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 Project Site and its surrounding area. Descriptions and analysis in this section are based on, among other things, the Contra Costa County General Plan, a Phase I Environmental Site Assessment (Phase I ESA) prepared by ENGEO Incorporated in 2015 covering the Northern Site, and a Phase I ESA prepared by ENGEO in 2009 covering both the Northern and Southern Site. Both Phase I ESAs are included in this EIR as Appendix F.

3.7.2 - Environmental Setting

Hazardous Materials

Hazardous materials, as defined by the California Code of Regulations, 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 into the following four categories, based on their properties:

- 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.

A hazardous waste is any hazardous material that is discarded, abandoned, or slated to be recycled. The criteria that define a material as hazardous also define a waste as hazardous. If handled, disposed, or otherwise handled improperly, hazardous materials and hazardous waste can result in public health hazards if released into the soil or groundwater or through airborne releases in vapors, fumes, or dust. Soil and groundwater having concentrations of hazardous constituents higher than specific regulatory levels must be handled and disposed of as hazardous waste when excavated or pumped from an aquifer. The California Code of Regulations, Title 22, Sections 66261.20-24 contains technical descriptions of toxic characteristics that could cause soil or groundwater to be classified as hazardous waste.

Phase I Environmental Site Assessments

A Phase I ESA dated August 27, 2009 was prepared by ENGEO for the Northern and Southern Sites. Subsequently, a Phase I ESA dated May 7, 2015 was prepared by ENGEO, focusing exclusively on the Northern Site. The purpose of the Phase I ESAs was to determine the presence or absence of hazardous materials on the Project Site. The findings are collectively summarized below.

Existing Conditions

Both Phase I ESAs characterized the Project Site as primarily undeveloped. The Phase I ESAs noted that there are several barns and one vacant residence located near the southern end of the Southern Site and that several barns, corrals, farm roads, and other structures are located near the northeastern boundary of the Northern Site. Elevations on-site range from approximately 1,010 feet

above mean sea level (msl) at a ridge-top peak near the northern boundary of the Northern Site, to a low of approximately 590 feet above msl along the drainage at the southeast corner of the Southern Site along Camino Tassajara. The Project Site contains several developed wells, which appear to be used primarily for cattle troughs. Evidence of a potential septic system was observed on the Northern Site in the northeastern corner. In addition, based on the presence of the residence on the Southern Site and the lack of public wastewater system infrastructure in the vicinity, there is a high likelihood that a related septic tank is present. Groundwater in the vicinity of the Project Site was observed between approximately 11.7 and 31.4 feet below ground surface.

Records Search

As part of both Phase I ESAs, Environmental Data Resources, Inc. (EDR) performed a search of federal, state, and local databases listing contaminated sites, Brownfield sites (a development site having the presence or potential presence of a hazardous substance, pollutant, or contaminant), UST sites, waste storage sites, toxic chemical sites, contaminated well sites, clandestine drug lab sites, and other sites containing hazardous materials. The record search results found no documentation of hazardous materials violations or discharge recorded for the Project Site.

Neither Phase I ESA found any listed sites located on either the Northern or Southern Sites. The 2015 Phase I ESA indicated that three sites within 0.13 mile of the Northern Site were listed on the Contra Costa County Site List, which lists sites from the underground tank, hazardous waste generator, and business plan programs. The three listed sites included T-Mobile West, PG&E Substation, and Case Residence. Based on the distances to the identified listed sites, regional topographic gradient, and the EDR findings, the 2015 Phase I ESA concluded that it is unlikely that any of the three listed sites pose an environmental risk to the Northern Site. The 2015 Phase I ESA found no other listed sites within the standard 1-mile search radius of the Northern Site. The 2009 Phase I ESA indicated nine listed sites were located within 2 miles of the Project Site[1] but similarly concluded that it is unlikely that any of the sites poses an environmental risk to the Project Site. Based on the distances to the identified listed sites, regional topographic gradient, and the EDR findings, the 2009 Phase I ESA concluded that it is unlikely that any of the nine listed sites pose an environmental risk to the Project Site. The 2009 Phase I ESA found no other listed sites within 3 miles of the Project Site.

Aerial Photographs

Aerial photographs of the Project Site and vicinity, dating back to 1939, were obtained as part of the Phase I ESA investigations. The historic changes that have occurred to the Project Site and surroundings as presented in the Phase I ESAs are summarized in Table 3.7-1.

