4.9 Hazards and Hazardous Materials

This section describes hazards and hazardous materials[1] related to development of the Proposed Project that could pose a significant threat to human health or the environment. The existing conditions and pertinent federal, State, and local agency laws, regulations, plans, and policies related to hazards and hazardous materials are described for the Proposed Project in EIR Sections 4.9.1 (Existing Conditions), 4.9.2 (San Luis Obispo County Plans and Policies) and 4.9.3 (Regulatory Setting). Potential impacts and mitigation measures related to hazards and hazardous materials for the Proposed Project are identified according to defined criteria of significance, as outlined in EIR Section 4.9.4 (Environmental Impact Methodology). The Proposed Project's impact evaluation is provided in EIR Section 4.9.5 (Project Impacts and Mitigation Measures).

Scoping Issues Addressed

No public or agency comments related to hazards and hazardous materials were received during the Project's NOP scoping period.

4.9.1 Existing Conditions

The following section provides an overview of existing conditions related to hazards and hazardous materials at the Proposed Project site based on a review of regulatory databases, local and State guidance documents, and materials provided to the County by the Applicant.

Hazardous Materials

Use and Storage

Petroleum products (e.g., lubricating oil and diesel) and synthetic chemicals (e.g., coolants and solvents) are used for equipment maintenance and fueling activities at the quarry. Equipment is maintained at an existing shop located southwest of the processing plant, as shown in Figure 2.5-2. Hazardous materials used for equipment maintenance are generally stored in containers ranging from 35 to 165 gallons. A 1,000-gallon waste oil aboveground storage tank (AST) is located next to the quarry's existing shop. Fuel for the off-road equipment is supplied by two 10,000-gallon diesel ASTs, a 500-gallon gasoline AST, and a portable 250-gallon diesel AST. All of the fuel ASTs are either located next to the existing shop or the existing asphalt plant (Hanson Aggregates, 2012).

Explosives used for blasting, such as ammonium nitrate and fuel oil, are not stored at the site, but are transported to the quarry for each day of blasting by a licensed and permitted explosives delivery contractor (Lehigh Hanson Heidelberg Cement Group, 2009).

[1] The California Health and Safety Code defines a hazardous material as "... any material that, because of its quantity, concentration, or physical or chemical characteristics, poses a significant present or potential hazard to human health and safety, or to the environment. Hazardous materials include, but are not limited to, hazardous substances, hazardous waste, radioactive materials, and any material which a handler or the administering agency has a reasonable basis for believing that it would be injurious to the health and safety of persons or harmful to the environment if released into the workplace or the environment." (California Health and Safety Code, Section 25501).

Releases

Based on a review of the State Water Resources Control Board (SWRCB) and Department of Toxic Substances Control (DTSC) databases, there are no known releases of hazardous materials from past or current land uses at the Proposed Project site. This includes listed sites with solid/hazardous waste disposal or hazardous materials releases compiled pursuant to Government Code Section 65962.5 (see EIR Section 4.9.3, Regulatory Setting, below). In addition, hazardous materials releases have not been reported from surrounding land uses, which include open space and agricultural lands.

Airport Land Uses

The San Luis Obispo County Airport Land Use Commission (ALUC) has adopted an Airport Land Use Plan (ALUP) for each public airport located within the County. Each ALUP incorporates airspace protection criteria from the Federal Aviation Administration (FAA) Regulations. The closest public-use airport to the Proposed Project site is the San Luis Obispo County Regional Airport, located about 12.5 miles to the southwest. The Proposed Project site is not located within any protected airspace zones defined by the ALUC for the San Luis Obispo County Regional Airport (San Luis Obispo ALUC, 2005). Based on a review of FAA records, Hart Ranch is the closest private airstrip to the Proposed Project site, located about three miles to the southeast (FAA, 2013).

Emergency Response and Evacuation

The County's Office of Emergency Services (OES) has prepared a Hazardous Materials Emergency Response Plan (2001) to minimize the effects of a hazardous materials incident on human life, property, and the environment. The Plan delineates the role of different government agencies in responding to various hazardous materials incidents. Emergency response time to the Proposed Project site would likely range from about five to 10 minutes (County of San Luis Obispo, 2013). In the event of an emergency, California Canyon Highway (State Route 58) would likely be used as the primary route of response to, and/or evacuation from, the Proposed Project site.

