

4.8 HAZARDS AND HAZARDOUS MATERIALS

This section provides an assessment of potential public health and safety impacts resulting from the Project. Impacts may include exposure to worker safety hazards, explosive hazards, disease vectors, fire hazards, hazardous materials or wastes, hazards associated with placement of facilities near airports and disruption to emergency services. To provide a basis for this evaluation the setting section describes the existing conditions and the applicable policies and regulations for each issue.

IMPACTS EVALUATED IN OTHER SECTIONS

The following subjects are related to Hazards and Hazardous Materials, but are evaluated in another section of this document:

- Air quality and noise impacts associated with explosive hazards are addressed in Sections 4.3 Air Quality and 4.12 Noise.
- Impacts to water quality from fueling and maintenance are addressed in Section 4.9 Hydrology and Water Quality.
- Impacts to emergency vehicle access are discussed in Section 4.14 Transportation.

SETTING

Regulatory Framework

Airport Operations

California's Public Utilities Code requires that each county with an airport that is operated for the benefit of the general public establish an Airport Land Use commission (ALUC). Among its duties, the ALUC is responsible for ensuring the safe operation of new and existing airports within its jurisdiction. The ALUC prepares an airport land use plan to address safety and other planning issues (e.g., noise, land use compatibility) associated with airports in the county. From a safety perspective, the plan establishes safety compatibility standards and sets limitations on building heights and other factors that may interfere with the safe operation of the airport or that may otherwise present an aviation hazard for the public.

Federal Aviation Regulations (F.A.R.) Title 14, Part 77, establishes standards and notification requirements for objects affecting navigable airspace associated with construction on or near airports. Notifications allow the Federal Aviation Administration (FAA) to identify potential aeronautical hazards in advance, thus preventing or minimizing the adverse impacts on the safe and efficient use of navigable airspace. There are a number of construction and alterations that require notification to the FAA outlined in the standards.

Explosive Hazards

The California Division of Industrial Relations regulates the use of explosives for blasting. The Division requires that blasting operations be overseen by a competent blaster having a current, valid California Blaster's License. Blasting operations include the use, on-site transportation, and storage of commercial explosives, blasting agents, and other materials used in blasting. Regulations governing blasting operations are contained in the CCR Title 8, §1550, et seq. Specific requirements include proficiency in the use and handling of explosives, in the equipment and protective devices necessary for blasting operations, and in the safety precautions necessary for blasting operations. To obtain a Blaster's License, blasters must have at least three years experience at blasting as an assistant to a person having a valid Blaster's License.

Fire Hazards

The California Department of Forestry and Fire Protection (CAL FIRE) classifies the fire potential for wildlands based on three factors: fuel load, climate, and topography. CAL FIRE also administers the "State Responsibility Areas (SRA) Fire Safe Regulations" that constitute the basic wildland fire protection

standards for land within SRAs. SRA is a legal term defining the area where the State has financial responsibility for wildland fire protection. Incorporated cities and federal ownership are not included. The prevention and suppression of fires in all areas that are not State responsibility areas are primarily the responsibility of local or federal agencies.

Hazardous Materials/Waste

Hazardous substances that have been released to the environment (e.g., due to spills and leaking underground storage tanks) have the potential to adversely affect public health if they are encountered unexpectedly during the construction or operation of a project. The Environmental Protection Agency (EPA) defines a “hazardous” waste as one “which because of its quantity, concentrations, or physiochemical or infectious properties, may either increase mortality or produce irreversible or incapacitating illness, or pose a substantial present or potential hazard to human health or the environment when improperly treated, stored, transported, disposed of, or otherwise managed” (42 Code of Federal Regulations §6903).

At the federal level, the storage and handling of hazardous substances is regulated under the Resource Conservation and Recovery Act (RCRA), which follows hazardous substances from “cradle to grave” and regulates hazardous waste generators, transporters, and treatment, storage, and disposal facilities. The EPA has the primary responsibility for implementing RCRA but individual states are encourage to seek authorization to implement some of all RCRA provisions. California received authorization to implement RCRA in August 1992. The California Department of Toxic Substances (DTSC) is responsible for implementing RCRA, as well as for implementing and enforcing California’s Hazardous Waste Control Law. The California Hazardous Waste Control Law and its associated regulations are similar to RCRA but regulate a larger number of chemicals because they define hazardous waste more broadly. Hazardous wastes regulated by California, but not by the EPA, are called non-RCRA hazardous wastes. Speaking in general terms, hazardous wastes are solid wastes that are toxic, ignitable, reactive, or corrosive according to Title 19 of the CCR §62261.3.

