listed in Table 3-1 in Chapter 3, are not in the immediate vicinity of the project area, such that a hazardous event or wildfire on the project site would result in cumulative impacts. The closest cumulative project is located approximately 2.4 miles in the City of Lake Elsinore.

In addition, cumulative projects would be required to comply with the same regulatory framework as the project that are regulated by the Counties and Cities in the area. This includes federal and state regulatory requirements for transporting or disposing of hazardous materials. These regulations are in place to reduce the potential of accidental releases, spill, or explosions of hazardous materials and to minimize the environmental and public health impact should one occur. Although projects cannot completely eliminate the probability associated with an accidental release, explosion, or spill, the existing regulations reduce the overall probability and minimize the impacts during a release. Therefore, the effect of the project on hazardous materials, in combination with other foreseeable projects, would be less than significant.

In the event that any of cumulative projects are within high fire hazard areas, they would be subject to project-specific design features, including fuel modification plans, fire master plans, and fire flow which would reduce impacts related to wildland fire hazards similar to the proposed project. Based on the less than significant impacts of the proposed project and the lack of foreseeable cumulative development near the project, the project's cumulative contribution to hazardous materials and wildland fires impacts would be less than significant.