
3.7 - Hazards and Hazardous Materials

3.7.1 - Introduction

This section describes the existing hazards and hazardous materials setting and potential effects from project implementation on the site and its surrounding area. Descriptions and analysis in this section are based on the Phase I Environmental Site Assessment (Phase I ESA), dated October 26, 2011, prepared by ENGE0, and included in this EIR as Appendix F.

3.7.2 - Environmental Setting

The site is bounded by Interstate 80 (I-80) to the east, State Route 37 (SR-37) and Sage Street to the north, Fairgrounds Drive to the west, and Coach Lane to the south within the City of Vallejo. The site comprises Solano County Assessor's Parcel Numbers (APNs) 0052-240-55 and 0052-240-56, totaling 149.11 acres of land. The property is primarily utilized as the Solano County Fairgrounds. Within the grounds, multiple uses, both seasonal and year-round, are in place. Existing property structures include administrative offices, a horse racing simulcast building, two general exhibit halls, storage buildings, a maintenance building, a rock/gem club, a day care facility, a corporation yard, two livestock exhibit halls, an outdoor concert venue, RV parking, a horse race viewing facility, a dirt horse track, a nine-hole golf course, a horse screening building, locker rooms, a small, unstaffed fire station, restroom buildings, horse stables, gravel parking areas, and paved parking areas. The surrounding area is also largely developed, consisting of Six Flags Discovery Kingdom, commercial complexes, low-density residential areas, and major highways. The site is approximately 100 feet above mean sea level (MSL) in elevation and is located within the U.S. Geological Survey (USGS) 7.5-minute Cordelia Quadrangle.

3.7.3 - Existing Site Conditions

Hazardous materials, as defined by the California Code of Regulations (CCR), are substances with certain physical properties that could pose a substantial present or future hazard to human health or the environment when improperly handled, disposed, or otherwise managed. Hazardous materials are grouped in the Code of Federal Regulations, Title 49, into the following nine classes, based on their properties:

- Explosives
- Gases
- Flammable and Combustible liquids
- Flammable solids
- Oxidizing substance
- Toxic and infections substances
- Radioactive materials
- Corrosive substances
- Miscellaneous hazardous materials

A hazardous waste is any hazardous material that is discarded, abandoned, or slated to be recycled and is grouped into the following four categories:

- Toxic—causes human health effects
- Ignitable—has the ability to burn
- Corrosive—causes severe burns or damage to materials
- Reactive—causes explosions or generates toxic gases

Phase I Assessment

A Phase I ESA was conducted by ENGEO in October 2011 for the project area. The assessment included a review of local, state, tribal, and federal environmental record sources, standard historical sources, aerial photographs, fire insurance maps, and physical setting sources. The property was viewed for hazardous materials storage, superficial staining or discoloration, debris, stressed vegetation, or other conditions that may be indicative of potential sources of soil or groundwater contamination. The site was also checked for evidence of fill/ventilation pipes, ground subsidence, or other evidence of existing or preexisting underground storage tanks. The purpose of the Phase I ESA was to document recognized environmental conditions on the property related to current and historical uses of the area and to evaluate the potential for release of hazardous materials from onsite or offsite sources that could significantly affect environmental conditions at the subject property.

The Phase I ESA found documentation or physical evidence of soil or groundwater impairments associated with the use or past use of the property. A review of regulatory databases maintained by county, state, tribal, and federal agencies found documentation of hazardous materials violations or discharge on the Property and did not identify contaminated facilities within the appropriate American Society for Testing and Materials (ASTM) search distances that would reasonably be expected from the property.

Based on the findings of this assessment, four recognized environmental conditions (RECs) were identified for the property:

- One 500-gallon aboveground gasoline storage tank and one 2,000-gallon underground gasoline storage tank were removed from the property in approximately 1993. There is no readily available documentation of the removal of the tanks, or evidence of soil sampling or laboratory analysis.
- A large quantity of fill material was placed within the property. There is no documentation related to the origins of said fill. A portion of the fill was reportedly derived from construction along I-80.
- Eight crushed rock filled pits were observed along the western side of the eastern row of the horse stables. These pits are approximately 5 feet deep and are washing areas for horses that

also receive runoff from the area between the horse stalls. Shallow groundwater in the area ranges from 5 to 8 feet below the ground surface.

- A pole-mounted transformer located within the southwestern area of the property “boiled over,” spilling cooling oil on the ground surface below. None of the stained soil was removed, and given the age of the transformer, it is quite possible that PCB-containing cooling oil was used.

The following features were not considered RECs by ENGEO; however, they were evaluated as potential environmental concern based on a review of the regulatory databases and site reconnaissance:

- Each of the facilities situated within the property was constructed at a time when lead-based paints or asbestos-containing materials were regularly used during construction.
- The transformers located within the property were installed at a time when PCB-containing cooling oils were likely used.
- An area of chemical storage was identified in the shop building within the corporation yard located in the northeastern area of the property. An area of stained soil within the corporation yard in the immediate vicinity of the garbage compactor was also observed.

