4.7 HAZARDS AND HAZARDOUS MATERIALS

4.7.1 Setting

a. Overview. The San Luis Ranch Specific Plan Area is located within a transition area with commercial development to the north and the residential development to the west. Adjacent land uses include single-family residences to the west; Laguna Lake Park to the northwest, commercial uses to the north, including a post office and the San Luis Promenade shopping center; U.S. Highway 101 (U.S. 101) and public facilities such as the City's Water Resource Recovery Facility to the east; and the SLO City Farm to the south.

Agricultural operations such as grain crop farming and small dairy operations on the San Luis Ranch project site date back to approximately 1900. In approximately 1921, the site was converted to row crop farming of onion, artichoke, garbanzo beans, and flowers for seed. The site has remained in use for row crop production.

Approximately 109 acres of the 131-acre project site are currently used for the production of irrigated row crops including celery, broccoli, lettuce, specialty vegetables, and peas. A vegetable packing facility, storage areas, Prefumo Creek watershed drainages, and eucalyptus trees occupy the remaining 22 acres. The packing facility is used to process locally grown crops and the storage areas primarily store agricultural equipment. Crops on the site are grown with conventional practices and materials, and packed in the field. On any given year various combinations of row crops may be grown on the site.

b. Known Hazardous Materials Sites. The following databases were searched in May 2016 for records relating to any known hazardous materials contamination within the San Luis Ranch Specific Plan Area:

- The State Water Resources Control Board (SWRCB) Geotracker database;
- Comprehensive Environmental Response, Compensation, and Liability Information System (CERCLIS) database;
- Department of Toxic Substances Control's Envirostor database;
- State Water Resources Control Board (SWRCB) solid waste disposal sites, active Cease and Desist Orders (CDOs), and Cleanup and Abatement Orders (CAOs); and
- The Cortese list.

The search of the SWRCB Geotracker database identified two listings of the subject property in the Irrigated Lands Regulatory Program (ILRP), a program which regulates discharges from irrigated agricultural land to prevent impairment of the receiving waters. The older of the two listings of the property in the ILRP was terminated, while the site is listed with "enrolled" ILRP status under the most recent listing. Under the ILRP, SWRCB regulates agricultural discharge by issuing waste discharge requirements (WDRs) or conditional waivers of WDRs (Orders) to growers that contain conditions requiring water quality monitoring of receiving waters and corrective actions when impairments are identified. The SWRBC Geotracker database also identified a former Leaking Underground Storage Tank (LUST) facility adjacent and hydrologically upgradient to the project site. The facility is identified to have three former gasoline and waste oil underground storage tanks. The LUST facility has a "Completed-Case

Closed" cleanup status. The CERCLIS, EnviroStor, SWRCB solid waste disposal site, CDO, CAO, and Cortese databases did not list any potential contamination sites within the San Luis Ranch Specific Plan Area. No other sites with known hazardous materials contamination were identified on the project site.

~~Adjacent Hazardous Materials Sites. In November 2014, Cleath-Harris Geologists, Inc. (Cleath-Harris) prepared a *Hydrogeologic Description and PCE Characterization for Dalidio Laguna Ranch, San Luis Obispo County, California* report (Hydrogeology Report; refer to Appendix H), which identified tetrachloroethylene (also called perchloroethylene, or PCE) contamination in groundwater in the vicinity of the San Luis Ranch Specific Plan Area. The project site is located adjacent to commercial uses to the northeast and residential uses to the southwest. Dry cleaning facilities have been recorded present to the north of the site as early as the 1930s. According to the Hydrogeology Report, the identified PCE groundwater contamination is attributed to spills at these hydrologically upgradient dry cleaning facilities. Shallow groundwater at the site generally flows towards the south-southwest, and wells on the project site have exhibited PCE groundwater contamination above the United States Environmental Protection Agency (U.S. EPA)/Central Coast Regional Water Quality Control Board (RWQCB) Maximum Contaminant Level (MCL) for drinking water of 5 micro grams per liter (µg/L). Cleath-Harris Analyzed PCE concentrations in four on-site wells and two off-site City wells to the south and the east of the site. The highest concentrations of PCE were detected at wells near U.S. 101 along the eastern side of the project site. PCE contamination is within the shallow aquifer groundwater (refer to Appendix H for detailed PCE characterization results). Groundwater within the deep aquifer could not be isolated in existing wells on the project site. Therefore, the PCE concentration in the deep aquifer is unknown. The domestic water well has a PCE concentration of 1.0 µg/L, which is within the U.S. EPA/RWQCB MCL for drinking water of 5.0 µg/L. The irrigation groundwater well has a PCE concentration of 9.5 µg/L, which exceeds the U.S. EPA MCL.~~

c. Airport Safety Hazards. The project site is located approximately 1.5 miles northwest of the San Luis Obispo County Regional Airport (Airport), and falls within the jurisdiction of both the San Luis Obispo County Airport Land Use Commission's (ALUC) ALUP and within the General Plan Land Use Element safety zones. This section briefly describes the operations at the Airport and associated physical safety hazards associated with the project site in terms of both the ALUP and General Plan Land Use Element safety zones and associated compatibility standards. A more detailed description of the standards for allowable development intensity within the ALUP Safety Areas and General Plan Land Use Element airport compatibility policies, along with associated land use impacts are described Section 4.9 *Land Use/Policy Consistency*.

San Luis Obispo County Regional Airport. The Airport provides commuter, charter, and private aviation service to the City of San Luis Obispo and vicinity. The primary hazard associated with land uses near the airport is the risk of aircraft incidents on approach and take-off. Aircraft flight operations are determined largely by the physical layout of the airport and rules of the Federal Aviation Administration (FAA) (City of San Luis Obispo 2014).

There are two runways at the Airport, both of which have parallel taxiways. Runway 11-29 is utilized for the majority of aircraft operations, with 97 percent of all aircraft operating at the Airport using this runway for departures and arrivals, as well as touch-and-go flights. Runway

7-25 is mostly used during crosswind conditions and is utilized for the remaining three percent of aircraft flights, only for General Aviation[1] propeller aircraft. According to the *Airport Imaginary Surfaces and Existing Obstructions* map of the Airport Land Use Plan for the San Luis Obispo County Regional Airport (ALUP Figure 9), the project site is located in the path of the approach surface and extended runway centerline for Runway 11-29. There are no traffic patterns off Runway 7-25 and all arriving and departing aircraft using this runway enter the traffic pattern for Runway 11-29 which improves safety for all aircraft operating at the Airport (Johnson Aviation 2013; Appendix I). As shown in the *Aviation Safety Areas* Map of the ALUP (ALUP Figure 3), the project site is located within Airport Safety Areas S-1b and S-2. Safety Area S-1b encompasses the areas within gliding distance of prescribed flight paths for aircraft operations at less than 500 feet above ground level, plus sideline safety areas, and inner turning zones and outer safety zones for each runway. Safety Area S-2 encompasses the areas with aircraft operations at 501 to 1,000 feet above ground level.

Airport safety is primarily related to the potential for accidents related to aircraft operations such as emergency landings (or in rare cases crashes) as well as ensuring that land use development is carried out in manner that minimizes or avoids risks associated with such aircraft incidents or accidents. Minimizing or avoiding risks to sensitive land uses (such as residential neighborhoods) involves designating areas around the ends of runways that must be free of objects or sensitive land uses, limiting the height of new structures in the surrounding airspace, and understanding historical accident patterns. This section briefly describes the operations at the Airport and associated physical safety hazards associated with the project site in terms of both the ALUP and City's 2014 Land Use and Circulation Elements safety zones. A more detailed description of the standards for allowable development intensity within the ALUP Safety Areas and California Department of Transportation (Caltrans) *California Airport Land Use Planning Handbook* (CALUPH; 2011) Airport Safety Zones, along with associated land use impacts are described Section 4.9, *Land Use/Policy Consistency*. Figure 4.7-1 shows the ALUP Safety Areas on the project site and Figure 4.7-2 shows the CALUPH Airport Safety Zones on the site.

Airport Land Use Plan Update. The project site falls within the jurisdiction of both the San Luis Obispo County Airport Land Use Commission's (ALUC) ALUP, as well as City General Plan Land Use Element safety zones. Section 7 of the Land Use Element describes applicable Airport Safety Zones, which are required to "be consistent with the ALUP unless the City overrides a determination of inconsistency in accordance with Section 21676 and 21676.5 et. seq. of the Public Utilities Code." As described above, the ALUP is currently undergoing an update which is expected to be completed in 2017. Section 21674.7(a) of the California Public Utilities Code requires that the ALUC use the CALUPH in formulating an ALUP.

The ALUP and CALUPH provide guidance for development intensity within identified Airport Safety Zones under the ALUC's and Caltrans' respective jurisdiction. The CALUPH identifies potential airport safety hazards using criteria for governing allowable types and intensity of future development and the location of safety zones. The southeastern portion of the project site

[1] General aviation is all civil aviation operations other than scheduled air services and non-scheduled air transport operations for remuneration or hire.

