# 4.9 HAZARDS AND HAZARDOUS MATERIALS



## 4.9.1 Introduction

This section provides the setting, regulatory framework, and impacts analysis related to hazards, including exposure to and release of hazardous materials associated with the Proposed Project. The section is based on review of regulatory agency databases and other published reports to identify potential hazardous materials releases that may affect the Proposed Project including workers and the public. The assessment of hazards and hazardous materials focuses on the following issues:

- The potential for encountering hazardous substances in soil and groundwater during construction at any of the project sites;
- Potential public safety hazards associated with project construction;
- Potential hazards associated with the use of chemicals during construction and operation of the Proposed Project; and
- Whether the Proposed Project would result in, or be subject to, adverse effects related to the use, transportation, disposal, or release of hazardous materials or wastes during construction, operation, or maintenance.

Public and agency comments related to hazards and hazardous materials that were received during the public scoping period in response to the Notice of Preparation are summarized below.

- Concern was expressed regarding public communication, identification, record keeping, reporting, “out-gassing,” and clean-up/remediation of chemicals and pesticides at very low levels in training areas at the former Fort Ord military base, including Site #39.
- Concern was expressed regarding Army’s evaluation of presence of pesticides in prior clean up documents, and other chemicals potentially leaching out of

ordnance into the ground as well as residual chemicals from weapons/ordnance training and pyrotechnics.

- Concern was expressed that the detection equipment used to clear site OE-50 and OE-53 (also called MRS-50 and MRS-53) (located north and east of the Injection Well Facilities sites) is incapable of detecting nonmetallic and deeply buried munitions. The commenter stated munitions found onsite may not be reliably detected lower than 4 feet below the surface.
- The Lake El Estero Diversion site is within the Monterey Airport Influence Area (AIA) and therefore construction at this site must be referred to the ALUC for a determination of consistency under the 1987 Comprehensive Land Use Plan (CLUP) for the Monterey Peninsula Airport.

To the extent that issues identified in public comments involve potentially significant effects on the environment according to the California Environmental Quality Act (CEQA) and/or are raised by responsible agencies, they are identified and addressed within this EIR. For a complete list of public comments received during the public scoping period, refer to **Appendix A, Scoping Report**.

For the purposes of this analysis, the term "hazardous materials" refers to both hazardous substances and hazardous wastes.[1] Under federal and state law, materials and wastes may be considered hazardous if they are specifically listed by statute or if they are toxic, ignitable, corrosive, or reactive. If improperly handled, hazardous materials and wastes can cause public health hazards when released to the soil, groundwater, or air. The four basic exposure pathways through which an individual can be exposed to a chemical agent include: inhalation, ingestion, bodily contact, and injection. Exposure can come as a result of an accidental release during transportation, storage, or handling of hazardous materials. Disturbance of subsurface soil during construction can also lead to exposure of workers or the public from stockpiling, handling, or transportation of soils contaminated by hazardous materials from previous spills or leaks. Public health issues related to the quality of product water from the Advanced Water Treatment Facility and water supply system adequacy are addressed in **Chapter 3, Regulatory and Water Quality Technical Report** and **Section 4.10, Hydrology and Water Quality: Groundwater Resources.**

Past and present hazardous materials use and storage has the potential to contaminate the groundwater resources in the area. Leaking underground storage tanks, munitions, lead, and asbestos could potentially leach in to the Seaside or Salinas Groundwater Basin. This section addresses the known contaminants and contaminated soil and groundwater as it is listed in the state and federal databases. The existing groundwater quality (particularly at the proposed Injection Well Facilities, where it is most relevant) and groundwater quality with implementation of the Proposed Project are addressed in detail in **Section 4.10, Hydrology and Water Quality: Groundwater Resources**.

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

## 4.9.2 Environmental Setting

This section discusses the potential presence of existing contamination at sites in the project vicinity, and the existing hazard conditions related to airports, schools, hazardous building materials, and fire danger.

### 4.9.2.1 Hazardous Materials in Soil and Groundwater

#### Hazardous Material Release Sites in the Proposed Project Vicinity

A number of historic and current land uses have occurred within the vicinity of Proposed Project sites that are associated with the use, generation, or disposal of hazardous materials. In some cases, past industrial or commercial activities on a site could have resulted in spills or leaks of hazardous materials to the ground, resulting in soil and/or groundwater contamination. Hazardous materials may also be present in building materials and released during building demolition activities or may be naturally present in soils such as naturally occurring asbestos found in serpentine minerals.

Within the Proposed Project area, the following are potential sites where hazardous materials are associated with the current or historic land uses:

- Certain industrial and/or commercial land uses involve storage of large quantities of fuel or hazardous materials in above-ground or underground storage tanks. Examples are gasoline stations, dry cleaners, manufacturing facilities, and bulk fuel terminals.
- Rural land uses, such as farming and ranching, typically use petroleum fuels, pesticides, and fertilizers. Historical agricultural land uses often leave behind residual pesticides and herbicides in soils.
- The former Fort Ord Military Base contaminated areas include: munitions response sites; the Fritzsche Airfield Fire Drill Pit (Operable Unit[2] [OU] 1); the Fort Ord landfill (OU2); motor pools; vehicle maintenance areas; dry cleaners; firing ranges; hazardous waste storage areas; and unregulated disposal areas. The former Fort Ord military base site is discussed in more detail below.

In addition to the aforementioned sources, the new and modified Treatment Facilities at the Regional Treatment Plant would be proximate to the Monterey Regional Waste Management District landfill and the MRWPCA Regional Treatment Plant.

Regulatory agency databases were reviewed to identify hazardous materials releases within 0.25-mile of the Proposed Project.[3] Other regulatory data bases include the following:

- Leaking Underground Storage Tank List
- Cortese (Cal/EPA List)

[2] An Operable Unit is a discrete portion of remedial response that manages migration, or eliminates or mitigates a pathway of exposure.

[3] California State Water Resources Control Board (SWRCB) GeoTracker database (SWRCB, 2014) and the California Department of Toxic Substances Control (DTSC) EnviroStor database (DTSC, 2013).

- CERCLIS (Comprehensive Environmental Response, Compensation, and Liability Information System).

These lists are described in more detail in **Section 4.9.3, Regulatory Framework**. Regulatory lists were searched in February and March 2014 (except for the Source Water Diversion and Storage sites which occurred in November 2014). Open environmental cases and their distance from Proposed Project components are identified in **Table 4.9-1, Hazardous Materials Release Sites Identified within 0.25-Mile of a Proposed Project Component Site Construction Area, By Component**. A 0.25-mile search radius from the each project component site area was utilized to appropriately consider the potential for migration of shallow groundwater contaminant plumes from existing contaminated sites cases to adversely affect groundwater in the project area. **Figures 4.9-1, Hazardous Materials Release Sites (Northern)** and **4.9-2, Hazardous Materials Release Sites (Southern)** show the location of environmental cases identified within this area. Leaking underground storage tank (LUST) sites that have been closed by the regulatory agencies are not listed in **Table 4.9-1** because site closure indicates that the regulatory agency considers these sites to pose a low threat to human health and groundwater quality. The following terms are used in **Table 4.9-1** to explain the cleanup status of the sites:

*Open–Inactive:* No regulatory oversight activities are being conducted by the Lead Agency.

*Open–Remediation*: An approved remedy or remedies has/have been selected for the impacted media at the site and the responsible party is implementing one or more remedy under an approved cleanup plan for the site. This includes any ongoing remedy that is either passive or active, or uses a combination of technologies. For example, a site implementing only a long term groundwater monitoring program, or a "monitored natural attenuation" remedy without any active groundwater treatment as part of the remedy, is considered an open case under remediation until site closure is completed.

*Open–Site Assessment*: Site characterization, investigation, risk evaluation, and/or site conceptual model development are occurring at the site. Examples of site assessment activities include, but are not limited to, the following: 1) identification of the contaminants and the investigation of their potential impacts; 2) determination of the threats/impacts to water quality; 3) evaluation of the risk to humans and ecology; 4) delineation of the nature and extent of contamination; 5) delineation of the contaminant plume(s); and 6) development of a site conceptual model.

*Open–Verification Monitoring*: Remediation phases are essentially complete and a monitoring/sampling program is occurring to confirm successful completion of cleanup at the Site. No "active" remediation is considered necessary or no additional "active" remediation is anticipated as needed. Active remediation system(s) has/have been shut-off and the potential for a rebound in contaminant concentrations is under evaluation.

*Open–Eligible for Closure*: Corrective action at the site has been determined to be completed and any remaining petroleum constituents from the release are considered to be low threat to human health, safety, and the environment. The case in GeoTracker is going through the process of being closed.

*Open-Operating*: A land disposal site that is accepting waste. These sites have been issued waste discharge requirements by the appropriate Regional Water Board.

As seen on **Table 4.9-1**, former and existing contaminated sites are located within a 0.25-mile radius of Proposed Project component sites, except for the Salinas Pump Station Source Water Diversion and Storage site, the Salinas Treatment Facility, the Tembladero

Slough Diversion, and the Blanco Drain Diversion. A number of the sites related to commercial or industrial uses are undergoing remediation or are eligible for case closure. Further review of contaminated sites at the former Fort Ord is provided below.

**Table 4.9-1**
**Hazardous Materials Release Sites Identified within 0.25-Mile of a Proposed Project Component Site Construction Area, By Component**

| Site Name/Address | Distance From Proposed Project Component | Type of Cleanup Site | Cleanup Status | Site History/Substances Released |
|---|---|---|---|---|
| **Applicable to Product Water Conveyance Pipelines and Booster Pump Stations (both alignment options) and Injection Well Facilities** | | | | |
| Former Fort Ord U.S. Army Garrison | Contiguous | Superfund | See Below | In 1990, the United States Environmental Protection Agency (EPA) placed the former military base on the National Priorities List (NPL). The site contained leaking petroleum underground storage tanks, unexploded ordnance, small arms target ranges, a fire range, and a landfill (United States Environmental Protection Agency, 2013). Investigations regarding the locations of munitions and explosions of concern were initiated by the U.S. Army in 1993. These investigations resulted in the delineation of Munitions Response sites and Munitions Response Areas that include approximately 12,000 acres of the former Fort Ord (U.S. Army, 2012a). Cleanup at the former Fort Ord is the responsibility of the U.S. Army, which is conducting ordnance cleanup for 8,000 acres. Approximately 3,500 acres of the former military base is undergoing a privatized cleanup; the U.S. Army has entered into an Environmental Services Cooperative Agreement (ESCA) with the Fort Ord Reuse Authority (FORA) for munitions and explosives of concern remediation and transfer of the remaining 3,340 acres. FORA and their contractors are working with regulatory agencies including the Department of Toxic Substances Control and the EPA to conduct munitions remediation activities, scheduled for completion by 2015 (United States Environmental Protection Agency, 2012; Fort Ord Reuse Authority, 2013). For details on specific sites located within the larger Fort Ord area, see entries below for Fort Ord Operable Unit (OU)1, Fort Ord OU 2 (landfill), Fort Ord Sites 2/12, and Fort Ord site OU carbon tetrachloride plume (CTP), Fort Ord Seaside Munitions Response Area (Site #39) |
| **Salinas Pump Station Diversion site** | | | | |
| There are no sites listed within 0.25-mile of the Salinas Pump Station | | | | |
| **Salinas Treatment Facility (including 33 inch pipeline)** | | | | |
| There are no sites listed within 0.25-mile of the Salinas Treatment Facility | | | | |
| **Reclamation Ditch Diversion site** | | | | |
| West Market Valero 633 Market Street W | 0.19 mile Figure 4.9-2 | LUST Cleanup Site | Open - Site Assessment | The site contained leaking petroleum underground storage tanks. |
| **Tembladero Slough Diversion site** | | | | |
| There are no sites listed within 0.25-mile of the Tembladero Slough Diversion site | | | | |
| **Blanco Drain Diversion site (including pipeline)** | | | | |
| There are no sites listed within 0.25-mile of the Blanco Drain Diversion site | | | | |

**Table 4.9-1**
**Hazardous Materials Release Sites Identified within 0.25-Mile of a Proposed Project Component Site Construction Area, By Component**

| Site Name/Address | Distance From Proposed Project Component | Type of Cleanup Site | Cleanup Status | Site History/Substances Released |
|---|---|---|---|---|
| **Lake El Estero Diversion Site** | | | | |
| Tosco #0424<br>400 Fremont Street | 0.23 mile<br>Figure 4.9-2 | LUST Cleanup Site | Open - Eligible for Closure | Originally, four fueling station sites were involved in this remediation for a comingled groundwater plume. One of the cases, Arco #0365, closed in April 2014. The underground storage tank release was discovered in 1989. Groundwater remediation started in 2000 with groundwater capturing and treatment. Additional corrective action alternatives were proposed in 2007, using augmented bioremediation to expedite the cleanup. The revised Corrective Action Plan was approved in 2007 and is being implemented. Potential Contaminants of Concern: Gasoline (SWRCB GeoTracker, 2014). |
| BP #11166<br>401 Fremont Street | 0.23 mile<br>Figure 4.9-2 | LUST Cleanup Site | Open - Remediation | |
| Chevron #91060<br>351 Fremont Street | 0.22 mile<br>Figure 4.9-2 | LUST Cleanup Site | Open - Remediation | |
| Russo's Marine Fueling Station<br>Del Monte Blvd | 0.20 mile<br>Figure 4.9-2 | Cleanup Program Site | Open - Remediation | A former fueling station. Underground storage tanks and product piping were removed in 1993 and 1994. A high vacuum extraction system was installed in 1998. Due to reaching asymptotic levels with high vacuum extraction, current remediation is using passive skimmers. Product removal activities are ongoing in five wells. Potential Contaminants of Concern: Benzene, diesel, gasoline, toluene (California State Water Resources Control Board GeoTracker, 2013) |
| Washington Mutual Bank<br>468 Washington Street | 0.17 mile<br>Figure 4.9-2 | Cleanup Program Site | Open- Verification Monitoring | Low concentrations of VOCs. Five areas were excavated on the property (which is currently a paved parking lot) in Dec. 2010. ~451 tons of soil were excavated and disposed at Clean Harbors in Buttonwillow. Prior to backfilling, a hydrogen release compound was intermixed with clean soil and spread in the bottom of all 5 excavations to encourage reductive dechlorination in groundwater. In accordance with their Remedial Action Work Plan, subsequent correspondence, and their plans, they will install 4 vapor probes and sample them by March 2011, and semiannually thereafter for at least 1 year. They will also monitor groundwater quarterly for at least 1 year, and report all monitoring semiannually. Potential Contaminants of Concern: Tetrachloroethylene and Trichloroethylene (State Water Resources Control Board GeoTracker, 2013). |
| Sudden Service Vapor Cleaners<br>915 Del Monte Avenue | 0.1 mile<br>Figure 4.9-2 | Cleanup Program Site | Open- Site Assessment | Former dry cleaning facility with soil and groundwater pollution including: dry cleaning solvent, non-chlorinated solvent, and petroleum hydrocarbons.<br>Potential Contaminants of Concern: heating oil/fuel oil, Stoddard solvent/mineral spirits/distillates, tetrachloroethylene |
| **Treatment Facilities at the Regional Treatment Plant** | | | | |
| Monterey Peninsula Class III Landfill | 500 feet<br>Figure 4.9-1 | Land Disposal Site | Open- Operating | Non-hazardous waste has been deposited since 1966 in both unlined and lined areas of the landfill. On-going monitoring includes groundwater, surface water, leachate, and landfill gas. Groundwater flow in the 35-foot aquifer is generally to the northeast, while flow direction in the 2-foot aquifer is influenced by the Salinas River (downgradient or cross-gradient of the project area). Trace detections of volatile organic compounds (VOCs) are occasionally detected in groundwater (RMC Geoscience, Inc., 2013). |

**Table 4.9-1**
**Hazardous Materials Release Sites Identified within 0.25-Mile of a Proposed Project Component Site Construction Area, By Component**

| Site Name/Address | Distance From Proposed Project Component | Type of Cleanup Site | Cleanup Status | Site History/Substances Released |
|---|---|---|---|---|
| **Product Water Conveyance (Coastal Alignment ) between the Treatment Facilities and Booster Pump Station** | | | | |
| Don's 1 Hour Dry Cleaners 215 Reservation Road | 475 feet Figure 4.9-1 | Cleanup Program Site | Open- Verification Monitoring | Former Dry Cleaning operation resulted in PCE in soil and shallow groundwater. Shallow soil and groundwater contamination from chlorinated hydrocarbons and PCE (up to 499 microgram per liter (ug/L)). Groundwater is approximately 15 feet below ground surface (State Water Resources Control Board Geotracker, 2013). |
| Beacon Station #730 3144 Del Monte Boulevard | 100 feet Figure 4.9-1 | LUST Cleanup Site | Open- Eligible for Closure | The site is an operating service station with three 10,000-gallon underground storage tanks. Land use in the immediate vicinity of the site is predominantly commercial, with interspersed residential developments. Lock Paddon Park is located approximately 500 feet north of the site. Three groundwater monitoring wells were installed at the site in February and May 1988. An un-measurable sheen was observed prior to developing well MW-1. Elevated concentrations of total Petroleum Hydrocarbons as gasoline and benzene were detected in selected soil samples collected from MW-1. Groundwater monitoring has been performed since 1992 on the three existing monitoring wells. Methyl tert -butyl ether was added to the monitoring program in 1996. Based on the available soil and groundwater data, impacts to soil and groundwater appear to be limited to the area to the northwest of the tank pit, surrounding monitoring well MW-1. A Corrective Action Plan was submitted in April 2008 and has been implemented since June 2008. An iSOC unit has been installed in well MW-1. Significant decrease of petroleum hydrocarbon concentrations has occurred since the system operation. Removal of the iSOC unit is recommended in July 2010 for potential rebound monitoring (State Water Resources Control Board Geotracker, 2013) |
| US Army Fort Ord Site 2/12 | 425 feet Figure 4.9-1 | Cleanup Program Site/Military Cleanup Site | Open- Remediation | A former truck and auto maintenance facility in the current location of "The Dunes on Monterey Bay" shopping center south of Imjin Parkway and directly east of Highway 1 caused groundwater contamination from improperly disposed solvents. Contaminated soil was removed in the 1990s. TCE and PCE are the main chemicals of concern and groundwater extraction and treatment with granular activated carbon began in 1999. Treated water is re-injected into the aquifer through injection wells and infiltration galleries. Recently, a soil gas investigation was completed for this site. (State Water Resources Control Board Geotracker, 2013) |
| US Army Fort Ord University Villages VCA 8th Street / First Avenue | 800 feet Figure 4.9-1 | National Priorities List DTSC Cleanup Site Program | Active | Voluntary Cleanup Agreement for removal of soil impacted by lead-based paint (California Department of Toxic Substances Control, Envirostor, 2013). |
| Fort Ord State Park MOU with State Parks Dept. Hwy 1 & 8th Street | 0.21 miles Figure 4.9-1 | National Priorities List DTSC Cleanup Site Program | Inactive- Action Required | Voluntary Cleanup Agreement for removal of soil impacted by lead bullet slugs |
| **Product Water Conveyance (RUWAP Alignment) between the Regional Treatment Plant and Booster Pump Station** | | | | |
| Fort Ord Operable Unit (OU)1 (off-site plume) | 500 feet Figure 4.9-1 | Military Cleanup Site | Open- Remediation | Groundwater plume (primarily TCE) and some source area soil contamination (primarily TCE). The soil contamination has been successfully remediated, leaving only the groundwater plume. |

