

4.8 Hazards and Hazardous Materials

This section describes the existing hazards and hazardous material conditions of the project and vicinity, identifies associated regulatory requirements, evaluates potential project and cumulative impacts, and identifies mitigation measures for any significant impacts related to implementation of the proposed Newell Creek Pipeline (NCP) Improvement Project (Proposed Project). This analysis is based on a review of online hazardous material site databases. The following two issues that are often included in hazards and hazardous materials sections are addressed in other sections: potential impairment of emergency evacuation routes is addressed in Section 4.11, Transportation, and wildfire hazards are addressed in Section 4.12, Wildfire.

A summary of the comments received during the scoping period for this environmental impact report (EIR) is provided in Table 2-1 in Chapter 2, Introduction, and a complete list of comments is provided in Appendix A. There were no comments related to hazards and hazardous materials.

4.8.1 Existing Conditions

4.8.1.1 Hazardous Materials

Definitions and Overview

As defined in the California Health and Safety Code Section 25501, “hazardous material” means any material that, because of its quantity, concentration, or physical or chemical characteristics, poses a significant hazard to human health and safety, or to the environment, if released into the workplace or the environment. “Hazardous materials” include, but are not limited to, hazardous substances, hazardous waste, and any material that a handler or the administering agency has a reasonable basis for believing would be injurious to the health and safety of persons, or harmful to the environment if released into the workplace or the environment. Hazardous wastes are hazardous substances that no longer have a practical use, such as material that has been abandoned, discarded, spilled, or contaminated, or is being stored prior to proper disposal.

California Code of Regulations (CCR), Title 22, Chapter 11, Article 2, Section 66261.10 provides the following definition for hazardous waste:

[A] waste that exhibits the characteristics may: (1) cause, or significantly contribute to, an increase in mortality or an increase in serious irreversible, or incapacitating reversible, illness; or (2) pose a substantial present or potential hazard to human health or the environment when it is improperly treated, stored, transported, disposed of or otherwise managed.

According to CCR Title 22, substances having a characteristic of toxicity, ignitability, corrosivity, or reactivity are considered hazardous waste. Toxic substances may cause short-term or long-lasting health effects, ranging from temporary effects to permanent disability or death. For example, toxic substances can cause eye or skin irritation, disorientation, headache, nausea, allergic reactions, acute poisoning, chronic illness, or other adverse health effects if human exposure exceeds certain levels (levels depend on the substance involved). Carcinogens, substances known to cause cancer, are a special class of toxic substances. Examples of toxic substances include most heavy metals, pesticides, and benzene (a carcinogenic component of gasoline).

Ignitable substances, such as gasoline, hexane, and natural gas, are hazardous because of the flammable properties. Corrosive substances (e.g., strong acids and bases such as sulfuric battery acid or lye) are chemically active and can damage other materials or cause severe burns upon contact. Reactive substances (e.g., explosives, pressurized canisters, and pure sodium metal, which react violently with water) may cause explosions or generate gases or fumes.

Regulatory Records Review Methodology

Government Code Section 65962.5 requires the California Environmental Protection Agency (CalEPA) to compile a list of hazardous waste and substances sites (Cortese List). This list is used by the State, local agencies, and developers to comply with CEQA requirements in providing information about the location of hazardous materials release sites. The Cortese List must be updated annually. While the Cortese List is no longer maintained as a single list, the following databases provide information that meet the Cortese List requirements:

- List of hazardous waste and substance sites from the Department of Toxic Substances Control's (DTSC's) EnviroStor database (DTSC 2021a) (Health and Safety Codes 25220, 25242, 25356, and 116395).
- List of hazardous waste facilities subject to corrective action pursuant to Section 25187.5 of the California Health and Safety Code, as identified by DTSC's EnviroStor database.
- List of leaking underground storage tank (LUST) sites from the State Water Resources Control Board (SWRCB) GeoTracker database (SWRCB 2021a) (Health and Safety Code 25295).
- List of solid waste disposal sites, identified by the SWRCB GeoTracker database, with waste constituents higher than hazardous waste levels outside the waste management unit (Water Code Section 13273 subdivision [e] and 14 CCR Section 18051).
- List of cease and desist orders and cleanup and abatement orders identified by the SWRCB GeoTracker database (Water Code Sections 13301 and 13304).

A search of the Cortese List databases was conducted in May and June 2021. The search included sites listed on the DTSC portion of the Cortese List (i.e., hazardous waste sites) within 1.0 mile of the Proposed Project alignment, as well as sites listed on the remaining portions of the Cortese List (i.e., nonhazardous waste sites) within 0.5 mile of the Project alignment. A database search was not completed for the proposed existing pipeline to be abandoned in-place, as proposed ground disturbance would be limited to removal of fire hydrants along Pipeline Road in Henry Cowell Redwoods State Park. The existing pipeline to be decommissioned would be capped off and filled with grout in-place.

Regulatory Records Review Results

DTSC Cortese Sites

The DTSC is responsible for a portion of the information contained in the Cortese List. The Proposed Project alignment is within 1.0 mile of several DTSC Cortese List sites, including the following:

Valeteria Dry Cleaners. Dry cleaning solvent leaked from a septic system during dry cleaning operations from 1960 to 1962, resulting in soil and groundwater contamination, as well as contamination of a nearby spring

and the San Lorenzo River. This active Cleanup Program site is located at 6531 Highway 9, in Felton, approximately 0.1 mile southwest of the San Lorenzo Way pipe section of the northern segment of the Proposed Project, on the opposite side of the San Lorenzo River (Figure 4.8-1a). Dry cleaning solvents disposed on-site resulted in tetrachloroethylene (PCE) contamination in groundwater, soil, and the San Lorenzo River. Following initial soil remediation under the DTSC, the case was transferred in 1993 to the Central Coast Regional Water Quality Control Board (RWQCB), who continued with soil and groundwater assessment and remediation (DTSC 2021b). A leaking underground septic tank was also present on-site. The tank and surrounding soil were excavated with U.S. Environmental Protection Agency (EPA) oversight. Although the PCE contamination has been partially remediated in soil, PCE waste continues to discharge to the San Lorenzo River. Groundwater is approximately 23 feet below ground surface. Additional site assessment and remediation is planned (SWRCB 2021c).

Former Santa Cruz Lumber Company (current San Lorenzo Lumber Yard). Metals contamination has been documented in on-site soils as a result of prior wood treatment operations from 1973 to 1986. The northeast corner of this 35-acre site, located at 5843 Graham Hill Road, is immediately adjacent to the Graham Hill Road North pipe section in the Proposed Project southern segment (Figure 4.8-1b). In addition, petroleum hydrocarbons as diesel, VOCs, and SVOCs were detected in soil and groundwater as a result of a leaking above-ground storage tank (AST). However, diesel, VOC, and SVOC contamination was confined to the immediate vicinity of the AST, located approximately 800 feet southwest of the Project pipeline alignment. Remedial investigations and remediation were conducted from 1986 to 1987 to address metals-impacted soils. The site was closed with respect to regulatory compliance in 1988/1989; however, the site was re-opened in 2015 and additional site investigations are on-going, under the guidance of the DTSC (DTSC 2021c).

Based on a February 2020 work plan (Trinity Source Group 2020), which summarizes existing contamination and proposes additional areas of soil and groundwater sampling, the primary areas of contamination are in the southern and western portions of the site, in the vicinity of the former wood treatment facility, former burner area (i.e., incinerator), and former diesel AST. Chemicals of potential concern (COPCs) in soil and groundwater originally included total chromium, hexavalent chromium, copper, arsenic, formaldehyde, petroleum hydrocarbons as diesel, volatile organic compounds (VOCs), semi-volatile VOCs (SVOCs), and chromate copper arsenate (CCA). However, previous investigations concluded that: 1) CCA has not impacted groundwater; 2) hexavalent chromium and formaldehyde are likely naturally occurring and are not considered COPCs; 3) copper is not considered a COPC; 4) VOCs and SVOCs are limited to the immediate vicinity of the former AST, and 5) arsenic impacts are limited to the upper 2.5 feet of soil, with naturally occurring levels present in groundwater. A background level arsenic assessment was also completed as part of previous site investigations to calculate the risk-based arsenic levels, based on DTSC guidance,

The area of current soil contamination that exceeds regulatory screening levels is restricted to arsenic and is approximately 300 feet from the proposed pipeline alignment on Graham Hill Road, at the closest point. Additional soil sampling was proposed in the February 2020 work plan (Trinity Source Group 2020) to further evaluate shallow soils for the presence of arsenic, such that a Soil Management Plan can be developed to protect construction workers during future development. Sampling is proposed within 100 feet of the proposed pipeline alignment.