[1] The standard search radii of 1 and 2 miles were used in each ESA in accordance with the American Society for Testing and Materials (ASTM) applicable search distances.

Table 3.7-1: Aerial Photograph Summary

Year	Scale (inches: feet)	Summary
1939	1:1,000	The Northern Site appears to be undeveloped pasture land used for cattle grazing, with the exception of several structures within the northeast portion of the Northern Site and a small orchard shown in the southwest corner of the Northern Site. The two larger structures are located in the vicinity of the existing barn, and there appears to be two shed-size structures located within the area of the existing horse enclosures.
1949–1958	1:1,000	The southwestern portion of the Northern Site appears to be utilized for dry farming no later than 1958. The two small structures in the northeast corner are no longer evident and there appears to be an additional shed-size structure. The barns on the Southern Site are visible on the 1949 aerial while the residence on the Southern Site is not visible until the 1958 aerial.
1957	1:12,000	Significant dry farming activities are apparent on the photographs. Orchards are present on the Southern Site along Camino Tassajara. A small group of trees in the southwestern corner of the Northern Site appears to be an orchard. All structures currently on the Project Site were visible.
1968	1:29,944	Conditions appear similar to the 1957 photographs; however, agricultural cultivation is not apparent.
1981	unknown	Dry farming is evident on the photographs, but it is limited to the northern portion of the Southern Site. Residential development, which appears to be under construction, is shown east of the Northern Site. It is evident that a small orchard once existed in the southwest corner of the Northern Site. The orchard appears to progressively grow bare through the series of aerial photographs.
1982	1:24,000	Dry farming is evident on the photographs, but it is limited to the northern portion of the Southern Site. On the 1982 photograph, the southern section of the Northern Site was being dry farmed. The orchards on the Northern Site are becoming sparse (fewer tree canopies visible).
1991	1:19,200	No significant changes to the dry farm areas are noted. The orchards on the Southern Site are absent except for a few remaining trees. There has also been some apparent roadway grading on the central portion of the Southern Site.
1993	1:500	Some storage-size structures are evident within the Northern Site's northeastern boundary. Residential development is evident west of the Northern Site.
1998	1:500	Additional storage-size structures are evident within the Northern Site's northeastern boundary.
2005	1:500	Because of the poor photo resolution, it is unclear when the previous existing structures were demolished. However, it is evident in the 2005 photograph that the barn currently present in the northeastern corner of the Northern Site is depicted within the footprint of one of the previous structures. Several horse sheds/supply sheds now occupy the northeastern portion of the Northern Site.
2006–2012	1:500	Several additional horse sheds/supply sheds are evident in the Northern Site's northeastern boundary. The Northern Site appears similar to its current conditions.
Source: ENGEO Incorporated, 2009, 2015.		

Topographic Maps

Historical United States Geological Survey topographical maps for the Diablo and Tassajara Quadrangles dating back to 1896 were obtained as part of both Phase I ESA analyses. Review of these maps indicate that the Project Site and surrounding vicinity have primarily consisted of rural and agricultural improvements and open space. The orchard in the Northern Site's southwestern corner is present beginning on the 1953 map. Other improvements indicated on the maps include minor unpaved roads, windmills, and structures that likely correlate to the existing barns on-site on the Southern Site. Structures located on the Northern Site's northeastern corner begin to appear on the 1953 map. Conditions on the Northern Site appear primarily unchanged between 1968 and 1996.

Site Reconnaissance

ENGEO Incorporated personnel performed site reconnaissance in June 2009 and April 2015. As described more fully in the Phase I ESAs (Appendix F), the Project Site was visually inspected 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 Project Site was also checked for evidence of fill/ventilation pipes, ground subsidence, or other evidence of existing or preexisting underground storage tanks. Each site reconnaissance is described separately below.

2009 Site Reconnaissance—Northern and Southern Sites

Structures

Several structures were observed during the site reconnaissance. An existing vacant residence is located the southern portion of the Southern Site. There is a barn in use on the Northern Site. In addition, barns that appeared to be not in use are located on the Southern Site.

Hazardous Substances and Petroleum Products in Connection with Identified Uses

No potentially hazardous substances or petroleum products were observed within the Project Site during the site reconnaissance; however, the interior of structures were not inspected.