**Table 4.9-1**
**Hazardous Materials Release Sites Identified within 0.25-Mile of a Proposed Project Component Site Construction Area, By Component**

| Site Name/Address | Distance From Proposed Project Component | Type of Cleanup Site | Cleanup Status | Site History/Substances Released |
|---|---|---|---|---|
| Marina Coast Water District Corporation Yard (Marina, CA) | 100 feet Figure 4.9-1 | DTSC School Investigation | Inactive- Needs Evaluation as of 5/19/2011 | The site is located in the Main Garrison area on land purchased by the Army in 1938 and developed between 1940 and 1943 for administrative purposes. Twenty-four (24) buildings currently exist on the site which were originally used by the Army as confinement facilities (11), warehouses (2), lavatories (2), general instruction building (1), exchange (retail store) (1), administration building (1), recreation building (1), self-service supply center (1), heat plant (1) and storage sheds (2). Historical topographic maps show the site as undeveloped land in 1913, and developed for years after 1947. Two of the structures are no longer present in a 1998 aerial photograph. Most of the buildings apparently remain in their original locations and orientations until the present. Lead-based paints and asbestos-containing building materials (ACM) are known to be on the buildings. One pole mounted transformer is located on-site. Pesticides were used over the past 40 years. One UST was removed and 2 or 3 AST are unused and remain on-site. Two landfills have been identified to be within 0.5 miles of the site, the former Fort Ord landfill (distance unknown) and CSU Monterey Bay Material Recovery Facility (located approx 900 feet south of the site). The groundwater beneath the site has been impacted by the OU-2 Plume originating from the former Fort Ord landfill. Groundwater is approximately 120 feet below ground surface. The closest ordnance and explosives (OE) reported to be nearby is Site OE-2 (Pete's Pond approx 900 feet southeast of site) (California Department of Toxic Substance Control, 2014). |
| Fort Ord OUCTP | 4,000 feet Figure 4.9-1 | Military Cleanup Site | Open-Remediation | Groundwater located north of the corner of Imjin Parkway and Abrams Road and along Reservation Road in Marina was contaminated from a suspected chemical spill site. Carbon tetrachloride is the main chemical of concern and groundwater remediation includes enhanced in-situ bio-remediation (A -Aquifer), groundwater extraction and treatment with granular activated carbon (Upper 180 -Foot Aquifer), and monitored natural attenuation with wellhead treatment contingency (Lower 180-Foot Aquifer). Remediation began in 2009 for the A-Aquifer (and is now complete) and in 2011 for the Upper and Lower 180-Foot Aquifers |
| Fort Ord Operable Unit 2 (landfill) | 0.23 miles Figure 4.9-1 | Military Cleanup Site | Open-Remediation | See discussion Site OU2, below. Former Fort Ord Sites 2 and 12, OU 2, and OUCTP groundwater and soil analysis report (United States Department of Army, 2010). |
| **Injection Well Facilities** | | | | |
| Fort Ord Military Base Seaside Munitions Response Area (Site #39) | Co-located with project area | National Priorities List | Open-Remediation | Potential for unexploded ordnance hazards and munitions debris. See additional discussion above in Section 4.9.2.1 and below in Section 4.9.4.4 under Impact HH-3. |
| **Cal-Am Water Distribution System: Monterey and Transfer Pipelines** | | | | |
| Economy Cleaners 840 Playa Avenue, Sand City | 500 feet | Cleanup Program Site | Open- Site Assessment | Shallow soil contamination from PCE. A work plan for soil vapor extraction has been prepared (State Water Resources Control Board GeoTracker, 2015). |

**Table 4.9-1**
**Hazardous Materials Release Sites Identified within 0.25-Mile of a Proposed Project Component Site Construction Area, By Component**

| Site Name/Address | Distance From Proposed Project Component | Type of Cleanup Site | Cleanup Status | Site History/Substances Released |
|---|---|---|---|---|
| Rod and Ros Gas Mart 1898 Fremont Boulevard | 50 feet | Leaking Underground Storage Tank Cleanup Site | Open- Eligible for Closure | Inactive service station with petroleum hydrocarbon contamination. Total petroleum hydrocarbons-gasoline concentrations of up to 3,900 ug/L have been detected in groundwater at the southern portion of the site; contamination has not detected along La Salle Avenue. (State Water Resources Control Board GeoTracker, 2015) |
| Diaz Property 1561, 1563, and 1569 Del Monte Boulevard, Seaside | 100 feet | Cleanup Program Site | Open- Site Assessment | Fuel leak reported in 2009; no further investigation or cleanup activities have occurred (State Water Resources Control Board GeoTracker, 2013). |
| Embassy Suites Hotel 1441 Canyon del Rey, Seaside | 500 feet | DTSC Cleanup Site | Certified Operations and Maintenance | A portion of the site was occupied by an automobile junkyard from 1959 to 1964. In 1964, junk cars, scrap, and debris were removed and a retail plumbing, electrical, and sheet metal shop and lumber yard were built in the former junkyard area. A lumber and hardware store and a furniture store once occupied the eastern and southern portions of the site. Redevelopment plans for the site called for the construction of the Embassy Suites Laguna Grande Seaside Hotel, a 225-room hotel tower with ancillary commercial facilities designated in the building plan totaling 59,400 square feet. The remainder of the site was planned to be a 162,500 square foot parking lot. The Redevelopment Agency of Seaside, in a letter dated February 28, 2003, indicated that a Reciprocal Parking and Easement Agreement would be executed by the Redevelopment Agency of Seaside, John Q. Hammons Hotels Two, L.P., and the City of Seaside, to use the site for additional overflow parking for a restaurant. The deed restriction states that no activities will be allowed that disturb the remedy and monitoring systems without approval (California Department of Toxic Substances Control, 2014) |
| Fort Ord Military Base Seaside Munitions Response Area (Site #39) | Adjacent to project area | National Priorities List | Open- Remediation | Potential for unexploded ordnance hazards and munitions debris. See additional discussion above in Section 4.9.2.1 and below in Section 4.9.4.4 under Impact HH-3. |
| Former Chevron Bulk Plant 205 Ramona Avenue, Monterey | 150 feet | Leaking Underground Storage Tank Cleanup Site | Open- Verification Monitoring | Soil and groundwater contamination primarily by benzene, diesel, and gasoline. |
| Former Texaco Bulk Terminal , Del Monte Dunes Lower Dunes Area, Monterey | 150 feet | Leaking Underground Storage Tank Cleanup Site | Open- Eligible for Closure | Soil and groundwater contamination by crude oil and other oils, diesel, and gasoline. |
| Monterey Naval Postgraduate School 1 University Circle, Monterey | 1,100 feet | DTSC Cleanup Site: Military Evaluation | Active base military evaluation. Referred to RWQCB, 3/14/2011 | The Del Monte Properties Company acquired the hotel and developed the Del Monte as a “sports empire” until 1942, when it was taken over by the U.S. Navy and used as a pre-flight school for aviators. This development was referred to the Waterboard in 1995. Potential for soil contamination. Potential contaminants of concern include radioactive isotopes (California Department of Toxic Substances Control Envirostor, 2014a). |

**Table 4.9-1**
**Hazardous Materials Release Sites Identified within 0.25-Mile of a Proposed Project Component Site Construction Area, By Component**

| Site Name/Address | Distance From Proposed Project Component | Type of Cleanup Site | Cleanup Status | Site History/Substances Released |
|---|---|---|---|---|
| Former Vapor Sudden Service Cleaners 951 Del Monte Avenue, Monterey | 30 feet | Cleanup Program Site | Open- Site Assessment | Soil and groundwater contamination associated with former dry cleaning facility, including heating oil, fuel oil, solvent, mineral spirits, distillates, and PCE. The most recent site investigation report from 2005 identified concentrations of up to 47,000 ug/L of PCE and 63 ug/L of total petroleum hydrocarbons-solvents in groundwater (Remediation Testing and Design, 2005). The RWQCB has recently reinitiated enforcement efforts (State Water Resources Control Board, 2013). |
| Russo's Marine Fueling Station Del Monte Avenue and Figueroa Street, Monterey | 20 feet | Cleanup Program Site | Open- Remediation | Soil and groundwater contamination from former Leaking Underground Storage Tanks. Contaminants of concern include benzene, diesel, gasoline, and toluene. In June 2013, free petroleum product was present in several site wells. (State Water Resources Control Board, 2013). |
| Pacific Gas and Electric (PG&E), Manufactured Gas Plant Southwest Corner of Figueroa Street & Del Monte Avenue, Monterey | 20 feet | Voluntary Cleanup | Active | Potential contaminants of concern include metals, petroleum hydrocarbons, polychlorinated biphenyls, and polynuclear aromatic hydrocarbons. Known contaminants remain in place beneath Del Monte Avenue. |
| Former Washington Mutual (now Chase) Bank at 468 Washington Street, Monterey | 500 feet | Cleanup Site Program | Open- Verification Monitoring | Groundwater sampling in July 2013 detected PCE and TCE at concentrations up to 3.8 ug/L and 0.52 ug/L, respectively. Cis-1,2-dichloroethylene was reported at 11 ug/L (State Water Resources Control Board, 2013). |
| O'Neal Property 456 Pine Street, Monterey | 500 feet | Leaking Underground Storage Tank Cleanup Site | Open- Eligible for Closure | Soil and groundwater contamination from former dry cleaning facility. Stoddard solvent, mineral spirits, and distillates have been detected in soil and groundwater. The most recent groundwater sampling performed in 2008 detected concentrations of up to 4,200 ug/L of total petroleum hydrocarbons -stoddard solvent, 4,100 ug/L of total petroleum hydrocarbons-gasoline, and low concentrations of VOCs (State Water Resources Control Board GeoTracker, 2015). |
| One Hour Martinizing 724 Lighthouse Avenue | 1,200 feet southeast of project area | Cleanup Site Program | Open- Verification Monitoring | PCE & TCE groundwater contamination from dry cleaners. Groundwater sampling in 2009 detected the presence of up to 770 ug/L of PCE & 190 ug/L of TCE at the dry cleaners site. No offsite contamination has been detected (State Water Resources Control Board GeoTracker, 2015). |

## Hazardous Materials Near Proposed Project Sites

### *Former Fort Ord Military Base*

The U.S. Army established Fort Ord in 1917. Fort Ord occupies approximately 28,000 acres and was used as training and staging facilities for U.S. Army infantry troops. Fort Ord was a basic training center from 1945 to 1975. In 1990, the United States Environmental Protection Agency (EPA) placed the military base on the National Priorities List (NPL). The site contained leaking petroleum underground storage tanks, unexploded ordnance, small arms target ranges, a fire range, and a landfill (EPA, 2013). Investigations regarding the locations of munitions and explosions of concern were initiated by the U.S. Army in 1993. These investigations resulted in the delineation of Munitions Response Sites and Munitions Response Areas that include approximately 12,000 acres of the former Fort Ord (United States Department of Army, 2012). Cleanup at the former Fort Ord is the responsibility of the U.S. Army, which is conducting ordnance cleanup for 8,000 acres. Approximately 3,500 acres of the site is undergoing a privatized cleanup; the U.S. Army has entered into an Environmental Services Cooperative Agreement (ESCA) with the Fort Ord Reuse Authority (FORA) for remediation of munitions and explosives of concern and transfer of the remaining 3,340 acres. FORA and their contractors are working with regulatory agencies including the Department of Toxic Substances Control and the EPA to conduct munitions remediation activities, scheduled for completion by 2015 (United States Environmental Protection Agency, 2012; Fort Ord Reuse Authority, 2013).

#### Site 39

For purposes of environmental investigation and cleanup, the area east of General Jim Moore Boulevard and south of Eucalyptus Road has been designated as Site 39 (**Figure 4.9-2**). Site 39 contained at least 28 ranges that were used for small arms and high explosive ordnance training using rockets, artillery, mortars and grenade. Expended and unexploded ordnance have been documented in various areas of Site 39.[4] Beginning in 1984, environmental investigation and remediation activities have occurred in Site 39. During these investigations, metals and compounds have been detected in soil. FORA and their contractors are working with regulatory agencies including the Department of Toxics Substances Control and the EPA to conduct munitions remediation activities that are scheduled to be completed by 2015. According to the Record of Decision (EPA Superfund Record of Decision; EPA ID CA7210020676, dated 4/6/05), there remains some chance of discovery of munitions and explosives of concern associated with the former firing ranges during construction activities. All construction workers are required to receive an unexploded ordnance/munitions and explosives of concern safety briefing prior to starting construction and, as needed, thereafter.

The majority of former Fort Ord buildings contain some type of asbestos and lead-based paint as most construction occurred from the 1940s to the 1960s when these materials were commonly used in construction. However, the Proposed Project does not include any demolition

[4] The specific ordnance types include rounds from shotguns, mortars, M74 rockets, recoilless rifles, aircraft, grenades, artillery, howitzers, mines, anti-tank (bazooka), bombs, naval, Bangalore torpedoes, C-4, TNT, military dynamite, and shaped charges. Functions for these items included high explosives, heat generating, armor piercing, white phosphorous, smoke tracer, illumination, incendiary, photo flash, ball and inert devices. As a result of the spontaneous ignition of a white phosphorous grenade in August 2009, a munitions and explosives of concern sweep was conducted at Range 48. This surface sweep removed munitions and explosives of concern or MEC-like items using physical and demolition methods.

or renovation of existing Fort Ord facilities; therefore, neither of these potential hazards are further discussed in this section.

### *Existing Groundwater Quality at Injection Well Facilities Site*

As part of the Proposed Project planning, groundwater samples were collected from a recently constructed monitoring well in the Paso Robles (upper) aquifer within the Seaside Groundwater Basin near the proposed Injection Well Facilities site. These groundwater samples were then tested to understand and document existing groundwater quality conditions. In addition, the Proposed Project planning process included a review of existing baseline data from previous investigations, groundwater sampling, and monitoring in the vicinity, including historical groundwater quality data for the project area provided by the Monterey Peninsula Water Management District and CalAm and supplemental data collected by Todd Groundwater in association with studies for the Proposed Project (Todd Groundwater, 2015). The full groundwater assessment report is included in **Appendix L**; additional detailed information about groundwater quality and potential impacts to groundwater as a result of the Proposed Project is included in **Section 4.10, Hydrology and Water Quality: Groundwater Resources**.

#### Groundwater

In addition to characterization of general groundwater chemistry, the drinking water quality database was reviewed to identify potential constituents of concern, including constituents regulated by the State to prevent their occurrence within drinking water systems. Given the historical land use of the former Fort Ord lands, MRWPCA's consultants analyzed six groundwater samples for 17 explosive compounds (nitroaromatics and nitramines) and two metals associated with explosive compounds (beryllium and lead). The sampling results are summarized in **Table 4.9-2, Groundwater Analyses for Explosives and Associated Metals**.

As shown, an explosive compound (26-DNT (dinitrotoluene)) was detected in three wells (FO-7 Shallow, FO-7 Deep, and ASR MW-1) and low concentrations of another explosive compound (2-nitrotoluene) was detected in one of the ASR monitoring wells (ASR MW-1). The only explosive constituent detected in groundwater samples, 2,6-DNT (dinitrotoluene), was also detected in laboratory blank samples, which are samples of laboratory water (not groundwater) analyzed for quality assurance/quality control (QA/QC) purposes. Detections of this constituent at similar levels in the laboratory blank sample indicate that 2,6-DNT is likely a laboratory contaminant and not actually present in groundwater. Although the constituent may be present in several groundwater samples, the laboratory blank data suggest that it was introduced into the samples in the laboratory. Further, detections of 2,6-DNT in FO-7 Shallow, FO-7 Deep, and ASR MW-1 were below the laboratory reporting level (RL), meaning that the concentration of 2.6-DNT in samples is too low to be quantified. Given the laboratory QA/QC data for 2,6-DNT, the low levels of the detections, and the absence of additional explosives in groundwater, data indicate that groundwater has not been impacted locally from explosives associated with former Fort Ord activities (Todd Groundwater, 2015).

With regard to metals, beryllium was detected in groundwater collected from three of the wells (ASR-2, FO-7 Shallow, and MRWPCA MW-1), although all of the detections met the California Primary MCL for drinking water. Other wells in the database did not detect beryllium above the laboratory reporting limits (Todd Groundwater, 2015).

## Table 4.9-2
## Groundwater Analyses for Explosives and Associated Metals

| Constituent | Wells with Detections* | Minimum Reporting Limit (RL) | Detected or Reported Concentration | California Primary Maximum Contaminant Level | California Notification Level | Comments |
|---|---|---|---|---|---|---|
| | | µg/L | | | | |
| **Explosives*** | | | | | | |
| **HMX (cyclotetramethylene tetranitramine)** | None | 0.099-0.12 | ND | None | 350 | |
| **RDX (cyclotrimethylene trinitramine) (cyclonite)** | None | 0.099-0.12 | ND | None | 0.3 | |
| **1,3,5- TNB (trinitrobenzene)** | None | 0.20-0.22 | ND | None | None | |
| **1,3-dinitobenzene** | None | 0.098-0.12 | ND | None | None | |
| **3,5-dinitoaniline** | None | 0.098-0.30 | ND | None | None | |
| **TETRYL (2,4,6 trinitro-phenylmethyl-nitramine)** | None | 0.10-0.12 | ND | None | None | |
| **nitrobenzene** | None | 0.099-0.12 | ND | None | None | |
| **4-Amino-2,6-dinitrotoluene** | None | 0.098-0.11 | ND | None | None | |
| **2-amino-4,6-dinotrotoluene** | None | 0.098-0.11 | ND | None | None | |
| **2,4,6-trinitrotoluene (TNT)** | None | 0.098-0.11 | ND | None | 1 | |
| **2,6-DNT (dinitrotoluene)** | FO-7 Shallow | 0.20 | 0.070*** | None | None | high turbidity |
| | FO-7 Deep | 0.23 | 0.064*** | None | None | slightly turbid |
| | ASR MW-1 | 0.10 | 0.037*** | None | None | |
| **2,4-DNT (dinitrotoluene)** | None | 0.10 | ND | None | None | |
| **2-nitrotoluene** | None | 0.11 | ND | None | None | |
| **4-nitrotoluene** | None | 0.098-0.12 | ND | None | None | |
| **3-nitrotoluene** | None | 0.098-0.12 | ND | None | None | |
| **NG (nitroglycerine) (triniroglycerol)** | None | 0.99-1.2 | ND | None | None | |
| **pentaerythritol tetranitrate** | None | 0.49-0.56 | ND | None | None | |
| **Metals**** | | | | | | |
| **Beryllium (Be)** | ASR-2 | 0.050 | 0.7 | 4.0 | | |
| | FO-7 Shallow | 0.020 | 0.68 | | | high turbidity |
| | MRWPCA MW-1 | 0.020 | 0.044 | | | turbid |
| **Lead (Pb)** | ASR-1 | 0.020 | 0.78 | 15.0 | | |
| | ASR-2 | 0.010 | 3.0 | | | |
| | FO-7 Shallow | 0.020 | 42.0 | | | high turbidity |
| | FO-7 Deep: | 0.080 | 1.3 | | | slightly turbid |
| | PRTIW: Mission Memorial | 0.020 | 0.061 | | | |
| | MRWPCA MW-1 | 0.020 | 1.3 | | | turbid |
| | Paralta | 0.001 | 3.0 | | | |

NOTES: * Nitroaromatics and nitramines by EPA Method 8330B: Samples received and submitted by Alpha Analytical Laboratory, Ukiah, CA to ALS Environmental (ALS), Kelso, WA on February 5, 2014; analyzed by ALS on February 8, 2014.
****** Metals by EPA Method 200.8 analyzed by Alpha Analytical Laboratory, Ukiah, CA, February 5-11, 2014.
***Constituent also detected in laboratory blank indicating a laboratory contaminant that may not be present in groundwater. All detections were below Reporting Limits (J values) and are not quantifiable.
ug/L = micrograms per liter or parts per billion (ppb)
MCL = Maximum Contaminant Level for drinking water
ND = Not detected above the method detection level for any of the samples from the six wells.
SOURCE: Todd Groundwater, November 2014

Lead was detected in groundwater collected from seven wells (ASR-1, ASR-2, FO-7 Shallow, FO-7 Deep, Mission Memorial PRTIW, MRWPCA MW-1, and Paralta). The detection in FO-7 Shallow (42 ug/L) was above the MCL (15 ug/L), but appears anomalous with respect to other detections of lead in the database. The concentration of 42 ug/L is the highest concentration in the database by an order of magnitude, which included lead analyses from 13 wells sampled from 2011 through 2014. The second highest concentration was detected in ASR-2 at 3.0 ug/L (also included on **Table 4.9-2**). Except for FO-7 Shallow, all of the detections were below the MCL for lead.