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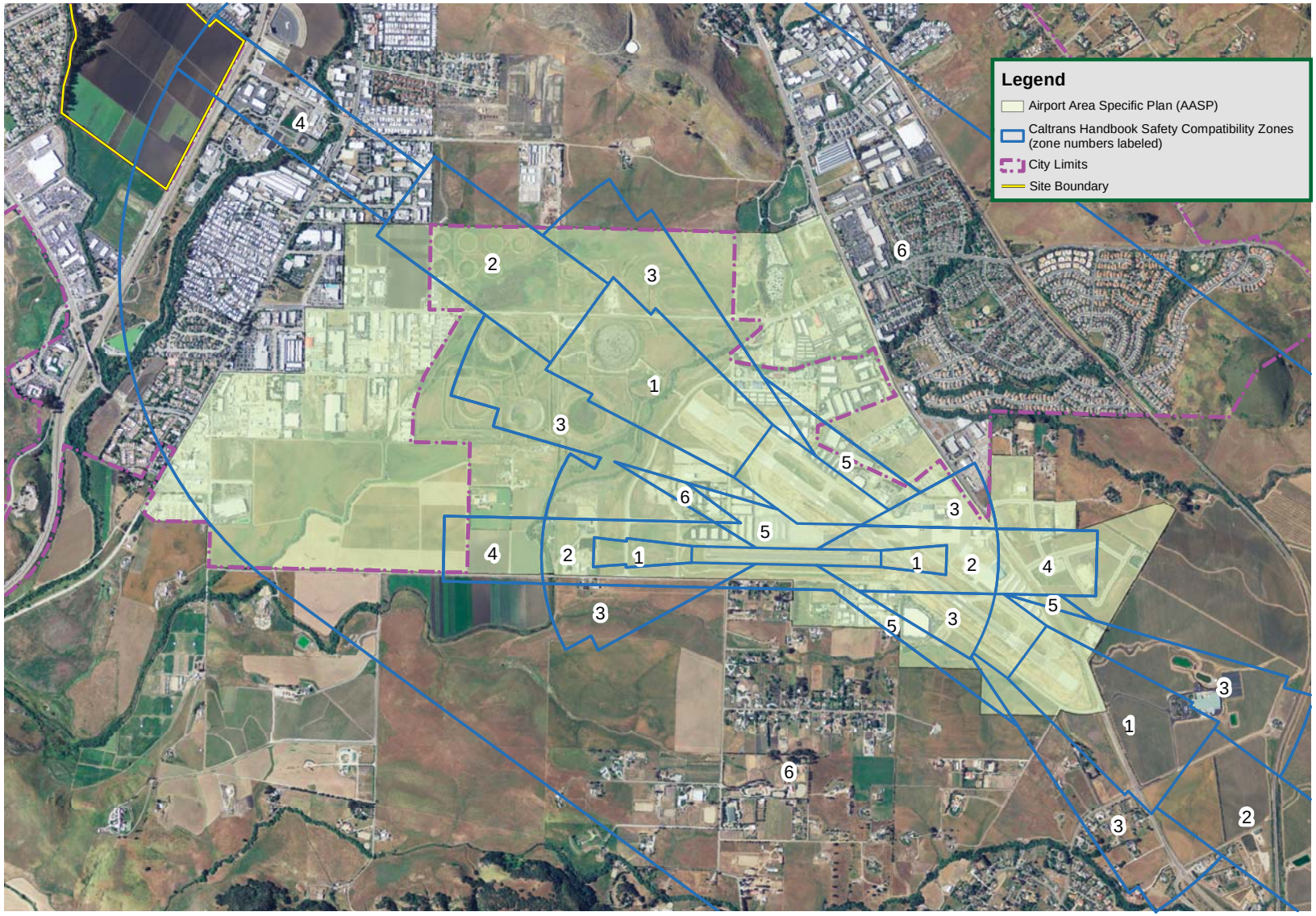
ALUP Airport Safety Zones
in the Specific Plan Area

Figure 4.7-1



Caltrans Handbook Airport Safety Zones Applied to San Luis Obispo County Regional Airport

Figure 4.7-2

Source: ALUP, USDA NAIP 2012 Image, City of San Luis Obispo

along U.S. 101 is located within CALUPH Airport Safety Zones 4 and 6. Airport Safety Zone 4 allows for non-residential development intensity of up to 200 persons per acre and allows for residential infill at up to the average of surrounding residential areas. Airport Safety Zone 6 has no limit for non-residential development intensity, but suggests avoidance of large stadiums and similar uses. Airport Safety Zone 6 also has no limit for residential development intensity, but suggests consideration of noise and overflight during such development. The 2014 Airport Land Use Compatibility Report prepared by Johnson Aviation (refer to Appendix I) in support of the City's recent Land Use and Circulation update process and the Land Use and Circulation Update EIR (LUCE Update EIR) analyzed potential airport hazards and includes recommendations to update safety and hazards planning around the Airport based on guidance from the CALUPH and other sources. The CALUPH describes the characteristics of "ideal" safety zones such as "easily definable geometric shapes," a limited number of five or six zones, a distinct progression in the degree of safety risk farther from the runway, providing that "each zone should be as compact as possible." The Land Use Element and associated Airport Safety Zones implement these suggested standards by identifying six revised safety zones that represent distinct progression in the degree of safety risk farther from the runway. These Airport Safety Zones are supported by Land Use Element and Circulation Element policies, programs, and development standards consistent with those guidelines.

Aviation Accidents at the Airport. According to the CALUPH , over two-thirds of both general aviation (68 percent) and commercial (67 percent) aircraft accidents take place on an airport. Another three percent of general aviation and seven percent of commercial aviation are en-route accidents occurring more than five miles from an airport. The remaining 29 percent of general aviation and 26 percent of commercial aviation accidents are classified as airport-vicinity accidents, potentially including some en-route accidents which took place within five miles of an airport. Accident sites are generally close to the extended runway centerline (Caltrans 2011). Between 1982 and 2013, 33 aviation accidents have been investigated at the Airport. As shown in Table 4.7-1, six of the investigated accidents were fatal. Of the six fatal accidents, five occurred during the takeoff, climb, approach, or land phase of flight within five miles of the Airport and four occurred within Airport Safety Zones as defined in the CALUPH . None of the fatal accidents associated with the Airport involved fatalities of persons on the ground. As shown in Table 4.7-1, the 1990 accident occurred within the project site and 1994 accident occurred approximately adjacent to the northeastern corner of the project site along U.S. 101.

Table 4.7-1
Fatal Aircraft Accidents within the Vicinity of the Airport

Approximate Location of Accident Site within CALUPH Airport Safety Zones and/or ALUP Safety Areas		
Flight Date	**CALUPH Airport Safety Zones**	**ALUP Safety Area**
August 24, 1984	N/A	N/A
September 24, 1990	N/A	S-2
August 7, 1994	4	S-1b
January 16, 2001	6	S-1c
August 1, 2005	6	S-2
June 24, 2016	2	S-1b

Source: Figure 4-3, Johnson Aviation 2014.

d. Other Potential Hazards. Other potential hazards that may occur on the project site include residual agricultural chemicals in soils, asbestos containing materials and lead based paint, naturally occurring asbestos, electromagnetic fields, radiation, wildland fires, and hazardous material transport. The project site setting associated with each of these potential hazards is discussed more fully below.

Residual Agricultural Chemicals. The project site has been used for agricultural purposes for over 100 years. As a result, residual agricultural chemicals including pesticides, arsenic, and herbicides may be present in the soil.

Asbestos Containing Materials and Lead Based Paint. Asbestos was used as insulation in walls or ceilings or as a component in adhesives in older buildings (pre-1979). Asbestos can pose a health risk when very small particles become airborne. Lead is a highly toxic metal that was used for many years in products found in and around homes, including paint. Lead-based paint (LBP) was commonly used in residential construction prior to the enactment of federal regulations limiting its use in the late 1970s. Exposure to lead can cause a range of health effects, from behavioral problems and learning disabilities, to seizures and death. The primary source of lead exposure in residential settings is deteriorating LBP. Lead dust can form when LBP is dry scraped, dry sanded, or heated. Dust also forms when painted surfaces bump or rub together. LBP that is in good condition is usually not a hazard.

The subject property includes the Dalidio Farm Complex, a collection of structures including the Dalidio home, the former Laguna Racetrack viewing stand that has been converted to other farm uses, barn, water tower, and other buildings supporting the farming of the ranch which date back to the turn of the 20th century. Due to the age of the on-site structures that may be removed under the project, asbestos and lead may be present in those structures.

Naturally Occurring Asbestos. Serpentine rock is located in many regions of San Luis Obispo County, including coastal and coastal mountain areas, western north County, and the extreme eastern County area along the San Andreas Fault. According to the San Luis Obispo Air Pollution Control District's (SLOAPCD) naturally occurring asbestos (NOA) map, the San Luis Ranch Specific Plan Area is located in an area where geologic analysis for NOA is required prior to grading.

Electromagnetic Fields. The flow of electricity through a conductor creates electromagnetic fields (EMFs). These fields form around power transmission and distribution lines, wiring in buildings, and equipment and appliances used at home and in businesses. The strength of an EMF depends mainly on the voltage in the conductor, and declines with distance from the conductor. Other EMF characteristics depend on the type of current (alternating or direct) and the frequency of alternation. While an EMF from one conductor may interact with and in effect "neutralize" an EMF from another conductor, there is generally no way to shield against EMF exposure. Studies of EMF exposure have shown that exposure to EMFs can cause illness, especially from long-term exposure to strong fields. The mechanisms for the harmful effects have not been clearly defined. All life processes involve electromagnetic interactions at the cellular and molecular level, and fields from external sources may interfere with these processes. However, there is not a clear dose-response relationship (General Plan Safety Element, City of San Luis Obispo 2014c).

Pacific Gas and Electric Company (PG&E) provides the City of San Luis Obispo with electricity through 115 kilovolt (kV) transmission lines around which EMFs may form. Transmission lines run along the western edge and cross over the northwestern corner of the project site near U.S. 101 (City of San Luis Obispo 2014c).