Site Visit

ENGEO conducted a reconnaissance of the property on September 26, 2011. The property was examined for hazardous materials storage, superficial staining or discoloration, debris, stressed vegetation, or other conditions that may be indicative of potential sources of soil or groundwater contamination. The site was also checked for evidence of fill/ventilation pipes, ground subsidence, or other evidence of existing or preexisting underground storage tanks. Exterior observations include:

- *Hazardous substances and petroleum products in connection with identified uses.* Multiple 55-gallon drums; 5-gallon buckets; and other containers with hydraulic oil, motor oil, and used oils were observed within the northwestern corner of the vehicle maintenance building located in the corporation yard. Small areas of spot staining were observed on the concrete slab of the building. Each bulk storage container was located within a secondary containment device.
- *Storage tanks.* A Convault aboveground fuel storage tank was observed at the south end of the horse racing track. This tank is reportedly 2,000 gallons in capacity and is partitioned for both gasoline and diesel fuel storage.
- *Odors.* No odors indicative of hazardous materials or petroleum material impacts were noted at the time of the reconnaissance.
- *Pools of potentially hazardous liquid.* No pools of potentially hazardous liquid were observed within the property at the time of the reconnaissance.

- *Drums.* With the exception of the drums identified in the “Hazardous Substances and Petroleum Products in Connection with Identified Uses” section above and the drums used as garbage containers throughout the property, no other storage drums were observed on the property at the time of the reconnaissance.
- *Hazardous substance and petroleum product containers.* With the exception of the materials identified above, no other hazardous substance and petroleum product containers were observed on the property at the time of the reconnaissance.
- *Polychlorinated biphenyls (PCBs).* Approximately 15 ground-mounted transformers and 12 pole-mounted transformers were identified within the property at the time of the reconnaissance. These transformers are believed to have been installed at a time when PCB-containing cooling oils would have been in use. Some staining was noted on the ground surface at the base of several of the transformers.
- *Pits, ponds, and lagoons.* One small pond was observed within the southern area of the golf course. In addition, eight crushed rock filled pits are situated along the western side of the eastern row of horse stables.
- *Stained soil/pavement.* An area of concrete and soil staining was observed adjacent to the garbage compactor located within the corporation yard at the northeastern corner of the property.
- *Stressed vegetation.* No signs of stressed vegetation were observed on the property at the time of the reconnaissance.
- *Solid/waste debris.* No disposal of solid waste was observed at the subject property.
- *Wastewater.* Multiple concrete-lined areas, used to wash horses, are located within the western area of the horse stalls. According to the fairgrounds operation manager, these features are connected to the local sanitary sewer. Additionally, eight crushed rock-filled pits were observed along the western side of the eastern row of horse stables.
- *Wells.* Four piezometers were observed within the property at the time of the reconnaissance. These were installed in April 2009 as a component of the preliminary geotechnical investigation of the property.
- *Septic Systems.* No septic systems were found on the property during the site reconnaissance.

Records Search

Title Report

A Preliminary Title Report for the property was prepared by First American Title Company in October 2008 and reviewed by ENGEO. The Title Report lists recorded land title detail, ownership fees, leases, land contracts, easements, liens, deficiencies, and other encumbrances attached to or recorded against a subject property. Laws and regulations pertaining to land trusts vary from state to

state, and the detail of information presented in a Title Report can vary greatly by jurisdiction. ENGEO uses a Title Report to supplement other historical record sources.

An environmental lien search was completed as part of the Preliminary Title Report. No environmental liens or environmentally related deed restrictions are associated with the project site. ENGEO’s review of the Title Report also indicated that there are no deed restrictions or potential environmental issues noted for the property.

Historical Topographic Maps

Historical topographic maps of the project area dating back to 1898 were obtained as part of the Phase I ESA process. The changes that occurred to the project site and the surroundings are summarized in Table 3.7-1.

Table 3.7-1: Historical Topographic Map Summary

Quad	Year	Scale (Inches: Feet)	Description
Carquinez	1898	1:62,500	On these maps, the property has no mapped improvements. A roadway is mapped, trending generally east to west along the approximate northern boundary of the property. An unimproved dirt road is visible, trending generally east to west along the southern boundary of the property. Lake Chabot is mapped within the western portion of the property. A roadway is mapped, trending generally southwest to northeast along the southern portion of the eastern boundary of the property.
Carquinez	1901	1:62,500	
Napa	1902	1:125,000	
Port Chicago	1947	1:50,000	
Cordelia	1951	1:24,000	Roadways, a racetrack, and six buildings are mapped within the property. The property is labeled “County Fairgrounds.” A four-lane highway labeled as “Highway 40” is mapped trending generally southwest to northeast along the eastern boundary of the property. Highway 48 is mapped extending generally east to west along the northern boundary of the property.
Cordelia	1968	1:24,000	Numerous additional buildings are mapped throughout the property. The eastern edge of Lake Chabot is mapped approximately 500 feet further to the west, and outside the boundaries of the property.
Cordelia	1980	1:24,000	With the exception of multiple additional buildings mapped within the property, conditions are similar to those observed on the 1968 topographic map.

Source: Phase I ESA, October 2011.

Aerial Photographs

Aerial photographs of the project area dating back to 1937 were obtained as part of the Phase I ESA process. The changes that occurred to the project site and the surroundings are summarized in Table 3.7-2.