The 2014 sampling of FO-7 Shallow was the first time that this small-diameter monitoring well had been sampled for water quality since its original sampling upon well completion. Sampling produced a highly turbid sample, likely relating to the inability to properly develop the well when installed in 1994 as a water level monitoring well. As such, the metals analytical data are likely the result of particle interference and are not likely representative of dissolved lead concentrations in groundwater (Todd Groundwater, 2015).

Given the absence of explosives and the relatively low levels of beryllium and lead (with the exception of FO-7 Shallow where data appear to be inaccurate as explained above), the data do not indicate that former Fort Ord activities have impacted groundwater in the existing wells near the Proposed Project site (Todd Groundwater, 2015).

### Contaminant Plumes

A search of the study area was conducted on the California Department of Toxic Substances Control (DTSC) *EnviroStor* website (www.envirostor.dtsc.ca.gov) and the California State Water Resources Control Board (SWRCB) *Geotracker* website (http://geotracker.waterboards.ca.gov). The goal of the search was to identify any potential industrial sites or activities that could contribute to groundwater contamination from previous site uses, spills, and/or chemical releases. Both *EnviroStor* and *Geotracker* listed the 28,016-acre Fort Ord Military Base as an active Federal Superfund site and listed munitions as the contaminant of primary concern. **Figure 4.9-3, Location of Existing Groundwater Plumes** shows the location of the groundwater plumes with respect to the Proposed Project Product Water Conveyance pipelines and Injection Well Facilities; the Injection Well Facilities are located over two miles south of the existing documented plumes and are separated by a groundwater flow divide that forms a hydrogeologic boundary between the Seaside and Salinas Valley groundwater basins. Additionally, *Geotracker* identified two adjacent sites on the former Fort Ord lands as gasoline contamination sites: (1) the 14th Engineers Motor Pool and (2) Building 511. These active sites are currently undergoing investigations and cleanup and are located about 1.8 miles northeast of the Injection Well Facilities site. Both sites are outside of the Seaside Groundwater Basin and are not a threat to groundwater quality in the Proposed Project area.

Other contaminated sites have been identified in the Seaside Basin, including numerous leaking underground storage tank sites, but none were in locations that could be affected by Proposed Project operations. Specifically, there were no contaminated sites identified in the area between the proposed Injection Well Facilities and downgradient extraction wells.

### Operable Units

Organic compounds have been found in the groundwater beneath the former Fort Ord, specifically, in areas lying in groundwater below the land on which the Product Water Conveyance Pipeline (RUWAP alignment option) would be located. Groundwater sampling performed for the U.S. Army clean-up activities at the former Fort Ord found trichloroethylene (TCE) in the vicinity of the former Fritzsche Army Airfield Fire Drill Area and the former Fort Ord landfill. These two remediation sites, called “operable units,” have undergone considerable

investigation and remediation, including continued operation of groundwater treatment systems. Another 41 sites of concern (Remedial Investigation Sites) at Fort Ord have been investigated and many remediation actions have been completed. **Figure 4.9-3** shows the location of these sites. These sites are over 1.8 miles northeast of the Proposed Project Injection Wells and more than one mile north of the boundary of the Seaside Groundwater Basin (see basin boundaries in **Figure 2-3, Seaside Groundwater Basin Boundaries**, in **Chapter 2, Project Description**). Details on the two operable units are as follows (see also OU-CTP and Sites 2/12 described in **Table 4.9-1**):

- **Fort Ord Landfill – OU1**. Operable Unit 1 (OU1) is the Fritzsche Army Airfield Fire Drill Area site. It originally consisted of a groundwater plume (primarily TCE) and some source area soil contamination (primarily TCE). The soil contamination has been successfully remediated, leaving only the groundwater plume. Since identification of an off-site (outside the former Fort Ord boundaries) portion of the groundwater plume in 2005, this plume is typically defined as consisting of two parts: the on-site and off-site portions. The EPA, the California Regional Water Quality Control Board, and the Department of Toxic Substances Control (DTSC) have overseen this project. See **Table 4.9-1** for status summary.[5]
- **Fritzsche Army Airfield – OU2**. Marina Municipal Airport, formerly Fritzsche Army Airfield, was converted to civilian use as part of the initial Fort Ord Base Reuse Plan, approved in 1993. The airport is located to the south of the Regional Treatment Plant and approximately 0.75-mile to the east of the Proposed Project's Product Water Conveyance pipeline (RUWAP alignment option). The aquifer that lies below this area is known to be contaminated with organic compounds including trichloroethene (TCE). This aquifer is also impacted by saltwater intrusion. In addition, there are also hazards present related to unexploded ordnance and military munitions.

#### 4.9.2.2 *Airports*

### Monterey Regional Airport

The Monterey Regional Airport is located between Highway 68 and SR 218 just east of Del Rey Oaks, and south of Seaside (See **Figure 4.9-1**). The Monterey County Airport Land Use Commission adopted an Airport Land Use Plan in 1987. The plan identifies areas impacted by aircraft operations and includes policies to allow for the continued operation of county airports, while protecting the public safety.

The Injection Well Facilities site is located approximately two miles from the Monterey Regional Airport; however, it is not situated within an Approach Protection Zone or a Runway Protection Zone and therefore construction and operations on the site would not interfere with Airport operations, nor is the site subject to any development limitations.

### Marina Municipal Airport

The Marina Municipal Airport lies within 2 miles of the Proposed Project (See **Figure 4.9-1**). The airport Comprehensive Land Use Plan was adopted in 1996 by the Monterey County Airport Land Use Commission. The plan is designed to ensure that surrounding land uses and

[5] Monitoring report for the site is available on the SWRCB GeoTracker database: http://geotracker.waterboards.ca.gov/profile_report.asp?global_id=DOD100220600

development are compatible with airport operations and do not cause a hazard to aircraft in flight. In addition, the plan includes an Approach Protection Zone and a Runway Protection Zone, which limit development to low density land uses. Armstrong Ranch is within the Approach Protection Zone.

### Salinas Municipal Airport

Salinas Municipal Airport is located approximately 3 ½ miles east of the closest Proposed Project component site.

## 4.9.2.3 Fire Hazards

### Fire Threat in Wildland Urban Interface Zones

Fire threat is a combination of two factors: fire frequency, or the likelihood of a given area burning; and the potential fire behavior, or hazard. Components of these two factors include surface fuels, topography, fire history, and weather conditions. Rugged topography, dry summers, and an abundance of fuel combine to make much of Monterey County susceptible to wildland fire hazards during the warmer seasons of the year.

The Monterey County Community Wildfire Protection Plan (Monterey Fire Safe Council, 2010) serves as an advisory plan to guide wildfire prevention and preparation activities in the county. In 2006, the Monterey Fire Safe Council contracted with California Department of Forestry and Fire Prevention (CAL FIRE's) Fire and Resource Assessment Program, to more thoroughly evaluate wildfire threat and risk in Monterey County. Based on historical fire perimeter data (California Department of Fire and Forestry, 2007a and 2007b),[6] portions of the county are more susceptible to wildfires, with some areas having burned up to six times during the recorded fire history period. A number of notable fires have occurred in the wildland-urban interface zones in Monterey County. For example, the Fort Ord Escape Fire (2003) that was originally ignited as a prescribed burn on 500 acres, escaped the primary containment line and burned 1,470 acres; the fire occurred under normal Monterey County weather conditions. The greatest threat to the wildland-urban interface in Monterey County occurs under extreme fire weather conditions.

The regional topographic conditions within Monterey County have considerable effect on wildland fire behavior, as well as on the ability of firefighters to access and respond to wildfires. Steep slope and canyon alignments are conducive to channeling, deflecting, concentrating, or dispersing winds, and creating extremely erratic wildfire conditions, especially during wind-driven fire events.[7]

[6] Based on polygon GIS data for CAL FIRE and USFS- fires measuring 10 acres and greater between 1950 and 2007.

[7] Davis, F.W., & Borchert, M.I., 2006. Central Coast Bioregion. In: Sugijara, N.G., Van Wagtendonk, J.W., Shaffer, K.E., Fites-Kaufman, J., and Thode, A.E., eds. Fire in California's ecosystems. University of California Press, Berkeley, pp. 321-349.
Hanson & Usner 1993. The Natural History of Big Sur. University of California Press, Berkeley, pp. 232-238. U.S. Department of Agriculture, Forest Service (USDA FS). 2000. "Policy Implications of Large Fire Management: A Strategic Assessment of Factors Influencing Costs." A Report by the Strategic Overview of Large Fire Costs Team. Washington, DC: Forest Service, U.S. Department of Agriculture. 43 pp.

The following communities in or around the Proposed Project area meet the definition of an at-risk community: Del Rey Oaks, Former Fort Ord, Marina, Monterey, Pacific Grove, Salinas, Sand City, and Seaside (i.e., they are on the list published in the Federal Register; are at risk of wildfire; and are within or adjacent to Federal land), per 16 USC 6511(A)(i).[8]

## Former Fort Ord[9]

Due to the distribution of flammable maritime chaparral and sage fire fuel types and rapidly fluctuating winds and relative humidities in combination with solar preheating, Fort Ord presents a unique and challenging fire threat. Of concern is the capability of a fire to leave the Fort Ord property, affecting adjacent properties and assets. Uncontrolled wildland fires originating at former Fort Ord could threaten properties within the Highway 68 corridor of Monterey County, Del Rey Oaks, Monterey, Seaside, and the land along Reservation Road. Uncontrolled wildfire hazards are identified in the countywide fire threat assessment, which documents the at-risk community fire threat profile. Modeling results indicate this potential under moderate and severe weather conditions. The Former Fort Ord Lands are encircled with wildland-urban interface boundaries of Monterey, Del Rey Oaks, Seaside, Marina, East Garrison, Toro Park/Serra Village, Los Laureles, Laguna Seca, Pasadera, Ryan Ranch, Hidden Hills, and Highway 68. These undeveloped lands may present the single greatest hazardous fuel and fire threat to wildland-urban interface in Monterey County.

The presence of Unexploded Ordnance in substantial portions of the Fort Ord maritime chaparral fuel beds presents a danger to direct attack suppression and the deployment of tactical air support in those areas, most significantly at Del Rey Oaks, where Unexploded Ordnance is present proximate to the development boundary. Unexploded Ordnance fragmentation distance can be up to 1,701 feet. A comprehensive system of fuel breaks and prescribed burns is maintained as indicated in the fire management plans.

## Local and State Responsibility Areas

CAL FIRE maps identify fire hazard severity zones in the state and local responsibility areas. Wildland fire protection in California is the responsibility of either the state, local government, or the federal government. Local responsibility areas (LRA) include incorporated cities, cultivated agricultural lands, and portions of the desert. LRA fire protection is typically provided by city fire departments, fire protection districts, counties, and by CAL FIRE under contract to local government. Portions of the Proposed Project area are situated within either a very high fire hazard severity zone (some areas of Monterey, Seaside and Sand City) or a high fire hazard severity zone such as parts of Marina (CAL FIRE, 2007b). Marina, Seaside, Sand City, Monterey, and Salinas are all designated as Incorporated LRA. Within the Local Responsibility Areas, the only component of the Project that is located within a Very High Fire Hazard Severity Zone is the Injection Well Facilities site (CAL FIRE, 2007b).

[8] These communities meet the definition of an at-risk community in the Healthy Forests Restoration Act (i.e., they are on the list published in the Federal Register; are at risk of wildfire; and are within or adjacent to Federal land), per 16 USC 6511(A)(i).

[9] This section is based on information from Appendix H- Special Study Areas: FRAP fire behavior modeling and threat assessment protocol (Monterey Fire Safe Council, 2010). Three representative areas within Monterey County were selected for special study: Fort Ord, Carmel Valley, and the North County. Due to its relative proximity to a number of Proposed Project components, only the Fort Ord study was included.
Also see, http://frap.cdf.ca.gov/projects/population/sra_definition.html.

A Designated State Responsibility Area (SRA) is the area "in which the financial responsibility of preventing and suppressing fires is primarily the responsibility of the state" (PRC section 4125).[10] Most of Monterey County is within SRA; however **Figure 4.9-4, Fire Hazard Responsibility Zones** shows that only certain areas within the Proposed Project area are designated as SRA, and most areas are Local or Federal Responsibility Areas.

The Monterey County Office of Emergency Services (OES) is responsible for initiating and coordinating disaster and emergency preparation, response, recovery, and mitigation operations within Monterey County.

## 4.9.3 Regulatory Framework

### 4.9.3.1 Federal

#### Comprehensive Environmental Response, Compensation, and Liability Act, Superfund Amendments and Reauthorization Act of 1986 (42 USC Section 9601 et seq.)

The Comprehensive Environmental Response, Compensation, and Liability Act, also known as CERCLA or Superfund, provides for the response and cleanup of hazardous substances that may endanger public health or the environment. The Superfund Amendments and Reauthorization Act (SARA) amended Superfund to increase state involvement and required Superfund actions to consider state environmental laws and regulations. SARA also established a regulatory program for the Emergency Planning and Community Right-to-Know Act. Title III of SARA requires states to establish a process for developing local chemical emergency preparedness programs and to receive and disseminate information on hazardous substances present at facilities in local communities. The law provides primarily for planning, reporting, and notification concerning hazardous substances. Key provisions require notification when extremely hazardous substances are present above their threshold planning quantities, immediate notification to the local emergency planning committee and the state emergency response commission when a hazardous material is released in excess of its reportable quantity, and that material safety data sheets for all hazardous materials or a list of all hazardous materials be submitted to the state and local emergency planning agencies and local fire department.

EPA placed the 27,827-acre Fort Ord site on the National Priorities List (Superfund) in 1990. Approximately 3,484 acres of Fort Ord is undergoing a "privatized" cleanup. Fort Ord Reuse Authority is responsible for the privatized cleanup.

[10] Also see, http://frap.cdf.ca.gov/projects/population/sra_definition.html.

### U.S. Department of Transportation Hazardous Materials Transport Act (49 USC 5101)

The U.S. Department of Transportation, in conjunction with the EPA, is responsible for enforcement and implementation of federal laws and regulations pertaining to transportation of hazardous materials. The Hazardous Materials Transportation Act of 1974 directs the U.S. Department of Transportation to establish criteria and regulations regarding the safe storage and transportation of hazardous materials. CFR 49, 171–180, regulates the transportation of hazardous materials, types of material defined as hazardous, and the marking of vehicles transporting hazardous materials.

During construction of the Proposed Project and operations at the Regional Treatment Plant, hazardous materials would be transported on public roadways.

### Federal Aviation Administration

The Federal Aviation Administration has jurisdiction over airspace in the United States. The Federal Aviation Regulations provide criteria for evaluating the potential effects of obstructions on the safe and efficient use of navigable airspace within approximately two to three miles of airport runways. The Federal Aviation Administration requires notification of proposed construction that meets specific height requirements.

There are two airports in the vicinity of the Proposed Project: Monterey Regional Airport and Marina Municipal Airport.

## 4.9.3.2 State

### Underground Storage Tanks

Federal and state laws governing Underground Storage Tanks specify requirements for permitting, monitoring, closure and cleanup of Underground Storage Tanks (CFR 208-281; CCR Title 23). Regulations set forth construction and monitoring standards for existing tanks, release reporting requirements, and closure requirements. The Monterey County Environmental Health Department's Local Oversight Program also has regulatory authority for permitting, inspection and removal of underground storage tanks. A closure plan for each underground storage tank to be removed must be submitted to the County prior to tank removal. Upon approval of the underground storage tank closure plan, the County will issue a permit, oversee removal of the underground storage tank, require additional subsurface sampling if necessary, and issue a site closure letter when the appropriate removal and/or remediation has been completed.

Construction of the Proposed Project would take place in the vicinity of areas where there are currently, or have been formerly, underground storage tanks.

### Hazardous Materials Release Response Plans and Inventory Act- Health and Safety Code, Section 25500 et seq.

The Hazardous Materials Release Response Plans and Inventory Act of 1985, also known as the Business Plan Act, requires businesses using hazardous materials to prepare a Hazardous Materials Business Plan that describes their facilities, inventories, emergency response plans, and training programs. Business plans contain basic information on the location, type, quantity, and health risks of hazardous materials stored, used, or disposed. This code and the related regulations in 19 California Code of Regulations 2620, et seq., require local governments to regulate local business storage of hazardous materials in excess of certain quantities. The law also requires that entities storing hazardous materials be prepared to respond to releases. Those using and storing hazardous materials are required to submit a Hazardous Materials

Business Plan to their local Certified Unified Program Agency and to report releases to their Certified Unified Program Agency and the State Office of Emergency Services. The California Office of Emergency Services is responsible for implementing the accident prevention and emergency response programs established under the Act and implementing regulations.

Under the Proposed Project, hazardous materials would be temporarily stored and used during construction activities; in addition, hazardous materials would be stored and used on-site at certain Proposed Project components.

### Hazardous Waste Control Act – Health and Safety Code, Section 25100 et seq.

The Hazardous Waste Control Act of 1972 created the State hazardous waste management program, which is similar to but more stringent than the Federal Resource Conservation and Recovery Act program. The Act is implemented by regulations contained in Title 26 of the CCR, which describes the following required aspects for the proper management of hazardous waste: identification and classification; generation and transportation; design and permitting of recycling treatment, storage and disposal facilities; operation of facilities and staff training; and closure of facilities and liability requirements. These regulations list more than 800 materials that may be hazardous and establish criteria for identifying, packaging, and disposing of such waste. Under the Hazardous Waste Control Act and Title 26, the generator of hazardous waste must complete a manifest that accompanies the waste from generator to transporter to the ultimate disposal location. Copies of the manifest must be filed with the DTSC.