Groundwater was encountered at a depth of 28 feet beneath the site and flows to the west-southwest, toward the San Lorenzo River (i.e., opposite direction from the Project alignment). The work plan includes groundwater sampling and analysis for arsenic, formaldehyde, VOCs, SVOCs, and polycyclic aromatic hydrocarbons (PAHs).

Kaiser Pit. The Kaiser Pit, a former sand and gravel quarry that was subsequently used for disposal of treated effluent from the City of Scotts Valley Wastewater Treatment Plant, is approximately 300 feet northeast of the Graham Hill Road North pipe section, at the closest point (Figure 4.8-1b). Several industrial facilities and small shops were connected to the sanitary sewer system while wastewater was discharged to the Kaiser Pit. In 1985, analytical testing performed for the City of Scotts Valley revealed the presence of VOCs in plant effluent, including perchloroethylene, dichloroethylene, and chloromethane. Based on sampling and analysis completed at the site, the Kaiser Pit was removed from the Cortese List in 1988 and as of November 7, 2003, no further action was required by the DTSC with respect to potentially contaminated soil and groundwater (DTSC 2021d).

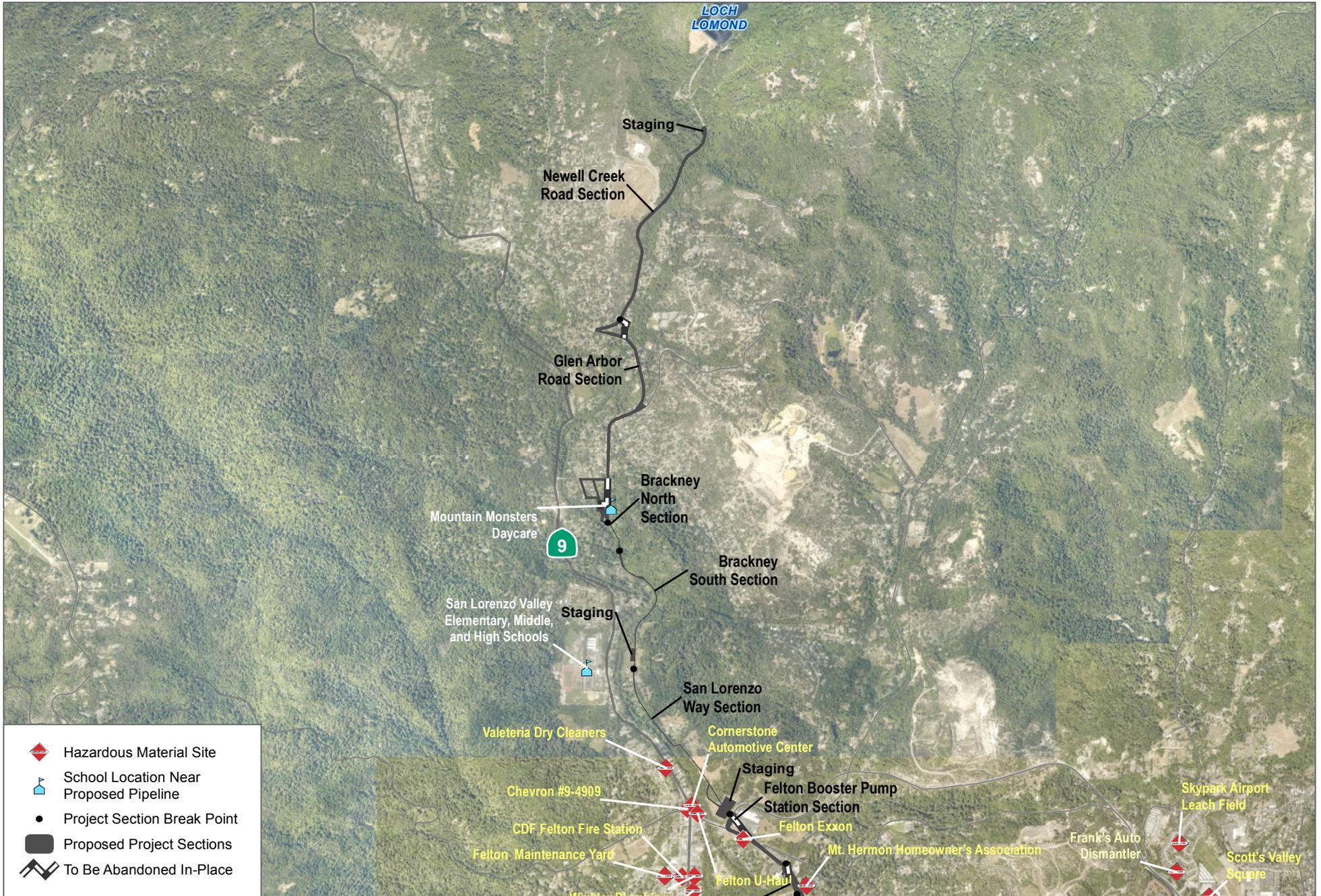
Franks Auto Dismantler. This 1.0-acre site, which included a wrecking yard from the 1960s until 1990, is located at 700 Mount Hermon Road in Scotts Valley, approximately 0.8 mile northeast of the Graham Hill Road North pipe section at the closest point (Figure 4.8-1b). Two abandoned underground storage tanks (USTs) were removed from the site in 1993 and the Scotts Valley Fire Protection District approved regulatory closure (i.e., no further action required) for the USTs. Non-hazardous concentrations of metals were detected in soil samples collected at the site in 2003 in association with a DTSC Preliminary Endangerment Assessment. Based on the relatively low concentrations of metals, the site was referred to the California Integrated Waste Management Board with respect to cleanup of auto parts, trash, debris, and tires (DTSC 2021e).

Scotts Valley Square. Based on a Phase I Environmental Site Assessment in 1993, PCE associated with dry-cleaning operations was detected in soil and groundwater at Scotts Valley Square. The Scotts Valley Square site is located at 272-A Mount Hermon Road in Scotts Valley, approximately 0.8 mile northeast of the Proposed Project Graham Hill Road North pipe section at the closest point (Figure 4.8-1b). A DTSC Preliminary Endangerment Assessment was subsequently completed, which included a soil and groundwater assessment. In 2001, the DTSC referred the case to the Central Coast RWQCB for additional oversight. Additional site assessment and remediation has been completed under the guidance of the RWQCB (DTSC 2021f).

Skypark Airport Leachfield. VOC-contaminated wastewater was released into the subsurface, from 1967 to 1973, in connection with an 80-acre, City of Scotts Valley municipal waste leachfield, approximately 1.0 mile northeast of the Graham Hill Road North pipe section (Figure 4.8-1b). The release of contaminated wastewater potentially contributed to regional contamination of the Santa Margarita aquifer, which is a federally designated Sole Source Aquifer for the Scotts Valley region. However, based on soil sampling completed at the site in 1994, the site was determined by the DTSC to be suitable for residential development, no further action was required, and approximately 200 homes were constructed (DTSC 2021g).