The cleanup of sites contaminated by releases of hazardous substances is regulated primarily by the Comprehensive Environmental Response, Compensation and Liability Act of 1980, which was amended by the Superfund Amendment and Reauthorization Act of 1986, and by similar state laws. Known hazardous waste release sites are subject to oversight by federal, state, and/or local agencies.

California’s Hazardous Waste and Substances Sites List (Cortese List) identifies sites with leaking underground fuel tanks, hazardous waste facilities subject to corrective actions, solid waste disposal facilities from which there is a known migration of hazardous waste, and other sites where environmental releases have occurred. Pursuant to California Government Code §65962.5, before a local agency accepts an application as complete for any development project, the applicant must certify whether or not the Project site is on the Cortese list.

Chapter 6.95, §25503(a), of the California Health and Safety Code and Title 19 of the CCR §2729, et seq., require any business that handles a hazardous material or mixture containing a hazardous material in reportable quantities to establish and implement a Hazardous Materials Business Plan for emergency response to a release or threatened release of a hazardous material. The minimum reportable quantities are 500 pounds for a solid, 55 gallons for a liquid, and 200 cubic feet of a gas at standard temperature and pressure. Some acutely hazardous materials are reportable at much decreased quantities. Reports pursuant to these regulations are filed with the Solano County Department of Resource Management. The reports shall include emergency response procedures, hazardous materials and hazardous waste inventory information, safety training, facility site plan, and hazardous materials and waste storage map.

Certain chemicals that could be released to the environment and might affect surrounding communities are regulated by California’s Accidental Release Prevention Law. This State law and similar federal laws (i.e., the Emergency Preparedness and Community Right-to-Know Act and the Clean Air Act) allow local oversight of both the State and Federal programs. The State and Federal laws are similar in their requirements; however, the California threshold planning quantities for regulated substances are lower than the Federal values. Beginning in 1997 the Accidental Release Prevention Law has been implemented by the State’s local Certified Unified Program Agency, which, in Solano County, is the Department of Resource Management. Any business where the maximum quantity of a regulated

substance exceeds the specified threshold quantities must register with the County as a manager of regulated substances, as defined in CCR Title 19, §2770.5, and must prepare a Risk Management Plan. The most common substances in Solano County, of the over 400 chemicals that may require a Risk Management Plan, are gaseous chlorine and anhydrous ammonia. A Risk Management Plan differs from a Business Plan in that the requirements go beyond emergency planning and reporting; they require a holistic approach to accident prevention and mitigation. Elements required under the risk management program regulations vary for individual stationary sources, but generally include a hazard assessment, a prevention program, an emergency response program, and a management system. In 2000, EPA exempted flammable substances used as fuels (e.g., propane) from the Risk Management Plan requirement.

California requires all hazardous waste transporters to register with the DTSC. Unless specifically exempt, transportation of hazardous materials is regulated by the California Highway Patrol, California Department of Transportation, and the United States Department of Transportation through the Hazardous Materials Transportation Act. Hazardous waste transportation is required to be carried out via the most direct route, using State or interstate highways whenever possible (California Vehicle Code, Section 31303).

Vector Control

The California Health and Safety Code provides authority for mosquito abatement districts to provide advice and control mosquito production on private and public lands and to assess the landowner for the cost of that control. The districts also have the authority to hold hearings and assess civil penalties to abate nuisance and potential health threats to the public (California Health and Safety Code, Sections 2270-2294). The Solano County Mosquito Abatement District and the Vector Borne Disease Section of the California Department of Public Health are responsible for overseeing the mosquito prevention program within the Project area. The primary function of the Solano County Mosquito Abatement District is to control all mosquitoes which may bring disease or harassment to humans and domestic animals.

Naturally Occurring Asbestos

Naturally Occurring Asbestos includes fibrous minerals found in certain types of rock formations. The California Air Resources Board (CARB) has adopted an Airborne Toxic Control Measure (ATCM) for construction, grading, quarrying, and surface mining operations in areas of Naturally Occurring Asbestos. The Bay Area Air Quality Management District (BAAQMD) implements the regulation. The ATCM requires the use of best available dust mitigation measures to prevent offsite migration of asbestos-containing dust from road construction and maintenance activities, construction and grading operations, and quarrying and surface mining operations in areas of ultramafic rock, serpentine, or asbestos.