Table 3.7-2: Aerial Photograph Summary

Year	Scale (Inches: Feet)	Description
1937	1:555	The property appears to be generally free of improvements. One small structure is visible within the western area of the property. A large water body consistent with dry land farming harvest patterns is visible within the northern portion of the property. Roadways are visible along the northern and eastern boundaries of the property in the approximate present-day alignments of SR-37 and I-80, respectively. A dirt road is visible, trending generally north to south through the western half of the property.
1957	1:555	Significant new development is visible within the property. An oval race track, consistent with a horse track, is visible within the eastern area of the property. Multiple buildings are visible within the southern area of the property. These buildings are consistent in size and orientation with the horse stables currently located within the property. Multiple buildings are also visible within the northern area of the property. Most of these buildings are consistent with structures currently located within the property. The southeast portion of Lake Chabot, along the southern portion of the property’s western boundary appears to have been filled since 1937.
1965	1:555	Numerous vehicles are visible within the property. Additional residential and commercial structures are visible within the vicinity of the property to the north and south. I-80, along the eastern boundary of the property is visible as a multi-lane divided highway. Any portion of Lake Chabot that was within fairgrounds property has been filled. An improved roadway, consistent with Fairgrounds Drive, is visible along the western boundary of the property. A large number of structures are visible north and south of the property, consistent with the existing residential subdivision and mobile home park, respectively.
1970	1:555	
1984	1:690	With the exception of one new structure located within the northern area of the property, conditions are similar to those observed in the 1970 aerial photograph. This building is consistent with the exhibit hall currently located near the northern boundary of the property.
1993	1:666	With the exception of two new structures located within the northeastern area of the property, conditions are similar to those observed within the 1984 aerial photograph. These buildings are consistent with the livestock exhibit buildings currently located within the property.
1998	1:666	
2005	1:484	
Source: Phase I ESA, October 2011.		

City Directory Search

The City Directories Database, which includes information dating back to the 18th century for major towns and cities and which lists the resident or business associated with each address, was reviewed by ENGEO. According to the City Directories search, the property has been occupied by the Solano County Fair Association since 1965. The Joe Mortara Golf Course and Snack Bar has been in place since 1988. New Horizons Preschool is listed as being onsite since 1998.

Environmental Record Search

ENGEO reviewed a search performed by EDR of federal, tribal, state, and local databases regarding the property and nearby properties. Details regarding the databases searched by EDR are provided in

the Phase I ESA. Based on a review of the database listings, two underground storage tanks appear to have been located within the property. These tanks appear to have been removed in 1993 and the site status is listed as “case closed.”

Common Hazardous Materials

Below are descriptions of common hazardous materials that may be found on developed and agricultural sites. The likelihood of encountering these materials is evaluated, based on site reconnaissance observations by ENGEO.

Asbestos

Asbestos is the name given to a number of naturally occurring, fibrous silicate minerals mined for their useful properties, such as thermal insulation, chemical and thermal stability, and high tensile strength. It is commonly used as an acoustic insulator, thermal insulation, fireproofing, and in other building materials. Asbestos is made up of microscopic bundles of fibers that may become airborne when asbestos-containing materials are damaged or disturbed. When these fibers get into the air, they may be inhaled into the lungs, where they can cause significant health problems. The California Occupational Health and Safety Administration (CalOSHA) defines asbestos-containing construction materials as any material that contains more than 0.1 percent asbestos by weight.

Naturally occurring asbestos occurs throughout California. The adverse health effects of asbestos fibers are well known. These substances are known to occur in the Franciscan complex located in the Sulfur Springs mountain range east of the City of Vallejo. Earth disturbance can release asbestos, creating a potentially hazardous situation for construction workers and others in the immediate vicinity.

ENGEO visually observed the exterior structures on the project site. Because of the age of the structures onsite, ENGEO concluded that there is a potential for asbestos-containing material (ACM) to be present.

Lead

Lead is a highly toxic metal that was used until the late 1970s in a number of products, most notably in paint. It may cause a range of health effects, from behavioral problems and learning disabilities to seizures and death. Primary sources of lead exposure are deteriorating lead-based paint, lead-contaminated dust, and lead-contaminated soil. Both the U.S. Environmental Protection Agency (EPA) and the California Department of Health Services define lead paint as containing a minimum of 0.5 percent by weight. Lead-containing waste materials with a concentration greater than 0.1 percent are considered hazardous waste by California law.

ENGEO visually observed the exterior of the structures located at the project site. Because of the age of the structures onsite, ENGEO concluded that there is the potential for lead-based paints (LBP) to be present.

Polychlorinated Biphenyls (PCBs)

Polychlorinated biphenyls (PCBs) are mixtures of synthetic chemicals with similar chemical structures. PCBs can range from oily liquids to waxy solids. Because of their non-flammability, chemical stability, high boiling point, and electrical insulating properties, PCBs were used in hundreds of industrial and commercial applications, including electrical, heat transfer, and hydraulic equipment; as plasticizers in paints, plastics, and rubber products; in pigments, dyes, and carbonless copy paper; and many other applications. More than 1.5 billion pounds of PCBs were manufactured in the United States prior to cessation of production in 1977.

Electricity is provided to the site by PG&E via pole-mounted transformers located onsite. There was evidence of one release observed that appeared to be associated with the transformers. The property owner would be responsible for any inspections, testing, and reporting and release response.

Mercury

Mercury is a naturally occurring element that is found in air, water, and soil that has traditionally been used to make products such as fluorescent lamps, switches, and thermometers. Exposure to mercury at high levels can harm the brain, heart, kidneys, lungs, and immune system of people of all ages. Scientific studies have shown that high levels of mercury in the bloodstream of unborn babies and young children may harm the developing nervous system, making a child less able to think and learn.

Existing structures onsite would be scheduled for demolition. Based on the age of the buildings on the project site, there may be mercury-containing materials. Therefore, building materials containing mercury may be an environmental concern at the project site. Proper disposal of potential mercury-containing building materials will be required prior to demolition.

Radon

Radon is a carcinogenic, radioactive gas resulting from the natural breakdown of uranium in soil, rock, and water. Radon gas enters a building through cracks in foundations and walls. Once inside the building, radon decay products may become attached to dust particles and inhaled, or the decayed radioactive particles alone may be inhaled and cause damage to lung tissue. The EPA has established a safe radon exposure threshold of 4 picoCuries per liter of air (pCi/L).