State Water Resources Control Board (SWRCB) GeoTracker Sites

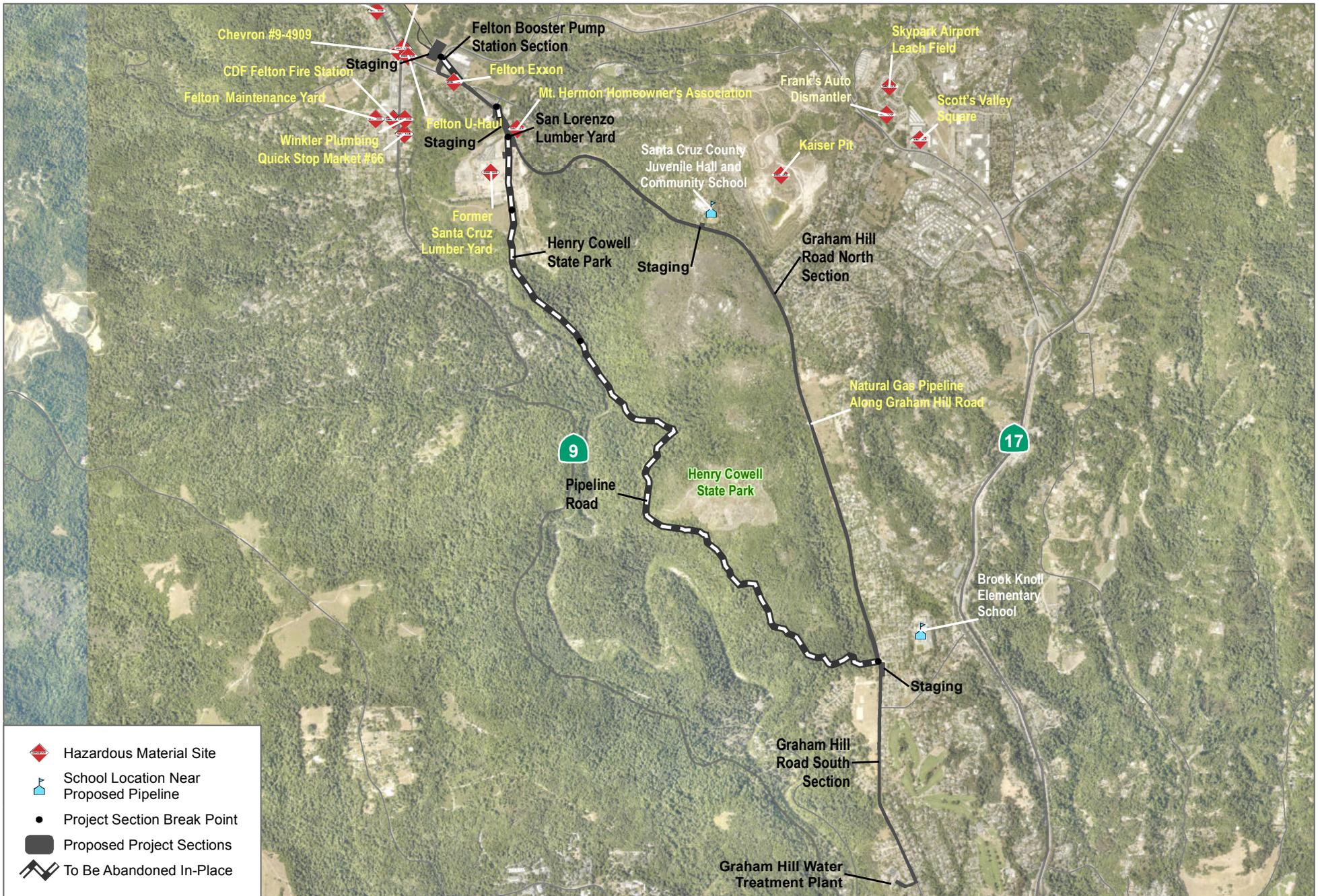
Other State and local government agencies are required to provide additional hazardous materials release information for the Cortese List. GeoTracker is the SWRCB's data management system for sites that impact, or have the potential to impact, water quality in California, with an emphasis on groundwater. GeoTracker contains records for sites that require cleanup, such as leaking underground storage tank (LUST) sites, Department of Defense sites, and Cleanup Program sites. GeoTracker also contains records for various unregulated projects, as well as permitted facilities including irrigated lands, oil and gas production, operating USTs, and land disposal sites. The Proposed Project alignment is within 0.5 mile of numerous GeoTracker sites summarized below, as well as the Valencia Dry Cleaners and former Santa Cruz Lumber Company sites, as described above.



SOURCE: ESRI Imagery 2021, County of Santa Cruz 2021

FIGURE 4.8-1A

INTENTIONALLY LEFT BLANK



SOURCE: ESRI Imagery 2021, County of Santa Cruz 2021

FIGURE 4.8-1B

Hazardous Materials Sites - Southern Segment

Newell Creek Pipeline Improvement Project

INTENTIONALLY LEFT BLANK

San Lorenzo Valley Elementary School. This LUST site, located 0.2 mile west of the Brackney South pipe section in the northern segment of the Proposed Project pipeline alignment (Figure 4.8-1a), included gasoline-contaminated soil and groundwater that was remediated. The County of Santa Cruz Health Services Agency granted site closure in August 2011, indicating no further remedial actions are required (SWRCB 2021b).

Chevron #9-4909. Gasoline-impacted groundwater has been undergoing remediation at this active LUST site since the early 1990s. This site is located at 6325 Highway 9 in Felton, approximately 0.2 mile southwest of the San Lorenzo Way pipe section in the northern segment of the Proposed Project pipeline alignment, on the opposite side of the San Lorenzo River (Figure 4.8-1a). Although the site has been eligible for closure since January 2015, the Central Coast RWQCB has not granted closure to-date (SWRCB 2021d).

Cornerstone Automotive Service. This LUST site is located at 6320 Highway 9, approximately 0.1 mile southwest of the San Lorenzo Way pipe section on the opposite side of the San Lorenzo River (Figure 4.8-1a). Two phases of site assessment and remediation occurred as a result of gasoline releases at the site. The first phase occurred from 1988 to 1997, at which point site closure was granted by the Central Coast RWQCB. The second phase occurred from 2010 to 2016, at which point site closure was granted, indicating that no additional site assessment or remediation is required (SWRCB 2021e). Site closure can be granted more than one time on a given site. When site closure is granted by environmental regulatory agencies, those agencies always reserve the right to reopen the case in the event that emerging contaminants are discovered. Emerging contaminants are defined as chemicals that are not currently (or have been only recently) regulated and about which there exist concerns regarding their impact on human or ecological health.

Felton U-Haul. Groundwater has been impacted by gasoline releases at this LUST site, located at 6440 Graham Hill Road in Felton. The Felton U-Haul site is approximately 0.1 mile southwest of the San Lorenzo Way pipe section on the opposite side of the San Lorenzo River (Figure 4.8-1a). The Central Coast RWQCB granted closure for this site in August 1992, indicating no further action is required with respect to site assessment or remediation (SWRCB 2021f).

Felton Exxon. Groundwater has been impacted by gasoline releases at this LUST site, located at 6225 Graham Hill Road in Felton. The Felton Exxon site is immediately adjacent (to the southwest) the Felton Booster Pump Station pipe section in the northern segment of Proposed Project pipeline alignment (Figure 4.8-1a). The Central Coast RWQCB granted closure for this site in February 2013, indicating no further action is required with respect to site assessment or remediation (SWRCB 2021g).

Mt. Hermon Homeowner's Association. Groundwater has been impacted by diesel fuel releases at this LUST site, located at 5700 Graham Hill Road. This site is across Graham Hill Road from the proposed Zayante Creek Crossing (Figure 4.8-1b). The Central Coast RWQCB and Santa Cruz County Environmental Health granted closure for this site in October 2003, indicating no further action is required with respect to site assessment or remediation (SWRCB 2021h).

Felton Maintenance Yard. Groundwater has been impacted by gasoline releases at this LUST site, located at Gushee & Hihn, in Felton. This site is approximately 0.4 mile southwest of the Felton Booster Pump Station pipe section (Figure 4.8-1a). Santa Cruz County Environmental Health granted closure for this site in July 1993, indicating no further action is required with respect to site assessment or remediation (SWRCB 2021i).

CDF Felton Forest Fire Station. Groundwater has been impacted by diesel fuel releases at this LUST site, located at 6059 Highway 9, in Felton. This site is approximately 0.3 mile southwest of the Felton Booster Pump Station pipe section (Figure 4.8-1a). The Central Coast RWQCB granted closure for this site in February 2014, indicating no further action is required with respect to site assessment or remediation (SWRCB 2021j).

Quik Stop Market #66. Groundwater has been impacted by gasoline releases at this LUST site, located at 5960 Highway 9, in Felton. This site is approximately 0.3 mile southwest of the Felton Booster Pump Station pipe section in the northern segment of the Proposed Project pipeline alignment (Figure 4.8-1a). The Central Coast RWQCB granted closure for this site in August 2001, indicating no further action is required with respect to site assessment or remediation (SWRCB 2021k).

Winkler Plumbing. Groundwater has been impacted by kerosene releases at this site, located at 6036 Highway 9, in Felton. This site is approximately 0.3 mile southwest of the Felton Booster Pump Station pipe section (Figure 4.8-1a). The Central Coast RWQCB granted closure for this site in April 2013, indicating no further action is required with respect to site assessment or remediation (SWRCB 2021l).