Worker Hazards

The Safety and Health Act of 1970 requires employers to prepare and maintain records of occupational injuries and illnesses. Information regarding this Act is kept on an Occupational Safety and Health Administration (OSHA) 300 Log. Upon the occurrence of an occupational death or "serious injury or illness," the company must report to the nearest district office of the Division of OSHA. In California, quarry operations must report to the nearest California OSHA Mining and Tunneling Regional Office, in this case Sacramento, California.

"Serious injury or illness" is defined in Title 8, CCR 330(h), and occurs when:

- An employee suffers a loss of any member of the body, or
- An employee suffers any serious degree of permanent disfigurement, or
- An employee is hospitalized for a period in excess of 24 hours for "other than medical observation."

The Mining Safety and Health Act of 1977 provided the legal authority to the U.S. Department of Labor's Mining Safety and Health Administration (MSHA) to enforce health and safety rules at mines. If an accident occurs to a miner at the mine, an operator shall immediately contact the MSHA District Office having jurisdiction over its mine. The closest MSHA District Office to the Project site is in Vacaville, California.

“Accident” is defined in Title 30, CFR Part 50, and occurs when:

- A death of an individual at a mine.
- An injury to an individual at a mine which has a reasonable potential to cause death.
- An entrapment of an individual for more than thirty minutes.
- An unplanned inundation of mine by a liquid or gas.
- An unplanned ignition or explosion of gas or dust.
- An unplanned mine fire not extinguished within 30 minutes of discovery.
- An unplanned ignition or explosion of a blasting agent or an explosive.
- An unplanned roof fall at or above the anchorage zone in active workings where roof bolts are in use; or , an unplanned roof or rib fall in active workings that impairs ventilation or impedes passage.
- A coal or rock outburst that causes withdrawal of miners or which disrupts regular mining activity for more than one hour.
- An unstable condition at an impoundment, refuse pile, or culm bank which requires emergency action in order to prevent failure, or which causes individuals to evacuate an area; or, failure of an impoundment, refuse pile or culm bank.
- Damage to hoisting equipment in a shaft of slope which endangers an individual or which interferes with use of the equipment for more than thirty minutes; and
- An event at a mine which causes death or bodily injury to an individual not at the mine at the time the event occurs.

Existing Conditions

Airport Operations

There are three airports within Solano County: Travis Air Force Base, Nut Tree Airport, and Rio Vista Airport. The airports are approximately 14, 22, and 26 miles away from the Quarry. The Solano County General Plan identifies airport influence areas within the County. The Quarry is not located within the influence area for any of these three airports.

Travis Air Force base, the County’s largest airport and closest to the Quarry, has a Compatibility Land Use Plan. The Compatibility Land Use Plan sets forth land use compatibility policies applicable to future development in the vicinity of the base. According to the Compatibility Land Use Plan the Project site is not within the Base’s influence area.

Explosive Hazards

Extraction of the aggregate materials at the Quarry is primarily by mechanical excavation equipment, with some minor use of explosives. Prior to mining within an undisturbed area, topsoil is stripped to an average depth of 18 inches and stockpiled on-site for future use during reclamation. Overburden encountered during mining is also removed in order to reach the mineral deposit below. Waste material is stored in the pit or stockpiled on site to be used for final slope configuration during reclamation activities. Next, a rock drill is brought to the work area and a matrix of holes is drilled. A blasting cap is placed in each hole, explosives are placed above the blasting cap, and the upper portion of each hole is capped with granular material. The explosives are controlled electronically or through a timed fusing system so that the charge in each hole is detonated milliseconds apart from that in other holes. The explosives consist of ammonium nitrate fuel oil (ANFO). The ANFO is not stored on-site but is transported to the Quarry via a Department of Transportation approved and placarded truck by an explosives dealer prior to a blasting event. The energy of the blast is directed into the rock causing it to fracture. The frequency of this procedure varies, depending on aggregate material demand (i.e. more demand, more blasting), but, on average, it happens 1 to 2 times per week.

The Quarry follows the Best Practices for Blasting developed by the Institute of Makers of Explosives (IME 2005). The Best Practices include training of explosives users, selection of the appropriate

explosives for site-specific conditions, proper explosives loading and handling techniques, and attention to technical matters.