Radiation. Ionizing radiation damages tissues at the molecular and genetic levels, potentially causing illness, reproductive problems, and/or death. The particular type of damage depends on the intensity and duration of exposure and the part of the body that is exposed. Humans have evolved in an environment that includes very low-level exposure to natural sources of radiation. Unnatural (man-made) sources can cause much higher levels of radiation exposure. Man-made radiation is radiation produced in devices, such as x-ray machines, and artificially produced radioisotopes made in a reactor or accelerator. This type of radiation is used in both medicine and industry. The primary users of man-made radiation include medical facilities, such as hospitals and pharmaceutical facilities; research and teaching institutions; nuclear reactors and their supporting facilities, such as uranium mills and fuel preparation plants; and federal facilities involved in nuclear weapons production. Chronic exposure (i.e. continuous or intermittent exposure to low doses of radiation over a long period of time) to radiation from these sources can result in cancer and other health outcomes such as benign tumors, cataracts, and potentially harmful genetic effects (U.S. EPA 2007).

The Diablo Canyon Nuclear Power Plant in Avila Beach is the primary hazard for ionizing radiation in the San Luis Obispo area. Risks of radiation release and exposure result from the potential for equipment and/or operator errors during day-to-day operations, accidents associated with refueling, and damage from earthquakes or other causes. There is added risk from on-site storage of spent fuel that remains radioactive for several generations. Long-term, off-site storage facilities for spent fuel are not currently available. A release of radioactive material could seriously damage human health and make property unusable. The plant operator and local agencies have jointly prepared Emergency Response Plans for warning, sheltering, evacuation, and other responses to radiation emergencies which are distributed to the public each year. The plant is regulated by the Federal Government. Land close to the plant, and downwind from it under prevailing conditions, is under County jurisdiction. The project site is located approximately 10 miles east-northeast of the power plant.

Wildland Fires. Fires have the potential to cause significant losses to life, property, and the environment. Fire hazard severity in rural areas, including areas on the edge between urban and rural land (commonly called the wildland interface), are highly influenced by the slope of the landscape and site vegetation and climate. This risk is somewhat amplified by the native, Mediterranean vegetation common to the rural setting of the City of San Luis Obispo.

Wildland fires affect grass, forest, and brushlands, as well as any structures on these lands, and can result from either human-made or natural causes. The region's topography, type, and amount of fuel, climate, and the availability of water for firefighting are the primary factors influencing the degree of fire risk. According to California Department of Forestry and Fire Protection (CAL FIRE), vegetation fires comprise the majority of fires in San Luis Obispo County. The northwestern portion of the project site includes a mature stand of tall eucalyptus trees which, although not connected to outlying wildland areas, has the potential to present fire fuel risks and vertical fire ladder structure that can increase potential fire intensity. The project site is designated as a Moderate Wildland Fire Hazard Area (LUCE Update EIR, City of San Luis Obispo, 2014).

Hazardous Material Transport. Portions of the project site border U.S. 101 and Madonna Road. These high-volume roadways could be used for the transport of hazardous wastes and materials. Truck accidents could result in spills of such materials. All transport of hazardous materials are subject to federal, State, and local laws and regulations pertaining to the transportation of hazardous materials, discussed further in Section 4.7.1(e), below.

e. Regulatory Setting. The management of hazardous materials and hazardous wastes is regulated at federal, State, and local levels, including through programs administered by the U.S. EPA; agencies within the California Environmental Protection Agency (CalEPA), such as the Department of Toxic Substances Control (DTSC); federal and State occupational safety agencies; and the San Luis Obispo County Environmental Health Services. Regulations pertaining to flood hazards are further discussed in Section 4.8, *Hydrology and Water Quality.*

Definition of Hazardous Materials. A material is considered hazardous if it appears on a list of hazardous materials prepared by a federal, state, or local agency, or if it has characteristics defined as hazardous by such an agency. A hazardous material is defined in Title 22 of the California Code of Regulations as follows:

> *"A substance or combination of substances which, because of its quantity, concentration, or physical, chemical or infectious characteristics, may either (1) cause, or significantly contribute to, an increase in mortality or an increase in serious irreversible, or incapacitating reversible, illness; or (2) pose a substantial present or potential hazard to human health or environment when improperly treated, stored, transported or disposed of or otherwise managed." (California Code of Regulations, Title 22, Section 66261.10)*

Chemical and physical properties cause a substance to be considered hazardous. Such properties include toxicity, ignitability, corrosiveness, and reactivity. California Code of Regulations, Title 22, Sections 66261.20 through 66261.24 defines the aforementioned properties. The release of hazardous materials into the environment can contaminate soils, surface water, and groundwater supplies.

Federal. The Federal Toxic Substances Control Act (1976) and the Resource Conservation and Recovery Act of 1976 (RCRA) established a program administered by the U.S. EPA for the regulation of the generation, transportation, treatment, storage, and disposal of hazardous waste. RCRA was amended in 1984 by the Hazardous and Solid Waste Act (HSWA), which affirmed and extended the "cradle to grave" system of regulating hazardous wastes. Among other things, the use of certain techniques for the disposal of some hazardous wastes was specifically prohibited by HSWA.

The Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) was enacted in 1980 and amended by the Superfund Amendments and Reauthorization Act (SARA) in 1986. This law provides broad federal authority to respond directly to releases or threatened releases of hazardous substances that may endanger public health or the environment. Among other things, CERCLA established requirements concerning closed and abandoned hazardous waste sites, provided for liability of persons responsible for releases of hazardous waste at these sites, and established a trust fund to provide for cleanup when no responsible party could be identified. CERCLA also enabled revision of the National Contingency Plan (NCP), which provided the guidelines and procedures needed to respond to releases and threatened releases of hazardous substances, pollutants, or contaminants. The NCP also established the National Priorities List (NPL).

Asbestos Hazard Emergency Response Act (AHERA) (1986). This Act is the federal legislation that governs the control and abatement of asbestos hazards present in school buildings. The purpose of this Act is to also require U.S. EPA to evaluate the extent of danger to human health posed by asbestos in public and commercial buildings and the means to respond to any identified danger.

National Emission Standards for Hazardous Air Pollutants 40 CFR 61 Subpart M – (NESHAP). Projects requiring the removal or relocation of utility pipelines or removal or renovation of buildings may be subject to the requirements stipulated in NESHAP. These requirements include but are not limited to:

1) Notification requirements to the San Luis Obispo County Air Pollution Control District (SLOAPCD);
2) Asbestos survey conducted by a Certified Asbestos Inspector; and
3) Applicable removal and disposal requirements of ACMs.

Federal Occupational Safety and Health Administration (OSHA) - Process Safety Management Standard (29 CFR 1910.119). This standard includes requirements for preventing or minimizing the consequences of catastrophic releases of toxic, reactive, flammable, or explosive chemicals. Requirements of this standard include providing employees with information pertaining to hazardous chemicals, training employees on the operation of equipment with hazardous materials, and employer requirements to perform a process hazard analysis.

U.S. Department of Transportation. The U.S. Department of Transportation regulates hazardous materials transportation between states. Within California, the California Department of Transportation (Caltrans) and California Highway Patrol enforce federal law.

Together, these agencies determine driver training requirements, load labeling procedures, and specifications for container types to be used.

State. The DTSC, a department of the California EPA, is the primary agency in California that regulates hazardous waste, cleans up existing contamination, and looks for ways to reduce the hazardous waste produced in California. DTSC regulates hazardous waste in California primarily under the authority of RCRA and the California Health and Safety Code.

DTSC also administers the California Hazardous Waste Control Law (HWCL) to regulate hazardous wastes. While the HWCL is generally more stringent than RCRA, until the U.S. EPA approves the California program, both state and federal laws apply in California. The HWCL lists 791 chemicals and approximately 300 common materials that may be hazardous; establishes criteria for identifying, packaging, and labeling hazardous wastes; prescribes management controls; establishes permit requirements for treatment, storage, disposal, and transportation; and identifies some wastes that cannot be disposed of in landfills.

Government Code Section 65962.5 requires the DTSC, the State Department of Health Services, the SWRCB, and CalRecycle to compile and annually update lists of hazardous waste sites and land designated as hazardous waste sites throughout the state. The Secretary for Environmental Protection consolidates the information submitted by these agencies and distributes it to each city and county where sites on the lists are located. Before the lead agency accepts an application for any development project as complete, the applicant must consult these lists to determine if the site at issue is included.

If any soil is excavated from a site containing hazardous materials, it would be considered a hazardous waste if it exceeded specific criteria in Title 22 of the California Code of Regulations. Remediation of hazardous wastes found at a site may be required if excavation of these materials is performed, or if certain other soil disturbing activities would occur. Even if soil or groundwater at a contaminated site does not have the characteristics required to be defined as hazardous waste, remediation of the site may be required by regulatory agencies subject to jurisdictional authority. Cleanup requirements are determined on a case-by-case basis by the agency taking jurisdiction.

The State of California Food and Agricultural Code regulates the use of pesticides. Section 12972 requires that the use of pesticides not result in substantial drift to non-target areas. Section 12977 empowers the Agricultural Commissioner to enforce this provision. In addition, Section 12982 states that the local health officer shall investigate any health hazard from pesticide use and take necessary action, in cooperation with the Agricultural Commissioner, to abate the hazard. California Code of Regulations, Title 3, Section 6614 restricts pesticide application when there is a reasonable possibility of: substantial drift to non-target areas; contamination of the bodies or clothing of persons not involved in the application process; damage to non-target crops, animals or other public or private property; or contamination of public or private property, including the creation of a health hazard that prevents normal usage of that property.