The California Department of Public Health indicates that seven indoor radon samples taken in the 94589 zip code (Vallejo area zip code) yielded no concentrations above 4 pCi/L. As such, radon should not be an environmental concern at the project site.

Hydrocarbon Storage in Aboveground and Underground Storage Tanks

Petroleum hydrocarbons are derived from crude oil, which is refined into various petroleum products such as diesel, gasoline, kerosene, lubricants, and heavy fuel oils. Hydrocarbons constituents include benzene, N-heptane, and toluene, and generate health effects such as cancer, leukemia, asthmatic bronchitis, kidney damage, and eye irritation. Hydrocarbons are stored in ASTs and USTs. Leaking ASTs and USTs can result in contamination of groundwater sources or fire and explosion.

The Phase I ESA indicated that no evidence of USTs was observed on the project site during the site reconnaissance. Based on a review of the database listings performed for the Phase I ESA, two underground storage tanks appear to have been located within the property. These tanks were removed in 1993 and the site status is listed as “case closed.” According to Solano County records, these two underground storage tanks, each with a capacity of 1,000 gallons, were removed on December 16, 1993 by ACT Corporation under a permit from the City of Vallejo Fire Department. The storage tanks were then transported to Erickson, Incorporated for legal disposal. Four soil samples were collected by BACE, Incorporated in the tank excavation and transported to a licensed laboratory. On February 9, 1993, ACT excavated 28 yards of petroleum impact soil from the tank excavation.

One Convault AST fuel storage tank was observed at the south end of the horse racing track. This tank is reportedly 2,000 gallons in capacity and is partitioned for both gasoline and diesel fuel storage.

Pesticides

Historically, chlorinated herbicides and insecticides were used for the control of weeds, flies, termites, and ants at the project site. Testing for these pesticides would occur prior to any grading activities to determine proper disposal of soils, as needed.

3.7.4 - Regulatory Framework

Federal

U.S. Environmental Protection Agency

The EPA leads the nation’s environmental science, research, education, and assessment efforts. The EPA’s mission is to protect human health and to safeguard the natural environment, related to air, water, and land. The EPA works closely with other federal agencies, state and local governments, and Indian tribes to develop and enforce regulations under existing environmental laws. The EPA is primarily responsible for researching and setting national standards for a variety of environmental programs and delegates to states and tribes responsibility for issuing permits, and monitoring and enforcing compliance. When national standards are not met, the EPA can issue sanctions and take other steps to assist the states and tribes in reaching the desired levels of environmental quality. The EPA also works with industries and all levels of government in a wide variety of voluntary pollution prevention programs and energy conservation efforts.

EPA Region 9 has jurisdiction over Vallejo, CA and the southwestern United States (Arizona, California, Nevada, and Hawaii).

EPA programs related to hazardous materials include:

- Community Right-to-Know Information
- Pesticide Management

- Toxic Release Inventory
- Brownfields (CalSites Database)
- Cleanup Technologies
- Compliance Assistance
- Emergency Response
- Hazardous Waste
- Oil Spills

Resource Conservation and Recovery Act

The 1976 Federal Resource Conservation and Recovery Act (RCRA) and the 1984 RCRA Amendments regulate the treatment, storage, and disposal of hazardous and non-hazardous wastes. The legislation mandated that hazardous wastes be tracked from the point of generation to their ultimate fate in the environment. This includes detailed tracking of hazardous materials during transport and permitting of hazardous material handling facilities.

The 1984 RCRA amendments provided the framework for a regulatory program designed to prevent releases from USTs. The program establishes tank and leak detection standards, including spill and overflow protection devices for new tanks. The tanks must also meet performance standards to ensure that the stored material will not corrode the tanks. Owners and operators of USTs had until December 1998 to meet the new tank standards. As of 2001, an estimated 85 percent of USTs complied with the required standards.

Comprehensive Environmental Response, Compensation, and Liability Act

The Comprehensive Environmental Response, Compensation, and Liability Act of 1980 introduced active federal involvement to emergency response, site remediation, and spill prevention, most notably the Superfund program. The act was intended to be comprehensive in encompassing both the prevention of, and response to, uncontrolled hazardous substances releases. The act deals with environmental response, providing mechanisms for reacting to emergencies and to chronic hazardous material releases. In addition to establishing procedures to prevent and remedy problems, it establishes a system for compensating appropriate individuals and assigning appropriate liability. It is designed to plan for and respond to failure in other regulatory programs and to remedy problems resulting from action taken before the era of comprehensive regulatory protection.

U.S. Department of Transportation

The Hazardous Materials Transportation Act of 1974, as amended, is the basic statute regulating hazardous materials transportation in the United States. This law gives the U.S. Department of Transportation and other agencies the authority to issue and enforce rules and regulations governing the safe transportation of hazardous materials.

State agencies are authorized to designate highways for the transport of hazardous materials. Where highways have not been designated, hazardous materials must be transported on routes that do not go through or near heavily populated areas.

Federal Aviation Regulations Part 77

FAR Title 14, Part 77, establishes standards and notification requirements for objects affecting navigable airspace associated with construction on or near airports. Notification serves as the basis for:

- Evaluating the effect of the construction or alternation on operating procedures,
- Determining the potential hazardous effect of the proposed construction on air navigation,
- Identifying mitigating measures to enhance safe air navigation, and
- Charting of new objects.