Three Lake Herman Quarry staff have current California Blaster's Licenses, which oversee the explosive/blasting operations and implementation of the Blasting Plan. The Blasting Plan identifies the requirements to be utilized by employees for procedures to handle the explosives and eliminate employee's exposure to hazards from the explosives. Procedures include both an audible (horn) and visual (orange flag) signal prior to the blast. These signals occur five and one minute before the blast takes place. In addition, the blaster in charge ensures that the blast area has safe access and is free of hazards. The blasts occur usually around noon, when workers have gone to lunch and are away from the blasting areas. After firing a blast, the blaster in charge performs a post-blast examination addressing potential blast related hazards. If the area is clear of hazards, the audible and visual signals occur, signifying that all is clear. Should a misfire be suspected the blaster in charge will immediately notify the supervisor and no persons shall enter the blast area for at least 15 minutes.

Fire Hazards

CAL FIRE has mapped areas in Solano County with the potential for large wildland fires. The Quarry is mapped as a SRA. Three classifications or zones are mapped in the SRA: moderate, high, and very high. The main Project site is labeled moderate zone and the bridge site is labeled high according to the mapping (CDFFP 2007). See Regulatory Context for further description of SRA.

According to Solano County General Plan, the highest current areas at risk for very high wildfires are found in western Solano County, in the foothills and mountainous watershed areas, directly east of the Quarry. Before nearby lowlands were urbanized, vegetation in these west foothill and mountainous communities were naturally maintained by periodic fire. As nearby lands were developed, natural wildfires were suppressed, resulting in the further buildup of fire-prone brush and woodlands. These efforts to suppress natural processes have resulted in larger, more damaging fires. Five classifications or zones are mapped for wildland fire hazard areas in the General Plan: low or none, moderate, high, very high and extreme. The main Project site is identified as low or none and the bridge site is labeled high according to the mapping.

The Project site is served by the East Vallejo Fire Department. The closest fire station is approximately 1.8 miles away at 1008 Oakwood Avenue in Vallejo. The Quarry can also utilize on site surface water storage and strategically positioned fire extinguishers for fire suppression.

Hazardous Materials/Waste

A number of potentially hazardous materials and waste (see definition in Regulatory Context) are stored at the Quarry. Most of these substances are types of materials used at many businesses including small quantities of motor oil, machine lubricants, and solvent. According to the Solano County Department of Resource Management, six inactive underground tanks exist at the Quarry. All of the tanks are on file with closed remediation, meaning that no further action is required by the owner from the regulatory agency. In addition, hazardous materials are stored in different above ground containers including: tanks, cylinders, steel drums, plastic/nonmetallic drums, tote bins, and silos. The hazardous materials are stored at various locations throughout the Quarry including: the fuel island, scalper plant, hot plant, maintenance shop, drum plant, concrete plant, and AC plant (refer to Figure 2-2 Existing Conditions).

A *Spill Prevention Control and Countermeasure Plan* has been approved for the existing Quarry. This Plan describes the safety procedures followed by the applicant (e.g. daily visual inspection of tanks and storage containers, employee instruction as regards use of equipment, spill prevention response training, etc.) as well as the procedure for response and notification in case a spill does occur.

A *Hazardous Materials Business Plan* has also been approved for the existing Quarry. This Plan provides a complete inventory of hazardous materials (Attachment C of the Plan) and the Quarry's Emergency Action Plan.

Review of Government Records conducted by Environmental Data Resources indicated two historic spills of hazardous materials at the Quarry: an internal valve broke releasing asphalt extender oil in 2001 and a shaft broke on a pump causing heater oil to spill in 2003. Both spills were contained.

When transporting hazardous materials from the Quarry, transporters travel 0.3 miles west on Lake Herman Road, then head north onto Columbus Parkway. Transporters proceed on Columbus Parkway for 2.5 miles before accessing a designated hazardous materials transportation route, Interstate 80.

Vector Control

Mosquitoes are both pests and vectors of disease to humans and animals. Mosquito populations can increase rapidly, especially during the warmer summer months. Twenty-one species of mosquitoes are known to occur in Solano County, of which 12 are important as disease vectors (i.e. capable of transmitting diseases) or as pests (Solano County Mosquito Abatement District updated 2005).