In conformance with the Clean Air Act, the U.S. EPA established the National Emissions Standards for Hazardous Air Pollutants (NESHAP) to protect the public. The asbestos regulations under NESHAP control work practices during the demolition and renovation of

institutional, commercial or industrial structures. Following identification of friable asbestos the Federal Occupational Safety and Health Administration and San Luis Obispo Air Pollution Control District require that asbestos trained and certified abatement personnel perform asbestos abatement and all asbestos containing material (ACM) removed from on-site structures be hauled to a licensed receiving facility and disposed of under proper manifest by a transportation company certified to handle asbestos. NOA is regulated by the California Code of Regulations (CCR) Title 17 Section 93105. This regulation outlines dust mitigation practices and monitoring to reduce exposure to NOA as a result of earth-disturbing activities. If serpentine or ultramafic rocks are identified within the site, an asbestos dust mitigation plan is required in accordance with *CCR Title 17, Section 93105 Asbestos Airborne Toxic Control Measure for Construction, Grading, Quarrying, and Surface Mining Operations*.

Regulations for LBP are contained in the Lead-Based Paint Elimination Final Rule 24 Code of Federal Regulations (CFR) 33, governed by the U.S. Housing and Urban Development (HUD), which requires sellers and lessors to disclose known LBP and LBP hazards to perspective purchasers and lessees. Additionally, all LBP abatement activities must be in compliance with California and Federal OSHA and with the State of California Department of Health Services requirements. Only LBP trained and certified abatement personnel are allowed to perform abatement activities. All lead LBP removed from structures must be hauled and disposed of by a transportation company licensed to transport this type of material at a landfill or receiving facility licensed to accept the waste.

Site-Specific Health and Safety (California Division of Occupational Safety and Health Administration [Cal/OSHA] Title 8 and OSHA 29 Code of Federal Regulations [CFR] 1910). Under these requirements, employers must develop site-specific Health and Safety Plans. Workers potentially exposed to hazardous materials in their workplace must be trained so that they are aware of the hazards and provided necessary protection from the hazardous materials.

California Air Resources Board (ARB) Airborne Toxics Control Measure (ATCM) for Construction, Grading, Quarrying, and Surface Mining Operations (Section 93105). This regulation applies to any area to be disturbed that is located in a geographic ultramafic rock unit, or to any area where Naturally Occurring Asbestos (NOA) or serpentine would be disturbed. Specific requirements may include conducting a geologic evaluation, development of an Asbestos Dust Mitigation Plan and an Asbestos Health and Safety Program for approval by SLOAPCD.

Hazardous Material Release Response Plans and Inventory Law (California Health and Safety Code [HSC], Chapter 6.95). This law requires businesses to develop a Release Response Plan for hazardous materials emergencies if they handle more than 500 pounds, 55 gallons, or 200 cubic feet of hazardous materials. In addition, the business must prepare a Hazardous Materials Inventory of all hazardous materials stored or handled at the facility over the above thresholds. Also, all hazardous materials must be stored in a safe manner. Both the Release Response Plan and the Hazardous Materials Inventory must be supplied to the Certified Unified Program Agency (CUPA) for the program. For the project site, the CUPA is the San Luis Obispo County Health Agency.

California HSC, Division 20, Chapter 6.8, Section 25319.5 - Preliminary Endangerment Assessment (PEA). The California HSC requires that a PEA provide sufficient information to

determine whether or not current or past waste management practices have resulted in the release or a threatened release of hazardous substances that pose a threat to public health or the environment. The PEA should also provide sufficient information to conclude whether or not significant response actions are necessary at the site as well as include an analysis of the scope and identity of the affected community.

Safe Drinking Water and Toxic Enforcement Act (Proposition 65) (1986). In California, pursuant to the Safe Drinking Water and Toxic Enforcement Act of 1986: (1) no person in the course of doing business shall knowingly discharge or release a chemical known to the State to cause cancer or reproductive toxicity into water or onto land where such chemical passes or probably will pass into any source of drinking water, and (2) no person in the course of doing business shall knowingly and intentionally expose any individual to a chemical known to the state to cause cancer or reproductive toxicity without first giving clear and reasonable warning to such individual. The "no significant risk" level for carcinogens that is enforced by this Act is one in one hundred thousand (1×10^{-5}).

Porter-Cologne Water Quality Control Act (Division 7 of the California Water Code). The Porter-Cologne Act establishes a regulatory program to protect water quality and to protect beneficial uses of state waters. The Porter-Cologne Act also establishes the State board and regional boards as the principal State agencies responsible for control of water quality. Each of the nine Regional Water Quality Control Boards (RWQCBs) in California is required to develop guidance to assist in ensuring that the intent of the Porter-Cologne Act is met. Cleanup criteria are based on the type of contaminant (e.g., gasoline, diesel, or oil) released and the depth to groundwater.

HSC, Division 20, Chapter 6.5, and California Code of Regulations (CCR) Title 22 – Hazardous Waste Management. Waste that is toxic, corrosive, flammable, or reactive when tested in accordance with the CCR, Title 22, Article 11, Section 66693, must be handled, stored, transported, and disposed of in accordance with these regulations, which are more stringent than federal regulations.

HSC, Division 20, Chapter 6.7, and CCR, Title 23 – UST Management. USTs used for storing petroleum products must be managed in accordance with California law, which provides requirements for installation, materials used, secondary containment, overspill protection, and monitoring.

California Fire Code. To minimize risks to public health and the environment, a Fire Prevention Inspector shall review a list of hazardous materials stored aboveground on a property to assess potential individual and/or cumulative impacts to the property and surrounding areas. The inspector would ensure that hazardous materials stored onsite are in compliance with Chapter 6.95 of the California HSC. The fire code provides uniform fire prevention, hazardous material, and building construction regulations.

Local.

City of San Luis Obispo Fire Department. Permits are required to maintain, store, use, or hand materials which produce conditions hazardous to life or property. The City of San Luis Obispo Fire Department issues and manages Hazardous Waste Generator Permits.

City of San Luis Obispo Municipal Code. The City of San Luis Obispo 2013 Construction and Fire Code Amendment establishes the minimum standards and procedures for the demolition and relocation of buildings and structures to safeguard life, property, health, and public welfare. Specifically, Section A201 outlines the City requirements for demolition and moving of buildings in accordance with Chapter 1, Division II of the California Building Code. These requirements include general requirements for building demolition activities, permitting for such activities, hauling operations, and routes of moving materials, as well as specific requirements for dust and debris, fire safety, and removal and disposal of demolition materials.

City of San Luis Obispo General Plan Safety Element. The City's General Plan guides the use and protection of various resources to meet community purposes. The Safety Element is focused on achieving acceptable levels of risk through decisions on land use and the form of development, with consideration for the closely related factor of transportation. The Safety Element includes policies that describe an approach to achieving the goals of the General Plan. In terms of hazards and hazardous materials, the following policies and programs are pertinent to the San Luis Ranch Specific Plan:

> ***Policy S 5.2. Minimizing Hazardous Materials Exposure****. People's exposure to hazardous substances should be minimized.*
>
> ***Policy S 9.18. Safety of Structures and Facilities****. Existing and new structures and facilities should reflect adopted safety standards. Within this policy, the City has developed a program, Program S 8.6.5 Required Inspections, whereby the City will conduct safety inspections for hazardous materials in commercial, industrial, and multifamily residential buildings.*
>
> ***Policy 6.2: Minimizing Hazardous Materials Exposure****. People's exposure to hazardous substances should be minimized.*
>
> ***Policy 7.0: Uses in the Airport Land Use Plan Area.*** *Development should be permitted only if it is consistent with the requirements of the California State Aeronautics Act (Public Utilities Code §21670, et. seq.), guidance from the California Airport Land Use Planning Handbook, other related federal and state requirements relating to airport land use compatibility planning, and the San Luis Obispo County Regional Airport Land Use Plan unless the City overrules a determination of inconsistency in accordance with Section 21676.5 et. seq. of the Public Utilities Code. Prospective buyers of property that is subject to airport influence should be so informed.*
>
> ***Program 10.23 Required Inspections.*** *The City will conduct safety inspections for hazardous materials in commercial, industrial, and multifamily residential buildings.*

City of San Luis Obispo General Plan Land Use Element. The City's 2014 LUCE Update EIR and the 2014 Johnson Aviation Report address the issues of airport hazards in detail. Based on the analysis in these documents, the General Plan includes policies and programs to address airport safety which are summarized below and discussed in more detail in Section 4.9, *Land Use/Policy Consistency*. It should be noted that Program 7.16 and 7.17 have been completed and adopted and are presented here for informational purposes only.

> ***Policy 7.4 Airport Safety Zones****. Density and allowed uses within the Airport Safety Zones shall be consistent with the San Luis Obispo County Regional Airport ALUP unless the*

City overrides a determination of inconsistency in accordance with Section 21676 and 21676.5 et seq. of the Public Utilities Code. If the City overrides a determination, all land uses shall be consistent with the State Aeronautics Act and guidance provided in the California Airport Land Use Planning Handbook guidelines, City policies, and noise standards as substantiated by the San Luis Obispo County Regional Airport Master Plan activity forecasts as used for noise planning purposes.