Storage Tanks

Two aboveground storage tanks were observed during the site reconnaissance. One tank was an aboveground steel tank (less than 100 gallons) located near a tree in the vicinity of the vacant residence in the southern portion of the Southern Site. The second tank was located in the same area and was mounted on a trailer. In addition, a mobile steel fuel tank was in the same location. The specific contents of the tanks are unknown and the steel tank appeared to be partially empty or empty. There was no obvious soil staining noted below either of the tanks. No evidence of underground storage tanks was observed.

Odors

A mild fuel odor was noted near the aforementioned above ground steel tank. No other odors indicative of hazardous materials or petroleum material impacts were noted at the time of the reconnaissance.

Drums

Several apparently empty drums were observed on the Project Site at the time of the 2009 reconnaissance. They were located near the vacant residence in the southern portion of the Southern Site. The ground around the drums was not visible due to other debris in the vicinity.

Pits, Ponds and Lagoons

A stock pond was observed within the Project Site at the time of the 2009 reconnaissance.

Solid Waste/Debris

Disposal of solid waste was observed at the Project Site in 2009 in the form of debris piles at several locations on the Northern and Southern Sites.

Wells

Several wells were found within the Project Site during the 2009 site reconnaissance. The 2009 Phase I ESA reported that there are at least five wells located on the Project Site, with at least one well on each parcel.

Septic Systems

No septic systems were observed within the Project Site during the 2009 site reconnaissance. However, because of the understanding that residences in the area rely on private systems; it is assumed that the on-site vacant residence likely has an associated septic system.

Other Hazardous Sources

No pools of potentially hazardous liquid, stained soil or pavement, stressed vegetation, or wastewater was found on-site during the 2009 site reconnaissance.

2015 Site Reconnaissance—Northern Site

Structures

Several structures were observed in the northern portion of the Northern Site near Finley Road. Structures on the Northern Site consist of two barns, approximately 12 portable horse stables, related portable fencing, and several horse trailers.

Drums

Five 55-gallon steel drums were observed on the Northern Site during the 2015 reconnaissance. The drums were utilized as garbage cans or were partially buried in the dry creek area along the north-central area of the Northern Site.

Solid Waste/Debris

With the exception of some wind-blown debris and some discarded fencing material, no significant solid waste or debris was observed on the Northern Site during the 2015 reconnaissance.

Wells

Two wells were observed within the Northern Site at the time of the site reconnaissance. One of the wells was located in the northern area of the Northern Site (near the horse stables) and the other was observed within the southern area of the Northern Site adjacent to Tassajara Road.

Septic Systems

An access pipe to a possible septic system was observed in the northeastern portion of the Northern Site (see Photograph #4 in Appendix F) at the time of the 2015 reconnaissance.

Other Hazardous Sources

No other hazardous substances or sources were found on the Northern Site during the 2015 reconnaissance, such as:

- Hazardous substances or petroleum products or their related containers
- Evidence of above- or underground storage tanks
- Odors
- Pools of potentially hazardous liquid
- Polychlorinated biphenyl (PCB)-containing materials, including transformers
- Pits, ponds, and lagoons
- Stained soil/pavement
- Stressed vegetation
- Wastewater

Hazardous Building Materials

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. Asbestos 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.

Both Phase I ESAs indicate that on-site structures were constructed at a time when asbestos-containing materials were in common use.[2]

Lead

Lead is a highly toxic metal that was used until the late 1970s in a number of products, most notably in paint. Lead 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 United States Environmental Protection Agency (EPA) and the California Department of Health Services define lead paint as containing a minimum of 0.5 percent lead by weight. Lead-containing waste materials with a concentration greater than 0.1 percent are considered hazardous waste by California law. Both the federal and California OSHA maintain regulations regarding the disturbance of paints that contain any amount of lead.

[2] ENGEO prepared a clarification regarding the May 7, 2015 Phase I ESA, which concluded that no additional studies are recommended at this time.

Both Phase I ESAs indicate that on-site structures were constructed at a time when lead based paint was in common use.

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).

Table 3.7-2 summarizes the results of indoor radon testing conducted by the California Department of Health Services within the Project Site's zip codes and three surrounding zip codes. As shown in the table, when the indoor radon tests are aggregated, 1.1 percent exceeded 4.0 pCi/L. The California Department of Health Services classifies areas with 0 to 7 percent of samples exceeding 4.0 pCi/L to be areas of low radon potential.