Mosquitoes spend most of their lives in or adjacent to water bodies. There are between 5-10 small sediment ponds and one large pit retention pond at the bottom of the Quarry pit (refer to Figure 2-2 Existing Conditions in Chapter 2). The Quarry pit and sediment ponds are designed so that standing water is not left long enough to propagate mosquitoes. Pumping of water into and out of the pit and retention pond results in surface disturbance, thus preventing mosquito propagation. These procedures currently prevent any mosquito problems at the Quarry.

Naturally Occurring Asbestos

Geologic maps of the Project area indicate that serpentinite, which contains chrysotile asbestos, is present on the westerly edge of the Project site. Grading and land disturbance in areas of Naturally Occurring Asbestos could cause the release of soil dust containing asbestos unless properly managed.

Worker Hazards

Numerous potential hazards exist at the Quarry that could cause harm to workers including operation, handling, and proximity to heavy machinery, vehicles, and equipment; steep slopes; expansive quarry pit; explosive hazards; and hazardous materials. An *Injury/Illness Prevention Plan* (in addition to the plans mentioned above) is in place to protect workers from these potential hazards. The Plan outlines the person responsible for implementing the plan, system for identifying and evaluating work place hazards, procedure for providing training and instruction, and record keeping of injuries.

Every employee is required to take eight hours of refresher safety and health training annually. In addition, every shift has at least one person certified in CPR and first aid.

Goals, Policies, and Programs of the Solano County General Plan

The following are the hazards and hazardous materials goals, policies, and implementation programs from the Solano County General Plan that are applicable to this Project.

- HS.G-1 Minimize the potential for loss of life and property resulting from natural or human-caused hazards.**
- HS.G-5 Recognize the multiple functions of the natural environment for safety, recreation, protection from climate changes, and economic uses.**
- HS.P-21 Prohibit non-farm-related development and road construction for public use in areas of extreme wildfire risk.
- HS.P-26 Minimize the risks associated with transporting, storing, and using hazardous materials through methods that include careful land use planning and coordination with appropriate federal, state, or County agencies.
- HS.P-28 Encourage the use of programs and products by businesses that will result in a reduction of hazardous waste and materials.
- HS.P-29 Promote hazardous waste management strategies in this order of priority: source reduction, recycling and reuse, on-site treatment, off-site treatment, and residuals disposal.
- HS.I-34 Follow recommended protocol from the California Department of Conservation, Geologic Survey, U.S. Occupational Safety and Health Administration, and other applicable

agencies for reducing risks associated with naturally occurring hazardous materials with new development.

- HS.I-37 Continue implementation of the Certified Unified Program Agency program, identifying businesses that use, store, and/or transport hazardous materials in the county. Review, revise, and continue permitting and inspection practices for these businesses. Provide fire departments in the county with a list of such businesses to encourage hazardous material training before an event occurs. Continue to monitor operations of businesses that handle regulated quantities of hazardous materials. Require compliance with measures aimed at reducing associated health and environmental risks.
- HS.P-33 Plan and designate evacuation and aid routes. Work to create a comprehensive circulation system that is effective in allowing emergency access to and from all parts of the county and which provides alternative routes during unexpected events such as flooding, fires, or hazardous materials accidents that require evacuation.

EVALUATION CRITERIA WITH THRESHOLD OF SIGNIFICANCE

TABLE 4.8-1

Evaluation Criteria with Significance Threshold – Hazards and Hazardous Materials

Evaluation Criteria	As Measured by	Significance Threshold	Sources of Criteria
HAZ-1. Will the Project create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	Increase in transport, use, or disposal of hazardous materials or waste not in accordance with County, State, and Federal hazardous materials or waste regulations	Greater than 0 occurrences	CEQA Guidelines Appendix G, Checklist Item VIII (a) California and Federal hazardous materials and waste regulations; Solano County General Plan; Solano County Hazardous Waste Management Plan.
HAZ-2. Will the Project create a significant hazard to the public or the environment through reasonable foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	Increase in use or storage of hazardous waste or materials not in accordance with County, State, and Federal hazardous materials or waste regulations	Greater than 0 occurrences	CEQA Guidelines Appendix G, Checklist Item VIII (b); California and Federal hazardous materials and waste regulations; Solano County General Plan. BAAQMD CEQA Guidelines
HAZ-3. Will the Project be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65692.5 and, as a result, would it create a significant hazard to the public or the environment?	Ground disturbance on or within 500 feet of a hazardous waste site(s)	Less than 500 feet	CEQA Guidelines Appendix G, Checklist Item VIII (d); Resource Conservation and Recovery Act; Comprehensive Environmental Response Compensation and Liability Act (as amended by the Superfund Amendments and Reauthorization Act).