Under the Proposed Project, hazardous materials would be temporarily stored and used during construction activities; in addition, hazardous materials would be stored and used on-site at certain Proposed Project components.

### Unified Hazardous Waste and Hazardous Materials Management Regulatory Program (Unified Program) – Health and Safety Code Sections 25404 et seq.

This program requires the administrative consolidation of six hazardous materials and waste programs (Program Elements) under one agency, a Certified Unified Program Agency. The following Program Elements are consolidated under the Unified Program:

- Hazardous Waste Generator and On-site Hazardous Waste Treatment Programs (a.k.a. Tiered Permitting)
- Above-ground Petroleum Storage Tanks
- Hazardous Materials Release Response Plans and Inventory Program (a.k.a. Hazardous Materials Disclosure or “Community-Right-To-Know”)
- California Accidental Release Prevention Program
- Underground Storage Tank Program
- Uniform Fire Code Plans and Inventory Requirements

The Unified Program is intended to provide relief to businesses complying with the overlapping and sometimes conflicting requirements of formerly independently managed programs. The Unified Program is implemented at the local government level by Certified Unified Program Agencies. Most Certified Unified Program Agencies have been established as a function of a local environmental health or fire department. Some Certified Unified Program Agencies have contractual agreements with another local agency, a participating agency, which implements one or more Program Elements in coordination with the Certified Unified Program Agency.

Hazardous Materials Management Services is designated as the local Certified Unified Program Agency (CUPA) in Monterey County and is responsible for inspecting facilities in the County to verify proper storage, handling and disposal of hazardous materials and hazardous wastes. As the CUPA, Hazardous Materials Management Services staff are responsible for permitting and conducting inspections of underground storage tanks and above-ground petroleum storage tanks. Additionally, Hazardous Materials Management Services staff provide 24/7 emergency response, oversee hazardous material spill site cleanup activities, and operate the pesticide exposure reporting program.

### California Occupational Safety and Health Act – California Labor Code, Section 6300 et seq.

The California Occupational Safety and Health Act of 1973 addresses California employee working conditions, enables the enforcement of workplace standards, and provides for advancements in the field of occupational health and safety. The Act also created the California Occupational Safety and Health Administration (Cal OSHA), the primary agency responsible for worker safety in the handling and use of chemicals in the workplace. Cal OSHA's standards are generally more stringent than federal regulations. Under the former, the employer is required to monitor worker exposure to listed hazardous substances and notify workers of exposure (8 CCR Sections 337-340). The regulations specify requirements for employee training, availability of safety equipment, accident-prevention programs, and hazardous substance exposure warnings.

At sites known or suspected to be contaminated by hazardous materials, workers must have training in hazardous materials operations and a Site Health and Safety Plan must be prepared. The Health and Safety Plan establishes policies and procedures to protect workers and the public from exposure to potential hazards at the contaminated site.

Under the Proposed Project, construction and operations activities would follow all Health and Safety requirements for workers who use, transport, store, or dispose of hazardous materials.

### License to Transport Hazardous Materials – California Vehicle Code, Section 32000.5 et seq.

A valid Hazardous Materials Transportation License, issued by the California Highway Patrol, is required by the State of California Vehicle Code Section 32000.5 for transportation of hazardous materials shipments for which the display of placards is required by State regulations; or hazardous materials shipments of more than 500 pounds, which would require placards if shipping greater amounts in the same manner.

Additional requirements on the transportation of explosives, inhalation hazards, and radioactive materials are enforced by the California Highway Patrol under the authority of the State Vehicle Code Sections 32100 – 33002. Transportation of explosives generally requires consistency with additional rules and regulations for routing, safe stopping distances, and inspection stops (Title 14, CCR, Chapter 6, Article 1, Sections 1150-1152.10). Inhalation hazards face similar, more restrictive rules and regulations (Title 13, CCR, Chapter 6, Article 2.5, Sections 1157-1157.8).

During construction of the Proposed Project, hazardous materials would be transported on public roadways.

### Prohibited Activities in Forests, Forestry and Range and Forage Lands – California Public Resources Code, Section 4411 et seq.

The California Public Resources Code section 4411 et seq. restricts the use of internal combustion engines in forest-, brush-, and grass-covered land unless the engine is equipped

with a spark arrester.[11] In addition, the engine must be maintained for the prevention of fire (PRC Section 4442). Additional statutory requirements are as follows:

- Appropriate fire suppression equipment must be maintained during the highest fire danger period—from April 1 to December 1 (PRC Section 4428).
- On days when a burning permit is required, flammable materials must be removed to a distance of 10 feet from any equipment that could produce a spark, fire, or flame, and the construction contractor must maintain the appropriate fire suppression equipment (PRC Section 4427).
- On days when a burning permit is required, use of portable tools powered by gasoline-fueled internal combustion engines are prohibited within 25 feet of any flammable materials (PRC Section 4431).

Proposed Project construction that occurs in or around grass-covered lands would comply with all fire suppression requirements.

### California Fire Code, Title 24, Part 9, Chapters 33, 50 and 57

The 2013 California Fire Code (CFC), written by the California Building Standards Commission, is based on the 2012 International Fire Code. The International Fire Code (IFC) is a model code that regulates minimum fire safety requirements for new and existing buildings, facilities, storage and processes. The IFC addresses fire prevention, fire protection, life safety, and safe storage and use of hazardous materials in new and existing buildings, facilities, and processes.

Chapter 33 outlines general fire safety precautions for all structures during construction and demolition operations. In general, these requirements seek to maintain required levels of fire protection, limit fire spread, establish the appropriate operation of equipment and promote prompt response to fire emergencies. Features regulated include fire protection systems, fire fighter access to the site, hazardous materials storage and use, and temporary heating equipment and other ignition sources. Chapter 50 contains the general requirements for all hazardous chemicals in all occupancies. The Chapter 57 requirements are intended to reduce the likelihood of fires involving the storage, handling, use, or transportation of flammable and combustible liquids. Chapter 49 outlines construction methods and requirements for hazardous vegetation and fuel management in "High or Very-high Fire Hazard Severity Zones." Chapter 50 includes general provisions for the prevention, control, and mitigation of dangerous conditions related to storage, dispensing, use, and handling of hazardous materials.

### Uniform Fire Code

The Uniform Fire Code, Article 80 (Section 80.103 of the Uniform Fire Code as adopted by the State Fire Marshal pursuant to Health and Safety Code Section 13143.9), includes specific requirements for the safe storage and handling of hazardous materials. These requirements are intended to reduce the potential for a release of hazardous materials and for mixing of incompatible chemicals and specify the following specific design features to reduce the potential for a release of hazardous materials that could affect public health or the environment:

- Separation of incompatible materials with a noncombustible partition;

[11] A spark arrester is a device that prevents exhaust gases from an internal combustion engine from passing through the impeller blades where they could cause a spark. A carbon trap is commonly used to retain carbon particles from the exhaust.

- Spill control in all storage, handling, and dispensing areas; and
- Separate secondary containment for each chemical storage system. The secondary containment must hold the entire contents of the tank, plus the volume of water needed to supply the fire suppression system for a period of 20 minutes in the event of catastrophic spill.

### Emergency Response

California has developed an emergency response plan to coordinate emergency services provided by federal, state, and local government and private entities. Responding to hazardous materials incidents is one part of this plan. The plan is administered by the State Office of Emergency Services, which coordinates the responses of other agencies. The Monterey County Environmental Health Department's Emergency Response Team provides the capabilities for hazardous materials emergencies within the project area. Emergency Response Team members respond and work with local fire and police agencies, California Highway Patrol, California Department of Fish and Wildlife, California Department of Transportation, U.S. Coast Guard and National Marine Sanctuary personnel.

## 4.9.3.3 Regional and Local

Portions of the project would be located within the Cities of Marina, Monterey, Pacific Grove, Sand City, and Seaside and in the northern part of Monterey County. Some of these jurisdictions have general plan policies that address hazards and hazardous materials. This section, including **Table 4.9-3, Applicable State, Regional, and Local Land Use Plans and Policies Relevant to Hazards and Hazardous Materials,** summarizes regional and local hazards/hazardous materials policies and regulations that may be relevant to the Proposed Project and that were adopted for the purpose of avoiding or mitigating an environmental effect. Specific regulations, i.e., municipal codes, that were considered to be adopted for the purpose of mitigating an environmental effect and that may be enforced upon this type of project are also discussed below.

### City of Seaside

The City of Seaside Municipal Code Chapter 15.34 contains the "Ordnance Remediation District Regulations of the City" (Ordinance 924 (part)) and establishes special standards and procedures for digging and excavation on those properties in the former Fort Ord military base which are suspected of containing ordnance and explosives (also called munitions and explosives of concern). This ordinance requires that a permit be obtained from the City for any excavation, digging, development, or ground disturbance of any type involving the displacement of ten cubic yards or more of soil. The permit requirements include providing each site worker a copy of the Ordnance and Explosives Safety Alert; complying with all requirements placed on the property by an agreement between the City, FORA, and DTSC; obtaining ordnance and explosives construction support; ceasing soil disturbance activities upon discovery of suspected ordnance and notifying the Seaside Police department, the Presidio law enforcement, the Army and DTSC; coordinating appropriate response actions with the Army and DTSC; and reporting of project findings.

### City of Marina

The City of Marina Municipal Code Chapter 15.56 establishes special standards and procedures for digging and excavation on those properties in the former Fort Ord which are suspected of containing ordnance and explosives. This ordinance requires that a permit be obtained from the

City for any excavation, digging, development or ground disturbance of any type involving the displacement of ten cubic yards or more of soil. The permit requirements include providing each site worker a copy of the notice; complying with all requirements placed on the property by the Army and DTSC; obtaining ordnance and explosives construction support; ceasing soil disturbance activities upon discovery of suspected ordnance, and reporting of project findings.

## City of Monterey

The City of Monterey Municipal Code Chapter 13 defines standards for fire protection, hazardous substances clean up, and the establishment of fire hazard severity zones within the City of Monterey. The City of Monterey has adopted the 2013 California Fire Code, with amendments. The Fire Chief may require that fire hydrants be installed on private property if the Chief determines that development of the property creates an additional fire hazard that cannot be adequately served by publicly maintained fire hydrants.

Section 13-6 of the City of Monterey Municipal Code defines hazardous substances and establishes responsibility for the cleanup of any unauthorized discharge, spill, or release of these substances within the City. Any person, firm, or corporation responsible for the production, storage, handling, or transportation of hazardous substances is required to institute and complete all actions necessary to remedy the effects of any sudden or gradual unauthorized release, spill, or discharge, and the Monterey Fire Department is required to mitigate hazardous material release incidents which endanger the public or create a public nuisance.

## Plans and Policies Consistency Analysis

**Table 4.9-3** describes the state, regional, and local land use plans, policies, and regulations pertaining to hazards and hazardous materials that are relevant to the Proposed Project and that were adopted for the purpose of avoiding or mitigating an environmental effect. Also included in **Table 4.9.3** is an analysis of project consistency with these plans, policies, and regulations. In some cases, policies contain requirements that are included within enforceable regulations of the relevant jurisdiction. Where the analysis concludes the project would not conflict with the applicable plan, policy, or regulations, the finding and rationale are provided. Where the analysis concludes the project may conflict with the applicable plan, policy, or regulation, the reader is referred to **Section 4.9.4, Impacts and Mitigation Measures**, for additional discussion, including the relevant impact determination and mitigation measures.

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**Table 4.9-3**
**Applicable State, Regional, and Local Land Use Plans and Policies Relevant to Hazards and Hazardous Materials**

| Project Planning Region | Applicable Plan | Resource Topic | Project Component(s) | Specific Policy or Program | Project Consistency with Policies and Programs |
|---|---|---|---|---|---|
| Monterey County | Monterey County General Plan | Safety | Reclamation Ditch Diversion site<br>Salinas Treatment Facility and Pipeline<br>Blanco Drain Pump and Pipeline Diversion site<br>Tembladero Slough Diversion site<br>Treatment Facilities at Regional Treatment Plant<br>RUWAP Alignment Option<br>Coastal Alignment Option | **Policy S-4.11**: The County shall require all new development to be provided with automatic fire protection systems (such as fire breaks, fire-retardant building materials, automatic fire sprinkler systems, and/or water storage tanks) approved by the fire jurisdiction. | **Consistent**: Project plans would demonstrate Fire Code conformance and local fire jurisdiction approval would be obtained prior to building permit issuance. The construction contractor would comply with the Public Resources Code and any additional requirements imposed by CAL FIRE, and the local fire protection departments. |
| Monterey County | Monterey County General Plan | Safety | | **Policy S-4.26**: When public facilities and above-ground utilities are located in high or very high fire hazard areas, special precautions shall be taken to mitigate the risks from wildfire and to ensure uninterrupted operation. | **Consistent**: Some Proposed Project facilities would be located in or near areas that are designated as High or Very High Fire Hazard. State law, including Title 24 Chapter 7A, requires special fire-retardant treatment of building materials to certain standards of quality to assure adequate fire protection for structures in moderate to very high fire hazard severity zones. In accordance with State law, the project would implement the above measures, which would ensure project conformity with this policy. |
| Monterey County | Monterey County General Plan | Safety | | **Policy S-4.31**: A zone that can inhibit the spread of wildland fire shall be required of new development in fire hazard areas. Such zones shall consider irrigated greenbelts, streets, and/or Fuel Modification Zones in addition to other suitable methods that may be used to protect development. The County shall not preclude or discourage a landowner from modifying fuel within the Fuel Modification Zone, or accept any open space easement or other easement over land within a Fuel Modification Zone that would have that effect. | **Consistent**: All necessary and required firebreak and fire suppression modifications will be incorporated into the site design review process. |
| Monterey County | Monterey County General Plan | Safety | | **Policy S-4.32**: Property owners in high, very high, and extreme fire hazard areas shall prepare an overall Fuel Modification Zone plan in conjunction with permits for new structures, subject to approval and to be performed in conjunction with the California Department of Forestry and Fire Protection and/or other fire protection agencies in compliance with State Law. | **Consistent**: Project plans would demonstrate Fire Code conformance and local fire jurisdiction approval would be obtained prior to building permit issuance. The construction contractor would comply with the Public Resources Code and any additional requirements imposed by CAL FIRE, and the local fire protection departments. |
| Monterey County | Monterey County General Plan | Safety | | **Policy S-4.22**: Every building, structure, and/or development shall be constructed to meet the minimum requirements specified in the current adopted state building code, state fire code, Monterey County Code Chapter 18.56, and other nationally recognized standards. | **Consistent**: Proposed Project building plans would conform to applicable State and County standards, including the California Building Code and California Fire Code, as adopted and amended by the County. As part of the building permit review process, County Building Services would review such plans for completeness and compliance with applicable codes and standards. By obtaining a building permit, the project would be consistent with this policy. |
| City of Marina | City of Marina General Plan | Community Design and Development | RUWAP Alignment Option<br>Coastal Option<br>RUWAP Booster Pump Station Option | **Policy 4.103**: To protect the public from heath threats posed by hazardous materials, the following policies shall be adhered to: …3.All uses involving the handling of significant amounts of hazardous materials shall be subject to discretionary approval. Hazardous materials management and disposal plans shall be prepared in accordance with the requirements of the Monterey County Health Department for all such projects prior to the granting of any entitlements by the City. | **Consistent**: The Proposed Project would be subject to the Unified Hazardous Waste and Hazardous Materials Management Regulatory Program (California Health and Safety Code Section 25500 et seq.) and California requirements for hazardous materials storage and handling (CCR Title 24, Part 9, Section 2700 et seq). Preparation of and adherence to plans prepared as required under these regulations would be required. Compliance with these regulations would reduce potential impacts to the public and the environment resulting from exposure to uncontrolled release of hazardous materials. As noted in Section 4.X, Land Use, Agricultural and Forest Resources, all pipelines would be compatible with adjacent land uses. |
| City of Seaside | Seaside General Plan | Safety | RUWAP Alignment Option<br>Coastal Alignment Option<br>Coastal Booster Pump Station Option<br>Injection Well Facilities<br>Transfer Pipeline<br>Monterey Pipeline | **Policy S-2.2**: Minimize the risk to community associated with hazardous materials. | **Consistent**: The Proposed Project would be subject to the Unified Hazardous Waste and Hazardous Materials Management Regulatory Program (California Health and Safety Code Section 25500 et seq.) and California requirements for hazardous materials storage and handling (CCR Title 24, Part 9, Section 2700 et seq) as amended by Seaside. Preparation of and adherence to plans prepared under these regulations would be required. Compliance with these regulations reduce potential impacts to the public and the environment resulting from exposure to uncontrolled release of hazardous materials. |
| City of Seaside | Seaside General Plan | Safety | RUWAP Alignment Option<br>Coastal Alignment Option<br>Coastal Booster Pump Station Option<br>Injection Well Facilities site<br>Transfer Pipeline<br>Monterey Pipeline | **Implementation Plan S-2.2.1**: Hazardous Materials. Minimize public health risk and environmental risks from the use, transport, storage, and disposal of hazardous materials by: Cooperating with federal, State, and County agencies to effectively regulate the management of hazardous materials and hazardous waste, especially on the former Fort Ord; Cooperating with the County of Monterey to reduce the per capita production of household hazardous waste in accordance with the County Hazardous Waste Management Plan; Identifying roadway transportation routes for conveyance of hazardous materials (the City does not exercise jurisdiction over transportation of freight along railroad right-of-way or state highways); Implementing a Multihazard Emergency Plan for accidents involving hazardous materials; and Cooperating with the Certified Unified Program Agency (CUPA) for Seaside (the County of Monterey, Environmental Health Division) and the Seaside Fire Department to administer Risk Management Plans for businesses within the City. | **Consistent**: The Proposed Project would be subject to the Unified Hazardous Waste and Hazardous Materials Management Regulatory Program (California Health and Safety Code Section 25500 et seq.) and California requirements for hazardous materials storage and handling (CCR Title 24, Part 9, Section 2700 et seq) as amended by Seaside. Preparation of and adherence to plans prepared under these regulations would be required. By preparing these required plans the Proposed Project would be cooperating with federal, state, and local regulating agencies. No household hazardous waste would be produced by the Proposed Project. The inventory, storage, and location information contained in these plans would support the City of Seaside in implementing emergency plans involving hazardous materials. These are the plans required for the CUPA and the Seaside Fire Department. Compliance with these regulations would reduce potential impacts to the public and the environment resulting from exposure to uncontrolled release of hazardous materials. |
| Sand City | Sand City General Plan | Public Safety and Noise | Transfer Pipeline<br>Monterey Pipeline | **Policy 6.4.1**: Require that all new development and redevelopment of older projects meet state and local standards for fire protection. | **Consistent**: The construction contractor would comply with the Public Resources Code and any additional requirements imposed by CAL FIRE, and the local fire protection departments. Proposed underground potable water pipelines within Sand City would not pose a fire hazard during project operation. |

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## 4.9.4 Impacts and Mitigation Measures

### 4.9.4.1 Significance Criteria

Based on Appendix G of the CEQA Guidelines, the project would have a significant impact relating to hazards and hazardous materials if it 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 mile of an existing or proposed school.

d. Be located on a site that is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would create a significant hazard to the public or the environment.

e. Be located within an area covered by 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, and would result in a safety hazard for people residing or working in the project area.

f. Be located within the vicinity of a private airstrip and would result in a safety hazard for people residing or working in the project area.

g. Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan.

h. Expose people or structures to a significant risk of loss, injury, or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands.