Table 3.7-2: Indoor Radon Testing Summary

Zip Code (Area)	Total Indoor Radon Samples	Number Exceeding 4.0 pCi/L	Percent Exceeding 4.0 pCi/l
94506 (Northern Site/Danville)	19	1	5.3%
94582 (Southern Site/San Ramon)	51	0	0.0%
94588 (Eastern Tassajara Valley/Pleasanton)	25	0	0.0%
94551 (Livermore)	17	0	0.0%
94568 (Dublin)	17	0	0.0%
Total	**95**	**1**	**1.1%**
Source: California Department of Health Services, 2015.			

Soil Sampling

As part of the 2015 Phase I ESA, four surface soil samples were collected from the Northern Site within the former orchard area located in the southwestern corner. Given the past agricultural use of the Northern Site, the soils samples were tested for organochlorine pesticides (OCPs) and arsenic. OCPs include two main groups of insecticides: DDT-type compounds and Chlorinated alicyclics. Arsenic levels may indicate the use of arsenic-based pesticides. Results of the testing indicated that OCP was either non-detectable or below the Direct-Exposure Screening Levels as established by the San Francisco Bay Regional Water Quality Control Board. Arsenic was either non-detectable or detected at levels consistent with typical background concentrations for the Bay Area. As such, agricultural-related residual pesticides are not assumed to be present within the Northern Site. No soil samples were taken as part of the 2009 Phase I ESA.

3.7.3 - Regulatory Framework

Hazardous Materials Laws

The EPA is the lead agency responsible for enforcing federal laws and regulations governing hazardous materials that affect public health or the environment. The major federal laws and regulations enforced by the EPA include the Resource Conservation and Recovery Act (RCRA), the Toxic Substances Control Act, the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA), and the Superfund Amendments and Reauthorization Act.

In 1976, the RCRA was enacted to provide a general framework for the EPA to regulate hazardous waste from the time it is generated until its ultimate disposal. In accordance with RCRA, facilities that generate, treat, store, or dispose of hazardous waste are required to ensure that the wastes are properly managed from "cradle to grave."

Also in 1976, the Toxic Substances Control Act was enacted to provide the EPA authority to regulate the production, importation, use, and disposal of chemicals that pose a risk of adversely impacting public health and the environment, such as polychlorinated biphenyls (PCBs), asbestos-containing materials, and lead-based paint. The Toxic Substances Control Act also gives the EPA authority to regulate the cleanup of sites contaminated with specific chemicals, such as PCBs.

In 1980, CERCLA, commonly known as the Superfund, was enacted to ensure that a source of funds was available for the EPA to remediate uncontrolled or abandoned hazardous materials release sites that pose a risk of adversely impacting public health and the environment. Prohibitions and requirements regarding closed or abandoned hazardous waste sites and liability standards for responsible parties were also established by CERCLA. In 1986, the Superfund Amendments and Reauthorization Act amended CERCLA to increase the Superfund budget, modify contaminated site cleanup criteria and schedules, and revise settlement procedures.

Other relevant federal laws include the Hazardous and Solid Waste Amendments Act regarding hazardous waste management; the Toxic Substances Control Act, pertaining to the tracking and screening of industrial chemicals; and the Federal Insecticide, Fungicide, and Rodenticide Act, which controls pesticide distribution, sale, and use. Applicable federal regulations and guidelines are contained primarily in Code of Federal Regulations (CFR) Titles 10, 29, 40, and 49.

State

Hazardous Materials

In California, the EPA has granted most enforcement authority over federal hazardous materials regulations to the California Environmental Protection Agency (Cal/EPA). The mission of Cal/EPA is to restore, protect, and enhance the environment to ensure public health, environmental quality, and economic vitality. Under the authority of Cal/EPA, the Department of Toxic Substances Control (DTSC) and the San Francisco Bay Regional Water Quality Control Board (RWQCB) are responsible for overseeing the cleanup of contaminated soil and groundwater sites in the Project vicinity. RWQCB regulations applicable to hazardous materials are contained in Title 27 of the California Code of Regulations (CCR). Additional state regulations applicable to hazardous materials are contained in

CCR Title 22. CCR Title 26 is a compilation of those sections or titles of the CCR that are applicable to hazardous materials.