Evaluation Criteria	As Measured by	Significance Threshold	Sources of Criteria
HAZ-4. Will the Project expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?	Design and construction not in compliance with County and State Adopted Fire Safe Regulations	Greater than 0 occurrences	CEQA Guidelines Appendix G, Checklist Item VIII (h); Public Resources Code 4290; Uniform Fire Code, Uniform Building Code and companion codes, subdivision and zoning ordinances; California Department of Forestry and Fire Protection Mapping; Solano County General Plan.
HAZ-5. Will the Project expose the workers to safety hazards associated with operation of heavy machinery, vehicles, or equipment; creation of accessible excavations; or handling of hazardous materials?	Use of heavy machinery, vehicles or equipment; or creation of excavations in worker areas not in accordance with State construction and federal mining safety regulations	Greater than 0 occurrences	California Worker Safety Regulations (Title 8, CCR, Sections 330 to 344.90); Federal Mining Safety Regulations (Title 30, CFR, Parts 1-199).
HAZ-6. Will the Project increase the potential exposure of the public to disease vectors (i.e., mosquitoes)?	Creation of mosquito habitat	Greater than 0 acres of new mosquito habitat	Solano County Mosquito Abatement District and CDPH Vector Borne Disease Section criteria for mosquito abatement.

METHODOLOGY

Airport Hazards

The Project area is not located within the Travis Air Force Base Compatibility Land Use Plan or any other airport plan or influence area in Solano County. Therefore, airport hazards are screened from further evaluation in the impact analysis.

Fire Hazards

The criterion for fire hazards is based on the State's Fire Safe Regulations, CAL FIRE's fire hazard severity zone mapping, and locally adopted fire safety codes. These documents recognize the importance of reducing fuel loads and ignition sources in wildland areas.

Hazardous Waste/Materials

The hazardous materials evaluation criterion is based on the CEQA requirement that lead agencies consult the Hazardous Waste and Substances Sites List compiled pursuant to Section 65962.5 of the California Government Code to determine if the proposed Project is located on a listed site. The list is compiled by the Regional Water Quality Control Boards, the DTSC, and the California Integrated Waste Management Board.

A search of available environmental records was conducted for the Project site and its surroundings by Environmental Data Resources on November 30, 2009. The report was designed to assist parties

seeking to meet the search requirements for government regulations. Preparation of the report included, but not limited to, researching the Cortese List; National Priority List; Comprehensive Environmental Response, Compensation, and Liability Information; EnviroStor Database; GeoTracker; Solano County Department of Resource Management; HazNet; CA Waste Discharge System; and Facility Index Systems/Facility Registry System.

The hazardous materials transport, use, and disposal criterion is based on the requirements of the Solano County General Plan and Hazardous Waste Management Plans, and federal, state, and local regulations. The Project is evaluated to determine whether it would comply with these requirements and regulations.

Vector Control

The criterion for disease vectors is based on the requirements of the Solano County Mosquito Abatement District and the Vector Borne Disease Section of the CDPH, which are responsible for overseeing the mosquito prevention program within the Project area. The Solano County Mosquito Abatement District has issued criteria for mosquito prevention in sediment ponds and retention basin projects.

Worker Hazards

The criteria for worker hazards during operation are based on safety regulations regarding workplaces (Title 8, CCR, Sections 330-344.90) and mining safety (Title 30, CFR, Parts 1-199).

IMPACTS AND MITIGATION MEASURES

Impact: **HAZ-1. Will the Project create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?**

Analysis: *Less than Significant*

Ammonium nitrate fuel oil would be transported to the site via the most direct route in a Department of Transportation approved and placarded truck and by an explosives dealer prior to the blasting of aggregate material. Only an employee with a valid Blaster's License would oversee the blasting operations. Blasting frequency would vary, but on average would occur 1 to 2 times a week, the same as currently occurring at the Quarry. Regulations would require the Project to implement the Blasting Plan to ensure safety of the public and the environment.

Any hazardous materials used in the construction of the bridge or operation of the quarry would be transported, stored, and disposed of in accordance with state and Federal regulations regarding hazardous materials. Regulations would require the quarry to maintain and update a Spill Prevention and Countermeasure Plan, a Hazardous Materials Business Plan and Emergency Action Plan, and Storm Water Pollution Prevention Plan. The Project would not exceed any thresholds of a regulated substance requiring a Risk Management Plan.