Notification allows FAA to identify potential aeronautical hazards in advance, thus preventing or minimizing the adverse impacts on the safe and efficient use of navigable airspace. Any person or organization that intends to sponsor any of the following construction or alterations must notify FAA regarding:

- Any construction or alteration exceeding 200 feet above ground level.
- Any construction or alteration:
 - Within 20,000 feet of a public-use or military airport that exceeds a 100:1 surface from any point on the runway of each airport, with at least one runway more than 3,200 feet;
 - Within 10,000 feet of a public-use or military airport that exceeds a 50:1 surface from any point on the runway of each airport with its longest runway no more than 3,200 feet; or
 - Within 5,000 feet of a public-use heliport that exceeds a 25:1 surface.
- Any highway, railroad, or other traverse way whose prescribed adjusted height would exceed that above noted standards.
- When requested by FAA.
- Any construction or alteration located on a public-use airport or heliport, regardless of height or location.

State

California Health and Safety Code

The California Environmental Protection Agency has established rules governing the use of hazardous materials and the management of hazardous wastes. California Health and Safety Code Sections 25531, et seq. incorporate the requirements of Superfund Amendments and Reauthorization Act and the Clean Air Act as they pertain to hazardous materials. Health and Safety Code Section

25534 directs facility owners storing or handling acutely hazardous materials in reportable quantities to develop a Risk Management Plan (RMP). The RMP must be submitted to the appropriate local authorities, the designated local administering agency, and the EPA for review and approval.

CEQA and the Cortese List

The Cortese List (Hazardous Waste and Substances Site List) is a planning document used by the State, local agencies, and developers to comply with CEQA requirements to consider Government Code Section 5962.5 in evaluating proposed development projects. Section 65962.5 states that

The list should contain all hazardous waste facilities subject to corrective action , all hazardous waste property or border zone property designations, all information received on hazardous waste disposals on public land, all hazardous substance release sites listed pursuant to Government Code Section 25356, and all sites that were included in the former Abandonment Site Assessment Program.

California Environmental Protection Agency (Cal EPA)

Government Code Section 65962.5 requires the California Environmental Protection Agency (Cal EPA) to develop a Cortese List at least annually. The Department of Toxic Substances Control is responsible for a portion of the information on the list, and other local and state government agencies are required to provide additional information. Cal EPA operates the Air Resources Board, the Department of Pesticide Regulation, Department of Toxic Substances Control, Department of Resources Recycling and Recovery, Office of Environmental Health Hazard Assessment, and the State Water Resources Control Board. The function of each of these six offices is discussed below:

Air Resources Board (CARB)

To promote and protect public health, welfare, and ecological resources through the effective and efficient reduction of air pollutants in recognition and consideration of the effects on the economy of the State.

Department of Pesticide Regulation (DPR)

Regulates all aspects of pesticide sales and use to protect the public health and the environment for the purpose of evaluating and mitigating impacts of pesticide use, maintaining the safety of the pesticide workplace, ensuring product effectiveness, and encouraging the development and use of reduced-risk pest control practices.

Department of Toxic Substances Control (DTSC)

The Department’s mission is to restore, protect, and enhance the environment, to ensure public health, environmental quality, and economic vitality by regulating hazardous waste, conducting and overseeing cleanups, and developing and promoting pollution prevention. DTSC protects residents from exposures to hazardous wastes. DTSC carries out the State’s hazardous waste recycling and resource recovery program designed to facilitate recycling and reuse of hazardous wastes. DTSC conducts a corrective action program that assures any releases of hazardous constituents at generator

facilities that conduct onsite treatment of hazardous wastes are safely and effectively remediated, and oversees the hazardous waste generator and onsite waste treatment surveillance and enforcement program carried out by local Certified Unified Program Agencies (CUPAs). DTSC operates programs to:

- Deal with the aftermath of improper hazardous waste management by overseeing site cleanups.
- Prevent releases of hazardous waste by ensuring that those who generate, handle, transport, store, and dispose of wastes do so properly.
- Take enforcement actions against those who fail to manage hazardous wastes appropriately.
- Explore and promote means of preventing pollution, and encourage reuse and recycling.
- Evaluate soil, water, and air samples taken at sites, and develop new analytical methods.

Department of Resources Recycling and Recovery (CalRecycle)

Protects the public health and safety and the environment through waste prevention, waste diversion, and safe waste processing and disposal. CalRecycle is responsible for managing California’s solid waste stream. The agency is helping California divert its waste from landfills by:

- Developing waste reduction programs.
- Providing public education and outreach.
- Assisting local governments and businesses.
- Fostering market development for recyclable materials.
- Encouraging used oil recycling.
- Regulating waste management facilities.
- Cleaning up abandoned and illegal dump sites.

State Water Resources Control Board (SWRCB)

Preserves and enhances the quality of California’s water resources, and ensure their proper allocation and efficient use for the benefit of present and future generations. The SRWQCB maintains the Leaking Underground Storage Tank Information System (LUTIS) Database, which contains information on registered leaking underground storage tanks (LUSTs) in the State.

Unified Program Division (UPD)

The UPD oversees the technical implementation of the State’s Unified Program; a consolidation of six environmental programs at the local level, and conducts reviews of the local CUPAs to ensure their programs are consistent statewide, conform to standards, and deliver quality environmental protection at the local level.