No additional significance criteria are needed to comply with the CEQA-Plus[12] considerations required by the State Revolving Fund Loan Program administered by the State Water Resources Control Board.

### 4.9.4.2 Impact Analysis Overview

#### Approach to Analysis

This impact analysis addresses the potential to encounter hazardous substances in soil and groundwater during construction and/or operation, as well as potential use and disposal of hazardous materials or waste during operation and maintenance of the Proposed Project. The above significance criteria are assessed in this section as the basis for determining the significance of impacts related to hazards and hazardous materials. If necessary, mitigation

[12] To comply with applicable federal statutes and authorities, EPA established specific "CEQA-Plus" requirements in the Operating Agreement with SWRCB for administering the State Revolving Fund (SRF) Loan Program.

measures are proposed to reduce significant impacts to less-than-significant. Impacts are analyzed for all project components for both construction and operation/maintenance.

The evaluation is based on review of hazardous materials use or release sites databases, the types of chemicals and hazardous materials that may be used during construction or operation of the Proposed Project, and the location of the project area in relationship to schools, airports, and fire hazard zones. In addition, groundwater sampling, testing, and modeling was conducted by engineers (reports can be found in the **Appendix L** of this EIR) to determine whether groundwater would be impaired as a result of the Proposed Project. Each potential impact is assessed in terms of the applicable regulatory requirements, such as mandatory compliance with various federal, state, and local regulations that would serve to prevent significant impacts from occurring.

## Areas of No Project Impact

Some of the significance criteria outlined above are not applicable to the Proposed Project or the Proposed Project would not result in impacts related to these criteria, as explained below.

*Hazardous Emissions Near Schools* (criterion "c"). Operation of the Proposed Project would not result in hazardous emissions within 0.25 miles of an existing or proposed school. The following schools are located within 0.25-miles of the Proposed Project (specifically, the Product Water Conveyance system): Olson Elementary School, 261 Beach Road, Marina; Marina Del Mar Elementary School, 3066 Lake Drive, Marina; Los Arboles Middle School, 294 Hillcrest Avenue, Marina; Marina Vista Elementary School, 390 Carmel Avenue, Marina; Crumpton Elementary School, 460 Carmel Avenue, Marina; Stillwell Elementary School, 225 Normandy Road, Seaside; Fitch Middle School, 999 Coe Avenue, Seaside; and California State University at Monterey Bay (CSUMB). Of those schools, only one would be located within 0.25 of any above-ground facility where project operations may involve handling hazardous or acutely hazardous materials, substances, or waste. Specifically, CSUMB is located adjacent to and within the sites proposed for the Booster Pump Station options. All GWR Facilities would be operated in compliance existing and future hazardous materials laws and regulations covering the transport, use, and disposal of hazardous materials, during operation. The only routine use of hazardous materials would be the use of lubricants at the Booster Pump Station site (both the Coastal and RUWAP options). Periodic use of lubricants at the Booster Pump Station site would not result in any additional risk due to hazardous materials and thus no impact on students, faculty, visitors, or staff at CSUMB.

*Location Near Airport.* This element of significance (criterion "e") would not represent an impact of Proposed Project based on the following:

- The Monterey Regional Airport is within two miles of the Injection Well Facilities, Lake El Estero Source Water Diversion site, and the Cal-Am Water Distribution System: Monterey and Transfer Pipelines. The Lake El Estero Source Water Diversion site is within the Monterey Airport Influence Area (AIA). All of the proposed upgrades at the Lake El Estero Diversion site would be entirely underground and therefore would have no effect on the AIA. The airport's land use plan shows the boundary for its Approach Protection Zone and Runway Protection Zone, both of which do not coincide with any of the aforementioned facilities. Therefore, the construction and operation of the Injection Well Facilities, Lake El Estero Source Water Diversion and Storage site, and the Cal-Am Water Distribution System: Monterey and Transfer Pipelines would not interfere with Monterey Regional Airport, nor would any of the facilities be subject to any development limitations (Monterey Peninsula Airport District, 1987).

- The Marina Municipal Airport lies within 2 miles of the proposed Treatment Facilities at the Regional Treatment Plant. The airport adopted a Comprehensive Land Use Plan in 1996 to ensure that surrounding land use development is compatible and does not cause a hazard to aircraft in flight. In addition, the plan includes an Approach Protection Zone and a Runway Protection Zone, which limit development to low density land uses. An approximately 2,000-foot long portion of the Product Water Conveyance Pipeline is within the Approach Protection Zone and an approximately 50-foot long portion is within the Runway Protection Zone (Monterey County Airport Land Use Commission, 1996). Construction activities within this area would last only approximately five days since the construction of the pipeline through open space areas is estimated to proceed at a rate of approximately 400 feet per day. No proposed buildings or structures are located within these zones, and therefore, Proposed Project facilities would not result in a safety hazard for people working in the project area due to its proximity to the Marina Municipal Airport.

*Location Near Private Airstrip.* This element of significance (criterion "f") is not applicable to the Proposed Project because none of the project components are located within the vicinity of a private airstrip.

*Impair Emergency Access.* This element of significance (criterion "g") is not applicable to the Proposed Project. The Monterey County Emergency Operations Plan provides an overview of agency roles and responsibilities during emergencies (Monterey County Office of Emergency Services, 2011). Project operations would not interfere with the designated agency responsibilities and reporting in the event of an emergency, and no impact would result. Although construction activities temporarily could impede access for emergency response vehicles, measures to avoid interference with emergency access are addressed in **Section 4.17, Traffic and Transportation**.

*Wildland Fire Hazard.* This element of significance (criterion "h") is not applicable to operations of the Proposed Project. The Proposed Project would not increase the risk of wildland fire during operations. Operation of the project would not introduce potentially flammable activities in fire-prone areas. Project facilities that would be located within high fire hazard areas consist of underground water pipelines. Accordingly, there would be no increased risk of wildland fire hazards from project operations. Potential impacts from project construction are discussed below.

## Summary of Impacts

**Table 4.9-4, Summary of Impacts – Hazards and Hazardous Materials** provides a summary of potential impacts related to hazards and hazardous materials, and significance determinations at each Proposed Project component site.

**Table 4.9-4**
**Summary of Impacts – Hazards and Hazardous Materials**

| Impact Title | Source Water Diversion and Storage Sites | | | | | | Treatment Facilities at Regional Treatment Plant | Product Water Conveyance | | Injection Well Facilities | CalAm Distribution System | | Project Overall |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Salinas Pump Station | Salinas Treatment Facility Storage and Recovery | Reclamation Ditch | Tembladero Slough | Blanco Drain Diversion (Pump Station and Pipeline) | Lake El Estero | | RUWAP Alignment Option | Coastal Alignment Option | | Transfer Pipeline | Monterey Pipeline | |
| HH-1: Use and Disposal of Hazardous Materials during Construction | LS | LS | LS | LS | LS | LS | LS | LS | LS | LS | LS | LS | LS |
| HH-2: Accidental Release of Hazardous Materials During Construction | LS | LS | LS | LS | LS | LSM | LS | LSM | LSM | LSM | LSM | LSM | LSM |
| HH-3: Construction of Facilities on Known Hazardous Material Site | NI | NI | NI | NI | NI | NI | NI | LS | LS | LS | LS | LS | LS |
| HH-4: Use of Hazardous Materials During Construction Within 0.25-Miles of Schools | NI | NI | NI | NI | NI | NI | LS | LS | LS | LS | NI | NI | LS |
| HH-5: Wildland Fire Hazard During Construction | LS | LS | LS | LS | LS | LS | LS | LS | LS | LS | LS | LS | LS |
| HH-6: Use and Disposal of Hazardous Materials During Operation | LS | LS | LS | LS | LS | LS | LS | LS | LS | LS | LS | LS | LS |
| HH-7: Operation of Facilities on Known Hazardous Material Site | LS | LS | LS | LS | LS | LS | LS | LS | LS | LS | LS | LS | LS |
| Cumulative Impacts | LS: There would be no significant construction or operational cumulative impacts related to hazards or hazardous materials. | | | | | | | | | | | | |

*NI – No Impact*
*LS – Less-than-significant*
*LSM – Less-than-significant with Mitigation*
*SU – Significant Unavoidable*
*BI – Beneficial Impact*

### 4.9.4.3 Construction Impacts and Mitigation Measures

**Impact HH-1: Use and Disposal of Hazardous Materials During Construction. Proposed Project construction would not create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials during construction. (Criterion a) (Less-than-significant)**

*All Project Components*

Construction of the Proposed Project components would involve use of hazardous materials, primarily petroleum products, such as gasoline, diesel fuel, lubricants and cleaning solvents that would be utilized to fuel and maintain construction vehicles and equipment. The transportation of hazardous materials and wastes is regulated by the California Department of Transportation and the California Highway Patrol, which regulates container types and packaging requirements as well as licensing and training for truck operators, chemical handlers, and hazardous waste haulers. All vendors must comply with existing and future hazardous materials laws and regulations for the transport of hazardous materials; therefore, the risk of accidental releases of hazardous materials during normal (routine) transport operations would not constitute a significant hazard.

Because the Proposed Project proponents and their contractors would be required to comply with existing and future hazardous materials laws and regulations covering the transport, use, and disposal of hazardous materials, the impacts associated with the potential to create a significant hazard to the public or the environment would be less-than-significant.

*Impact Conclusion*

Proposed Project construction would result in a less-than-significant impact due to the routine transport, use, or disposal of hazardous materials during construction; therefore, no mitigation measures would be required.

**Impact HH-2: Accidental Release of Hazardous Materials During Construction. Proposed Project construction would potentially cause upset and accident conditions involving the release of hazardous materials into the environment. (Criterion b) (Less-than-Significant with Mitigation)**

There are typically two types of releases that could occur during construction: (1) the accidental release of hazardous materials that are routinely used during construction activities; and (2) the potential for construction activities to encounter and excavate contaminated soil or groundwater that are already present at the construction site and thus release it to expose new receptors to the hazard.

Hazardous materials that could be used during construction activities include fuels, lubricants, paints, and solvents. Storage and use of hazardous materials at construction sites and staging areas could potentially result in the accidental release of small quantities of hazardous materials, which could pose a risk to construction workers and the environment, such as degradation of soil and groundwater quality and/or surface water quality. However, as discussed in **Section 4.11**, **Hydrology and Water Quality: Surface Water**, the construction contractor would be required to prepare a Storm Water Pollution Prevention Plan for construction activities in accordance with the National Pollutant Discharge Elimination System (NPDES) General Construction Permit requirements. The Storm Water Pollution Prevention Plan would list the hazardous materials (including petroleum products) proposed for use and describe measures

for preventing spills, inspecting equipment and fuel storage, and providing immediate response to spills. Through compliance with applicable hazardous materials storage and storm water permitting regulations, the impacts from potential releases of hazardous materials or petroleum products during construction would be less-than-significant for all project components.

The greatest potential for encountering contaminated soil and groundwater during construction would be in areas where past or current land uses have resulted in leaking fuel or chemical storage tanks or other releases of hazardous materials. Properties with known soil and/or groundwater contamination are referred to as "hazardous materials release sites," as identified in **Section 4.9.1, Table 4.9-1, Hazardous Materials Release Sites Identified within 0.25-Mile of a Proposed Project Component Site Construction Area, By Component**. Thirty-one environmental cases were identified, pursuant to Government Code Section 65962.5 that may have potentially affected soil or subsurface conditions at project sites. Encountering unanticipated soil or groundwater contamination could result in exposures to construction workers, the public, or the environment, resulting in a potentially significant impact. Potential impacts associated with encountering hazardous materials and/or military munitions (or unexploded ordnance) at Fort Ord are discussed separately under Impact HH-3. The potential for construction at each component to encounter contaminated soil or groundwater is discussed further, below.

### *Source Water Diversion and Storage Sites*

#### Salinas Pump Station Diversion

The proposed grading, demolition, and installation of pipeline segments at the Salinas Pump Station would result in disturbance of approximately 0.75 acres. Key existing and proposed facilities at this site are shown in **Figure 2-14, Salinas Industrial Wastewater System Location Map.** The database search did not identify any hazardous materials release sites within 0.25 miles of the Salinas Pump Station, although unknown contaminants could be encountered during construction. Construction at the Salinas Pump Station Diversion site would have a less-than-significant impact due to the potential the release of hazardous materials into the environment.

#### Salinas Treatment Facility

The proposed grading, demolition, and installation of pipeline segments at the Salinas Treatment Facility would result in disturbance of approximately 281 acres. The database search did not identify any hazardous materials release sites within 0.25 miles of the Salinas Treatment Facility, although unknown contaminants could be encountered during construction. Construction at the Salinas Treatment Facility site would have a less-than-significant impact due to the potential the release of hazardous materials into the environment.

#### Reclamation Ditch Diversion

The proposed Reclamation Ditch Diversion would disturb approximately 0.15 acres of land. The closest hazardous materials release site undergoing remediation is West Market Valero, 0.19 mile away. There is no known contamination where the Proposed Project grading, trenching, and construction activities would occur. Given the condition of the site as a drainage channel and the small and shallow amount of ground disturbance at the site, it is considered unlikely (i.e., not reasonably foreseeable) that soil or groundwater contamination would be encountered that would create a significant hazard to the public or the environment through upset and accident conditions involving the release of hazardous materials into the environment. The construction at the Reclamation Ditch Diversion component site would have a less-than-significant impact due to the potential for release of hazardous materials into the environment.

#### Tembladero Slough Diversion

The proposed grading, demolition, and installation of pipeline segments at the Tembladero Slough Diversion site would result in disturbance of approximately 0.25 acres. The database search did not identify any hazardous materials release sites within 0.25 miles of the Tembladero Slough Diversion site, although unknown contaminants could be encountered during construction. Construction at the Tembladero Slough Diversion site would have a less-than-significant impact due to the potential the release of hazardous materials into the environment.

#### Blanco Drain Diversion

The proposed grading, demolition, and installation of pipeline segments at the Blanco Drain Diversion site would result in disturbance of approximately 0.15 acres of land at the pump station, including the Blanco Drain banks and channel bottom, and approximately 5 acres along the pipeline alignment including the excavation pits for constructing the pipeline under the Salinas River. The database search did not identify any hazardous materials release sites within 0.25-mile of the Blanco Drain Diversion site, although unknown contaminants could be encountered during construction. Construction at the Blanco Drain Diversion site would have a less-than-significant impact due to the potential the release of hazardous materials into the environment.

#### Lake El Estero Diversion

The proposed 0.2 acres of disturbance at Lake El Estero would occur entirely within the paved area of the existing pump station at that site. The closest hazardous materials release site undergoing remediation would be the former Sudden Service Vapor Cleaners, 0.1 mile away. Within 0.25 miles of the site there are other ongoing remediation activities that are described in **Table 4.9-1**. There is no known contamination where the Proposed Project grading, trenching, and construction activities would occur. However due to the proximity and number of known sites that are undergoing remediation, encountering unanticipated soil or groundwater contamination could result in a substantial risk to the public or the environment due to hazardous materials release and this potential impact would be considered significant. Implementation of Mitigation Measures HH-2a (Environmental Site Assessment), HH-2b (Health and Safety Plan), and HH-2c (Materials Disposal Plan) would reduce the impact to a less-than-significant level.

### *Treatment Facilities at the Regional Treatment Plant*

At present, the regular monitoring and reporting program reports have not shown any known contamination where construction would occur at the Regional Treatment Plant. Construction of the Treatment Facilities at the Regional Treatment Plant would have a less-than-significant impact due to the potential for release of hazardous materials into the environment.

### *Product Water Conveyance*

Several locations along the Product Water Conveyance System alignments and at the Booster Pump Station locations are identified as having soil and/or groundwater contamination, which could potentially impact subsurface conditions at these locations. **Table 4.9-1** identifies two contaminated sites along the RUWAP alignment option (see **Section 4.9.2.1** under "Operable Units" for discussions about OU1 and OU2 that underlie this alignment), five sites along the Coastal alignment option, and four sites at the Booster Pump Stations that lie within 0.25 mile of project construction locations. Typical contaminants associated with these sites are due to releases from gasoline service stations, dry cleaners, volatile organic compounds, metals, and

pesticides. A majority of the sites listed in **Table 4.9-1** are undergoing remediation and are located only in deeper soil layers than where proposed construction would occur. Regarding these remediation sites, the Proposed Project would have a less-than-significant impact. Portions of the RUWAP alignment are within 0.25 mile of a site that is identified to have shallow soil and groundwater contamination from chlorinated hydrocarbons and tetrachloroethylene, and one site that has an open case and is eligible for closure after groundwater remediation was performed from 2008 to 2012.

Soil disturbance during construction could further disperse existing contamination into the environment and expose construction workers and the public to contaminants. If substantial hazardous materials are present in excavated soils, health and safety risks to workers and the public could occur. Such risks could occur from stockpiling, handling, or transportation of soils that have been contaminated by hazardous materials from previous spills or leaks. The dewatering of contaminated groundwater could also present risks to public health and safety, and the environment, if the contaminated groundwater is not handled properly. The potential for contaminated soil and groundwater to be released to or to create a substantial risk to the public or the environment during project construction is considered a potentially significant impact. Implementation of Mitigation Measures HH-2a (Environmental Site Assessment), HH-2b (Health and Safety Plan), and HH-2c (Materials Disposal Plan) would reduce the impact to a less-than-significant level.

### *Injection Well Facilities*

Construction of the Injection Well Facilities at the former Fort Ord Military facility could result in exposure to unexploded ordnance; this is discussed separately under Impact HH-3, below.

As identified in **Table 4.9-1**, both EnviroStor and Geotracker listed the 28,016-acre Fort Ord Military Reservation as an active Federal Superfund site and listed munitions as the contaminant of primary concern. Additionally, Geotracker identified two nearby sites on the former Fort Ord lands as gasoline contamination sites: (1) the 14th Engineers Motor Pool and (2) Building 511. In addition, sites OU 1, OU 2, OUCTP, and 2/12 discussed above are ongoing remediation sites within the former Fort Ord. These are active sites currently undergoing investigations and are located about 1.8 miles or more to the northeast. All of these sites are outside of the Seaside Groundwater Basin and are not a threat to groundwater in the Proposed Project area or to construction workers employed to build the project. Other environmental sites have been identified in other parts of the basin, including numerous leaking underground storage tank sites, but none of the other environmental sites were found to be located in the Proposed Project area and thus none of these would result in release of hazardous materials due to construction of the proposed project Injection Wells. (Todd Groundwater, 2015)

Soil disturbance during construction could disperse unknown contaminants at the Injection Well Facilities site if discovered during construction into the environment and expose construction workers and the public to hazards. If substantial hazardous materials are present in excavated soils, health and safety risks to workers and the public could occur. Such risks could occur from the stockpiling, handling, or transportation of soils that have been contaminated by hazardous materials from previous spills or leaks. Dewatering of contaminated groundwater could also present risks to public health and safety, and the environment, if the contaminated groundwater is not handled properly. The potential for contaminated soil and groundwater to be released into the environment during project construction is considered a potentially significant impact. Implementation of Mitigation Measures HH-2a (Environmental Site Assessment), HH-2b (Health and Safety Plan), and HH-2c (Materials Disposal Plan) would reduce the impact to a less-than-significant level.