Implementing the aforementioned plans and policies would minimize the risk to the public or the environment to a less than significant level.

Mitigation: No mitigation is necessary.

Impact: **HAZ-2. Will the Project create a significant hazard to the public or the environment through reasonable foreseeable upset and accident conditions involving the release of hazardous materials into the environment?**

Analysis: *Less than Significant*

A number of hazardous materials would be present at the Project site such as fuels. However, the use and storage of the materials would comply with federal, State, and local hazardous materials laws and regulations. Regulations would require the quarry to maintain and update a Spill Prevention and Countermeasure Plan, a Hazardous Materials Business Plan and Emergency Action Plan, and Storm Water Pollution

Prevention Plan. In addition, the applicant has an established employee training program focusing on the proper use, storage, handling and cleanup of each chemical. The Project would not exceed any thresholds of a regulated substance requiring a Risk Management Plan. Implementing these plans and policies would minimize the risk to the public or the environment presented by these potential hazards. This impact is considered less than significant.

Mitigation: No mitigation is necessary.

Impact: HAZ-3. Will the Project be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65692.5 and, as a result, would it create a significant hazard to the public or the environment?

Analysis: *Less than Significant*

Review of Government Records by Environmental Data Resources did not indicate that the Project site is located on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 (EDR 2009). No records of activities, conditions, or incidents likely to cause or contribute to releases or threatened releases, including storage tank records and permits, federal, and state government listings of priority cleanup sites, or spill reporting records were identified for the Project site, including the bridge replacement site.

No CERCLIS records (superfund sites), Emergency Response Notification System records, public health records, environmental liens and institutional and engineering control records, including environmental land use restrictions, were found to be applicable to the Project site.

Review of Government Records by Environmental Data Resources indicated that the Project site contains six inactive underground storage tanks that were used for asphalt and waste oil. The Solano County Department of Resource Management confirmed the record search. However, communications with environmental staff at Syar Industries and the Quarry manager indicate that the tanks were removed in 1986 (Pers. Comm., Jennifer Gomez, Permits Manager, Syar Industries, 2010). The Project would not result in soil excavation in the vicinity of the former underground storage tanks, and therefore, would not create a significant hazard to the public or the environment. This impact is considered less than significant.

Mitigation: No mitigation is necessary.

Impact: HAZ-4. Will the Project expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?

Analysis: *Less than Significant*

The Quarry is designated in the lowest of three categories for wildland (i.e., moderate category) fire risk by both CAL FIRE and Solano County. The main quarry would serve as a buffer between very high wildland fire risk areas to the east and residences to the west because of the lack of vegetation within the primary quarry operations portion of the Project site.

As part of the Project, a bridge would be replaced to allow for an emergency access for firefighters to the wildland fire risk areas nearby. The bridge replacement area is designated as high risk for wildland fire by CAL FIRE and Solano County. The bridge construction would require compliance with California Building Code regulations and County Fire Safe regulations. Since bridge construction would require compliance with these regulations and would facilitate access to areas subject to high fire risk, the

exposure of people and risk of loss due to wildland fires is considered less than significant.

Mitigation: No mitigation is necessary.

Impact: HAZ-5. Will the Project expose the workers to safety hazards associated with operation of heavy machinery, vehicles, or equipment; creation of accessible excavations; or handling of hazardous materials?

Analysis: *Less than Significant*

Numerous hazards would exist at the Quarry potentially causing harm to workers including operation, handling, and proximity to heavy machinery, vehicles, and equipment; steep slopes; expansive quarry pit; explosive hazards; and hazardous materials. However, operation of the Quarry would comply with federal, State, and local worker safety, mining safety, and hazardous materials laws and regulations. Regulations would require the Quarry to maintain and update an Emergency Action Plan, Blasting Plan (which would comply with the Best Practices for Blasting developed by the Institute of Makers of Explosives), Injury and Illness Prevention Plan and safety and mining requirements pursuant to CAL OSHA and MSHA. In addition, the Quarry has an employee training program focusing on hazard training and job-specific safety and health training appropriate to the hazards. Implementing these plans and policies would minimize the risk to workers presented by these potential hazards. This impact is considered less than significant.

Mitigation: No mitigation is necessary.