San Francisco Bay Regional Water Quality Control Board

There are nine Regional Water Quality Control Boards (RWQCBs) throughout the State. The San Francisco Bay RWQCB has jurisdiction over the City of Vallejo. Individual RWQCBs function as

the lead agencies responsible for identifying, monitoring, and cleaning up LUSTs. Storage of hazardous materials in USTs is regulated by the State Water Resources Control Board (SWRCB), which oversees the nine RWQCBs.

Local

Bay Area Air Quality Management District (BAAQMD)

The Bay Area Air Quality Management District (BAAQMD) is a special district created by state law to enforce local, state, and federal air pollution regulations. Because asbestos has been used extensively in residential, commercial, and industrial construction, District Regulation 11-2-401.3 requires that for every renovation, including the removal of 100 square feet per linear foot or greater of regulated asbestos-containing material, and for every demolition (even when no asbestos is present), a notification must be made to the BAAQMD at least 10 working days (except in special circumstances) prior to commencement of demolition/renovation. When removing any regulated asbestos-containing material, District regulations must always be followed.

The district also enforces the California Airborne Toxic Control Measure (ATCM), which regulates the naturally occurring asbestos (NOA) emissions from grading, quarrying, and surface mining operations at sites that contain ultramafic rock. The provisions that cover these operations are found in the California Code of Regulations, Section 93105. The purpose of this regulation is to reduce public exposure to NOA from construction activities that emit dust and which may contain NOA. The ATCM requires regulated operations engaged in road construction and maintenance activities, construction and grading operations, and quarrying and surface mining operations in areas where NOA is likely to be found should employ the best available dust mitigation measures in order to reduce and control dust emissions.

Solano County Environmental Health Services Division

The Solano County Environmental Health Services Division is the local CUPA for incorporated and unincorporated Solano County and has regulatory oversight of the following six programs:

- Hazardous Wastes: management and disposal of discarded hazardous materials
- Hazardous Waste – Onsite Treatment: the permitting and inspecting of businesses treating hazardous wastes
- Hazardous Materials Business Plans: chemical inventory and emergency plans that address emergency response to incidents involving hazardous materials
- Underground Storage Tanks: the installation, operation, and removal of underground storage tanks containing hazardous materials
- Aboveground Petroleum Storage: review of contingency plans and inspections to address spill prevention and response to incidents from aboveground tanks holding petroleum products

- California Accidental Release Prevention: review of plans and inspections to address releases of extremely hazardous substances such as ammonia and chlorine

City of Vallejo

General Plan

Because the project is located within the City of Vallejo, the project must be consistent with the City of Vallejo General Plan. The General Plan, updated in 1999 includes the following policies pertinent to Hazards and Hazardous Materials:

Safety Element

- **Policy 3:** Evaluate the compatibility of existing zoning as well as future land use allocation, with known geologic risk zones, or those that may be identified in the future.
- **Policy 4:** Recognize the need to provide greater safety for important or critical use structures (such as hospitals, schools, public assembly facilities, dams and utility corridors) through careful site selection, appropriately comprehensive site investigation and enforcement of applicable codes and regulations.
- **Policy 9:** Existing and prospective property owners should be made aware of the potential hazards and their implications.

3.7.5 - Methodology

This section is based upon the Phase I ESA prepared by ENGeo, dated October 26, 2011. The Phase I ESA included a review of the project site's prior-use history; a review of neighboring properties based on reasonably ascertainable local, state, and federal regulatory agency environmental databases compiled by EDR; a review of historic aerial photographs, topographic maps, and business directories compiled by EDR; a visual reconnaissance for hazardous material contamination; a search for ASTs and USTs; and completion of questionnaires by the current landowners. ENGeo personnel performed site reconnaissance of the project site in September 2011 to document existing conditions and potential environmental hazards.

3.7.6 - Thresholds of Significance

According to the CEQA Guidelines' Appendix G Environmental Checklist, to determine whether hazards and hazardous materials impacts are significant environmental effects, the following questions are analyzed and evaluated. Would the project:

- a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?
- b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the hazardous materials into the environment?
- c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?

- d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?
- e) 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? (Refer to Section 7, Effects Found Not To Be Significant.)
- f) 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? (Refer to Section 7, Effects Found Not To Be Significant.)
- g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?
- h) 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?

3.7.7 - Project Impacts and Mitigation Measures

Routine Use and Accident Conditions Impact Analysis

Impact HAZ-1: **The project would create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials or through reasonably foreseeable upset and accident conditions involving the hazardous materials into the environment.**

Impact Analysis

This impact analysis is associated with hazards caused by the routine transport, use, or disposal of hazardous materials or through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment.

Entertainment Area

The proposed project would not be a large-quantity user of hazardous materials. Small quantities of hazardous materials would be used onsite, including cleaning solvents (e.g., degreasers, paint thinners, and aerosol propellants), paints (both latex- and oil-based), acids and bases (which are included in many cleaners), disinfectants, and fertilizers. These substances would be stored in secure areas and would comply with all applicable storage, handling, usage, and disposal requirements. The potential risks posed by the use and storage of these hazardous materials are primarily limited to the immediate vicinity of the materials. Transport of these materials would be performed by commercial vendors who would be required to comply with various federal and state laws regarding hazardous materials transportation.

Two of the four RECs identified above have the potential to release hazardous materials into the environment during project construction within the entertainment and open space project area. These

RECs consist of a 500-gallon aboveground gasoline storage tank and one 2,000-gallon underground gasoline storage tank that were removed from the property in 1993, and a large quantity of undocumented fill material. Additionally, as described above, two non-REC circumstances could also impact this project area during project construction. These include (1) that each of the facilities situated within the property were constructed at a time when lead-based paints or asbestos-containing materials were regularly used during construction, and (2) the transformers located within the property were installed at a time when PCB-containing cooling oils were likely used. Accordingly, mitigation measures are proposed below to reduce potential impacts to a level of less than significant.