Wildland Fire

In 2007, the California Department of Forestry and Fire Protection (CAL FIRE) mapped areas within the County with significant fire hazards based on fuels, terrain, weather, and other relevant factors. In accordance with California Public Resource Code Section 4201 through 4204, areas with fire hazard are classified into Fire Hazard Severity Zones with either "Medium," "High," or "Very High" potential for wildland fires to cause ignition of buildings. The Proposed Project site is located within a Very High Fire Hazard Severity Zone and is under the jurisdiction of CAL FIRE (CAL FIRE, 2007).

Valley Fever

Valley Fever is an infection caused by the fungus *Coccidioides*. The fungus lives in the top two to 12 inches of soil in arid climates (California Department of Public Health, 2013) and is endemic in San Luis Obispo County San Luis Obispo County Public Health Department, 2014a). An average of 128 cases per year were reported between 2005 and 2012 in the County (San Luis Obispo County Public Health Department, 2014a). Valley Fever may be contracted when people breathe in dust containing *Coccidioides* spores. Although the soil form of the fungus can infect people, Valley Fever is not contagious between people. About 60 percent of infected individuals exhibit no symptoms or mild symptoms, resembling a cold. However, about 40 percent of infected individuals exhibit flu- or pneumonia-like symptoms and need to be hospitalized. Less than 1 percent of Valley Fever infections are fatal. There is no vaccine for Valley Fever, however it is treatable with antifungal medications. The

most effective way to prevent potential exposure to the Valley Fever fungus is effective dust control (and prevention of people coming into contact with dust) in areas where the soil is being disturbed.. The recent rise in cases of Valley Fever outbreaks at construction sites in San Luis Obispo County indicates that preventative measures are important to protect workers in the outdoor industry (San Luis Obispo County Public Health Department, 2014a).

4.9.2 San Luis Obispo County Plans and Policies

County General Plan

The Safety Element of the County's General Plan includes policies for fire safety, aircraft hazards, and hazardous materials and standards for implementation (County of San Luis Obispo, 1999). Based on existing conditions, the standards associated with aircraft hazards are not relevant to the Proposed Project. In addition, the standards associated with fire hazards are not relevant because the Proposed Project would not increase the number of structures or employees at the quarry. The following standard associated with hazardous materials is directly relevant to the Proposed Project:

- *Standard S-68: Review commercial projects which use, store, or transport hazardous materials to ensure necessary measures are taken to protect public health and safety.*

4.9.3 Regulatory Setting

Beginning in the 1970s, governments at the federal, State, and local levels became increasingly concerned about the effects of hazardous materials on human health and the environment. Numerous laws and regulations were developed to investigate and mitigate these effects. As a result, the storage, use, generation, transport, and disposal of hazardous materials are highly regulated by federal, state, and local agencies. These agencies, and information about the laws, regulations, and programs they administer that are relevant to the Proposed Project are summarized below.

Federal

The USEPA is the lead agency responsible for enforcing federal laws and regulations pertaining to hazardous materials that affect public health and the environment. The major federal laws and regulations enforced by the USEPA that could potentially relate to the Proposed Project include the: Resource Conservation and Recovery Act (RCRA); Toxic Substances Control Act (TSCA); the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA); Superfund Amendments and Reauthorization Act (SARA); and, Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA).

In 1974, the RCRA was enacted to provide a general framework for the USEPA to regulate hazardous waste from the time it is generated until its ultimate disposal. In accordance with RCRA, facilities that generate, treat, store, or dispose of hazardous waste are required to ensure that the wastes are properly managed from "cradle to grave."

In 1976, the TSCA was enacted to provide the USEPA authority to regulate the production, importation, use, and disposal of chemicals that pose a risk of adversely affecting public health and the environment; the TSCA and subsequent amendments regulate contaminants such as polychlorinated biphenyls (PCBs), asbestos-containing materials, and lead-based paint. TSCA also gives the USEPA authority to regulate the cleanup of sites contaminated with specific chemicals, such as PCBs.

In 1980, the CERCLA, commonly known as the Superfund, was enacted to ensure that a source of funds would be available for the USEPA to remediate uncontrolled or abandoned hazardous materials release

sites that pose a risk of adversely affecting public health and the environment. Prohibitions and requirements regarding closed or abandoned hazardous waste sites and liability standards for responsible parties were also established by CERCLA. In 1986, SARA amended CERCLA to increase the Superfund budget, modify contaminated site cleanup criteria and schedules, and revise settlement procedures.