Project Soil Sampling and Analysis

As discussed in Section 4.6 Geology and Soils, project-specific geotechnical soil borings were completed in the Brackney landslide area (Figure 4.8-1a). In addition, potholing was completed to verify the depth to the existing pipeline. Three potholes were completed in proximity to borings B-1, B-2, and B-3, and a soil sample was collected from depths of 2 to 4 feet and analyzed for total petroleum hydrocarbons (TPH), as diesel/motor oil; volatile organic compounds (VOCs), including TPH as gasoline; and Title 22 metals. Based on the analyses, TPH as gasoline, diesel, and motor oil were not detected above laboratory reporting limits. Most metals were similarly not detected above the laboratory reporting limits. Exceptions include 4-isopropyl toluene, a VOC with no corresponding environmental screening level (ESL) for Human Health Risk Levels (i.e., action level, as established by the San Francisco Bay RWQCB), and arsenic, which is a metal that was detected above the ESL but is less than the estimated background concentrations in the area (CE&G 2021a, 2021b). More specifically, the metals cadmium, molybdenum, and selenium exceeded the ESL protective of terrestrial habitat and regional background. Arsenic was the only analyte detected in soil samples at concentrations above the 0.067 milligrams/kilograms (mg/kg) ESL protective of residential cancer risk and 2.0 milligrams/liter (mg/L) construction worker ESL. The arsenic concentrations ranged from 5.9 mg/kg to 21 mg/kg, with a median concentration of 9.2 mg/kg. The regional background concentration for arsenic is 11 mg/kg. Due to the limited number of soil samples, statistical analysis to identify confidence limits and potential outliers could not be performed.

4.8.1.2 Airport Hazards

No airports are located within 2 miles of the Proposed Project alignment, nor does the pipeline alignment lie within an airport land use plan. The nearest public airport is in Watsonville, approximately 17 miles southeast of the Project alignment, and the nearest private airstrip is located at Bonny Doon Village, approximately 2.5 miles west of the Project alignment.

4.8.1.3 Pipelines and Oil/Gas Drilling Features

A search was conducted for hazardous materials pipelines and oil drilling features that could affect the Proposed Project. The search included the National Pipeline Mapping System (NPMS 2021) and the California Geologic Energy Management Division (CalGEM) Well Mapping database (CalGEM 2021). As indicated on Figure 4.8-1b, a natural gas pipeline is present along the Graham Hill Road North and South pipe sections in the Proposed Project southern segment. According to the CalGEM database, there are no active oil and gas wells within 1 mile of the proposed pipeline route. Therefore, oil and gas wells are not considered a potential hazard to the Proposed Project.

4.8.1.4 Sensitive Receptors

The Proposed Project alignment traverses several residential neighborhoods and business districts, including those within Ben Lomond and Felton, and residential areas along Graham Hill Road. The nearest residence is immediately adjacent to the pipeline route at the south end of Fremont Avenue at the northern end of the Brackney North pipe section. Several schools and a day care facility are within 0.25 mile of the Project alignment. The Mountain Monsters Daycare is approximately 0.1 mile east of the proposed alignment, in Glen Arbor (Figure 4.8-1a). San Lorenzo Valley Elementary School, San Lorenzo Valley Middle School, and San Lorenzo Valley High School are approximately 0.2 mile west of the proposed pipeline alignment, in Felton. The Santa Cruz County Juvenile Hall and Community School is immediately northeast of the pipeline route, along Graham Hill Road, southeast of Felton (Figure 4.8-1B), and Brook Knoll Elementary School is approximately 0.2 mile east of the pipeline route, along the southern portion of Graham Hill Road (CDE 2021; Google 2021).

4.8.2 Regulatory Framework

4.8.2.1 Federal

Toxic Substances Control Act

The Toxic Substances Control Act of 1976 provides the EPA with authority to require reporting, record-keeping, and testing requirements, and restrictions relating to chemical substances and/or mixtures. Certain substances are generally excluded from the Toxic Substances Control Act, including food, drugs, cosmetics, and pesticides.

Hazardous Materials Transportation Act

Transportation of hazardous materials is regulated by the U.S. Department of Transportation's Office of Hazardous Materials Safety. The office formulates, issues, and revises hazardous materials regulations under the Federal Hazardous Materials Transportation Law. The hazardous materials regulations cover hazardous materials definitions and classifications, hazard communications, shipper and carrier operations, training and security requirements, and packaging and container specifications. The hazardous materials transportation regulations are codified in 49 Code of Federal Regulations (CFR) Parts 100–185.

The hazardous materials transportation regulations require carriers transporting hazardous materials to receive training in the handling and transportation of hazardous materials. Training requirements include pre-

trip safety inspections, use of vehicle controls and equipment including emergency equipment, procedures for safe operation of the transport vehicle, training on the properties of the hazardous material being transported, and loading and unloading procedures. All drivers must possess a commercial driver's license as required by 49 CFR Part 383. Vehicles transporting hazardous materials must be properly placarded. In addition, the carrier is responsible for the safe unloading of hazardous materials at the site, and operators must follow specific procedures during unloading to minimize the potential for an accidental release of hazardous materials.

Occupational and Safety Health Act

The Occupational Safety and Health Administration (OSHA) is responsible at the federal level for ensuring worker safety. OSHA sets federal standards for implementing workplace training, exposure limits, and safety procedures for the handling of hazardous substances and hazardous materials (as well as other hazards). OSHA also establishes criteria by which each state can implement its own health and safety program.

Resource Conservation and Recovery Act

The Resource Conservation and Recovery Act (RCRA) gives EPA the authority to control hazardous waste from "cradle-to-grave." This includes the generation, transportation, treatment, storage, and disposal of hazardous waste. RCRA also set forth a framework for the management of non-hazardous solid wastes. The 1986 amendments to RCRA enabled the EPA to address environmental problems that could result from underground tanks storing petroleum and other hazardous substances. The Federal Hazardous and Solid Waste Amendments are the 1984 amendments to RCRA that focused on waste minimization and phasing out land disposal of hazardous waste, as well as corrective action for releases. Some of the other mandates of this law include increased enforcement authority for EPA, more stringent hazardous waste management standards, and a comprehensive underground storage tank program.

Regional Screening Levels

The federal EPA provides regional screening levels for chemical contaminants to provide comparison values for residential and commercial/industrial exposures to soil, air, and tap water (drinking water). Regional screening levels (RSLs) are available on the EPA's website and provide a screening level calculation tool to assist risk assessors, remediation project managers, and others involved with risk assessment and decision-making. RSLs are also used when a site is initially investigated to determine if potentially significant levels of contamination are present to warrant further investigation. In California, the DTSC Human and Ecological Risk Office (HERO) incorporated the EPA RSLs into the HERO human health risk assessment. HERO created Human Health Risk Assessment Note 3, which incorporates HERO recommendations and DTSC-modified screening levels (DTSC-SLs) based on review of the EPA RSLs. The DTSC-SL should be used in conjunction with the EPA RSLs to evaluate chemical concentrations in environmental media at California sites and facilities.

Federal Response Plan

The Federal Response Plan of 1999, as amended in 2003 by FEMA, is a signed agreement among 27 federal departments and agencies, including the American Red Cross, that (1) provides the mechanism for coordinating delivery of federal assistance and resources to augment efforts of state and local governments overwhelmed by a major disaster or emergency; (2) supports implementation of the Robert T. Stafford Disaster

Relief and Emergency Act, as well as individual agency statutory authorities; and (3) supplements other federal emergency operations plans developed to address specific hazards. The Federal Response Plan is implemented in anticipation of a significant event likely to result in a need for federal assistance or in response to an actual event requiring federal assistance under a presidential declaration of a major disaster or emergency.

4.8.2.2 State

Certified Unified Program

CalEPA implements and enforces a statewide hazardous materials program known as the Certified Unified Program, established by Senate Bill 1802 to consolidate, coordinate, and make consistent the administrative requirements, permits, inspections, and enforcement activities for the following environmental and emergency management programs for hazardous materials:

- Hazardous Materials Release Response Plans and Inventories (Business Plans)
- California Accidental Release Prevention Program
- Underground Storage Tank Program
- Aboveground Petroleum Storage Act Requirements for Spill Prevention, Control, and Countermeasure Plans
- Hazardous Waste Generator and On-Site Hazardous Waste Treatment Programs
- California Uniform Fire Code, Hazardous Materials Management Plans, and Hazardous Material Inventory Statements

CalEPA certifies local government agencies as Certified Unified Program Agencies (CUPA) to implement hazardous waste and materials standards. The Santa Cruz County Environmental Health Services is designated as the local CUPA in Santa Cruz County.

California Safe Drinking Water and Toxic Enforcement Act of 1986

California Health and Safety Code Division 20, Chapter 6.6 establishes regulation on the prohibition of contaminating drinking water. This includes discharges or release onto land which may pass into a drinking water source.

California Unified Agency Review of Hazardous Materials Release Sites

California Health and Safety Code Division 20 Chapter 6.65 establishes regulation on identification of hazardous material release sites and agency overview of remedial actions on these sites. The regulation also provides agency oversight on all aspects of site investigation and remedial action. Monitoring, testing, and site conditions, restrictions, and limitations can be required and enforced by the overseeing agency.