***Program 7.16. Airport Overlay Zone**. The City shall create an AOZ to reflect the boundaries of the ALUP within the City limits. The purpose of the AOZ is to codify airport compatibility criteria in areas for which the City may override the ALUC determination to ensure compliance with the requirements of the California State Aeronautics Act (Cal. Pub. Utilities Code, Section 21670, et seq.), which establishes statewide requirements for airport land use compatibility planning, guidance from the California Airport Land Use Planning Handbook, which is published by the Caltrans Division of Aeronautics to support and amplify the State Aeronautics Act requirements, and other related federal and state requirements relating to airport land use compatibility planning. Implementation of the compatibility policies will be accomplished through the Zoning Code.*

***Program 7.17. Airport Land Use and Zoning Code**. The City shall update its Zoning Regulations to address allowable uses and development standards for areas in which the City may override a determination of inconsistency. Zoning regulations shall be consistent with the requirements of the State Aeronautics Act, use guidance from the Caltrans Airport Land Use Planning Handbook, and comply with related state and federal requirements relating to airport land use compatibility. These development standards will include, but not be limited to, intensity and density limitations, identification of prohibited uses, infill development, height limitations, obstructions, and other hazards to flight, noise insulation requirements, buyer awareness measures, nonconforming uses and reconstruction and the process for airport compatibility criteria reviews by the City consistent with these development standards.*

Airport Compatible Open Space Plan. The Airport Compatible Open Space Plan (ACOS) establishes open spaces in the areas around the Airport that can serve as reserve spaces (for aircraft emergency situations). By maintaining reserve spaces that keep certain land adjacent to the Airport free and clear from obstruction or from buildings and uses where people congregate, the ACOS improves airport safety while allowing for more intense development of urban areas. The areas identified as reserve space in the ACOS include land that is close to the Airport, in line with the main airport runway, or along an over-flight area where aircraft typically operate at lower altitudes. Identification of these areas in the ACOS adds airport safety to the list of reasons why these lands should not be developed (City of San Luis Obispo and County of San Luis Obispo 2013). On July 21, 2004, the ALUC voted to amend the ALUP with inclusion of the City's ACOS.

Airport Land Use Plan for the San Luis Obispo County Regional Airport. State law requires an independent, County-wide ALUC to adopt an ALUP for each airport. The ALUP establishes zones based on flight patterns, with the aim of having future development be compatible with airport operations, considering safety and noise exposure. The ALUP was last amended in 2005 and is in process of being updated to reflect the adopted Airport Master Plan. A draft ALUP amendment was released in 2014 and is anticipated to be finalized and available in 2017. The ALUP contains several safety-related policies to address future development:

Policy S-1. *Would permit or lack sufficient provisions to prohibit structures and other obstacles within the Runway Protection Zones for any runway at the Airport, as depicted in ALUP Figure 4.*

Policy S-2. *Would permit or fail to adequately prohibit any future residential or nonresidential development or redevelopment which would create, within the site to be developed or redeveloped, a density greater than specified in ALUP Table 7 or any mixed-use development or redevelopment which would create, within the site to be developed or redeveloped, densities greater than illustrated in ALUP Figures 5 through 8.*

Policy S-3. *Would permit or fail to adequately prohibit any future development project which specifies, entails, or would result in a greater building coverage than permitted by ALUP Table 7.*

Policy S-4. *Would permit or fail to adequately prohibit high intensity land uses or special land use functions (impaired egress uses or unusually hazardous uses), except that, when conditions specified by ALUP Table 7 for density adjustments have been determined to be met by the ALUC, high intensity land and/or special function uses may be allowed in Aviation Safety Area S-2.*

City of San Luis Obispo Conservation and Open Space Element. As noted in Section 4.2, *Agricultural Resources*, the City of San Luis Obispo addresses agricultural uses and compatibility with urban development through implementation of adopted policies and programs in the City's Conservation and Open Space Element (COSE). The following policy promotes compatibility between agricultural land use and other adjacent land uses through the implementation of buffers:

Policy 8.3.2. Open Space Buffers. [Relevant Portion]. *When activities close to open space resources within or outside the urban area could harm them, the City will require buffers between the activities and the resources. The City will actively encourage individuals, organizations and other agencies to follow this policy. Buffers associated with new development shall be on the site of the development, rather than on neighboring land containing the open space resource. Buffers provide distance in the form of setbacks, within which certain features or activities are not allowed or conditionally allowed. Buffers shall also use techniques such as planting and wildlife-compatible fencing. Buffers shall be adequate for the most sensitive species in the protected area, as determined by a qualified professional and shall complement the protected area's habitat values.*

Buffers shall be required in the following situations:

- *Between urban development and agricultural operations, to address dust, noise, odors, chemical use, and access by people and pets.*
- *Between agricultural operations and natural habitat, to address noise, chemical use, sediment transport, and livestock access.*

4.7.2 Previous Program-Level Environmental Review

The 2014 LUCE Update EIR previously analyzed potential hazards and hazardous materials impacts of development planned under the Land Use and Circulation Element Update,

including planned development on the project site. The LUCE Update EIR noted that there are no records of previous or existing sources of contamination in this area. However, it acknowledges that historic agricultural use onsite may have resulted in undocumented residual quantities of presently banned agricultural chemicals, which could pose a health hazard to construction workers or future residents or visitors. The LUCE Update EIR also notes that the site is located in proximity to a major transportation corridor which creates the potential for risks associated with the transportation of hazardous materials. Future mixed use development in this area, as envisioned under the updated Land Use Element, could expose individuals to health risks due to the site location in proximity to U.S. 101. Although the LUCE Update EIR described potential hazards impacts related to historic agricultural use in the San Luis Ranch Specific Plan Area, risk of injury or damage from wildland fires, and health risks due to the site location in proximity to U.S. 101, the EIR concluded that implementation of the LUCE Update EIR policies, amendments to existing City policies, and compliance with existing local, State and federal regulations, would reduce impacts to a less than significant level. For example, compliance with Land Use Element policy 12.9, Environmental Review, would reduce impacts related to development in direct proximity to hazardous materials transportation corridors, including U.S. 101.

In addition, the LUCE Update EIR noted that ALUP Safety Area S-1b and Safety Area S-2 and CALUPH Airport Safety Zones 4 and 6 cover portions of the site (described in Section 4.7.1[c]). However, the EIR concluded that implementation of the Land Use and Circulation Element policies, amendments to existing City policies, and compliance with existing local, State and federal regulations, would reduce potential impacts associated with airport-related safety hazards to a less than significant level. Specifically, use limitations, overflight notification and avigation easements would ensure that future development under the General Plan would not result in significant airport-related safety hazards.

4.7.3 Impact Analysis

a. Methodology and Significance Thresholds. Assessment of impacts is based on review of the Specific Plan and environmental conditions on the project site; listed hazardous materials sites within and near the project site; the Cleath-Harris Hydrogeology Report (Appendix H); the ALUP for the San Luis Obispo County Regional Airport; the 2014 Johnson Aviation Airport Land Use Compatibility Report (Appendix I); and the 2014 LUCE Update EIR, as well as other applicable laws and regulations related to hazards and hazardous materials issues.

The following thresholds are based on Appendix G of the *State CEQA Guidelines*. A significant impact related to hazards and hazardous materials would occur if the project would:

1. *Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials;*
2. *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;*
3. *Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school;*

4. *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, create a significant hazard to the public or the environment;*
5. *For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, result in a safety hazard for people residing or working in the project area;*
6. *For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area;*
7. *Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan; and/or*
8. *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.*

The Initial Study determined that that the site is not near a private airstrip (Threshold 6), that the site does not expose people to significant risk of wildland fire (Threshold 7), and that the project would not interfere with an adopted emergency response or evacuation plan (Threshold 8). Therefore, Thresholds 6, 7, and 8 are not discussed further in this section. See Section 4.14, *Issues Addressed in the Initial Study*, for a discussion of these issues as well as discussions of potential hazards related to exposure to radiation and electromagnetic fields and identified tetrachloroethylene (also called perchloroethylene, or PCE) contamination in groundwater in the vicinity of the San Luis Ranch Specific Plan Area. Additionally, impacts associated with exposure to hazardous materials (Threshold 1) due to proposed agriculture uses adjacent to residential and commercial land uses are addressed in Section 4.2, *Agricultural Resources*.

b. Project Impacts and Mitigation Measures.

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

Impact HAZ-1 Small quantities of hazardous materials may be used in conjunction with the proposed residential and commercial retail uses on site. However, these materials would be limited in type and quantity such that they would not create a hazard to the public or environment. Therefore, this impact would be Class III, *less than significant*.

Residential and commercial retail uses may involve use and storage of some materials that are considered hazardous. Such materials would be limited to typical solvents, paints, chemicals used for cleaning and building maintenance, and landscaping supplies. These materials would not be substantially different from household chemicals and solvents already in general and wide use throughout the City and in the vicinity of the project site. The use of such materials is also regulated by federal, State, and local laws, with which the project would be required to comply.

Mitigative Components of the Specific Plan and Impact Conclusion. The proposed residential and commercial land uses included in the San Luis Ranch Specific Plan would not involve the

transport, use, or disposal of substantial amounts of hazardous substances. Therefore, this impact would be less than significant.

Mitigation Measures. No mitigation would be required.

Residual Impacts. Impacts would be less than significant without mitigation.

Threshold 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?*

Impact HAZ-2 **The project site is adjacent to U.S. Highway 101, on which accidents that involve hazardous materials could occur. Such accidents could potentially create a significant hazard to the public or environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment. However, compliance with applicable regulations related to the handling and storage of hazardous materials would minimize the risk of the public's potential exposure to these substances, resulting in a Class III, *less than significant*, impact.**

The proposed development is located on the west side of U.S. 101. Other roadways near the site include Madonna Road and Oceanaire Drive. Vehicles that service the site during construction may transport soil contaminated with pesticides, asbestos, and or heavy materials away from the site for disposal (refer to Impact HAZ-4 for a detailed discussion of proper handling and disposal of soil containing residual quantities of agricultural chemicals). Additionally, during site operation, vehicles may transport pesticides, fertilizer, or other agricultural chemicals used by the ongoing agricultural uses on site. These vehicles, along with other commercial vehicles transporting hazardous materials near the site would use U.S. 101. The project would retain most of the land adjacent to U.S. 101 in agricultural use. In the northeastern portion of the project site's frontage with U.S. 101, the project includes new commercial uses adjacent to the highway.