Impact: HAZ-6. Will the Project increase the potential exposure of the public to disease vectors (i.e., mosquitoes)?

Analysis: *Less than Significant*

The Quarry currently has 5 to 10 small sediment ponds and one large pond at the bottom of the quarry pit. The design of these ponds would not change under the Project. The sediment ponds are designed so that standing water is not left long enough to propagate mosquitoes. The pumping of water into and out of the quarry pit retention pond results in surface disturbance, thus preventing mosquito propagation. No mosquito problems have been reported at the Quarry. The Quarry would continue to use these sediment ponds and quarry pit retention pond.

Mitigation: No mitigation is necessary.

CUMULATIVE IMPACTS

Impact: HAZ-C1. Will the Project plus cumulative projects create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?

Analysis: *Less than Significant*

Activities associated with the Project and cumulative projects could increase the potential for the exposure of persons to a significant hazard through the routine transport, use, and disposal of hazardous materials. However, the transport, use, and disposal of existing hazardous materials is highly regulated by local, State, and federal laws. Compliance with these regulations requires the Quarry to have a valid Blaster's License person overseeing the blasting operations and to maintain and update a Spill Prevention and Countermeasure Plan, a Hazardous Materials Business Plan and Emergency Action Plan, and Storm Water Pollution Prevention Plan. Compliance with these requirements would reduce the exposure of the public to a significant hazard to a less-than-significant impact. The cumulative projects would be subject to the same regulations; therefore, they

would not result in substantial hazards-related environmental or human health risks. Implementation of the Project would not result in a cumulative considerable hazard impact.

Mitigation: No mitigation is necessary.

Impact: HAZ-C2. Will the Project plus cumulative projects create a significant hazard to the public or the environment through reasonable foreseeable upset and accident conditions involving the release of hazardous materials into the environment?

Analysis: *Less than Significant*

Activities associated with the Project and cumulative projects could increase the potential for the exposure of persons to hazardous materials. However, the remediation of existing hazardous materials is highly regulated by local, State, and federal laws. Compliance with these regulations, requires the Quarry to maintain and update a Spill Prevention and Countermeasure Plan, a Hazardous Materials Business Plan and Emergency Action Plan, and Storm Water Pollution Prevention Plan, and would reduce the exposure of the public to a chemical release to a less-than-significant impact. The cumulative projects would be subject to the same regulations; therefore, they would not result in substantial hazards-related environmental or human health risks. Implementation of the Project would not result in a cumulative considerable hazard impact.

Mitigation: No mitigation is necessary.

Impact: HAZ-C3. Will the Project plus cumulative projects be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65692.5 and, as a result, would it create a significant hazard to the public or the environment?

Analysis: *No Impact*

This impact would be a site-specific hazard and would not contribute to cumulative impacts from other projects.

Mitigation: No mitigation is necessary.

Impact: HAZ-C4. Will the Project plus cumulative projects 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?

Analysis: *Less than Significant*

The Quarry is designated in the lowest of three categories for wildland fire risk (i.e., moderate category) by both CAL FIRE and Solano County. The Quarry would serve as a buffer between very high wildland fire risk areas to the east and residences to the west because of the lack of vegetation, which is a fuel for fires. The bridge would have a positive impact on firefighters' ability to fight wildland fires in the area. The Quarry and the bridge would also require compliance with local and state regulations for fire protection. Implementation of the Project would not result in a cumulative considerable impact.

Mitigation: No mitigation is necessary.

Impact: **HAZ-C5. Will the Project plus cumulative projects expose the workers to safety hazards associated with operation of heavy machinery, vehicles, or equipment; creation of accessible excavations (trenches, pits, or borings); or handling of hazardous materials?**

Analysis: *No Impact*

This impact would be a site-specific hazard and would not contribute to cumulative impacts from other projects.

Mitigation: No mitigation is necessary.

Impact: **HAZ-C6. Will the Project plus cumulative projects increase the potential exposure of the public to disease vectors (i.e., mosquitoes)?**

Analysis: *Less than Significant*

The new detention ponds would be designed similarly to the existing ponds to empty so that standing water is not left long enough to propagate mosquitoes and in accordance with the Mosquito Prevention Criteria for Sedimentation Ponds and Retention Basins by the Solano County Mosquito Abatement District. Therefore, implementation of the Project would not result in a cumulative considerable impact from exposure of the public to disease vectors.

Mitigation: No mitigation is necessary.

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