In 1972, an amendment to the FIFRA provided the USEPA authority to regulate the manufacture, distribution, and import of pesticides. The USEPA approves registered uses of a pesticide based on an evaluation of its potential adverse effects to human health and the environment. The USEPA has granted the California Department of Pesticide Regulation (DPR) authority to enforce federal laws pertaining to the proper and safe use of pesticides (Title 3 of the California Code of Regulations). The DPR can also designate pesticides as "restricted material" based on potential adverse effects to public health, applicators, farm workers, domestic animals, honeybees, the environment, wildlife, or crops other than those being treated.

Worker health and safety is protected by federal and state laws and regulations. The federal Occupational Safety and Health Administration (OSHA) is responsible for enforcement and implementation of federal laws and regulations pertaining to worker health and safety. State regulations pertaining to worker health and safety are discussed below.

State

In California, the federal USEPA has granted most enforcement authority of federal hazardous materials regulations to the California Environmental Protection Agency (Cal/EPA). Under the authority of Cal/EPA, the SWRCB and DTSC are responsible for overseeing the remediation of contaminated sites. The provisions of Government Code Section 65962.5 require the SWRCB, DTSC, the California Department of Health Services, and the California Integrated Waste Management Board to submit information pertaining to sites associated with solid waste disposal, hazardous waste disposal, and/or hazardous materials releases to the Secretary of Cal/EPA.

State worker health and safety regulations related to construction activities are enforced by the California Division of Occupational Safety and Health (Cal/OSHA). Regulations include exposure limits, protective clothing, and training requirements to prevent exposure to hazardous materials.

The SMARA (1975) requires that all surface mining operations "reclaim" mined lands to a condition which allows post-mining land uses upon termination of surface mining activities. SMARA requires that approved Reclamation Plans be developed that incorporate verifiable standards to assure adequate completion of Reclamation Plan objectives. The verifiable standards were adopted by the State Board of Mining and Geology as regulations to implement these requirements. These regulations are known as the "Reclamation Standards" (Public Resources Code Article 9, Sections 3700 *et seq.*).

Local

The routine management of hazardous materials in California is administered under the Unified Program (California Health and Safety Code, Chapter 6.11, Sections 25404 through 25404.8). The Cal/EPA has granted responsibilities to the County's Environmental Health Services Division for implementation and enforcement of hazardous material regulations in all areas of the County under the Unified Program as a Certified Unified Program Agency (CUPA). The Unified Program consolidates, coordinates, and makes consistent the administrative requirements, permits, inspections, and enforcement activities of the following environmental and emergency response programs for hazardous materials:

- Hazardous Materials Business Plan Program;
- California Accidental Release Prevention Program;
- Underground Storage Tank Program;
- Aboveground Storage Tank Program;
- Hazardous Waste Generator Program; and
- Hazardous Waste Tiered-Permitting Program.

The Hazardous Materials Business Plan Program requires facilities storing aggregate quantities of any hazardous materials equal to or greater than 55 gallons of liquids, 500 pounds of solids, or 200 cubic feet of gases to prepare and implement a Hazardous Materials Business Plan (HMBP). A HMBP must include measures for safe storage, transportation, use, and handling of hazardous materials. The HMBP must also include a contingency plan that describes the facility's response procedures in the event of a hazardous materials release.

The AST Program requires facilities storing petroleum products in aboveground tanks greater than or equal to 55 gallons and having an aggregate aboveground storage capacity greater than or equal to 1,320 gallons to prepare and implement a Spill Prevention, Countermeasure, and Control (SPCC) Plan. A SPCC plan must address prevention, preparation, and response measures to prevent oil discharges into navigable water and adjoining shorelines.

4.9.4 Environmental Impact Methodology

Significance Criteria

The following significance criteria for hazards and hazardous materials are modified from Appendix G of the State CEQA Guidelines. These criteria identify environmental issues to be considered when determining whether a project could have significant effect on the environment. The Proposed Project would have a significant impact related to hazards and hazardous materials if it would:

- Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials or as a result of an accidental release of hazardous materials;
- Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school;
- Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would create a significant hazard to the public or the environment;
- For a project in the vicinity of a public-use airport or a private airstrip, result in a safety hazard for people residing or working in the project area;
- Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation system;
- Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urban areas or where residences are intermixed with wildlands; or
- Create any other potential hazard.

Approach to Impact Analysis

Impacts of the Proposed Project related to the expansion area and reclamation are discussed in EIR Section 4.9.5 (Project Impacts and Mitigation Measures). The significance of impacts is evaluated with respect to the significance criteria, which have been established as thresholds above which an impact would be considered significant. Impacts are categorized per the significance classification system provided in EIR Section 4.1 (Environmental Analysis, Introduction, Impact Significance Classification Scheme).