Petroleum Underground Storage Tank Cleanup

California Health and Safety Code Division 20. Chapter 6.75 establishes regulations that requires corrective action for petroleum releases from underground storage tanks.

California Hazardous Waste Control Law

California Health and Safety Code Division 20, Chapter 6.5 establishes regulations to protect the public health and the environment by assisting generators of hazardous waste in meeting the responsibility for the safe disposal of hazardous waste. The California Hazardous Waste Control Law is administered by CalEPA and pertains to administering a state hazardous waste program in lieu of the federal RCRA program, pursuant to Section 3006 of Public Law 94-580, as amended. The Hazardous Waste Control Law lists 791 chemicals and approximately 300 common materials that may be hazardous; establishes criteria for identifying, packaging, and labeling hazardous wastes; prescribes management controls; establishes permit requirements for treatment, storage, disposal, and transportation; and identifies some wastes that cannot be disposed of in landfills.

California Accidental Release Prevention Program

Similar to the Federal Risk Management Program, the California Accidental Release Prevention Program includes additional state requirements and an additional list of regulated substances and thresholds. The regulations of the program are contained in CCR Title 19, Division 2, Chapter 4.5. The intent of the California Accidental Release Prevention Program is to provide first responders with basic information necessary to prevent or mitigate damage to public health, safety, and the environment from the release or threatened release of hazardous materials.

California Department of Toxic Substances Control and California Highway Patrol Hazard Transportation Program

The California DTSC administers the transportation of hazardous materials throughout the state. Regulations applicable to the transportation of hazardous waste include Title 22, Division 4.5, Chapter 13 and Chapter 29 of the CCR, as well as Division 20, Chapter 6.5, Articles 6.5, 6.6, and 13 of the California Health and Safety Code. The DTSC requires that drivers transporting hazardous wastes obtain a certificate of driver training that shows the driver has met the minimum requirements concerning the transport of hazardous materials, including proper labeling and marking procedures, loading/handling processes, incident reporting and emergency procedures, and appropriate driving and parking rules. The California Highway Patrol also requires shippers and carriers to complete hazardous materials employee training before transporting hazardous materials.

California Health and Safety Code

The handling and storage of hazardous materials is regulated by Division 20, Chapter 6.95 of the California Health and Safety Code. Under Sections 25500–25543.3, facilities handling hazardous materials are required to prepare a Hazardous Materials Business Plan (HMBP), which contain basic information on the location, type, quantity, and health risks of hazardous materials stored, used, or disposed of in the state.

Chapter 6.95 of the Health and Safety Code establishes minimum statewide standards for HMBPs. Each business shall prepare a HMBP if that business uses, handles, or stores a hazardous material (including hazardous waste) or an extremely hazardous material in quantities greater than or equal to 500 pounds of a solid substance, 55 gallons of a liquid, 200 cubic feet of compressed gas, a hazardous compressed gas in any amount (highly toxic with a Threshold Limit Value of 10 parts per million or less), or extremely hazardous

substances in threshold planning quantities. In addition, in the event that a facility stores quantities of specific acutely hazardous materials above the thresholds set forth by California code, facilities are also required to prepare a Risk Management Plan and California Accidental Release Plan.

California Occupational Safety and Health Administration Hazard Handling Procedures

The California Division of Occupational Safety and Health Administration (Cal/OSHA) is the primary agency responsible for worker safety in the handling and use of chemicals in the workplace. Cal/OSHA standards are generally more stringent than federal regulations. The employer is required to monitor worker exposure to listed hazardous substances and notify workers of exposure (8 CCR 337–340). The regulations specify requirements for employee training, availability of safety equipment, accident prevention programs, and hazardous substance exposure warnings.

California Department of Transportation/California Highway Patrol

Under Title 13 CCR, Division 2, Chapter 6, California regulates the transportation of hazardous waste originating or passing through the state. The California Highway Patrol (CHP) and the California Department of Transportation (Caltrans) have primary responsibility for enforcing federal and state regulations and responding to hazardous materials transportation emergencies. CHP enforces materials and hazardous waste labeling and packing regulations that prevent leakage and spills of material in transit and provides detailed information to cleanup crews in the event of an incident. Vehicle and equipment inspection, shipment preparation, container identification, and shipping documentation are all part of the responsibility of CHP. CHP conducts regular inspections of licensed transporters to ensure regulatory compliance. Caltrans has emergency chemical spill identification teams at locations throughout the state. Hazardous waste must be regularly removed from generating sites by licensed hazardous waste transporters. Transported materials must be accompanied by hazardous waste manifests.

Environmental Screening Levels

Environmental Screening Levels (ESLs) provide conservative screening levels for over 100 chemicals found at sites with contaminated soil and groundwater. ESLs are intended to help expedite the identification and evaluation of potential environmental concerns at contaminated sites. The ESLs were developed by the San Francisco Bay RWQCB; however, these screening levels are used throughout the state. While ESLs are not intended to establish policy or regulation, they can be used as a conservative screening level for sites with contamination. Other agencies in California currently use the ESLs (as opposed to RSLs). In general, the ESLs could be used at any site in the state, provided all stakeholders agree. In recent years, regulatory agencies in various regions have used ESLs as regulatory cleanup levels. The ESLs are not generally used at sites where the contamination is solely related to a LUST; those sites are instead subject to the Low-Threat Underground Storage Tank Closure Policy.

4.8.2.3 Local

County of Santa Cruz Environmental Health

As previously discussed, Santa Cruz County Environmental Health is designated by CalEPA as the CUPA within the geographic boundaries of the County and is responsible for enforcing the local ordinance and state laws

pertaining to use and storage of hazardous materials, including the issuance and administration of Hazardous Materials Management Plans (HMMPs). The County Fire Department and associated fire protection districts work in conjunction with County Environmental Health in responding to reports of hazardous materials spills and accidents, enforcing hazardous materials regulations, and enforcing the County's fire code as it relates to the use and storage of hazardous materials.

4.8.3 Impacts and Mitigation Measures

This section contains the evaluation of potential environmental impacts associated with the Proposed Project related to hazards and hazardous materials. The section identifies the thresholds of significance used in evaluating the impacts, describes the methods used in conducting the analysis, and evaluates the Proposed Project's impacts and contribution to significant cumulative impacts, if any are identified. Mitigation measures are presented for identified significant or potentially significant impacts, and the level of significance with mitigation also is identified.

4.8.3.1 Thresholds of Significance

The thresholds of significance used to evaluate the impacts of the Proposed Project related to hazards and hazardous materials are based on Appendix G of the CEQA Guidelines and the City of Santa Cruz CEQA Guidelines. A significant impact would occur if the Proposed 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 release of hazardous materials into the environment.
- C. Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within 0.25 miles 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, 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 2 miles of a public airport or public use airport, result in a safety hazard or excessive noise for people residing or working in the project area.

4.8.3.2 Analytical Methods

This impact analysis assumes that the Proposed Project would be constructed and operated in compliance with the policies and regulations applicable to hazards and hazardous materials, as described above in Section 4.8.2, Regulatory Framework. A review of applicable regulatory records was conducted to characterize the existing environmental setting in the Project area, as described above in Section 4.8.1, Existing Conditions, and to identify any existing hazardous waste and substances sites on or near the project site that could affect construction or operation of the Proposed Project. Upon completion of construction, operations and maintenance would continue as currently exists.

Application of Relevant Standard Construction Practices

The City has adopted standard construction practices (see Section 3.6.6, Standard Construction Practices) that would be implemented by the City or its contractors during construction to avoid or minimize impacts. The Proposed Project includes standard construction practices that would avoid or minimize adverse effects to nearby active streams or other water bodies due to hazardous materials. These practices and their effectiveness in avoiding and minimizing effects are described below.

Standard Construction Practice #6 requires that heavy equipment not be stored within a minimum of 65 feet of any active stream channel or water body to prevent the potential for hazardous spills and water contamination. Standard Construction Practice #7 requires construction vehicles and equipment to have and maintain spill kits and that equipment be checked daily for leaks in order to prevent hazardous materials spills into water bodies. Standard Construction Practice #8 requires regular equipment inspections to prevent equipment fluid leaks.

Impacts have been evaluated with respect to the thresholds of significance, as described above. In the event adverse environmental impacts would occur even with consideration of applicable policies and regulations and Proposed Project Standard Construction Practices described in Chapter 3, Project Description, if applicable, impacts would be potentially significant, and mitigation measures are provided to reduce impacts to less-than-significant levels.