The California Hazardous Waste Control Law

The Hazardous Waste Control Law (HWCL) is the primary hazardous waste statute in the State of California. HWCL implements RCRA as a "cradle-to-grave" waste management system in the State. HWCL states that generators have the primary duty to determine whether their wastes are hazardous and to ensure their proper management. HWCL also establishes criteria for the reuse and recycling of hazardous wastes. HWCL exceeds federal requirements by mandating source reduction planning, and a much broader requirement for permitting facilities that treat hazardous waste. It also regulates a number of types of wastes and waste management activities that are not covered by RCRA.

California Code of Regulations

Most state and federal regulations and requirements that apply to generators of hazardous waste are spelled out in the California Code of Regulations (CCR), Title 22, Division 4.5. Title 22 contains detailed compliance requirements for hazardous waste generators and transporters, and treatment, storage, and disposal facilities. Because California is a fully authorized State according to RCRA, most RCRA regulations (those contained in 40 Code of Federal Regulations [CFR] 260, et seq.) have been duplicated and integrated into Title 22. However, because the DTSC regulates hazardous waste more stringently than the EPA, Title 22 contains fewer exemptions and exclusions than 40 CFR 260. As with the California Health and Safety Code, Title 22 also regulates a wider range of waste types and waste management activities than RCRA regulations in 40 CFR 260. To make regulatory requirements more accessible and easier to follow, California compiled the hazardous materials, waste, and toxics-related regulations contained in CCR, Titles 3, 8, 13, 17, 19, 22, 23, 24, and 27 into one consolidated CCR Title 26 "Toxics." However, California hazardous waste regulations are still commonly referred to as Title 22.

California Strategic Fire Plan

The 2010 Strategic Fire Plan is a statewide fire plan developed as a cooperative effort between the State Board of Forestry and Fire Protection and the California Department of Forestry and Fire Protection. The Fire Plan builds upon the concept first developed in the 1996 California Fire Plan, which led to collaborative efforts in fire prevention. The primary goals of the 2010 Strategic Fire Plan that are critical to reducing and preventing the impacts of fire revolve around both suppression and prevention efforts. Major components include improved availability and use of information on hazard and risk assessment; land use planning, including general plans, new development, and existing developments; shared vision among communities and the multiple fire protection jurisdictions, including county-based plans and community-based plans such as Community Wildfire Protection Plans; establishing fire resistance in assets at risk, such as homes and neighborhoods; shared vision among multiple fire protection jurisdictions and agencies; levels of fire suppression and related services; and post-fire recovery.

Public Resources Code Section 4291

Public Resources Code Section 4291 requires that structures located in or adjacent to grass-covered lands maintain defensible space of 100 feet from each side and from the front and rear of the

structure, but not beyond the property line. Within the defensible space, fuels (consisting of any combustible material including vegetation, wildland fuels, and petroleum-based products) must be maintained in a condition so that a wildfire burning under average weather conditions would be unlikely to ignite the structure.

Local

Contra Costa County General Plan

The Contra Costa County General Plan establishes the following goals and policies related to hazards and hazardous materials that are related to this analysis:

Chapter 7: Public Facilities/Services Element

- **Goal 7-AA:** To incorporate requirements for fire-safe construction into the land use planning and approval process.
- **Goal 7-AD:** To provide special fire protection for high-risk land uses and structures.
- **Policy 7.64:** New development shall pay its fair share of costs for new fire protection facilities and services.
- **Policy 7.80:** Wildland fire prevention activities and programs such as controlled burning, fuel removal, establishment of fire roads, fuel breaks and water supply, shall be encouraged to reduce wildland fire hazards.
- **Policy 7.81:** All structures located in Hazardous Fire Areas, as defined in the Uniform Fire Code, shall be constructed with fire-resistant exterior materials, such as fire safe roofing, and their surroundings are to be irrigated and landscaped with fire-resistant plants, consistent with drought resistance and water conservation policies.

Chapter 10: Safety Element

- **Goal 10-I:** To provide public protection from hazards associated with the use, transport, treatment, and disposal of hazardous substances.
- **Policy 10.62:** Storage of hazardous materials and wastes shall be strictly regulated.
- **Policy 10.68:** When an emergency occurs in the transportation of hazardous materials, the County Office of Emergency Services shall be notified as soon as possible.
- **Goal 10-N:** To provide for a continuing high level of public protection services and coordination of services in a disaster.
- **Policy 10.86:** In order to ensure prompt protection services, dwelling unit numbers shall be required to be easily seen from the street or road.
- **Policy 10.91:** Restrict homes built in rural areas or adjacent to major open space areas from having roofs which are covered with combustible materials.