### *CalAm Distribution System*

There are several locations along the proposed Monterey Pipeline (none near the Transfer Pipeline) where contamination from nearby facilities extends into the proposed alignment. These areas are adjacent to the former bulk fuel facilities (the former Chevron and Texaco facilities), a cluster of open and closed leaking underground storage tank sites near Del Monte Avenue (former Vapor Sudden Service Cleaners and Russo's Marine Fueling Station) in Monterey, and the former PG&E manufactured gas plant, discussed above in **Section 4.9.2** and shown on **Figure 4.9-1**. **Table 4.9-1** identifies 14 contaminated sites along the pipeline alignment that lie within 0.25 miles of project construction locations. Typical contaminants anticipated to be encountered during project construction activities are related to releases from gasoline service stations, dry cleaners, volatile organic compounds, metals, and pesticides. A majority of the sites listed in **Table 4.9-1** are undergoing remediation and therefore, represent a low potential for impacts, in particular because pipeline construction would occur only in the surface soils.

Soil disturbance during construction could further disperse existing contamination into the environment and expose construction workers and the public to contaminants. If substantial hazardous materials are present in excavated soils, health and safety risks to workers and the public could occur. Such risks could occur from stockpiling, handling, or transportation of soils that have been contaminated by hazardous materials from previous spills or leaks. Dewatering of contaminated groundwater could also present risks to public health and safety, and the environment, if the contaminated groundwater is not handled properly. The potential for contaminated soil and groundwater to be released into the environment during project construction is considered a potentially significant impact. Implementation of Mitigation Measures HH-2a (Environmental Site Assessment), HH-2b (Health and Safety Plan), and HH-2c (Materials Disposal Plan) would reduce the impact to a less-than-significant level.

#### *Impact Conclusion*

The impact is considered significant for the following components: the Lake El Estero Diversion, Product Water Conveyance (RUWAP and Coastal Alignments), the Injection Well Facilities, and the CalAm Distribution System. Implementation of Mitigation Measures HH-2a (Environmental Site Assessment), HH-2b (Health and Safety Plan), and HH-2c (Materials Disposal Plan), would reduce the impact to a less-than-significant level.

**Mitigation Measures**

**Mitigation Measure HH-2a: <u>Environmental Site Assessment.</u> (Applies to the Lake El Estero Diversion, Product Water Conveyance RUWAP and Coastal Alignment Options, Injection Well Facilities and the CalAm Distribution System)**

If required by local jurisdictions and property owners with approval responsibility for construction of each component, MRWPCA and CalAm shall conduct a Phase I Environmental Site Assessment in conformance with ASTM Standard 1527-05 to identify potential locations where hazardous material contamination may be encountered. If an Environmental Site Assessment indicates that a release of hazardous materials could have affected soil or groundwater quality at a project site, a Phase II environmental site assessment shall be conducted to determine the extent of contamination and to prescribe an appropriate course of remediation, including but not limited to removal of contaminated soils, in conformance with state and local guidelines and regulations. If the results of the subsurface investigation(s) indicate the presence of hazardous materials,

additional site remediation may be required by the applicable state or local regulatory agencies, and the contractors shall be required to comply with all regulatory requirements for facility design or site remediation.

**Mitigation Measure HH-2b: Health and Safety Plan. (Applies to the Lake El Estero Diversion, Product Water Conveyance RUWAP and Coastal Alignment Options, the Injection Well Facilities, and the CalAm Distribution System)**

The construction contractor(s) shall prepare and implement a project-specific Health and Safety Plan (HSP) for each site on which construction may occur, in accordance with 29 CFR 1910 to protect construction workers and the public during all excavation, grading, and construction. The HSP shall include the following, at a minimum:

- A summary of all potential risks to construction workers and the maximum exposure limits for all known and reasonably foreseeable site chemicals (the HSP shall incorporate and consider the information in all available existing Environmental Site Assessments and remediation reports for properties within ¼-mile using the EnviroStor Database);
- Specified personal protective equipment and decontamination procedures, if needed;
- Emergency procedures, including route to the nearest hospital;
- Procedures to be followed in the event that evidence of potential soil or groundwater contamination (such as soil staining, noxious odors, debris or buried storage containers) is encountered. These procedures shall be in accordance with hazardous waste operations regulations and specifically include, but are not limited to, the following: immediately stopping work in the vicinity of the unknown hazardous materials release, notifying Monterey County Department of Environmental Health, and retaining a qualified environmental firm to perform sampling and remediation; and
- The identification and responsibilities of a site health and safety supervisor.

**Mitigation Measure HH-2c: Materials and Dewatering Disposal Plan. (Applies to the Lake El Estero Diversion, Product Water Conveyance RUWAP and Coastal Alignment Options, the Injection Well Facilities, and the CalAm Distribution System)**

MRWPCA and CalAm and/or their contractors shall develop a materials disposal plan specifying how the contractor will remove, handle, transport, and dispose of all excavated material in a safe, appropriate, and lawful manner. The plan must identify the disposal method for soil and the approved disposal site, and include written documentation that the disposal site will accept the waste. For areas within the Seaside munitions response areas called Site 39 (coincident with the Injection Well Facilities component), the materials disposal plans shall be reviewed and approved by FORA and the City of Seaside.

The contractor shall develop a groundwater dewatering control and disposal plan specifying how the contractor will remove, handle, and dispose of groundwater impacted by hazardous substances in a safe, appropriate, and lawful manner. The plan must identify the locations at which potential contaminated groundwater dewatering are likely to be encountered (if any), the method to analyze groundwater for hazardous materials, and the appropriate treatment and/or disposal methods. If the dewatering effluent contains contaminants that exceed the requirements of the General WDRs for

Discharges with a Low Threat to Water Quality (Order No. R3-2011-0223, NPDES Permit No. CAG993001), the construction contractor shall contain the dewatering effluent in a portable holding tank for appropriate offsite disposal or discharge (see **Section 4.11, Hydrology and Water Quality: Surface Water**, for more information regarding this NPDES permit). The contractor can either dispose of the contaminated effluent at a permitted waste management facility or discharge the effluent, under permit, to the Regional Treatment Plant.

**Impact HH-3: Construction of Facilities on Known Hazardous Materials Site. Proposed Project construction would occur on a known hazardous materials site pursuant to Government Code Section 65962.5; however, the Proposed Project would not result in a significant hazard to people or the environment. (Criterion d) (Less-than-Significant)**

### *Product Water Conveyance Pipeline Options*

As discussed above in **Section 4.9.2.1**, **Hazardous Materials in Soil and Groundwater**, small portions of the Product Water Conveyance Pipeline (RUWAP and Coastal Alignment Options) would be located within 0.25 miles of the former Fort Ord Seaside Munitions Response Area. For a more detailed description of this area, see the below discussion of the Injection Well Facilities site.

The RUWAP and Coastal Pipeline would traverse General Jim Moore Boulevard and Eucalyptus Road, where it would connect to the Injection Well Facilities. The pipeline would cross a parcel (identified as "MRS-15 SEA 04," a 70-acre parcel) that is a munitions response site (MRS) that is part of the Seaside Munitions Response Area for the Superfund National Priority List cleanup (see **Figure 4.9-1**). This parcel is part of an area that is also referred to as "Group 1" in Department of Army technical reports. For a more detailed description of the Group 1 site, see the below discussion of the Injection Well Facilities site. Compliance with existing regulations for construction work at the former Fort Ord would reduce the potential impact of encountering unexploded ordnance by construction workers to less-than-significant.

Segments of the proposed Product Water Conveyance Pipeline within the former Fort Ord are located above known contaminated groundwater plumes, specifically, OU1, OU2, OUCTP and Site 2/12 (described above). However, these contaminated groundwater plumes are located hundreds of feet below ground surface and construction activities would only occur within the top 30 feet of soil. Therefore, the impact associated with the siting of these facilities on a known hazardous materials site, specifically the groundwater contamination sites, would be less-than-significant.

### *Injection Well Facilities*

As discussed above in **Section 4.9.2.1**, **Hazardous Materials in Soil and Groundwater**, the Injection Well Facilities would be located within the former Fort Ord Seaside Munitions Response Area. This is a known hazardous materials site that is identified on the National Priorities List (see **Table 4.9-1**). Construction within the Former Fort Ord could result in exposure to various organic substances, metals, and petroleum products. Soil disturbance during construction could further disperse existing contamination into the environment and expose construction workers or the public to contaminants. The State Water Resources Control Board's EnviroStor and Geotracker listed the 28,016-acre Fort Ord Military Reservation as an active Federal Superfund site and listed munitions as the contaminant of primary concern. Additionally, Geotracker identified two adjacent sites on the former Fort Ord lands as gasoline

contamination sites: (1) the 14th Engineers Motor Pool and (2) Building 511. These are active sites currently undergoing investigations and are located about 1.8 miles to the northeast. However, both sites are outside of the Seaside groundwater basin and are not a threat to groundwater in the Injection Well Facilities site; the public and/or environment would not be exposed to any risks during construction of the Injection Well Facilities.

Construction activities within this area have the potential to encounter unexploded ordnance which, if not identified and properly handled, could cause injury or death to construction workers. The Injection Well Facilities would be located within parcels (MRS-15 SEA 03, a 50-acre parcel and MRS-15 SEA 02, an 86-acre parcel) that are part of the Seaside Munitions Response Area for the Superfund National Priority List cleanup (see **Figure 4.9-1**). This area is also referred to as "Group 1" in Department of Army technical reports. In 2008, the Seaside Munitions Response Area (Phase II) removal action was completed in accordance with the Environmental Services Cooperative Agreement. This included significant grubbing and clearing in order for the land to be deemed suitable. Therefore, the parcels on which the Injection Well Facilities are sited have already undergone remediation actions.

Nevertheless, in order for any ground disturbance activities to commence, MRWPCA and its contractors must comply with the Fort Ord Reuse Authority Right-of-Entry process and the City of Seaside Municipal Code Chapter 15.34 (i.e., the "Ordnance Remediation District Regulations of the City" in Ordinance 924). This ordinance establishes special standards and procedures for digging and excavation on those properties in the former Fort Ord military base which are suspected of containing ordnance and explosives (also called munitions and explosives of concern). This ordinance requires that a permit be obtained from the City for any excavation, digging, development, or ground disturbance of any type involving the displacement of ten cubic yards or more of soil. The permit requirements include providing each site worker a copy of the Ordnance and Explosives Safety Alert; complying with all requirements placed on the property by an agreement between the City, FORA, and DTSC; obtaining ordnance and explosives construction support; ceasing soil disturbance activities upon discovery of suspected ordnance and notifying the Seaside Police department, the Presidio law enforcement, the Army and DTSC; coordinating appropriate response actions with the Army and DTSC; and reporting of project findings. Compliance with existing regulations for construction work at the former Fort Ord would reduce the potential impact of encountering unexploded ordnance by construction workers to less-than-significant.

### *CalAm Distribution System*

As discussed above in **Section 4.9.2.1**, **Hazardous Materials in Soil and Groundwater**, the Transfer Pipeline would be located within 0.25 miles of the former Fort Ord Seaside Munitions Response Area. For a more detailed description of this area, see the above discussion of the Injection Well Facilities site.

A small portion of the Transfer Pipeline would be within the Seaside Munitions Response Area, approximately 1 mile southwest of the Injection Well Facilities site. The pipeline would then cross General Jim Moore Boulevard to the west. The pipeline would be within a parcel (MRS-15 SEA 01, a 295-acre parcel) that is part of the Seaside Munitions Response Area for the Superfund National Priority List cleanup (see **Figure 4.9-1**). This parcel is part of an area is also referred to as "Group 1" in Department of Army technical reports. For a more detailed description of the Group 1 site, see the discussion of the Injection Well Facilities site, above. Compliance with existing regulations for construction work at the former Fort Ord would reduce the potential impact of encountering unexploded ordnance by construction workers to less-than-significant.

### *All Other Project Components*

None of the other project components would be located on designated known hazardous materials sites pursuant to Government Code Section 65962.5 as shown in **Figure 4.9-3, Location of Existing Groundwater Plumes.** Therefore, construction of the other components of the Proposed Project would have no impact associated with the siting of these facilities on a known hazardous materials site and no mitigation measures would be required.

#### *Impact Conclusion*

Compliance with existing regulations for construction work at the former Fort Ord would reduce the potential impact of encountering unexploded ordnance by construction workers at the Injection Well Facilities and Transfer Pipeline sites to less-than-significant. Some project components (both alignments of the Product Water Conveyance Pipelines) are proposed to be located above identified contaminated groundwater. However, these contaminated groundwater plumes are located hundreds of feet below ground surface and construction activities would occur no lower than the top 30 feet of soil. Therefore, no impact associated with the siting of these facilities on known groundwater contamination sites at the former Fort Ord would occur. None of the other project components would be located on designated known hazardous materials sites pursuant to Government Code Section 65962.5. Therefore, the Proposed Project would have no significant impact associated with the siting of these facilities on a known hazardous materials site and no mitigation measures would be required.

**Impact HH-4: Use of Hazardous Materials During Construction Within 0.25-Miles of Schools. Proposed Project construction would not result in nor create a significant hazard to the public or the environment due to handling of hazardous materials or hazardous emissions within 0.25 mile of a school during construction. (Criterion c) (Less-than-Significant)**

### *All Proposed Project Facilities*

Schools and daycare facilities are considered sensitive receptors for hazardous materials because children are more susceptible than adults to the effects of many hazardous materials. Components of the Proposed Project that are located within 0.25 -miles of a school are shown in **Table 4.9-5, Schools and Daycare Facilities in the Vicinity of Project Components**.

As discussed above under Impact HH-1, project construction could require the use of fuel, lubricants, paints, and solvents. These materials are commonly used during construction, are not acutely hazardous, and would be used in small quantities. Numerous laws and regulations ensure the safe transportation, use, storage, and disposal of hazardous materials (see **Section 4.9.3.2**, **Regulatory Framework**). Construction of Proposed Project facilities would occur within 0.25 miles of schools; however, the hazardous materials storage and storm water permitting requirements discussed under Impact HH-1, above, impose performance standards on the construction activities that would ensure the risk of release of hazardous materials during construction would be low. Although construction activities could result in the inadvertent release of small quantities of hazardous construction chemicals, a spill or release is not expected to endanger individuals at nearby schools given the nature of the materials and the small quantities that would be used.

## Table 4.9-5
## Schools and Daycare Facilities in the Vicinity of Project Components

| Project Component | Schools within 0.25-Mile of Project Components |
|---|---|
| Source Water Diversion and Storage sites: Salinas Pump Station, Salinas Treatment Plant, Reclamation Ditch, Tembladero Slough, Blanco Drain | **Schools**<br>None |
| | **Daycare Facilities**<br>None |
| Lake El Estero Diversion site | **Schools**<br>San Carlos Private School, 450 Church Street, Monterey |
| | **Daycare Facilities**<br>None |
| Treatment Facilities at the Regional Treatment Plant | **Schools**<br>None |
| | **Daycare Facilities**<br>None |
| Product Water Pipelines (Coastal and RUWAP) | **Schools**<br>Olson Elementary School, 261 Beach Road, Marina<br>Marina Del Mar Elementary, 3066 Lake Drive, Marina<br>Los Arboles Middle School, 294 Hillcrest Avenue, Marina<br>Marina Vista Elementary School, 390 Carmel Avenue, Marina<br>Crumpton Elementary School, 460 Carmel Avenue, Marina<br>Stillwell Elementary School, 225 Normandy Road, Seaside<br>Fitch Middle School, 999 Coe Avenue, Seaside<br>California State University at Monterey Bay |
| | **Daycare Facilities**<br>Marina Children's Center, 261 Beach Road, Marina |
| Product Water Booster Pump Station (both Options) | **Schools**<br>California State University at Monterey Bay, Seaside |
| | **Daycare Facilities**<br>None |
| Injection Well Facilities | **Schools**<br>None |
| | **Daycare Facilities**<br>None |
| CalAm Distribution Pipelines | **Schools**<br>Monterey Adult School/Cabrillo Family Center, 1295 La Salle Avenue, Seaside<br>Monterey Bay Christian Middle School, 1395 La Salle Avenue, Seaside<br>Ord Terrace Elementary, 1755 La Salle Avenue, Seaside<br>International School of Monterey, 1720 Yosemite Street, Seaside<br>King Elementary School, 1713 Broadway Avenue, Seaside<br>Highland Elementary, 1650 Sonoma Avenue, Seaside<br>Bayview Elementary School, 680 Belden Street, Monterey<br>Monterey High School, 101 Herrmann Drive, Monterey<br>Pacific Grove Middle School, 835 Forest Avenue, Pacific Grove<br>Robert Down Elementary School, 485 Pine Avenue, Pacific Grove |
| | **Daycare Facilities**<br>Avondale Early Education Center, 1450 Elm Street, Seaside<br>Highlands Early Education Center, 1650 Sonoma Avenue, Seaside<br>Juan Cabrillo Head Start Center, 1295 La Salle Avenue, Seaside<br>Kids at Play, 1664 Hilby Avenue, Seaside<br>Ord Terrace State Preschool, 1755 La Salle Avenue, Seaside<br>Seaside Children's Center, 1450 Elm Avenue, Seaside |

In addition, hazardous air emissions are toxic air contaminants identified by the California Air Resources Board. Construction would result in the short-term emissions of diesel particulate matter (DPM), a toxic air contaminant, within 0.25-mile of schools. However, based on a screening-level analysis discussed in **Section 4.3, Air Quality**, diesel particulate emissions would be less than the Monterey Bay Unified Air Pollution Control District's increased cancer risk threshold. Thus, this would be a less-than-significant impact.

Therefore, because the Proposed Project proponents and their contractors would be required to comply with existing and future hazardous materials laws and regulations covering the transport, use, and disposal of hazardous materials, and because of the nature and quantity of the hazardous materials, the potential impact on schools related to the use of hazardous materials at these sites that are within 0.25-mile would be less-than-significant.

*Impact Conclusion*

Construction of Proposed Project facilities would not result in a significant impact related to the handling of hazardous materials or emitting hazardous emissions within 0.25 mile of a school; therefore, no mitigation is necessary.

**Impact HH-5: Wildland Fire Hazard during Construction. Proposed Project construction would not increase the risk of wildland fires in high fire hazard areas. (Criterion h) (Less-than-Significant)**

*All Project Components*

As illustrated in **Figure 4.9-4**, some Proposed Project facilities are located near areas that are designated by CAL FIRE and the Local Responsibility Areas as Very High Fire Hazard areas. Regulations governing the use of construction equipment in fire prone areas are designed to minimize the risk of wildland fires during construction activity. These regulations restrict the use of equipment that may produce a spark, flame, or fire; require the use of spark arrestors on construction equipment that has an internal combustion engine; specify requirements for the safe use of gasoline-powered tools in fire hazard areas; and specify fire suppression equipment that must be provided onsite for various types of work in fire prone areas. The construction contractor must comply with the Public Resources Code and any additional requirements imposed by CAL FIRE, and the local fire protection departments; therefore, potential impacts related to wildland fires due to construction activities would be less-than-significant.