4.8.3.3 Project Impact Analysis

Areas of No Impact

The Proposed Project would not have impacts with respect to the following thresholds of significance as described below:

- **Airport Hazards (Significance Threshold E).** The Proposed Project alignment is not within 2 miles of a public airport or public use airport; therefore, the Project would not result in a safety hazard or excessive noise for people residing or working in the Project area. The Proposed Project would have no impact.

Project Impacts

Impact HAZ-1: Routine Transport, Use, or Disposal of Hazardous Materials (Significance Threshold A). The Proposed Project would require use and transportation of petroleum products and small quantities of hazardous materials but would not result in a significant hazard to the public or environment. *(Less than Significant)*

Relatively small amounts of commonly used hazardous substances such as gasoline, diesel fuel, lubricating oil, adhesive materials, grease, and solvents would be used for equipment during construction. These materials are not considered extremely hazardous and are used routinely for both construction projects and structural improvements. These materials would be managed in accordance with the City's Standard Construction Practices regarding prevention of and response to potential hazardous materials spills during construction, as described in Section 4.8.3.2, Analytical Methods. In addition, horizontal directional drilling

(HDD) would be used to install the proposed pipeline across the Brackney North pipe section. As discussed in more detail in Section 4.9, Hydrology and Water Quality, HDD uses drilling muds that typically consist of a mixture of bentonite and water. Bentonite is an inert clay material and is considered essentially nontoxic.

After installation of the Proposed Project, operations would include continued implementation of pump start-up and valve operations at the Felton Booster Pump Station (FBPS), which may similarly include small amounts of commonly used hazardous substances such as lubricating oil, grease, and solvents. These materials would be transported and handled in accordance with all federal, state, and local laws regulating the management and use of hazardous materials, as described above in Section 4.8.2.

Compliance with these regulations would avoid significant hazard to the public or the environment due to the transport, use, and disposal of these materials. As a result, the impact would be less than significant.

Mitigation Measures

As described above, the Proposed Project would not result in a significant impact related to transport, use or disposal of hazardous materials, and therefore, no mitigation measures are required.

Impact HAZ-2: Reasonably Foreseeable Upset or Accident Conditions (Significance Threshold B). The Proposed Project would not create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment. *(Less than Significant)*

As discussed under Impact HAZ-1, relatively small amounts of commonly used hazardous materials would be used for construction and operation of the Proposed Project. These materials would be handled, stored, transported, and disposed of in accordance with the manufacturer's recommendations and federal, state, and local laws and regulations. In addition, these materials would be managed in accordance with the City's Standard Construction Practices regarding prevention and response to potential accidental fuel spills. As described above, Project operations would be similar to current operation and maintenance activities; therefore, the Project would not result in an increase in routine transport, use, and disposal of hazardous materials and/or wastes generated by routine pipeline operations. While the probability for a release of hazardous materials to the environment would be low, accidental spills, leaks, or other releases of hazardous materials could directly enter the San Lorenzo River, Zayante Creek, Newell Creek, Eagle Creek, Powder Mill Creek, and other subsidiary drainages during construction.

As discussed in Section 4.9, Hydrology and Water Quality, construction activities would cumulatively disturb greater than 1 acre of soil. Therefore, the Proposed Project would be subject to the provisions of the Construction General Permit, including preparation of a Stormwater Pollution Prevention Plan (SWPPP) and implementation of Best Management Practices (BMPs), designed to prevent and minimize incidental spills of petroleum products and hazardous materials during construction. In addition, the City's Standard Construction Practices, as described in Section 3.6.6 Standard Construction Practices, would be employed to ensure water quality protection with respect to potential hazardous materials spills. These are summarized as follows:

- Locate and stabilize spoil disposal and debris areas with sediment control measures so debris and sediments are not conveyed into waterways (Standard Construction Practice #5).
- Restrict equipment and fueling areas within 65 feet of any active stream channel or water body (Standard Construction Practice #6).
- Ensure that gas, oil, or any other hazardous substances are stored within an established containment area, in water-tight containers with secondary containment. Vehicles and equipment would have spill kits available, be checked daily for leaks, and would be properly maintained to prevent contamination of soil or water from leaking hydraulic fluid, fuel, oil, and grease (Standard Construction Practice #7).
- Prevent equipment fluid leaks through regular equipment inspections (Standard Construction Practice #8).
- Implement proper waste/trash management (Standard Construction Practice #9).

With implementation of these Standard Construction Practices, the potential for an accidental release to enter on-site soils, the San Lorenzo River, Zayante Creek, Newell Creek, Eagle Creek, Powder Mill Creek, or other drainages would be minimized.

As indicated on Figure 4.8-1b, a natural gas pipeline is present along the Graham Hill Road North and South pipe sections in the southern segment of the Proposed Project. The Proposed Project pipeline would be installed parallel to this existing gas pipeline. Prior to final Project design, the City would contact the operator of the gas pipeline to determine the exact location of the pipeline, such that the gas pipeline would be avoided as part of the final design. In addition, in compliance with California Government Code 4216, the Project contractor would contact DigAlert at least two days prior to initiating Project excavations. The DigAlert notification would prompt all underground utility operators (i.e., gas, electric, water, telecommunication) to physically mark the location of their utilities to avoid disrupting and/or damaging the utilities during construction. As part of this process, the natural gas pipeline along Graham Hill Road would be identified on the ground surface with markers such as flags, paint, and stakes, thus eliminating the possibility of rupturing the gas pipeline during Project construction.

With implementation of a SWPPP, BMPs, and City Standard Construction Practices, as well as delineation of the existing natural gas pipeline prior to final design and construction, the Proposed Project would not create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment. Impacts would be less than significant.

Mitigation Measures

As described above, the Proposed Project would not result in a significant impact related to hazardous materials spills or accidents, and therefore, no mitigation measures are required.

Impact HAZ-3: Hazardous Emissions Near Schools (Significance Threshold C). The Proposed Project would handle hazardous materials, petroleum products, and associated waste within 0.25 mile of existing schools but would not result in a significant hazard to the occupants of those schools. *(Less than Significant)*

As discussed in Section 4.8.1.5, Sensitive Receptors, several schools and a day care facility are within 0.25 mile of the Project alignment. The Mountain Monsters Daycare is approximately 0.1 mile east of the proposed alignment, in Glen Arbor (Figure 4.8-1a). San Lorenzo Valley Elementary School, San Lorenzo Valley Middle School, and San Lorenzo Valley High School are approximately 0.15 mile west of the proposed pipeline alignment, in Felton. The Santa Cruz County Juvenile Hall and Community School is immediately northeast of the pipeline route, along Graham Hill Road, southeast of Felton (Figure 4.8-1b). And Brook Knoll Elementary School is approximately 0.2 mile east of the pipeline route, along the southern portion of Graham Hill Road.

As discussed for Impact HAZ-1 and HAZ-2, relatively small amounts of commonly used hazardous materials would be used for construction and operation of the Proposed Project. These materials would be handled, stored, transported, and disposed of in accordance with the manufacturer's recommendations and federal, state, and local laws and regulations. In addition, these materials would be managed in accordance with the City's Standard Construction Practices with respect to hazardous materials, as described in Section 3.6.5, Standard Construction Practices. With such measures in-place, Project construction would not result in adverse impacts to students and staff at these schools related to releases of hazardous substances. (See Section 4.2, Air Quality, Impact AIR-2, Exposure of Sensitive Receptors, with respect to air emissions during construction.)

The existing natural gas pipeline along Graham Hill Road would be avoided as part of final Project design and during construction, thus preventing rupture of the gas pipeline and associated hazardous emissions. Pipeline operations would have no impact on nearby schools, as no hazardous substances or petroleum products would be used in the vicinity of the schools.

Therefore, although the Proposed Project would handle hazardous materials, petroleum products, and associated waste within 0.25 mile of existing schools, significant hazard to the occupants of those schools would not occur. Impacts would be less than significant.

Mitigation Measures

As described above, the Proposed Project would not result in a significant impact related to handling of hazardous waste in proximity to schools, and therefore, no mitigation measures are required.

Impact HAZ-4: Hazardous Materials Sites (Significance Threshold D). The Proposed Project would be located adjacent to sites included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, could create a significant hazard to the public or the environment. *(Less than Significant with Mitigation Incorporated)*

As discussed in Section 4.8.1.1, Hazardous Materials and illustrated on Figures 4.8-1a and 4.8-1b, a database search indicated numerous DTSC Cortese List sites are within 1.0 mile of the proposed pipeline alignment and numerous GeoTracker sites are within 0.5 mile of the pipeline route. Except for two of the sites, given the distance from the proposed alignment, regulatory status of the sites, and/or extent of contamination, soil

and/or groundwater contamination at those sites would not likely affect conditions along the proposed pipeline route. However, the database search identified two active hazardous material sites that are within proximity to the pipeline route. These two sites are discussed below with respect to Project construction.