Contra Costa County Ordinance Code

Division 450, Hazardous Materials and Wastes, of the Contra Costa County Ordinance Code provides regulations regarding hazardous material response plans, inventories, underground storage, and risk management. In part, this division requires that any business that handles a specific quantity of hazardous materials establish a business plan for emergency response to a release or threatened release of a hazardous material.

3.7.4 - Methodology

The following analysis is based on, among other things, information provided by the 2009 and 2015 Phase I ESAs prepared by ENGEO, Inc., and the Contra Costa County General Plan. The information obtained from these sources, and other relevant materials, was reviewed and evaluated to establish potential presence of hazards and hazardous materials on the Project Site. Both Phase I ESAs are provided in their entirety in Appendix F.

3.7.5 - Thresholds of Significance

According to Appendix G, Environmental Checklist, of the CEQA Guidelines, hazards and hazardous materials impacts resulting from the implementation of the Project would be considered significant if the Project would:

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 likely release of 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 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? (Refer to Section 7, Effects Found not to be Significant.)

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?

3.7.6 - Project Impacts and Mitigation Measures

This section discusses potential environmental impacts associated with the development and operation of the Project and provides feasible mitigation measures where appropriate. As described in Section 2 of this R-DEIR, a Memorandum of Understanding (MOU) is currently being considered to preserve certain land in the county for agriculture and open space, wetlands, or parks. The effect of

the MOU would be to continue existing policy, and the MOU would not result in a substantial adverse change to existing conditions with respect to hazards and hazardous materials. The range of actions to be considered pursuant to the MOU were it to be adopted would include promoting agriculture through the purchase of land or easements from willing sellers, through continuing the Williamson Act program and its related tax benefits, as well as through technical support to better manage weeds and water. To the extent that any specific projects that could be considered for funding pursuant to the MOU—such as land conservation, weed management, or groundwater improvements—could have adverse environmental effects, such projects would be subject to separate project-level CEQA review as proposed actions are defined and funding for them is identified. As the precise location and scope of such projects is not known at this time, further consideration of potential impacts would be speculative.

Routine Transport, Use or Disposal of Hazardous Materials

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

Impact Analysis

Short-Term Construction Impacts

During construction of the Residential Development Area and related infrastructure, and of the staging areas, trail, and other proposed improvements within the Non-Urban Development Area, hazardous materials would be handled on the Northern Site. Hazardous materials may also be handled on the Southern Site during the creation of wetlands. These hazardous materials would include gasoline, diesel fuel, lubricants, and other petroleum-based products used to operate and maintain construction equipment and vehicles. This handling of hazardous materials would be a temporary activity and coincide with the short-term construction phases of the Project. Although hazardous materials associated with the operation and maintenance of construction equipment and vehicles may be stored on the Project Site, it is expected that only the amounts needed would be kept on-site, and any handling of such materials would be limited in both quantities and concentrations. Removal and disposal of hazardous materials from the Project Site would be conducted by an appropriately licensed contractor. Any handling, transporting, use, or disposal would comply with applicable laws, policies, and programs set forth by various federal, state, and local agencies and regulations, including the EPA, RCRA, Caltrans, and Contra Costa Hazardous Materials Program. Required compliance with applicable hazardous material laws and regulations would ensure that construction-related hazardous material use would not result in significant impacts.

Because of the age of the existing on-site buildings, there is a possibility that potentially hazardous buildings materials such as asbestos-containing materials and lead-based paint may be encountered during demolition of on-site structures. If present, removal of these materials by contractors licensed to remove and handle these materials in accordance with all applicable federal, state, and local laws and regulations would need to occur. With the implementation of mitigation requiring testing for asbestos and lead and subsequent removal if found, impacts from removal of asbestos and lead-containing materials would be less than significant. Note that the one vacant, single-family residence with associated support structures (barns, outbuildings) and a barn located just south of

the Potential Future Fire District Parcel on the Southern Site are not proposed for demolition as a part of the Project. The approximately 12 portable horse stables, related portable fencing, and any existing horse trailers located adjacent to the Future Equestrian Staging Area on the Northern Site would be removed. These features are all portable and removal activities would therefore be minimal. The two existing nearby wood-construction barns would not be altered or removed. Mitigation is proposed that would require proper abatement of potentially hazardous substances for any structure removed as part of the Project to ensure potential impacts would be less than significant.