*Impact Conclusion*

Proposed Project construction would not result in a significant impact from the increase of risk of wildland fires during construction in high fire hazard areas; therefore, mitigation measures would not be required.

### 4.9.4.4 Operation Impacts and Mitigation Measures

**Impact HH-6: Use and Disposal of Hazardous Materials During Operation. Proposed Project operations would not create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials. (Criterion a) (Less-than-Significant)**

Proposed Project components that would involve the storage and use of hazardous materials are discussed below.

## *Treatment Facilities at the Regional Treatment Plant*

### Advanced Water Treatment Facility

The Proposed Project would involve the storage and use of hazardous materials. The types and amounts of chemicals that would be utilized at the Advanced Water Treatment Facility are listed in **Table 4.9-6, Chemicals to be Utilized at the Advanced Water Treatment Facility**. Bulk storage of these chemicals would be located in tanks within the Regional Treatment Plant site.

**Table 4.9-6**
**Chemicals to be Utilized at the Advanced Water Treatment Facility**

| Chemical | Application | Annual Usage (pounds) |
|---|---|---|
| Liquid Oxygen (LOX) | Ozone Feed | 1,900,000 (avg), 3,140,000 (max) |
| Calcium thiosulfate | Ozone Effluent | 10,300 (max) |
| Sodium Hydroxide | Upflow BAF Feed | 520,000 (avg), 1,500,000 (max) |
| Ammonium Hydroxide or Ammonium Chloride | Upflow BAF Effluent | 39,000 (max) |
| Sodium Hypochlorite | MF Feed/Ozone feed | 89,000 |
| Sodium Hypochlorite | MF Cleaning | 20,000 |
| Sodium Hydroxide | MF Cleaning | 180,000 |
| Citric Acid | MF Cleaning | 44,000 |
| Sodium Bisulfite | MF Cleaning<br>Reverse Osmosis Concentrate Dechlorination | 2,700<br>10,000 |
| Sulfuric Acid | Reverse Osmosis Feed | 2,250,000 |
| Antiscalant | Reverse Osmosis Feed | 45,000 |
| Hydrogen Peroxide | UV/AOP Feed | 45,000 avg, 55,000 max |
| Carbon Dioxide<br>Sodium Hydroxide | Product Water<br>Product Water | 122,000 avg, 610,000 max<br>410,000 avg, 705,000 max |
| Calcium chloride<br>Slurry of Hydrated Lime | Product Water<br>Product Water (optional) | 575,000 avg, 975,000 max<br>380,000 avg, 655,000 max |
| Tri-Sodium Phosphate | Reverse Osmosis Cleaning | 5,000 |
| Sodium Dodecyl Benzene Sulfonate | Reverse Osmosis Cleaning | 5,000 |
| Citric Acid | Reverse Osmosis Cleaning | 2,500 |
| Source Alex Wesner, SPI, August 2014; John Kenny, January 2015. | | |

The use of treatment chemicals at the Advanced Water Treatment Facility would require chemical deliveries and indirectly result in an incremental increase in the potential for accidents during the routine transport of hazardous materials. The transportation of hazardous materials and wastes is regulated by the California Department of Transportation and the California Highway Patrol, which regulates container types and packaging requirements as well as licensing and training for truck operators, chemical handlers, and hazardous waste haulers. All vendors would be required to comply with existing and future hazardous materials laws and regulations for the transport of hazardous materials; therefore, the risk of accidental releases of hazardous materials during normal transport operations does not constitute a significant hazard.

If accidentally released onsite, these chemicals could cause human health effects to plant personnel and surrounding populations and could cause adverse environmental effects. However, the chemical storage and handling systems at the Advanced Water Treatment Facility would be designed and constructed in accordance with specific requirements for the safe storage and handling of hazardous materials set forth in the Uniform Fire Code, Article 80. Requirements specifically applicable to the project include spill control in all storage, handling and dispensing areas, separate secondary containment for each chemical storage system, and separation of incompatible materials with a non-combustible partition. These requirements reduce the potential for a release of hazardous materials and for mixing of incompatible materials that could pose a public health or water quality risk.

MRWPCA is required to submit a Hazardous Materials Business Plan for the project facilities to the Monterey County Environmental Health prior to the start of project operations. The Hazardous Materials Business Plan is required to include information on hazardous material handling and storage, including containment, site layout, and emergency response and notification procedures in the event of a spill or release. In addition, the plan requires annual employee health and safety training. The project sites would be subject to compliance inspections by the local oversight agency.

With compliance with existing state and federal regulations regarding hazardous materials storage and management, the potential for environmental impacts due to the accidental release of hazardous materials associated with project operations is less-than-significant, and therefore, no mitigation measures are necessary.

### Salinas Valley Reclamation Plant Modifications

The existing Salinas Valley Reclamation Plant uses a three-step chemical and filtration process. Secondary treated effluent from the Regional Treatment Plant is pumped to a flocculation basin where an alum polymer is introduced to bind together any remaining dissolved organic matter. This creates tiny clumps called floc. In the second step, the floc is removed in the tertiary filters. Treated water filters through a 6-foot bed of anthracite coal, sand and gravel in which the floc is trapped. After filtration, the water flows to the third step for disinfection in the chlorine contact basins. Disinfection destroys pathogens by maintaining a specific chlorine level in the water for at least one and one half hours.

Operation of the proposed modified facility would be similar to the current operational method. During the peak irrigation season, the plant would operate at full capacity with both chlorine contact basins used for disinfection and the 80 acre-foot pond used for tertiary-treated product water storage. During the off-peak, low demand months, normal low flow volumes would be sent to the plant, one or two coagulation/flocculation tanks would be used, between one and three filters would be active, and only one chlorine contact tank would be used for disinfection, while the other tank would provide product water storage. When the tertiary-treated product water has filled the storage basin, the flow to the Salinas Valley Reclamation Plant could be reduced or stopped until additional water is needed.

Although the operations at the Salinas Valley Reclamation Plant under the Proposed Project would be very similar to existing operations, there would be an incremental increase in the amount of some of the necessary chemicals due to the increase in feed water available to the plant. These chemicals are listed in **Table 4.9-7, Additional Chemicals to be Utilized at the Salinas Valley Reclamation Plant**. Compliance with existing state and federal regulations regarding hazardous materials storage and management would ensure that the potential for environmental impacts due to the accidental release of hazardous materials associated with project operations is less-than-significant, and therefore, no mitigation measures are necessary.

**Table 4.9-7**
**Additional Chemicals to be Utilized at the Salinas Valley Reclamation Plant**

| Chemical | Application | Maximum additional amount required | Truck loads per year |
|---|---|---|---|
| Aluminum chlorohydrate/polymer mixture | Flocculant | 89,000 pounds per year | 2 |
| Sodium hypochlorite | Disinfection | 47,470 pounds per year | 1 |
| Chlorine | Disinfection | 168 tons per year | 14 |
| *Source: Bob Holden, MRWPCA, November 2014.* | | | |

### *Injection Well Facilities*

Typical maintenance activities at the wells would require the use of several of the same vehicles and equipment used during construction. Similar to construction, petroleum products such as gasoline, diesel fuel, lubricants, and cleaning solvents could be utilized to fuel and maintain maintenance vehicles and equipment. If an accident occurs, conditions could result in inadvertent releases of small quantities of these hazardous materials. However, compliance with the various regulations regarding the safe transport, use, and storage of hazardous materials (see **Section 4.9.3**, **Regulatory Framework**) would ensure this impact is less-than-significant, and therefore, no mitigation measures are necessary.

### *CalAm Distribution System*

Water recovered from the existing CalAm extraction wells would be chlorinated for disinfection prior to being conveyed into the distribution system. The existing disinfection system has sufficient capacity to treat groundwater, which would include GWR Project product water, that is extracted from all existing ASR injection/extraction wells (e.g., the four existing ASR injection/extraction wells [ASR-1, ASR-2, ASR-3, and ASR-4]) and other CalAm wells. The disinfection chemicals for the ASR wells would continue to be stored at the existing chemical/electrical control building at the Phase I ASR facilities site. The existing disinfection system includes a 5,000-gallon sodium hypochlorite tank with double containment, vent fume neutralizers, and a forced-air ventilation system. The Proposed Project would increase the annual quantity of sodium hypochlorite handled by the disinfection system, but the amount stored on-site would be the same.

### *All Other Project Components*

Operation of the Source Water Diversion and Storage sites, the Product Water Conveyance System (pipelines and booster pump station), and the CalAm Distribution Pipelines would not involve the routine storage or use of hazardous materials, except for very small amounts of fuel and lubricants. Impacts related to the inadvertent release of hazardous materials during operation of these facilities would be less-than-significant.

#### *Impact Conclusion*

Proposed Project operations would not create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials during project operations; therefore, no mitigation measures would be required.

## Impact HH-7: Operation of Facilities on Known Hazardous Materials Site. Proposed Project facilities would be located on a known hazardous materials site; however, the Proposed Project would not result in a significant hazard to people or the environment. (Criterion d) (Less-than-Significant)

### *Injection Well Facilities*

As discussed above under Impact HH-3, the Injection Well Facilities site is located on a portion of the former Fort Ord military base in an area of potential contamination. **Figure 4.9-3** shows the location of the groundwater plumes with respect to the Proposed Project Product Water Conveyance pipelines and Injection Well Facilities. As discussed in **Section 4.9.2**, groundwater analyses conducted for this EIR found no groundwater contamination or contaminant plumes in the vicinity of the Proposed Project Injection Well Facilities. There were no environmental contaminant sites identified in the area between Injection Well Facilities site and downgradient

extraction wells. Thus, replenishment activities would not be expected to impact any contaminant plumes, even those located outside of this area. (Todd Groundwater, 2015; see **Appendix L**).

Proposed Project operations would not result in a significant impact to groundwater contamination due to its location on a known hazardous materials site. (Todd Groundwater, 2015). Proposed Project operations would not exacerbate existing groundwater contamination or cause plume of contaminants to migrate (Todd Groundwater, 2015).

### *All Other Project Components*

None of the other project components would be located on designated known hazardous materials sites. Therefore, no impact associated with the siting of these facilities on a known hazardous materials site would occur. Compliance with relevant safety regulations would ensure the impact is less-than-significant. No further mitigation measures are required as a significant impact has not been identified.

#### *Impact Conclusion*

Proposed Project operations would not result in a significant hazard to the public or environment due to its location on or near a site that is listed as a hazardous materials site.

## 4.9.4.5 Cumulative Impacts

The geographic scope for the hazards and hazardous materials cumulative impact analysis consists of the Proposed Project component sites, and the immediate vicinity surrounding each of these sites, including roadways. Based on the list of cumulative projects provided on **Table 4.1-2, Project Considered for Cumulative Analysis** (**Section 4.1, Introduction**), and **Figures 4.1-1, Cumulative Projects Location Map** and **4.1.2, Monterey Peninsula Water Supply Project Location Map**, no cumulative projects would be located sufficiently close to the Proposed Project construction sites such that a combined impact from hazards and hazardous material would occur except for the Monterey Peninsula Water Supply Project (MPWSP), with the small, 6.4 mgd desalination plant, the City of Salinas Solar Project, and projects within the City of Marina as discussed below.

The discussion of cumulative impacts is organized to address the combined impacts of the Proposed Project plus the MPWSP (with the 6.4 mgd desalination plant) and then to address the overall combined impacts of the Proposed Project and all relevant past, present and probable future projects:

- *Combined Impacts of Proposed Project Plus MPWSP* (with 6.4 mgd Desalination Plant) (referred to as the MPWSP Variant):[13] The CalAm Monterey Peninsula Water Supply Project includes: a seawater intake system; a source water pipeline; a desalination plant and appurtenant facilities; desalinated water conveyance facilities, including pipelines, pump stations, a terminal reservoir; and an expanded ASR system, including two additional injection/extraction wells (ASR-5 and ASR-6 Wells), a

[13] The October 2012 Notice of Preparation of an EIR for the MPWSP describes an alternative to the MPWSP that would include a smaller desalination plant combined with the Proposed GWR Project (CPUC 2012). Based on ongoing coordination with the CPUC's EIR consultants, this alternative is referenced as the "Variant" and includes a 6.4 mgd desalination plant that was proposed by CalAm in amended application materials, submitted in 2013 to the CPUC (CPUC, 2013).

new ASR Pump Station, and conveyance pipelines between the wells. The CalAm Distribution Pipelines (Transfer and Monterey) would be constructed for either the MPWSP or GWR projects. The overall estimated construction schedule would be from June 2016 through March 2019 for the combined projects, during which time the construction schedules could overlap for approximately 18 months (mid-summer 2016 through December 2017). The cumulative impact analysis in this EIR anticipates that the Proposed Project could be combined with a version of the MPSWP that includes a 6.4 mgd desalination plant. Similarly, the MPSWP EIR is evaluating a "Variant" project that includes the proposed CalAm Facilities (with the 6.4 mgd desalination plant) and the Proposed Project. The impacts of the Variant are considered to be cumulative impacts in this EIR. The CalAm and GWR Facilities that comprise the MPSWP Variant are shown in **Appendix Y**.

- Overall Cumulative Projects: This impact analysis is based on the list of cumulative projects provided on **Table 4.1-2** (**see Section 4.1, Introduction**). The overall cumulative impacts analysis considers the degree to which all relevant past, present and probable future projects (including the MPSWP (with the 6.4 mgd desalination plant)) could result in impacts that combine with the impacts of the Proposed Project

*Combined Impacts of Proposed Project Plus MPWSP (with the 6.4 mgd Desalination Plant).* The current construction schedules for the Proposed Project Facilities and the CalAm Facilities of the MPWSP (small desalination project) overlap for a period of approximately 18 months, and it is possible that construction locations would be in proximity to one another within portions of Marina and Seaside. Both the Monterey Peninsula Water Supply Project desalination plant and the Proposed Project Treatment Facilities at the Regional Treatment Plant would be located in the unincorporated area of Monterey within a distance of approximately 0.5 miles.

**Table 4.9-4** provides a summary of potential impacts related to hazards and hazardous materials, and significance determinations at each Proposed Project component site. Accidental release of hazardous materials could occur during construction if unknown contaminated soil or groundwater were encountered during construction, especially at locations in proximity to known sites or sites undergoing remediation. Construction of both the Proposed Project and the MPSWP would involve transport and use of hazardous materials, but both projects would be required to comply with the existing and future laws and regulations governing the use, transport, and disposal of hazardous materials, and thus, potential cumulative impacts would not be significant.

Once constructed, the pipeline components of both the Proposed Project and the MPSWP would be underground and would have no impacts pertaining to hazards or hazardous materials. Thus, there would be no significant cumulative hazards and hazardous materials impacts resulting from the two projects.

*Overall Cumulative Impacts*. This impact analysis is based on the list of cumulative projects provided on **Table 4.1-2** (Also see **Figure 4.1-2** in **Section 4.1, Introduction**). The overall cumulative impacts analysis considers the degree to which all relevant past, present and probable future projects could result in impacts that combine with the impacts of the Proposed Project.

Operation of the Proposed Project would not result in hazardous emissions, and thus, would not contribute to cumulative impacts pertaining to hazardous emissions within 0.25 miles of a school. Similarly, the Proposed Project would not result in new structural development that would result in airport hazards or safety issues. Thus, the Proposed Project would not contribute to potential cumulative impacts related to airport hazards. Finally, the Proposed Project operations would not increase wildland fire risks or impair implementation of an emergency

access plan. Thus, cumulative impacts related to this topic are not further addressed as the Proposed Project would not contribute to a cumulative impact related to hazardous emissions, airport hazards, wildland fire hazards or emergency access.

The following identifies other projects by geographic area that may have overlapping construction activities.

- Salinas Area – Salinas Pump Station Diversion and Salinas Treatment Facility sites. The pump station site is located within the City of Salinas, and the treatment plant site is located nearby within the unincorporated area of the county. No cumulative projects have been identified in the vicinity of these two Proposed Project sites, except for several development projects along Highway 68 to the west of the project sites (#6,7,8) within the Monterey County area. The exact timing of construction is not known, but due to the distance from the Proposed Project sites (about three miles to #8 [Ferrini Ranch] as shown on **Figure 4.1-1**),and the other projects, there would be no overlapping cumulative impacts related to transport or use of hazardous materials during construction or operations. Furthermore, cumulative projects would be required to comply with the existing and future laws and regulations governing the use, transport, and disposal of hazardous materials.
- The City of Salinas Solar Project (#34) includes construction of solar panels on approximately 18 acres at the existing Salinas Treatment Facility. The project would be constructed starting in 2015 and ending in 2016, which would not completely coincide with construction at the Salinas Pump Station Diversion site, which is planned to begin in the summer of 2016. Should an overlap of construction schedules occur, it is likely that the installation of solar panels would be nearing completion. This type of project (solar panels and related facilities) does not regularly involve hazardous materials transport. Therefore, no significant cumulative construction or operational impacts would occur in this area.
- City of Monterey - Lake El Estero Diversion site and CalAm Distribution System Improvements. These two Project sites are located within the City of Monterey. No cumulative projects have been identified in the vicinity of these Proposed Project sites with construction schedules known to overlap with construction of the Proposed Project. There would be no overlapping cumulative impacts related to transport or use of hazardous materials during construction or operations.
- Unincorporated Monterey County – Treatment Facilities at the Regional Treatment Plant site and northern segment of the Product Water Conveyance Pipeline. Cumulative projects in the vicinity include:
    - The MPSWP Desalination Plant) (#1) would be located northwest of the existing Regional Treatment Plant site and is currently undergoing environmental review. Construction and operation of the CalAm Facilities combined with the Proposed Project would not result in a significant cumulative impact relating to transport, storage and use of hazardous materials because both projects would be governed by the same statutory and regulatory requirements for use, transport, and disposal of hazardous materials that reduce the risk of hazardous conditions to less than significant (individually and if both are implemented).
    - The Salinas Valley Water Project Phase 2 (#2) would be located 1.6 miles from the Proposed Project Product Water Conveyance pipeline; the construction schedule for these proposed facility improvements would not coincide with the Proposed Project. Because the construction schedules do not coincide, no combined construction-related impacts would occur.

  - East Garrison Specific Plan (#3) at the former Fort Ord consists of a mixed-used development project, consisting of residential, commercial and institutional uses, and construction started on this project in 2014 and will continue through 2020. The Proposed Project component closest to this project are facilities at the Regional Treatment Plant, which is located more than two miles from the East Garrison site. Due to the distance between the two sites, there would be no combined construction or operational impact relating to transport, storage and use of hazardous materials. Further, both projects would be governed by the same statutory and regulatory requirements that reduce the risk of hazardous conditions to less than significant (individually and if both are implemented).