Fairgrounds

As stated above, the proposed project would not be a large-quantity user of hazardous materials. However, the four RECs identified above have the potential to release hazardous materials into the environment during project construction within the fairgrounds project area. Additionally, three non-REC circumstances could also impact this project area during project construction. These three non-REC circumstances include (1) that each of the facilities situated within the property were constructed at a time when lead-based paints or asbestos-containing materials were regularly used during construction, (2) the transformers located within the property were installed at a time when PCB-containing cooling oils were likely used, and (3) an area of chemical storage was identified in the shop building within the corporation yard located in the northeastern area of the property. An area of stained soil within the corporation yard in the immediate vicinity of the garbage compactor was also observed. Mitigation measures are proposed below to reduce potential impacts to a level of less than significant.

In summary, the proposed project would not create a significant hazard to the public or the environment from routine transport, use, or disposal of hazardous materials or through reasonably foreseeable upset and accident conditions. Impacts would be less than significant with implementation of the mitigation measures identified below.

Level of Significance Prior to Mitigation

Potentially significant impact.

Mitigation Measures

Entertainment Area

MM HAZ-1a Prior to issuance of a grading permit, a soil investigation shall be completed and submitted to the City of Vallejo to determine if the aboveground and underground gasoline storage tanks have leaked and if there are remnant soil impacts. The soil investigation shall also assess whether heavy metal or hydrocarbon-impacted soils were placed as fills within the property. In the event significant soil impacts are noted, exceeding applicable Cal-EPA and/or USEPA risk criteria, a soil mitigation plan shall be developed and implemented for the property.

- MM HAZ-1b** Prior to renovation or demolition of the existing fair buildings, a lead and asbestos survey shall be completed and submitted to the City of Vallejo. Based on the findings of the survey, a mitigation plan shall be developed for the removal of asbestos containing material or lead-based paint, as necessary in accordance with BAAQMD and CAL-OSHA requirements.
- MM HAZ-1c** Prior to the commencement of project construction, all transformers that are no longer in use shall be collected for appropriate disposal to the satisfaction of the City of Vallejo.
- Fairgrounds*
- MM HAZ-1d** Prior to commencement of site grading, a soil investigation shall be completed to determine if the aboveground and underground gasoline storage tanks have leaked and if there are residual soil impacts. The soil investigation shall also assess whether heavy metal or hydrocarbon-impacted soils were placed as fills within the property. In the event significant soil impacts are noted, exceeding applicable Cal-EPA and/or USEPA risk criteria, a soil mitigation plan shall be developed and implemented for the property.
- MM HAZ-1e** Prior to renovation or demolition of the existing fair buildings, a lead and asbestos survey shall be completed. Based on the findings of the survey, a mitigation plan shall be developed for the removal of asbestos containing material or lead-based paint, as necessary in accordance with BAAQMD and CAL-OSHA requirements.
- MM HAZ-1f** Prior to the commencement of project construction, all transformers that are no longer in use shall be collected for appropriate disposal.
- MM HAZ-1g** Prior to commencement of site grading, a groundwater investigation shall be completed to assess potential impacts to shallow groundwater from animal waste washing into the eight crushed rock-filled pits along the western side of the eastern row of horse stables as well as potential petroleum hydrocarbons impacts. In the event significant groundwater impacts are noted, exceeding applicable Cal-EPA and/or USEPA risk criteria, a groundwater management plan shall be developed and implemented for the property.
- MM HAZ-1h** Prior to commencement of site grading, limited soil sampling and laboratory testing shall be completed to determine if PCB-containing cooling oil was discharged to surface soils from the pole mounted transformer within the southwestern area of the property. In the event significant soil impacts are noted, exceeding applicable Cal-EPA and/or USEPA risk criteria, a soil mitigation plan shall be developed and implemented to address PCB-impacted soil.

MM HAZ-1i Prior to renovation or demolition of the existing shop building located within the corporation yard in the northeastern area of the property, all chemicals that are no longer in use shall be collected for appropriate disposal. Additionally, the area of surface staining shall be scarified for appropriate disposal, and confirmation soil sampling and laboratory analysis shall be conducted to determine that an appropriate amount of impacted soil has been excavated. Prior to grading, testing for persistent pesticides shall also be conducted. In the event significant pesticide impacts are noted, exceeding applicable Cal-EPA and/or USEPA risk criteria, a soil mitigation plan shall be developed and implemented for the shop building area.

Level of Significance After Mitigation

Less than significant impact.

Schools

Impact HAZ-2: The project would emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school.

Impact Analysis

Entertainment Area and Fairgrounds

The New Horizons Montessori School is located at 900 Fairgrounds Drive in the northern portion of the project site. Implementation of the proposed project would not result in the emission of hazardous materials or wastes that would pose a serious health risk to school activities. However, the four RECs described under Impact HAZ-1 have the potential to release hazardous materials into the environment during project construction within the project area. Implementation of the mitigation measures identified in Impact HAZ-1 would ensure that any impact potential would be less than significant.

Level of Significance Prior to Mitigation

Potentially significant impact.

Mitigation Measures

Entertainment and Open Space Area

MM HAZ-2a Implement Mitigation Measures HAZ-1a through HAZ-1c.

Fairgrounds

MM HAZ-2b Implement Mitigation Measures HAZ-1d through HAZ-1i.