According to the 2015 Phase I ESA, a water well and a possible septic system were identified on the Northern Site in the northeast corner near the Potential Future Equestrian Staging Area. In addition, a water well was located on the Northern Site along Camino Tassajara. According to the 2009 Phase I ESA, wells and septic systems are also present on the Southern Site. To prevent contamination of groundwater and other dangers, appropriate destruction and abandonment procedures would be required prior to site disturbance in the vicinity of any wells and septic systems on the Northern Site (where development is proposed), consistent with applicable Contra Costa County and State regulations,[3] including Contra Costa County Ordinance Code Section 414-4.809 requiring compliance with Part II, Section 23 of the State of California Department of Water Resources Bulletin Number 74 and Contra Costa Environmental Health Division requirements. Compliance with applicable laws and regulations would ensure that impacts related to wells and septic systems would be less than significant.

The 2009 Phase I ESA recommended that soils near the identified aboveground tank and fuel dispenser and former orchard area on the Southern Site be reviewed for potential soil impacts. However, since the preparation of the 2009 Phase I ESA, the Project has been significantly modified (including the elimination of any development on the Southern Site). Thus unlike the original proposal, the Project would not disturb this area (except for minor grading related to wetlands creation). Therefore, there is no potential for related impacts to occur.

Long-Term Operational Impacts

During the operational phase of the Project, hazardous materials may be handled on the Project Site. Because of the nature of the Project, hazardous materials used on-site may vary, but would likely be limited to fertilizers, herbicides, pesticides, solvents, cleaning agents, and similar materials used for daily residential operations and maintenance activities. These types of materials are common for residential developments such as the Project and represent a low risk to people and the environment when used as intended. Therefore, long-term operational impacts associated with hazardous materials would be less than significant.

Level of Significance Before Mitigation

Potentially significant impact.

[3] ENGEO prepared a clarification either regarding the May 7, 2015 Phase I ESA, which concluded that no additional studies are recommended at this time. [CITE SOURCE; CONFIRM THIS IS INCLUDED IN THE ADMIN RECORD.]

Mitigation Measures

MM HAZ-1 Prior to the demolition of any on-site structure constructed prior to 1978 or suspected to contain asbestos or lead containing materials, the property owner or applicant shall retain a qualified contractor to determine the presence or absence of asbestos-containing materials or lead-based paint. If either material is found to be present, the property owner or applicant shall retain a certified hazardous waste contractor to properly remove and dispose of all materials containing asbestos or lead paint in accordance with applicable federal and state laws and regulations. The property owner or applicant shall submit documentation to Contra Costa County demonstrating that this contractor has been retained as part of the demolition permit application. Upon completion of removal and disposal of materials, the Project applicant shall provide documentation to Contra Costa County demonstrating that these activities were successfully completed.

Level of Significance After Mitigation

Less than significant impact.

Risk of Upset

Impact HAZ-2: The Project would not create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the hazardous materials into the environment.

Impact Analysis

The Project Site is primarily undeveloped and has not historically supported development beyond that of agricultural uses and the vacant residence, associated support structures (barns, outbuildings) on the Northern Site, and barn on the Southern Site. The Phase I ESAs concluded that there were no recognized environmental constraints on the Northern Site or Southern Site. Furthermore, the residential, park, recreational, open space, and other non-urban uses proposed by the Project would not include the use or creation of any significant amounts of hazardous materials. Accordingly, development of the Project would not create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the likely release of hazardous materials into the environment.

As discussed in Impact HAZ-1, the Project would likely utilize fertilizers, herbicides, pesticides, solvents, cleaning agents, and similar materials used for daily residential operations and maintenance activities. These types of materials are common in such residential projects and represent a low risk to people and the environment when used as intended, and would not be expected to result in the release of hazardous materials into the environment. As such, impacts would be less than significant.

Level of Significance Before Mitigation

Less than significant impact.

Mitigation Measures

No mitigation is necessary.

Level of Significance After Mitigation

Less than significant impact.