In the unlikely event of an accident involving the transport of hazardous wastes and materials on roadways abutting the site, the health of construction workers or residents in the community could be adversely affected. However, local agencies must respond to the incident in accordance with the assignment of duties and procedures in the San Luis Obispo County Office of Emergency Services *Hazardous Materials Emergency Response Plan* (November 2013). In addition, U.S. EPA and U.S. Department of Transportation (DOT) laws and regulations have been promulgated to track and manage the safe interstate transportation of hazardous materials and waste. U.S. EPA administers permitting, tracking, reporting, and operations requirements established by RCRA. DOT regulates the transportation of hazardous materials through implementation of the Hazardous Materials Transportation Act. This act administers container design, and labeling and driver training requirements. State and local agencies enforce the application of these acts and provide coordination of safety and mitigation responses in the case that accidents involving hazardous materials occur.

Mitigative Components of the Specific Plan and Impact Conclusion. Development associated with the San Luis Ranch Specific Plan would retain most of the land adjacent to U.S. 101 in agricultural use, with residential and recreational uses, and most commercial development distanced from U.S. 101. However, some commercial development proposed for the Specific Plan Area would be located adjacent to the highway. Enforcement of the Hazardous Materials Transportation Act, laws and regulations to track and manage the safe interstate transportation of hazardous materials and waste, and rapid response by local agencies would ensure that hazards to the public or environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment would remain less than significant.

Mitigation Measures. Transport of hazardous materials on U.S. 101 and other roadways, including U.S. 101, would be required to comply with all federal, State, and local laws pertaining to the handling of hazardous materials. No mitigation would be required.

Residual Impacts. Impacts would be less than significant without mitigation.

Threshold 3:	*Would the project emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?*

Impact HAZ-3 Two schools are located within one-quarter mile of the project site. Compliance with existing federal, State, and local regulations would ensure that hazardous materials impacts to schools would remain Class III, *less than significant*.

Pacific Beach High School, located at 11950 Los Osos Valley Road, and CL Smith Elementary School, located at 1375 Balboa Street, are within one-quarter mile of the San Luis Ranch Specific Plan Area. Potential impacts associated with the transport, use, or disposal of hazardous materials are discussed in Impact HAZ-1, above. As described therein, proposed residential and commercial land uses would not involve the transport, use, or disposal of substantial amounts of hazardous substances. In addition, the project would involve ongoing agricultural uses on the project site, which may use agricultural chemicals, including sprayed pesticides. The project is consistent with COSE Policy 8.3.2, which requires agricultural buffers to reduce and/ or avoid dust and pesticide drift, and the nearest school would be a minimum of 800 feet from the project site.

Mitigative Components of the Specific Plan and Impact Conclusion. Potential impacts associated with reasonably foreseeable upset and accident conditions are discussed in Impact HAZ-2, above. As described therein, DOT regulates the transportation of hazardous materials through implementation of the Hazardous Materials Transportation Act. Therefore, enforcement of federal, State, and local regulations would ensure that impacts associated with hazardous emissions or materials near schools would remain less than significant.

Mitigation Measures. No mitigation would be required.

Residual Impacts. Impacts would be less than significant without mitigation.

Threshold 4:	*Would the project 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, create a significant hazard to the public or the environment?*

Impact HAZ-4 Hazardous materials sites identified on and upgradient to the project site as well as residual pesticides and agricultural chemicals in soil due to historical use of pesticides and other agricultural chemicals onsite could create a hazard to construction workers during the construction phase of the project. Impacts would be Class II, *significant but mitigable*.

As described in Section 4.7.1(b), the search of the SWRCB Geotracker database identified two sites within the subject property that are listed in the Irrigated Lands Regulatory Program and one former LUST facility adjacent and hydrologically upgradient to the project site with a 'Completed-Case Closed' cleanup status. The CERCLIS, EnviroStor, SWRCB solid waste disposal site, CDO, CAO, and Cortese databases did not list any potential contamination sites within the San Luis Ranch Specific Plan Area, and no other sites with known hazardous materials contamination were identified on the project site.

Construction activities, including excavation and trenching related to utility infrastructure and future residential and commercial development on site, may encounter shallow groundwater. In the event that shallow groundwater is encountered, dewatering of the excavation or trenching site may be required, which could result in discharge of contaminated groundwater. In accordance with the Waste Discharge Requirements for Dewatering and other Low Threat Discharges to Surface Waters (Order R5-2013-0074, and National Pollutant Discharge Elimination System [NPDES] No. CAG995001), contaminated groundwater would be treated prior to discharge or disposed of at an appropriate disposal facility or wastewater treatment plant. Also, discharges of dewatered groundwater to a water of the state would require authorization under a NPDES permit from the RWQCB (refer to Section 4.8, Hydrology and Water Quality, for a detailed discussion of NPDES permit requirements). Compliance with State and regional regulations for treatment and discharge of any potentially contaminated groundwater would ensure that impacts related to water quality degradation through the discharge of dewatered groundwater would be less than significant.

Mitigative Components of the Specific Plan and Impact Conclusion. Due to the presence of identified hazardous materials sites and current and historical agricultural practices on site, the potential exists for the presence of residual quantities of agricultural chemicals and other hazardous materials, including undocumented residual quantities of presently-banned chemicals. Ground disturbing activities during construction could expose construction workers to residual agricultural chemicals in on-site soil via direct contact or inhalation of dust particles. Improper handling and disposal of contaminated soils could result in a health risk to people which would be potentially significant unless mitigation is incorporated.

Mitigation Measures. The following mitigation would reduce risk of exposure to residual agricultural chemicals in on-site soil:

HAZ-4 **Soil Sampling and Remediation**. Prior to issuance of any grading permits, a contaminated soil assessment shall be completed in the portions of land to be graded for development. Soil samples shall be collected under the supervision of a professional geologist or environmental professional to determine the presence or absence of contaminated soil in these areas. The sampling density shall be in accordance with guidance from San Luis Obispo County Environmental Health Services, so as to define the volume of soil that may require remediation. Laboratory analysis of soil samples shall be analyzed for the presence of organochlorine pesticides, in accordance with EPA Test Method SW8081A, and heavy metals in accordance with EPA Test Methods 6010B and 7471A. If soil sampling indicates the presence of pesticides or heavy metals exceeding applicable environmental screening levels, the soil assessment shall identify the volume of contaminated soil to be excavated.

If concentrations of contaminants exceed EPA action levels and therefore warrant remediation, contaminated materials shall be remediated either prior to concurrent with construction and an Environmental Site Assessment (ESA) shall be prepared. Cleanup may include excavation, disposal, bio-remediation, or any other treatment of conditions subject to regulatory action. All necessary reports, regulations and permits shall be followed to achieve cleanup of the site. The contaminated materials shall be remediated under the supervision of an environmental consultant licensed to oversee such remediation and under the direction of the lead oversight agency. The remediation program shall also be approved by a regulatory oversight agency, such as the San Luis Obispo County Environmental Health Services, the Regional Water Quality Control Board (RWQCB), or DTSC. All proper waste handling and disposal procedures shall be followed. Upon completion of the remediation, the environmental consultant shall prepare a report summarizing the project, the remediation approach implemented, and the analytical results after completion of the remediation, including all waste disposal or treatment manifests.

Plan Requirements and Timing. The contaminated soils assessment and remediation program, if necessary, shall be submitted and approved by the City's Community Development Department and applicable regulatory oversight agency prior to the issuance of project grading permits.

Monitoring. As applicable, the Community Development Department shall ensure implementation of a remediation

program according to the measures included therein and as approved by a regulatory oversight agency.

Residual Impacts. With implementation of Mitigation Measure HAZ-4, impacts related to exposure to residual agricultural chemicals would be reduced to a less than significant level.

~~*Threshold 4:*~~	~~*Would the project 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, create a significant hazard to the public or the environment?*~~

~~**Impact HAZ-5 Tetrachloroethene (also called perchloroethylene, or PCE) has been detected in the shallow aquifer in concentrations that exceed the Maximum Contaminant Level (MCL) in active irrigation wells on the eastern portion of the site. As future on-site residents or workers could potentially be exposed to PCE from irrigation water, this would be a Class II,** *significant but mitigable,* **impact.**~~

~~As described in Section 4.7.1(b), the Cleath-Harris Hydrogeology Report (Appendix H) identified tetrachloroethene (PCE) contamination in groundwater in the vicinity of the San Luis Ranch Specific Plan Area. Figure 4.7-3 shows the wells on the project site and the PCE concentration at four of the on-site wells, including the domestic well in the northwestern portion of the site, in addition to Wells #1, #2, and #5. The highest concentrations of PCE were detected along U.S. 101 (from 8.1 µg/L at Well #2 at the northeastern corner of the Specific Plan Area to 10.4 µg/L at the CJAR irrigation well at the southeastern corner of the Specific Plan Area), with a lower concentration at the domestic well along the northwestern side of Specific Plan Area adjacent to Madonna Road (1.0 µg/L to 1.8 µg/L). The domestic water well has a PCE concentration of 1.0, which is within the U.S. EPA/RWQCB MCL for drinking water of 5 µg/L. The proposed residential and commercial development on the project site would be served by the City's existing municipal water supply. The existing onsite wells would continue to be used for irrigation of ongoing agricultural uses on the project site, but would not be a source of drinking water.~~

~~Groundwater produced by the on-site wells would continue to be used for agricultural irrigation. As the water is sprayed through the air onto the irrigated fields, the PCE concentration in the applied water may reduce as the compound volatilizes. However, the reduction in PCE concentration has not been determined.~~

~~*Mitigative Components of the Specific Plan and Impact Conclusion.* Consistent with COSE Policy 8.3.2, Open Space Buffers, the San Luis Ranch Specific Plan includes a 72-foot buffer between existing agricultural operations and urban development to reduce and/ or avoid dust and pesticide drift to new residential and commercial land uses on the project site. The proposed 72-foot buffer would similarly limit exposure of future on-site residents to PCE associated with sprayed irrigation water. Nevertheless, because the ongoing agricultural uses within the Specific Plan Area would continue to use on-site wells for agricultural irrigation, future on-site residents or workers could potentially be exposed to PCE at concentrations in~~

Figure 4.7-3

excess of the MCL contained in sprayed irrigation water, which would be a potentially significant impact.