Level of Significance After Mitigation

Less than significant impact.

Hazardous Materials Site Listing

Impact HAZ-3: The project would not 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.

Impact Analysis

This impact analysis addresses the potential for the development of the proposed project to expose persons or the environment to hazardous materials associated with past and current uses of the project site, as well as activities at surrounding land uses.

Entertainment Area and Fairgrounds***Project Site***

As previously discussed, based on a review of the database listings performed for the Phase I ESA, two underground storage tanks appear to have been located within the property. However, these tanks were removed in 1993, and the site status was listed as “case closed.”

Any potential issues related to onsite soils as well as other potential sources of hazardous materials contamination would be addressed by the mitigation measures identified in Impact HAZ-1. Therefore, impacts would be less than significant.

Surrounding Land Uses

As determined in the Phase I ESA, 11 sites in the proposed project’s vicinity were included on agency databases and identified as having documented releases of hazardous materials. However, because of the distance, regional topographic gradient, and EDR findings concerning the 11 sites, the Phase I ESA determined that none of them appears to present a significant environmental concern to the project site or the proposed project. Therefore, impacts would be less than significant.

Summary

Although the proposed project site is listed on a contaminated site database compiled pursuant to Government Code Section 65962.5, the two underground storage tanks were removed in 1993 and their site status was listed as “case closed.” Any other potential sources of hazardous materials would be addressed by implementation of the mitigation measures identified under Impact HAZ-1. Sites in the vicinity of the project site do not appear to present a significant environmental concern to the project site or the proposed project. Therefore, impacts would be less than significant.

Level of Significance Prior to Mitigation

Less than significant impact.

Mitigation Measures

No mitigation is necessary.

Level of Significance After Mitigation

Less than significant impact.

Emergency Plans

Impact HAZ-4: **The project would not impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan.**

Impact Analysis

This impact analysis addresses the potential for the development of the proposed project to impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan.

Entertainment Area

The entertainment project area would authorize up to 327,571 square feet of retail, commercial, entertainment, and office space (as a replacement for other EMU uses) on 48.8 acres at time of full buildout. As shown in Figure 5.1 of the Specific Plan, the project site would be accessed at three intersections along Fairgrounds Drive and one intersection on Sage Street. Primary site access would be provided via the three access points at Fairgrounds Drive, while secondary site access would be provided via the Sage Street access point. As illustrated in Figure 5.1, onsite vehicular circulation improvements would include an entry road, loop road, Sage-Loop connector street, Loop-Main entry connector, and perimeter road. Emergency vehicle access is also indicated within Figure 5.1. The access points would be constructed to provide sufficient width for large emergency vehicles (such as fire engines) as well as the orderly evacuation of the site. Future development proposals within this project area would be reviewed by the Vallejo Fire Department for consistency with local, state, and federal regulations concerning appropriate access points and onsite circulation.

Fairgrounds

The fairgrounds portion of the site would include up to 149,500 square feet of new building space at time of full buildout, including a new exposition hall and new concert arena/grandstand cover. As described above, four entry points would provide sufficient emergency access to the site. Additionally, the fairgrounds portion of the site would be served by adequate onsite access via the circulation improvements outlined above.

The proposed project does not include any characteristics (such as permanent road closure) that would physically impair or otherwise interfere with emergency response or evacuation in the project vicinity. Construction of the future access route improvements would improve circulation in the area and therefore would benefit emergency response and evacuation. Impacts would be less than significant.

Level of Significance Prior to Mitigation

Less than significant impact.

Mitigation Measures

No mitigation is necessary.

Level of Significance After Mitigation

Less than significant impact.

Wildland Fires

Impact HAZ-5: **The project would not 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.**

Impact Analysis

The project site is surrounded by parcels containing urban development and transportation uses.

Entertainment Area

Future development proposed within the entertainment project area would be required to include the installation of fire suppression systems (e.g., fire hydrants, fire sprinklers, smoke detectors). These systems would be designed in accordance with the latest requirements of the California Fire Code and would be considered adequate to provide fire suppression to the project site.

Proposed development would be subject to fire safety requirements of the Vallejo Fire Department, which would review all plans as part of the City's design permit process. Fire sprinklers, vegetative buffer zones, and other fire-safe measures may be required as part of this review. The Vallejo Fire Department would provide fire protection to the proposed project. The Fire Department is staffed 24 hours a day, and the nearest station, Station #25, is approximately 1 mile from the project site. The Fire Department indicated in a letter (refer to Appendix H) that it has adequate resources to serve the proposed project and did not foresee any operational challenges in providing fire protection to the project based upon the grant-funded re-opening of Station #25 in June 2012.

Fairgrounds

As noted above, development of the fairgrounds would include the installation of fire suppression systems (e.g., fire hydrants, fire sprinklers, smoke detectors) designed in accordance with the latest requirements of the California Fire Code that would be considered adequate to provide fire suppression to the project site. Further, the Vallejo Fire Department has indicated that it has sufficient capacity to provide fire protection to the project site.

There is a potential for the dry vegetation on the undeveloped portions of the site to catch fire during grading. Equipment could create sparks that would ignite vegetation. However, standard construction practices, such as installation of spark arresters on equipment, would reduce the likelihood of fire.

For these reasons, the development of the proposed project would not expose persons or structures to wildland fire risks. Impacts would be less than significant.

Level of Significance Prior to Mitigation

Less than significant impact.

Mitigation Measures

No mitigation is necessary.

Level of Significance After Mitigation

Less than significant impact.

3.7.8 - Residual Significant Impacts

None identified.