- City of Marina – Segments of the Product Water Conveyance Pipeline and Booster Pump Station. Cumulative projects in the vicinity include:
  - Two water projects - The Regional Urban Water Augmentation Desalination and Recycled Water Projects, (#18,19) are both proposed by the Marina Coast Water District. Both projects would be located south of the Regional Treatment Plant and north of the City of Marina. The Desalination project would be located on the Armstrong Ranch property that is immediately adjacent to the RUWAP Product Water Conveyance alignment.
  - California State University Monterey Bay (CSUMB) Projects – Student housing (#16) and an academic building (#17) are planned at the CSUMB campus in proximity to the proposed RUWAP Booster Pump Station location.
  - Four development projects - The Dunes on Monterey Bay (#10) – a mixed-use residential, hotel, retail and office developments is scheduled for buildout in 2020 and an affordable housing project (#14) is estimated for construction in 2015. Another housing project (#15) and a mixed use project (#12) do not have an identified construction schedule.

  Segments of the Product Water Pipeline (RUWAP option) would be in proximity to the proposed Marina Coast Water District Regional Augmentation Water Projects: Desalination (#18) and Recycled Water Project (#19). However, the construction schedule has not been identified for either of these projects. Construction of segments of the proposed Product Water Conveyance Pipeline (RUWAP alignment option) and the RUWAP booster station would be in proximity to the planned CSUMB projects (#16, #17). According to the currently available information, the CSUMB housing project (#16) would be constructed prior to construction of the Proposed Project, and the timing of construction of the CSUMB academic building (#17) is not known. The Dunes on Monterey Bay (#10) is being constructed adjacent to a segment of the Proposed Project's Product Water Conveyance pipeline (RUWAP and Coastal Alignments). Although the projects may have overlapping construction schedules, or are in proximity, the projects when combined would not result in significant cumulative impacts related to hazards and hazardous materials because all of the projects would be required to comply with applicable federal and state standards pertaining to transport, use and storage of hazardous materials.
- City of Seaside – Segments of the Product Water Conveyance Pipeline, the Injection Well Facilities site and segments of the CalAm Distribution System Improvements' pipelines would be located in Seaside. The following cumulative projects would be in the vicinity of the Proposed Project within the City of Seaside: West Broadway Urban Village Specific Plan (#21); the Seaside Resort expansion (#22); Monterey Downs and Horse Park (#24), and the Seaside Groundwater Basin Aquifer Storage and

Recovery Project (#27, #28) adjacent to the Injection Well Facilities, of which Phase 1 and Phase 2 were completed in 2014. The schedule for construction of the West Broadway Urban Village Specific Plan, the Seaside Resort expansion, and the Monterey Downs and Horse Park is unknown.

- The Fort Ord Dunes State Park Campground Project (#34) that is scheduled for construction in 2015 is also located in this vicinity. The southern segment of the Product Water Conveyance Pipeline (Coastal Alignment option) would be located approximately 1,000 feet east of the Fort Ord Dunes State Park Campground project site. Given this distance, any overlapping construction would not result in cumulative impacts related to transport and use of hazardous materials as the two sites are separated by distance and topographical changes. Upon completion of construction, there would be no cumulative impacts during operation of cumulative projects as none would use hazardous materials.

### *Cumulative Impact Conclusion*

Construction of the MPWSP Transmission Pipeline and GWR Product Water Conveyance Pipeline Coastal Alignment may have overlapping or close construction schedules, but the two projects would not result in significant cumulative impacts related to hazards or hazardous materials. Construction-related transport and use of hazardous materials also would occur in the proximity to other cumulative projects, including the MPSWP desalination plant, the City of Salinas Solar Project and projects within the city of Marina. However, all projects would be subject to compliance with applicable federal and state laws, and the combined projects would not result in significant cumulative impacts.

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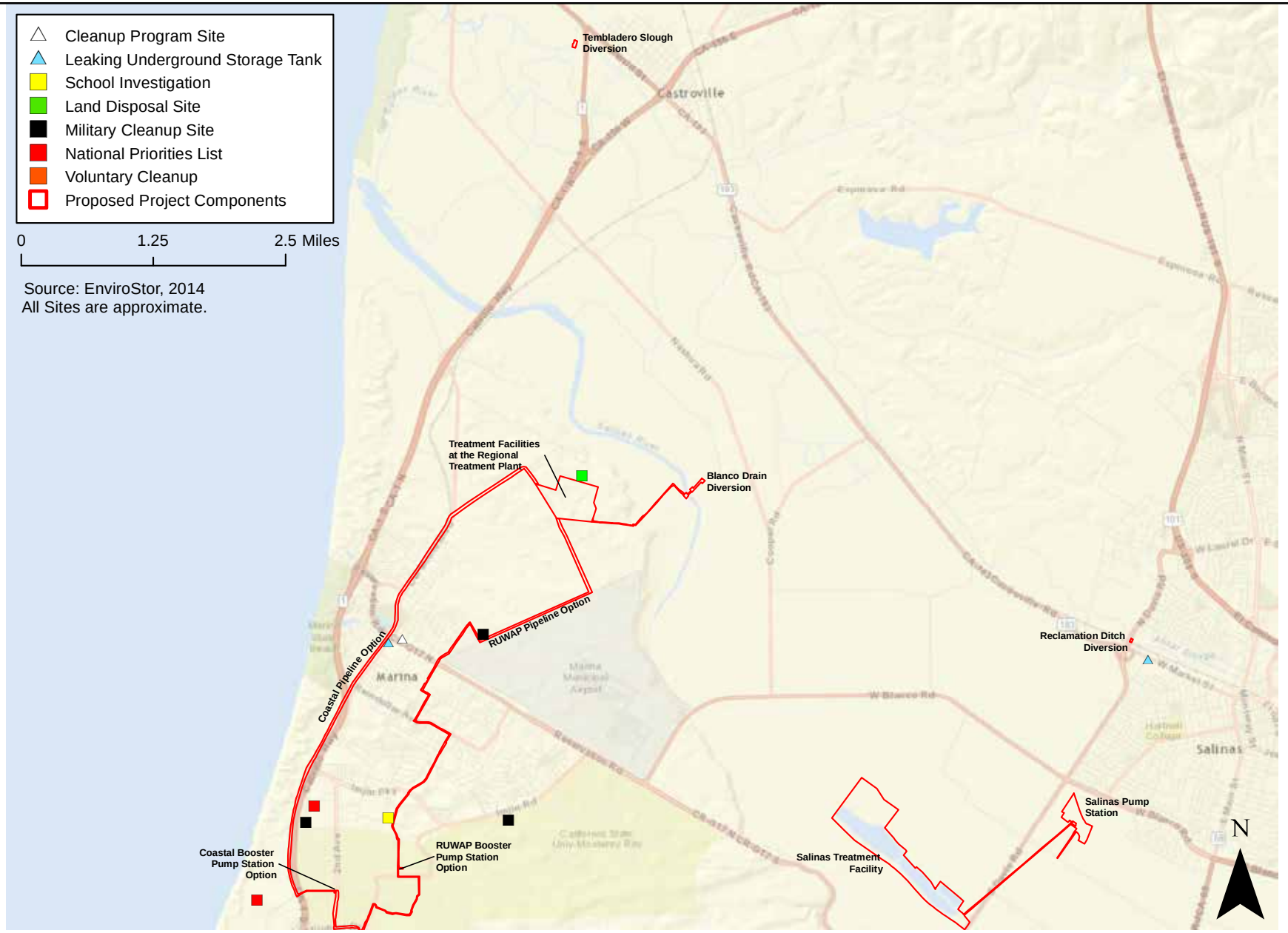


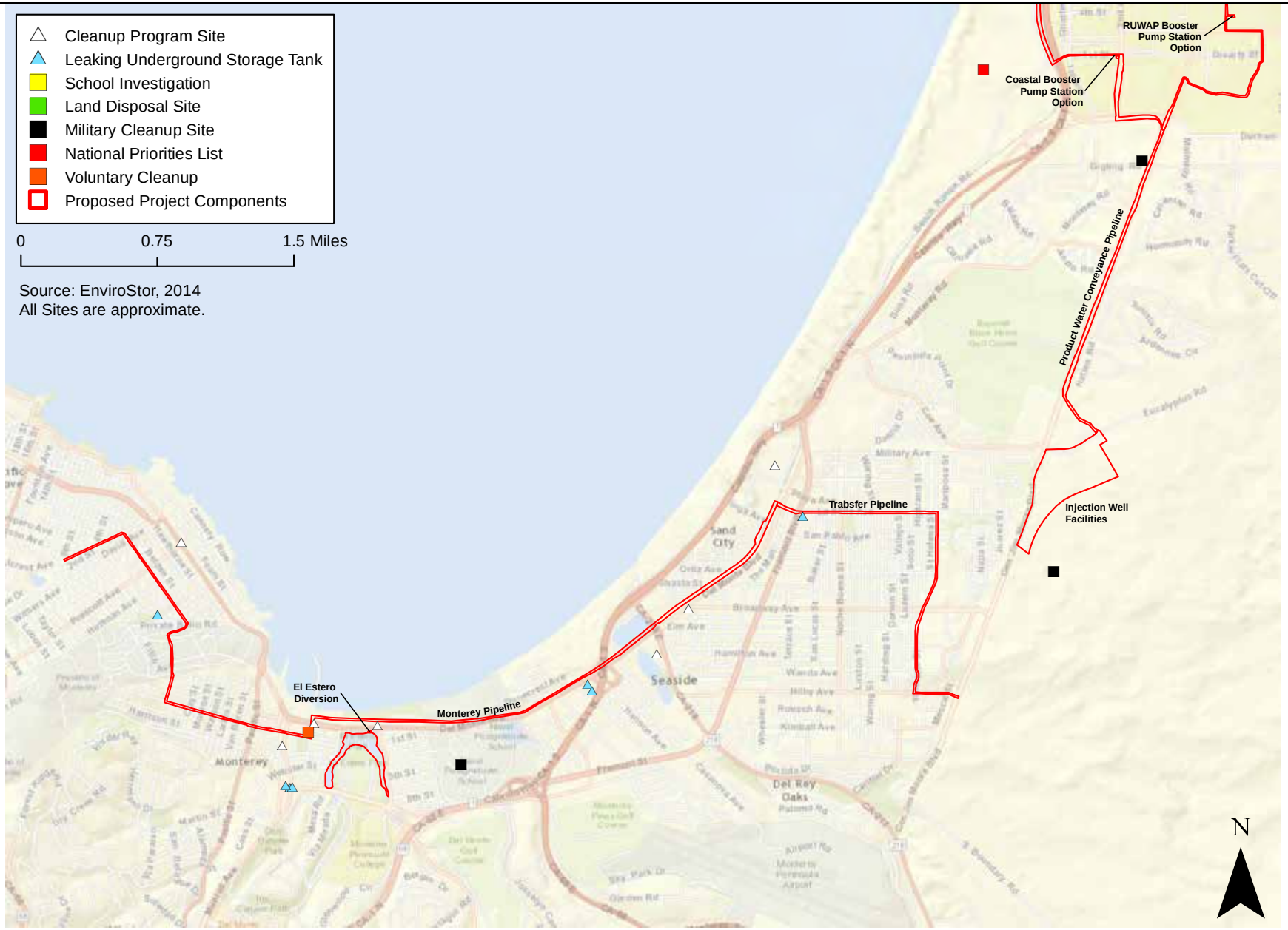

Source: EnviroStor Database, 2014

# Hazardous Materials Release Sites (Northern)

April 2015

Pure Water Monterey GWR Project
Draft EIR

Figure
4.9-1



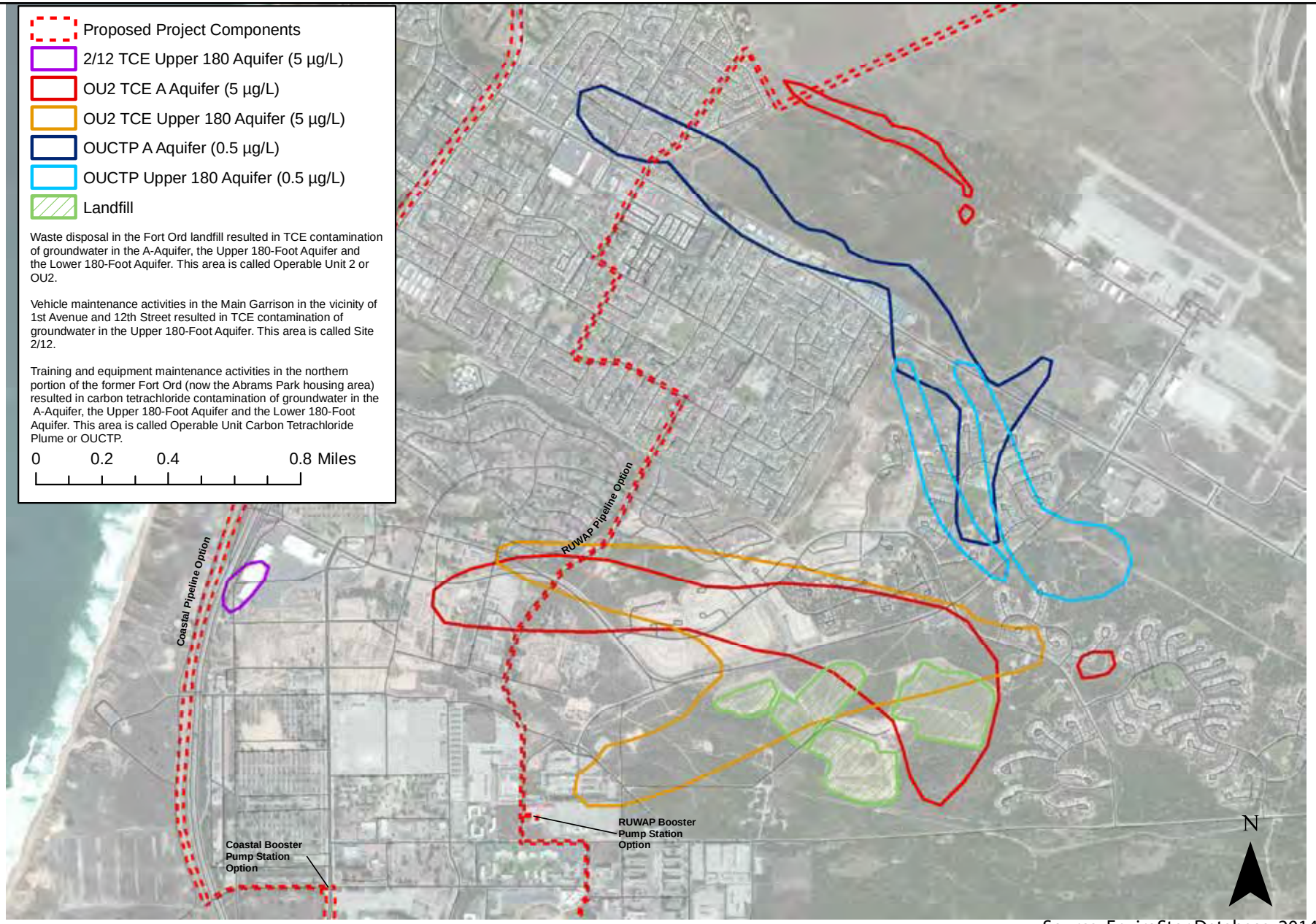

Source: EnviroStor Database, 2014

# Hazardous Materials Release Sites (Southern)

April 2015

Pure Water Monterey GWR Project
Draft EIR

Figure
4.9-2



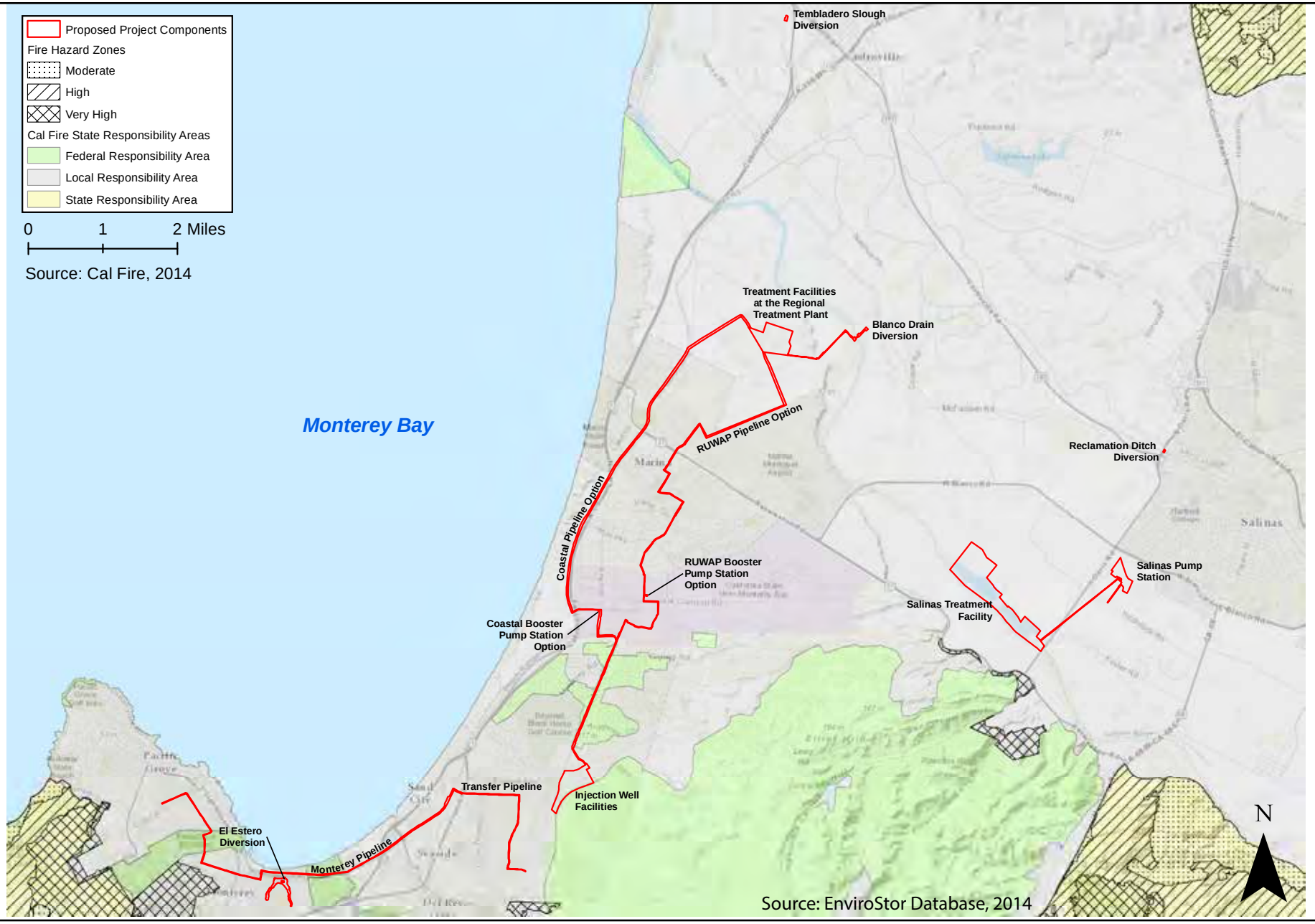

Source: EnviroStor Database, 2014

# Location of Existing Groundwater Plumes

April 2015

Pure Water Monterey GWR Project
Draft EIR

Figure
4.9-3




# Fire Hazard Responsibility Zones

April 2015

Pure Water Monterey GWR Project
Draft EIR

Figure
4.9-4