4.9.5 Project Impacts and Mitigation Measures

Impact HAZ-1:	**Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials or as a result of an accidental release of hazardous materials**

Under existing programs and regulations, equipment and vehicle maintenance activities and fueling would be required to comply with the provisions of the HMBP and SPCC Plan approved by the County's Environmental Health Services Division prepared the quarry. These plans satisfy regulatory requirements under the Unified Program, as well as standard S-68 from the County General Plan. In addition, the Proposed Project would be required to implement best management practices from the existing SWPPP prepared for the quarry (see EIR Section 4.15, Water Quality and Supply). These plans include measures for the safe storage, transportation, use, and handling of hazardous materials, as well as contingency measures that describe the facility's response procedures in the event of a hazardous materials release.

Excavation

In accordance with the existing HMBP, SPCC Plan, and SWPPP, hazardous materials would not be stored in the Proposed Project excavation area. Operation and maintenance activities at the Proposed Project excavation expansion area would involve periodic and routine use of hazardous materials. The hazardous materials would primarily be petroleum products, such as fuels and lubricating oils to operate heavy equipment and motor vehicles. The existing HMBP and SWPPP specify safe practices for handling and use of hazardous materials in the excavation area. Implementation of these measures contained in these existing plans would minimize the risks of chemical releases and, therefore, would pose a less-than-significant impact. Explosives would also be transported to the quarry for each day of blasting in the excavation area by a licensed and permitted explosives delivery contractor. The quarry's existing Blasting Safety Procedures specify safe practices for managing and detonating explosive materials in the excavation area. Implementation of the Blast Safety Procedures would minimize the risk of explosive hazards and, therefore, impacts would be less than significant (Class III).

Reclamation

Active reclamation activities would involve equipment such as front-loaders and off-road haul trucks, but several of the major pieces of equipment that are part of the excavation phase of the Proposed Project would not be used. During the final reclamation phase, the main processing plant and asphalt plant would no longer be in operation and the jaw crusher would no longer be in use. Therefore, the intensity of equipment use during the reclamation phase would be expected to be less than during the excavation phase (reducing the likelihood of chemical releases). There would be no storage or use of hazardous materials on-site after reclamation grading and revegetation activities are completed. Therefore, potential impacts related to hazardous materials releases during the reclamation phase would be less than significant (Class III).

Impact HAZ-2: Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school

Children are more susceptible to health effects from hazardous materials than adults. Hazardous materials use near schools must consider potential health effects to children. Based on a review mapped school locations on Google Earth (2013), there are no schools located within one-quarter mile of the Proposed Project. There are no existing schools located within 1/4 mile of the Proposed Project. The surrounding land uses include open space and agricultural lands, which would not likely be redeveloped for a school in the near future. Since existing or proposed schools would not be located near the Proposed Project, there were would be no related impact (No Impact).

Excavation

As described above, there would be no related impact during excavation of the proposed expansion area (No Impact).

Reclamation

As described above, there would be no related impact during reclamation (No Impact).

Impact HAZ-3: Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would not create a significant hazard to the public or the environment

The Proposed Project site is not located on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5. Therefore, the Proposed Project would not disturb land affected by solid/ hazardous waste disposal or hazardous materials releases and, thereby, would have no impact related to these land use conditions on the public or the environment (No Impact).

Excavation

As described above, there would be no related impact during excavation of the expansion area (No Impact).

Reclamation

As described above, there would be no related impact during reclamation (No Impact).

Impact HAZ-4: Result in a safety hazard for people residing or working in the project area

Development near airports can pose a potential hazard to people and property on the ground, as well as create obstructions and other hazards to flight. As defined by the San Luis Obispo County ALUC, the Proposed Project site is not located within any protected airspace zones for public-use airports. Based on a review of FAA records, there are also no private airstrips in the vicinity of the Proposed Project. Therefore, the Proposed Project would not expose people to safety hazards related to public-use airports or private airstrips (No Impact).

Excavation

As described above, there would be no related impact during excavation of the proposed expansion area (No Impact).

Reclamation

As described above, there would be no related impact during reclamation (No Impact).

Impact HAZ-5:	**Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation system**

Development of the Proposed Project would not be expected to interfere with emergency response or evacuation plans, because development would not restrict access to California Canyon Highway (State Route 58). Therefore, the Proposed Project would have no impact on emergency response or evacuation plans (No Impact).

Excavation

As described above, there would be no related impact during excavation of the expansion area (No Impact).

Reclamation

As described above, there would be no related impact during reclamation (No Impact).