Valeteria Dry Cleaners/Twohig Property. This active Cleanup Program Site is approximately 0.1 mile southwest of the San Lorenzo Way pipe section in the northern segment of the Proposed Project alignment, on the opposite side of the San Lorenzo River (Figure 4.8-1a). Dry cleaning solvents disposed on-site resulted in PCE contamination in groundwater, soil, and the San Lorenzo River. Although the PCE contamination has been partially remediated in soil, PCE waste continues to discharge to the San Lorenzo River. Additional site assessment and remediation is planned (SWRCB 2021c).

Because this Cleanup Program Site is on the opposite side of the San Lorenzo River, it is unlikely that soil and groundwater contamination extends to the Project pipeline alignment. The river would likely intercept and divert any PCE-contaminated soil and groundwater from reaching the pipeline alignment. Depth to groundwater at the Valeteria site is approximately 23 feet below ground surface. The depth to groundwater in the vicinity of the proposed pipeline alignment is likely similar to the Valeteria site, based on similar distances to the San Lorenzo River. Proposed trenching for the Project pipeline would only extend 5 feet below ground surface. Therefore, it is unlikely that groundwater would be encountered during Project trenching. As a result, impacts would be *less than significant*.

Former Santa Cruz Lumber Yard (current San Lorenzo Lumber Yard). As discussed in Section 4.8.1.1, Hazardous Materials, metals contamination has been documented in on-site soils, as a result of prior wood treatment operations at the former Santa Cruz Lumber Yard. The northeast corner of this 35-acre site is immediately adjacent to the Graham Hill Road North Section of the Proposed Project alignment (Figure 4.8-1b). The primary areas of contamination are in the southern and western portions of the site, in the vicinity of the former wood treatment facility, former burner area (i.e., incinerator), and former diesel AST. The area of current soil contamination that exceeds regulatory screening levels is restricted to arsenic in the upper 2.5 feet of soils and is approximately 300 feet from the proposed pipeline alignment on Graham Hill Road, at the closest point. Additional soil sampling was proposed in a February 2020 work plan (Trinity Source Group 2020) to further evaluate shallow soils for the presence of arsenic, such that a Soil Management Plan can be developed to protect construction workers during future development. Sampling is proposed within 100 feet of the proposed pipeline alignment. In addition, the work plan includes groundwater sampling and analysis for arsenic, formaldehyde, VOCs, SVOCs, and PAHs. Groundwater is approximately 28 feet below ground surface, which is well below the depth of proposed trenching (i.e., 4 to 5 feet below ground surface).

Based on the proximity of the former lumber yard to the proposed pipeline alignment within Graham Hill Road, including proposed soil sampling and analysis for arsenic within 100 feet of the alignment, the potential exists for proposed pipeline trenching to encounter arsenic-contaminated soils, resulting in health and safety impacts to construction personnel. In addition, potential arsenic-contaminated soil would not be suitable for trench backfill. Impacts would be less than significant with mitigation incorporated.

Brackney North Section

In addition to the hazardous materials sites listed above, soil samples collected from depths of 2 to 4 feet below ground surface along the pipeline alignment, in the Brackney North pipe section area, were analyzed for TPH, VOCs, and Title 22 metals. Based on the analyses, TPH as gasoline, diesel, and motor oil were not

detected above laboratory reporting limits. However, cadmium, molybdenum, and selenium exceeded the ESL protective of terrestrial habitat and regional background. In addition, arsenic was detected above the ESLs protective of residential cancer risk and construction worker safety.

The pipeline alignment extends through undeveloped private property along an abandoned railroad bed in the Brackney Road and Rose Acres Lane neighborhoods, including the Brackney landslide area. Railway areas are thought to be sites of intensive heavy metal emission. The railcar and rail line construction material abrasion, fuel combustion in diesel-electric locomotives, and cargo leakage emit particles containing heavy metals into the air and subsequently deposit them into the plant and soil through dry and wet deposition (Wilkomirski et al. 2011; Chillrud et al. 2005; Liu 2009).

Because cadmium, molybdenum, and selenium concentrations in on-site soil samples exceeded the terrestrial habitat ESL, adverse impacts could occur to the environment during project construction in the Brackney Road and Rose Acres Lane neighborhoods, including the Brackney North section area. Similarly, due to the detection of arsenic at approximately two times the background concentration and above the ESL for residential and construction worker exposure, arsenic may present a risk to construction workers and/or soil reuse (e.g., trench backfill). As a result, impacts would be less than significant with mitigation incorporated.

Mitigation Measures

Implementation of Mitigation Measures HAZ-1 and HAZ-2 would reduce impacts to a less-than-significant level.

MM HAZ-1: Hazardous Materials Management. Prior to initiation of Project construction, the City shall complete soil sampling within the proposed pipeline route, adjacent to the former Santa Cruz Lumber Yard site at 5843 Graham Hill Road, and in the Brackney Road and Rose Acres Lane neighborhoods, including the Brackney North and Brackney South pipeline sections. Soil samples shall be collected to a depth of 3 feet below ground surface and analyzed for California Administrative Manual (CAM) (i.e., California Title 22) metals.

In the event that Title 22 metals are detected at concentrations in excess of regulatory action levels, as determined by the California Department of Toxic Substances Control (DTSC) and/or Santa Cruz County Environmental Health Division, a Soil Management Plan shall be developed prior to construction that requires potential metals-impacted soils to be segregated and sampled to determine proper disposal options (i.e., hazardous versus nonhazardous landfill) or reuse (e.g., trench backfill). The City shall direct the contractor to consult with an industrial hygienist to determine the appropriate level of personal protective equipment (PPE), if any, that would be required for construction personnel during handling of potential metals-contaminated soil. The contractor shall implement the recommendations by the industrial hygienist to minimize potential exposure of construction personnel to metals concentrations in sediments during construction. All recommendations shall be completed in accordance with Occupational Safety and Health Administration (OSHA) Training Requirements (29 CFR 1910.132 and 1910.134, Subpart I – Personal Protective Equipment).

4.8.3.4 Cumulative Impacts Analysis

This section provides an evaluation of cumulative hazards and hazardous materials impacts associated with the Proposed Project and past, present, and reasonably foreseeable future projects, as identified in Table 4.0-1 in Section 4.1, Introduction to Analyses, and as relevant to this topic. The geographic area for the analysis of cumulative impacts is described below.

Impact HAZ-5: Cumulative Hazardous Materials Impacts (Significance Thresholds A, B, C, and D). The Proposed Project, in combination with past, present, and reasonably foreseeable future development, would not result in a significant cumulative impact related to: 1) routine transport, use, disposal, or accidental release of hazardous materials, 2) hazardous emissions or hazardous materials use within 0.25 mile of an existing or proposed school, or 3) hazardous materials sites compiled pursuant to Government Code Section 65962.5. ***(Less than Significant)***

The geographic area for the analysis of cumulative impacts related to hazardous materials consists of the proposed pipeline alignment and areas in proximity to the alignment because impacts related to such hazards depend on the specific conditions on the particular project site and its immediate vicinity. Generally, these site-specific impacts would not combine with one another to create cumulative impacts, unless the cumulative development sites overlapped or were immediately adjacent to one another. The known cumulative projects planned within the geographic area of analysis for cumulative impacts related to hazardous materials include: the Felton Diversion Pump Station Assessment; the Newell Creek Dam Inlet/Outlet Replacement Project; the GHWTP Concrete Tanks Project; and the GHWTP Facility Improvement Project (see Table 4.0-1 in Section 4.0, Introduction to Analyses).

The only cumulative projects with an overlap of construction schedules with the Proposed Project are two improvement projects at the GHWTP (Concrete Tanks Project and Facility Improvement Project). However, similar to the Proposed Project, the cumulative projects would be required to comply with all federal, state, and local laws and regulations regarding the use, transport, handling, storage, disposal, and release of hazardous materials, and include project-specific BMPs or SWPPPs (as discussed in Section 4.9, Hydrology and Water Quality), as applicable. Such compliance would reduce the potential for a significant hazard to the public or the environment through routine transport, use, disposal, or accidental release of hazardous materials, including such hazards within 0.25 mile of an existing or planned school site. Although it is possible that one or more cumulative projects could result in significant impacts related to release of hazardous materials to the environment, due to the site-specific nature of this type of impact, it is unlikely that such impacts would combine with the impacts of the Proposed Project or other cumulative projects. Therefore, the Proposed Project, in combination with past, present, and reasonably foreseeable future development, would not result in a significant cumulative impact related to routine transport, use, disposal, or accidental release of hazardous materials, including such impacts within 0.25 mile of an existing or planned school site.