Schools

Impact HAZ-3:	**The Project would not 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

Tassajara Hills Elementary School (4675 Camino Tassajara, Danville, California 94506) is located directly west of the Northern Site. Proposed uses within 0.25 mile of Tassajara Hills Elementary School would include the residences, Pedestrian Staging Area, and trail components of the Project. These uses may routinely use cleaning solvents (e.g., degreasers, paint thinners, and aerosol propellants), paints (both latex- and oil-based), acids and basis (such as many household cleaners), disinfectants, and fertilizers. These uses would be limited in quantity and would be required to be handled, stored, and disposed of in accordance with applicable local, state, and federal laws and regulations. Furthermore, such uses are typical of residential developments and similar to the existing residential areas located immediately north and west of the Tassajara Hills Elementary School.

In summary, proposed land uses and development within 0.25 mile of an existing or proposed school would not emit or handle substantial amounts of hazardous materials or waste. As such, impacts would be less than significant.

Level of Significance Before Mitigation

Less than significant impact.

Mitigation Measures

No mitigation is necessary.

Level of Significance After Mitigation

Less than significant impact.

Hazardous Materials Site Listing

Impact HAZ-4:	**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 not create a significant hazard to the public or the environment.**

Impact Analysis

The Project Site is not listed on any hazardous materials databases compiled pursuant to Government Code Section 65962.5. The 2015 Phase I ESA concluded that it is unlikely that any of the three listed sites within a 1-mile radius of the Northern Site pose an environmental risk to the Northern Site. The 2009 Phase I ESA indicated nine listed sites were located within a 2-mile radius of the Project Site but similarly concluded that it is unlikely that any of these sites poses an environmental risk to the Project Site. Moreover, in *Building Industry Association v. Bay Area Air*

Quality Management District, 62 Cal. 4th 396 (2015), the California Supreme Court held that CEQA review should be "limited to those impacts on a project's users or residents that rise from the Project's effects on the environment." The Phase I ESAs did not find any evidence of hazardous materials contamination on the Project Site. Therefore, development and operation of the Project would not expose persons to residual hazardous materials from past uses of the Project Site and thus would not create a significant hazard to the public or the environment. Impacts would be less than significant.

Level of Significance Before 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

As indicated by the Contra Costa County General Plan, fire hazard presents a considerable problem throughout the County. Grassland fires are easily ignited, particularly in dry seasons. Wildfire is a serious hazard in undeveloped areas of the County, particularly near areas of natural vegetation and dry-farmed areas, such as those areas in the Tassajara Valley. As indicated by Figure 10-10 of the General Plan, the Project Site is located in a Moderate Fire Hazard State Responsibility Area.

As indicated in Section 3.11, Public Services and Recreation, the Project would be adequately served by the San Ramon Valley Fire Protection District's Fire Station 36, which is located directly south of the Northern Site. Proposed residences would be constructed with tile or other fire-resistant roofing, which minimize the spread of fire. In addition, proposed residences would be required to comply with the California Fire Code with regard to access and building materials and Public Resources Code Section 4291 requiring the maintenance of defensible space for structures adjacent to grass-covered lands.

As indicated in the San Ramon Valley Fire Protection District's (SRVFPD's) letter dated April 23, 2014, the Project would be conditioned to provide and implement a separate landscaping plan for vegetation fuel modification and/or buffer zone(s) featuring fire resistive and drought tolerant varieties of landscaping where development interfaces with open space (Stevens 2014). This landscaping buffer, as shown in Exhibit 2-8, is a landscaped walking path along the Residential Development Area's northern boundary and the detention basin to the east of the Residential Development Area, would act as a fire break, along with regular defensible space, in the event of a wildfire in adjoining open space areas. Finally, consistent with SRVFPD Exterior Hazard Abatement

Program, open space areas adjacent to the Residential Development Area would be required to provide a 15-foot disked or bladed fuel break along the perimeter of the property (SRVFPD 2015). The Exterior Hazard Abatement Program is codified in the SRVFPD's ordinance codes and amends similar California Fire Code and International Fire Code standards to include with more stringent standards to specifically address fire danger in SRVFPD's wildland urban interface area. Compliance with the Exterior Hazard Abatement Program is a requirement, and noncompliance would result in code enforcement actions by SRVFPD as outlined in Ordinance #24 by the Board of Directors, including but not limited to citations and fines. As indicated, the aforementioned Project features and requirements, impacts related to wildland fire would be less than significant.

Level of Significance Before Mitigation

Less than significant impact.

Mitigation Measures

No mitigation is necessary.

Level of Significance After Mitigation

Less than significant impact.

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