Mitigation Measures. Mitigation Measures AG-3(a) through AG-3(c), in Section 4.2, *Agricultural Resources*, would strengthen the agricultural conflict avoidance measures included in the San Luis Ranch Specific Plan, reducing availability of public access to agricultural cultivation areas adjacent to the project site. By reducing public access to agricultural cultivation areas, this measure would reduce potential exposure of on-site residents to PCE contained in sprayed irrigation water. In addition, the following mitigation measures would reduce potential impacts to future on-site workers and residents from PCE contained in sprayed irrigation water.

HAZ-5(a) Groundwater Assessment for Contamination at Untested Wells. Any groundwater wells on the project site that would be used for agricultural irrigation shall be sampled by a registered soils engineer or remediation specialist to determine the presence or absence of regulated contaminants prior to issuance of grading permits. This assessment shall target on-site PCE associated with off-site dry cleaning operations.

HAZ-5(b) Groundwater Remediation. If groundwater sampling indicates the presence of any contaminant in hazardous quantities, the project applicant (or authorized agent thereof) shall contact the Regional Water Quality Control Board (RWQCB) and Department of Toxic Substances (DTSC) to determine the level of any necessary remediation efforts. These may include:

- Installation of charcoal filtration into well-head systems at wells where PCE is identified in hazardous quantities. After installation of charcoal filtration, groundwater wells shall be re-sampled consistent with Mitigation Measure HAZ-5(a).

- Groundwater remediation to contaminant concentrations below applicable standards in compliance with applicable laws prior to issuance of grading permits. A copy of the applicable remediation certification from Regional Water Quality Control Board (RWQCB) and/or Department of Toxic Substances (DTSC), or written confirmation that a certification is not required, shall be submitted to the Community Development Department.

Residual Impacts. Mitigation Measures AG-3(a) through AG-3(c), HAZ-5(a), and HAZ-5(b) would ensure that groundwater would not pose the risk of potential PCE exposure to future residents or workers on the project site. Therefore, with incorporation of these mitigation measures, this impact would be less than significant.

Threshold 4:	*Would the project 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, create a significant hazard to the public or the environment?*

Impact HAZ-6 The project site is located in an area where geologic analysis for NOA is required prior to grading and could potentially result in exposure of people to NOA during grading and construction activities. Therefore, this impact would be Class II, *significant but mitigable*.

NOA can be released from serpentine and ultramafic rocks when the rock is broken or crushed. At the point of release, the asbestos fibers may become airborne, causing air quality and human health hazards. These rocks are commonly used for unpaved gravel roads, landscaping, fill projects, and other improvement projects in some localities. Asbestos can also be released into the atmosphere due to vehicular traffic on unpaved roads during grading.

According to the SLOAPCD's NOA map, the San Luis Ranch Specific Plan Area is located in an area where geologic analysis for NOA is required prior to grading. If the results of the geologic analysis for a project are favorable, the project can apply for a NOA Air Toxics Control Measure (ATCM) exemption. If serpentine or ultramafic rocks are found within the site, an asbestos dust mitigation plan is required in accordance with *CCR Title 17, Section 93105 Asbestos Airborne Toxic Control Measure for Construction, Grading, Quarrying, and Surface Mining Operations*.

Mitigative Components of the Specific Plan and Impact Conclusion. Compliance with existing requirements – including preparation of a geologic analysis and implementation of an asbestos dust mitigation plan, if required – would reduce the potential for NOA to pose a significant hazard during construction proposed under the San Luis Ranch Specific Plan. However, mitigation would be required to ensure compliance and reduce this impact to a less than significant level.

Mitigation Measures. If NOA is identified at the site, an asbestos dust mitigation plan in accordance with *CCR Title 17, Section 93105 Asbestos Airborne Toxic Control Measure for Construction, Grading, Quarrying, and Surface Mining Operations* would be required to be implemented during project construction, as a standard condition of approval. Additionally, the following mitigation would be required to further reduce potential impacts associated with NOA hazards:

HAZ-6 Naturally Occurring Asbestos Exposure Avoidance and Minimization:

a. Prior to earthwork activities, a site-specific health and safety plan shall be developed per California Occupational Safety and Health Administration (CalOSHA) requirements. The plan shall include appropriate health and safety measures if NOA is detected in soil or bedrock beneath the project site. All construction workers that have the potential to come into contact with contaminated soil/bedrock and groundwater

shall be knowledgeable of the requirements in the health and safety plan, which includes proper training and personal protective equipment. The health and safety plan shall prescribe appropriate respiratory protection for construction workers.

b. Prior to beginning construction, a soil and bedrock analysis for asbestos using polarized light microscopy and transmission electron microscopy by a qualified laboratory shall be conducted. Samples of soil shall be collected from multiple locations across the site, and bedrock samples shall be collected from locations where excavation into bedrock is anticipated. If NOA is detected, appropriate regulations pertaining to excavation, removal, transportation, and disposal of NOA shall be followed. The sampling strategy shall take into account the locations of potential source areas, and the anticipated lateral and vertical distribution of contaminants in soil and/or groundwater. The results of the investigation shall be documented in a report that is signed by a California Professional Geologist. The report shall include recommendations based upon the findings for additional investigation/remediation if contaminants are detected above applicable screening levels (e.g., excavate and dispose, groundwater and/or soil vapor extraction, or in situ bioremediation).

c. During earthwork activities, appropriate procedures shall be incorporated in the event that NOA is detected in soil or bedrock beneath the project site. These procedures shall be followed to eliminate or minimize construction worker or general public exposure to potential contaminants in soil. Procedures shall include efforts to control fugitive dust, contain and cover excavation debris piles, appropriate laboratory analysis of soil for waste characterization, and segregation of contaminated soil from uncontaminated soil. The applicable regulations associated with excavation, removal, transportation, and disposal of contaminated soil shall be followed (e.g., tarping of trucks and waste manifesting). These procedures may be subject to San Luis Obispo APCD requirements under the California ARB ATCM for Construction, Grading, Quarrying, and Surface Mining Operations.

Plan Requirements and Timing. The measures to avoid and minimize exposure to NOA shall be included on project grading and building plans, and submitted to and approved by the City's Community Development Department and, as applicable, California Professional Geologist prior to the issuance of project grading and building permits.

Monitoring. As applicable, the Community Development Department shall ensure implementation of avoidance and

minimization measures included therein and as approved by a California Professional Geologist.

Residual Impacts. With implementation of Mitigation Measure HAZ-6, impacts related to exposure to NOA would be reduced to a less than significant level.

Threshold 4:	*Would the project 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, create a significant hazard to the public or the environment?*

Impact HAZ-7 Asbestos Containing Material (ACM) and Lead Based Paint (LBP) may be present in existing on-site structures. Demolition of these structures would be required to comply with applicable State and local policies and regulations for the control and remediation of hazardous materials to prevent human exposure. Therefore, this impact would be Class III, *less than significant*.

The project would involve demolition of some or all of the structures in the existing Dalidio Farm Complex. The Dalidio Farm Complex includes buildings that, due to their age, may contain asbestos and/or LBP. As a result, demolition of these structures could result in health hazards to workers if not remediated prior to construction activities.

Mitigative Components of the Specific Plan and Impact Conclusion. Demolition activities associated with the San Luis Ranch Specific Plan would be required to comply with SLOAPCD Rule 412 (Airborne Toxic Control Measures), which includes Section 93106 of the California Code of Regulations (Asbestos Airborne Toxic Control Measure for Surfacing Applications). Compliance with Rule 412 would ensure that if a building includes asbestos-containing materials, those materials would be identified and remediated prior to demolition. The applicant would also be required to comply with California Occupational Safety and Health Administration (CalOSHA) regulations regarding lead-based materials and the California Code of Regulations §1532.1, which requires testing, monitoring, containment, and disposal of lead-based materials such that exposure levels do not exceed CalOSHA standards. Compliance with these regulations would ensure that impacts associated with exposure of construction workers to ACMs or lead during demolition or disposal of such materials would be less than significant.

Mitigation Measures. No mitigation would be required.

Residual Impacts. Impacts would be less than significant without mitigation.

Threshold 5:	*For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?*

Impact HAZ-8 The project site is located within a San Luis Obispo County Regional Airport area of influence. The project would be

consistent with the CALUPH Airport Safety Zones, which represent the extent of Airport-related safety hazard zones for people residing or working in these areas. Therefore, this impact would be Class III, *less than significant*.