Like the Proposed Project, cumulative project sites may be located on or in proximity to properties that have been impacted by soil and/or groundwater contamination. Although soil and groundwater contamination can spread beyond cumulative project boundaries, such contamination would be assessed and remediated on a site-specific basis, in accordance with CUPA, State, and federal regulations, as applicable, and would not combine to create a cumulative environmental impact. In the event that known or suspected contaminated

sites are located in proximity to cumulative project sites, those cumulative projects may be required to implement mitigation measures similar to those identified for the Proposed Project (MM HAZ-1 and MM HAZ-2) to help further reduce potential impacts. Therefore, the Proposed Project, in combination with past, present, and reasonably foreseeable future development, would not result in a significant cumulative impact related to hazardous materials sites compiled pursuant to Government Code Section 65962.5.

4.8.4 References

- CE&G (Cal Engineering & Geology). 2021a. Draft Geotechnical Design Report, Brackney Landslide Area Pipeline Project, CE&G Report #200930.007. Prepared for Mott MacDonald, September 16, 2021.
- CE&G. 2021b. Final Brackney Three-Pothole Data Report, City of Santa Cruz – Brackney Landslide Area Pipeline Project, Santa Cruz County, California, CE&G Report #200930.003. Prepared for Mott MacDonald, May 7, 2021.
- California Geologic Energy Management Division (CalGEM). 2021. “Well Finder CalGEM GIS”. Accessed June 9, 2021 at <https://maps.conservation.ca.gov/doggr/wellfinder/#openModal>.
- California Department of Education (CDE). 2021. Searchable directory of active and pending schools. Accessed June 9, 2021 at <https://www.cde.ca.gov/SchoolDirectory/>.
- Chillrud, S.N., D. Grass, J.M. Ross, D. Coulibaly, V. Slavkovich, D. Epstein, S.N. Sax, D. Pederson, D. Johnson, J.D. Spengler, P.L. Kinney, H. J. Simpson, and P. Brandt-Rauf. 2005. “Steel Dust in the New York City Subway System as a Source of Manganese, Chromium, and Iron Exposures for Transit Workers”. In *Journal of Urban Health*, Volume 82(1), page 33-42. Accessed online October 24, 2021 at <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3142770/>.
- County of Santa Cruz. 2021. GIS Data provided by the County.
- (California Department of Resources, Recycling, and Recovery (V). 2021. Solid Waste Information System. “SWIS Facility/Site Search”. Accessed May 11, 2021 at <https://www2.calrecycle.ca.gov/SolidWaste/Site/Search>.
- Department of Toxic Substances Control (DTSC). 2021a. “Site Mitigation & Restoration Program – DTSC’s Hazardous Waste and Substances Site List – Site Cleanup (Cortese List)”. Accessed May 11, 2021 at <https://dtsc.ca.gov/dtscs-cortese-list/>.
- DTSC. 2021b. “Envirostor – Valeteria Dry Cleaners (70000148).” Accessed May 17, 2021 at https://www.envirostor.dtsc.ca.gov/public/profile_report?global_id=70000148.
- DTSC. 2021c. “Envirostor – Former Santa Cruz Lumber Company (60002808)”. Accessed June 7, 2021. https://www.envirostor.dtsc.ca.gov/public/profile_report?global_id=60002808.
- DTSC. 2021d. “Envirostor – Kaiser Pit (44490002)”. Accessed May 11, 2021 at https://www.envirostor.dtsc.ca.gov/public/profile_report?global_id=44490002.

- DTSC. 2021e. “Envirostor – Franks Auto Dismantler (44500005)”. Accessed May 13, 2021 at https://www.envirostor.dtsc.ca.gov/public/profile_report?global_id=44500005.
- DTSC. 2021f. “Envirostor – Scotts Valley Square (44590001).” Accessed May 13, 2021 at https://www.envirostor.dtsc.ca.gov/public/profile_report?global_id=44590001.
- DTSC. 2021g. “Envirostor – Skypark Airport Leachfield (44490001).” Accessed June 6, 2021. https://www.envirostor.dtsc.ca.gov/public/profile_report?global_id=44490001.Google. 2021. “Google Maps”.
- Liu, H., Chen, L., Y. Ai, X Yang, Y. Yu, Y. Zuo, G. Fu. 2009. “Heavy Metal Contamination in Soil Alongside Mountain Railway in Sichuan, China.” In Environmental Monitoring and Assessment Journal, Volume 152(1-4), page 25-33. Accessed online October 24, 2021 at <https://pubmed.ncbi.nlm.nih.gov/18553150/>.
- National Pipeline Mapping System 9 NPMS). 2021. “NPMS Public Viewer.” Accessed June 9, 2021 at <https://pvnpm.phmsa.dot.gov/PublicViewer/>.
- State Water Resources Control Board (SWRCB). 2021a. “GeoTracker”. Accessed June 8, 2021 at <https://geotracker.waterboards.ca.gov/>.
- SWRCB. 2021b. “GeoTracker – San Lorenzo Valley Elementary School (T0608799979)”. Accessed June 8, 2021 at https://geotracker.waterboards.ca.gov/profile_report.asp?global_id=T0608799979.
- SWRCB. 2021c. “GeoTracker – Valeteria Dry Cleaners Site/Twohig Property (SLT3S2381350).” Accessed June 8, 2021 at https://geotracker.waterboards.ca.gov/profile_report.asp?global_id=SLT3S2381350.
- SWRCB. 2021d. “GeoTracker – Chevron #9-4909 (T0608700295).” Accessed June 8, 2021 at https://geotracker.waterboards.ca.gov/profile_report.asp?global_id=T0608700295.
- SWRCB. 2021e. “GeoTracker – Cornerstone Automotive Service (T0608700039)”. Accessed June 8, 2021 at https://geotracker.waterboards.ca.gov/profile_report.asp?global_id=T0608700039.
- SWRCB. 2021f. “GeoTracker – Felton U-Haul (T0608700023)”. Accessed June 8, 2021 at https://geotracker.waterboards.ca.gov/profile_report.asp?global_id=T0608700023.
- SWRCB. 2021g. “GeoTracker – Felton Exxon (T0608700157).” Accessed June 8, 2021 at https://geotracker.waterboards.ca.gov/profile_report?global_id=T0608700157&cmd=closurereview.
- SWRCB. 2021h. “GeoTracker – Mt. Hermon Homeowner’s Association (T060877347).” Accessed June 8, 2021 at https://geotracker.waterboards.ca.gov/profile_report.asp?global_id=T060877347.
- SWRCB. 2021i. “GeoTracker – Felton Maintenance Yard (T0608700263).” Accessed June 8, 2021 at https://geotracker.waterboards.ca.gov/profile_report.asp?global_id=T0608700263.

- SWRCB. 2021j. “GeoTracker – CDF Felton Forest Fire Station (T0608700279). Accessed June 8, 2021 at https://geotracker.waterboards.ca.gov/profile_report.asp?global_id=T0608700279.
- SWRCB. 2021k. “GeoTracker – Quik Stop Market #66 (T0608700155). Accessed June 9, 2021 at https://geotracker.waterboards.ca.gov/profile_report.asp?global_id=T0608700155.
- SWRCB. 2021l. “GeoTracker – Winkler Plumbing (SLT3S1061316). Accessed June 9, 2021 at https://geotracker.waterboards.ca.gov/profile_report.asp?global_id=SLT3S1061316.
- SWRCB. 2021m. “GeoTracker – Former Santa Cruz Lumber Co. (T0000007373).” Accessed June 9, 2021 at https://geotracker.waterboards.ca.gov/profile_report.asp?global_id=T10000007373.
- Trinity Source Group. 2020. *Revised Supplemental Site Investigation Work Plan, Former Santa Cruz Lumber Company, 5843 Graham Hill Road, Felton, California*. Prepared for RTP Felton Station, LLC, February 11, 2020.
- Wilkomirski, B., B. Sudnik-Wojcikowska, H. Galera, M. Wierzbicka, and M. Malawska. 2011. “Railway Transportation as a Serious Source of Organic and Inorganic Pollution”, in *Water, Air, and Soil Pollution*, Volume 218(1), page 333-345. Accessed online October 24, 2021 at <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3096763/>.