Impact HAZ-6:	**Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urban areas or where residences are intermixed with wildlands**

Development within or adjacent to lands susceptible to wildland fires can increase the risk for loss of life, property, and resources when wildland fire prevention measures are not applied. According to CAL FIRE, the Proposed Project site is mapped in a Very High Fire Hazard Severity Zone. However, the Proposed Project would not increase the number of employees working at the quarry or include new structural developments. Therefore, the Proposed Project would not impact on people or structures related to wildland fires (No Impact).

Excavation

As described above, there would be no related impact during excavation of the expansion area (No Impact).

Reclamation

As described above, there would be no related impact during reclamation (No Impact).

Impact HAZ-7:	**Create a health hazard by exposing workers to the fungus that causes Valley Fever and by spreading the fungus to new areas**

Excavation

The Proposed Project would involve excavation activities that would disturb the top foot of soil where the fungal spores that cause Valley Fever may be present (California Department of Public Health, 2013). The disturbance of the soil could release the fungal spores into the air, which could expose workers to Valley Fever and spread the fungal spores to new areas when people and equipment leave the Project site. The implementation of Mitigation Measures HAZ-1a, -1b, and -1c, which are consistent with County

Public Health Department recommendations (San Luis Obispo County Public Health Department, 2014b), would reduce this potential impact to less than significant (Class II).

Reclamation

The reclamation phase of the Proposed Project would involve reclaiming areas where excavation has occurred. Although most excavated areas would not be covered with topsoil, reclamation would involve using overburden mined from the quarry to restore the excavated areas, and overburden could contain topsoil. As a result, reclamation activities involving the use of overburden would have the potential to expose workers to the fungal spores that cause Valley Fever and spread the fungal spores to new areas when people and equipment leave the Proposed Project site. The implementation of Mitigation Measures HAZ-1a, -1b, and -1c, would reduce these potential impacts to less than significant (Class II).

Mitigation Measures for Impact HAZ-7

HAZ-1a **Dust control to prevent worker exposure to Valley Fever.** To prevent worker inhalation of dust containing *Coccidioides* fungal spores, the Applicant shall fully implement Mitigation Measure AQ-1 (Implement a Dust Control Plan).

HAZ-1b **Control methods to prevent the spread of Valley Fever.** The Applicant shall develop and implement control methods to prevent the spread of the fungal spores that cause Valley Fever. The Applicant shall consult with the San Luis Obispo County Public Health Department when developing the control methods to ensure that they are comprehensive and effective. The control methods shall apply to all workers and equipment involved in excavation activities that disturb the topsoil or in reclamation activities that involve the use of overburden. At a minimum the following control methods shall be implemented:

- Equipment, vehicles, and other items shall be thoroughly cleaned before they are moved off-site to other work locations; and
- Workers shall change their clothing and shoes after work every day at the work site.

A description of the control measures shall be provided to the County Planning and Building Department for review prior to approval of the Proposed Project's Notice to Proceed.

HAZ-1c **Worker training.** The Applicant shall modify worker training materials to include all applicable recommendations from the San Luis Obispo County Public Health Department (Source: San Luis Obispo County Public Health Department. *Recommendations for workers to prevent infection by Valley Fever in SLO County*. Available at: http://www.slocounty.ca.gov/health/publichealth/commdisease/Cocci_in_SLO_County.htm) regarding educating workers on the risks of Valley Fever and on the means of preventing the exposure to and spread of the fungal spores. At a minimum, training materials will describe the control methods developed as part of HAZ-1a and HAZ-1b, and will address the following topics:

- Valley Fever is caused by inhalation of the *Coccidioides* fungal spore that reside in topsoil;
- The known presence of the *Coccidioides* fungal spore that causes Valley Fever in San Luis Obispo County soils;

- The *Coccidioides* fungal spore can be transported off-site on contaminated equipment, clothing, and shoes;
- How to recognize symptoms of Valley Fever and that these symptoms resemble common viral infections such as the cold;
- Workers' responsibility to report suspected symptoms of Valley Fever to a supervisor;
- Workers are entitled to receive prompt medical care if they suspect symptoms of work-related Valley Fever;
- Workers should inform their health care provider that they may have been exposed to the fungal spores that cause Valley Fever; and
- Workers should use control methods to prevent exposure to and the spread of *Coccidioides* spores.

The contents of the worker training materials shall be reviewed by the County Planning and Building Department prior to approval of the Proposed Project's Notice to Proceed.

Compliance with Mitigation Measures Haz-1a, b, and c will be verified by the San Luis Obispo County Health Department in consultation with the County Planning and Building Department.