Airport safety is primarily related to the potential for accidents related to aircraft operations such as emergency landings, or in rare cases crashes, as well as ensuring that land use development is carried out in manner that minimizes or avoids risks associated with such aircraft incidents or accidents. Minimizing or avoiding risks to such land uses (e.g., residential neighborhoods) involves designating areas around the ends of runways that must be free of objects or sensitive land uses, limiting the height of new structures in the surrounding airspace, and understanding historical accident patterns. The San Luis Ranch Specific Plan Area is located in proximity to the end of Runaway 11-29. The risk of an aircraft accident increases with proximity to the runway and its approach path, and airport land use planning documents generally discourage development in the zones closest to the ends of runways to prevent placing people at risk of aircraft-related hazards. The project site is located approximately 1.5 miles away from Runway 11-29 and is within the extended centerline path of the runway. The project site is also within the general approach area of Runway 11-29. The project site is overlapped by ALUP Safety Areas S-1b and S-2 and CALUPH Airport Safety Zones 4 and 6, which indicate the airport's outer approach/departure zone and traffic pattern zone. Figure 4.7-1 shows the ALUP Safety Areas on the project site and Figure 4.7-2 shows the CALUPH Airport Safety Zones on the site. As described in Section 4.7.1(c), one aircraft accident occurred within the project site in ALUP Safety Area S-2 in 1990. Another accident occurred approximately adjacent to the northeastern corner of the project site along U.S. 101 in CALUPH Airport Safety Zone 4 and ALUP Safety Area S-1b in 1994. However, accidents associated with airport operations have been very infrequent, even in areas closer to the airport. In addition, the historical occurrence of aircraft accidents within the San Luis Obispo County Regional Airport area of influence indicates that accidents are no more likely on the project site than anywhere else within these ALUP Safety Areas and CALUPH Airport Safety Zones.

Project development would result in construction of up to 580 residential units, 150,000 square feet of commercial development, 100,000 square feet of office development, and a 200-room hotel. Accordingly, the project would add an estimated 1,293 new residents (546 new single family and multi-family dwelling units x 2.29 people/unit and 34 new affordable units x 1.25 people/unit)[2] in the vicinity of the approaches to Runway 11-29, and within CALUPH Airport Safety Zones and ALUP Safety Areas. As shown in the ALUP, and in Figure 4.7-1, a majority of the project site (approximately 119 acres) is within ALUP Safety Area S-1b. Safety Area S-1b identifies an outer approach/departure zone for the airport and allows a maximum non-residential development intensity of 40 persons per acre and a maximum residential development density of 0.2 units per acre. Approximately 16 acres in the northeastern portion of the project site is located in Safety Area S-2 which allows six to twelve dwelling units per acre with an approved Airport Compatible Open Space (ACOS) plan. Project residential and commercial development would be located within ALUP Safety Areas S-1b and S-2, creating an

[2] Population growth rate from City's Land Use and Circulation Element Appendix I Water Supply Assessment (page 9), as referred to in SB610 Water Supply Assessment – San Luis Ranch prepared by Cannon (2016; Appendix M).

inconsistency with the adopted ALUP due to safety areas within the due an exceedance of allowable densities under the ALUP. Potential inconsistencies between the ALUP Safety Area standards and CALUPH Airport Safety Zone standards are discussed in Section 4.9, *Land Use/Policy Consistency* (refer to Table 4.9-1 and Impact LU-4).

In comparison, as shown in Figure 4.7-1, the southeastern portion of the project site along U.S. 101 is located within CALUPH Airport Safety Zones 4 and 6. Airport Safety Zone 4 allows for non-residential development intensity of up to 200 persons per acre and allows for residential infill at up to the average of surrounding residential areas. Airport Safety Zone 6 has no limit for non-residential development intensity, but suggests avoidance of large stadiums and similar uses. Airport Safety Zone 6 also has no limit for residential development intensity, but suggests consideration of noise and overflight during such development. No residential development is proposed within the portion of the project site located in Airport Safety Zone 4 and no residential or commercial development is proposed for the portion of the site in Airport Safety Zone 6. The remainder of the project site is not located within an Airport Safety Zone, as defined by the CALUPH (refer to Figure 4.7-1). As such, the level of proposed development on the project site would be consistent with the restrictions specified in the CALUPH for the Airport Safety Zones and consistent with additional statewide safety standards for new development as described in Section 4.7.1(e).

As described in Section 4.7.1(c), the 2014 Airport Land Use Compatibility Report (Appendix I) analyzed potential airport hazards and set forth recommendations to update safety and hazards planning around the Airport based on guidance from the CALUPH and other sources. The CALUPH describes the characteristics of "ideal" safety zones such as "easily definable geometric shapes," a limited number of five or six zones, a distinct progression in the degree of safety risk farther from the runway, providing that "each zone should be as compact as possible." The Land Use Element and associated Airport Safety Zones implement these suggested standards by identifying six revised safety zones that consist of clearly justified and compact geometric shapes that represent distinct progression in the degree of safety risk farther from the runway. These Airport Safety Zones are supported by Land Use Element and Circulation Element policies, programs, and development standards consistent with those guidelines.

While the project would conflict with the allowable densities in the ALUP Safety Areas, the City Council found during its review of airport compatibility for the Land Use and Circulation Element update that the 2014 Airport Land Use Compatibility Report and revised LUCE Update EIR provided substantial evidence in the record that the City's Land Use Element accurately reflects Airport-related safety hazard zones as set forth in the CALUPH and supporting federal guidance, and that the maps provided in the ALUP did not accurately reflect the actual extent of Airport-related safety zones (Council Agenda Report, City of San Luis Obispo 2014d). For the Land Use and Circulation Element Update, the City Council elected to issue an overrule of the ALUP, including planned development in the San Luis Ranch Specific Plan Area, as long as such development was found to be consistent with the Land Use Element Airport policies (refer to Section 4.9, *Land Use/Policy Consistency*).

Mitigative Components of the Specific Plan and Impact Conclusion. Section 2.6 of the San Luis Ranch Specific Plan (Appendix B) includes various Airport Compatibility Performance

Standards intended to maintain safety of the airspace of the airport and avoid potential airport-related hazards. The following standards, described in Section 2.6 of the San Luis Ranch Specific Plan, would be implemented throughout the Specific Plan Area to avoid airport hazards: Risk of Injury, Airspace Protection; Operations Interference; Bird Attractants; Indoor Noise; Avigation Easements, Real Estate Disclosure; and Non-reflective Building Materials.

In addition, because the project would be consistent with the CALUPH Airport Safety Zones, which the City has found represents the actual extent of Airport-related safety hazard zones, physical Airport-related safety hazards would be minimized consistent with the State Aeronautics Act upon project implementation. While the project would still be subject to review by the ALUC for consistency with the ALUP, potential policy consistency issues are discussed in Section 4.9, Land Use/Policy Consistency. Based on the analysis provided above and substantial evidence in the record provided by the LUCE Update EIR and 2014 Airport Land Use Compatibility Report, airport safety impacts to San Luis Ranch Specific Plan Area residents and commercial employees or patrons would be less than significant.

Mitigation Measures. No mitigation would be required.

Residual Impacts. Impacts would be less than significant without mitigation.

c. Cumulative Impacts. Planned buildout of the City of San Luis Obispo under the General Plan, including buildout of previously approved (Margarita and Orcutt) or proposed (San Luis Ranch, Avila Ranch, Madonna) specific plans, would cumulatively increase the potential for exposure of people to hazards and hazardous materials, including soil contamination, pesticides, LBP, asbestos, groundwater contamination of PCE, and upset risks along major transportation routes. The project would incrementally contribute to this cumulative effect. However, as discussed throughout this section, such risks of exposure are reduced through adherence to existing federal, State, and local regulations. U.S. EPA and U.S. DOT laws regulate the safe interstate transportation of hazardous materials and waste.

Impacts associated with hazards and hazardous materials are generally site-specific**.** Accordingly, as required under applicable laws and regulations, potential impacts associated with cumulative developments would be addressed on a case-by-case basis and appropriate mitigation would be designed to mitigate impacts resulting from individual projects, depending upon the type and severity of hazards present. Enforcement of federal, State, and local laws and regulations would ensure that hazards to the public or environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment would remain less than significant. In addition, as described in the LUCE Update EIR, adherence to applicable General Plan policies and applicable State and federal regulatory requirements would reduce any cumulative hazards and hazardous materials impacts resulting from buildout of the City under the General Plan, including buildout of the San Luis Ranch Specific Plan, to a less than significant level. Therefore, cumulative impacts related to hazards and hazardous materials would be less than significant.

Increased development within the vicinity of the San Luis Obispo County Regional Airport could expose residents, employees, and visitors to potential aircraft-related hazards. Approved, planned, and pending projects in the City, which involve residential and commercial development, may also be within ALUP Safety Areas and Caltrans Airport Safety Zones,

thereby potentially exposing persons to risk of airport safety hazards. The severity of potential hazards for individual projects would depend upon the location, type, and size of development and the specific hazards associated with individual sites and would require evaluation on a project-by-project basis. As such, cumulative impacts would be based on each project's contribution to cumulative aircraft related hazards in the City. The uses proposed for the San Luis Ranch Project would be consistent with the CALUPH Airport Safety Zones, which represent the extent of Airport-related safety hazard zones for people residing or working in these areas. As such, the project would not result in a substantial contribution to cumulative aircraft related hazards in the City. Any other development in the City, if approved pursuant to the City's General Plan Land Use Element policies, would be consistent with the CALUPH Airport Safety Zones and, therefore, would not result in a substantial contribution to cumulative aircraft related hazards in the City.

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