4.7 Hazards and Hazardous Materials

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This section presents an evaluation of the potential for hazards and hazardous materials impacts related to the Monterey Peninsula Water Supply Project (MPWSP or proposed project). Existing conditions in the project area and the regulatory requirements pertaining to hazardous materials management are discussed. This section evaluates potential hazardous materials and health and safety impacts, including the potential for hazardous materials to be encountered during project construction, for hazardous materials and/or hazardous wastes to be released into the environment during project construction and operation, and for project implementation to result in increased hazards related to wildland fires. The potential for project operations to interfere with ongoing remediation activities is addressed in Section 4.4, Groundwater Resources.

The term "hazardous materials" refers to both hazardous substances and hazardous wastes. Under federal and state laws, certain materials, including wastes, may be considered hazardous if they are specifically listed by statute as such or if they are poisonous (toxicity); can be ignited by open flame (ignitability); corrode other materials (corrosivity); or react violently, explode, or generate vapors when mixed with water (reactivity). The term "hazardous material" is defined in law as "any material that, because of quantity, concentration, or physical or chemical characteristics, poses a significant present or potential hazard to human health and safety or to the environment."[1]

4.7.1 Setting

4.7.1.1 Soil and Groundwater Conditions

This section assesses the potential for hazardous materials to be present in soil and groundwater in the project area as a result of a past and present land uses, and documented releases of hazardous materials in the project vicinity. The discussion of past and present uses of hazardous materials and documented releases is based on review of regulatory agency databases and hazardous materials investigation reports available on regulatory agencies' websites, information available on the Fort Ord Reuse Authority (FORA) website, available environmental assessments

1 State of California, Health and Safety Code, Chapter 6.95, Section 25501(o).

prepared for the Transportation Agency for Monterey County (TAMC) corridor and the 46-acre MPWSP Desalination Plant site, and a site reconnaissance.

Past and Present Land Uses in the Project Vicinity

Various past and current land uses associated with the use, generation, or disposal of hazardous materials exist in the project vicinity: the Monterey Regional Waste Management District (MRWMD) landfill; the Monterey Regional Water Pollution Control Agency (MRWPCA) Regional Wastewater Treatment Plant; the former Fort Ord military base; bulk fuel terminals; a manufactured gas plant; commercial buildings; gasoline stations; railroad tracks; agricultural fields; residences; and recreational and open spaces. In many cases, these land uses have contributed to subsurface contamination that could be exposed during project construction and result in adverse environmental and health effects.

There is a potential for the following land uses in the project vicinity to have caused soil and/or groundwater contamination in the project area:

- ***Commercial/Industrial Uses.*** Commercial and industrial land uses include former manufacturing facilities and bulk fuel terminals, gasoline service stations, dry cleaners, and other facilities that typically involve the storage of large quantities of fuel or hazardous materials in aboveground or underground storage tanks (USTs). Facilities with known releases of hazardous materials that have affected soil or groundwater are discussed below under the heading, Regulatory Agency Database Searches.

- ***Agricultural Uses.*** Portions of the proposed Transmission Main, Seawater Intake System, and Brine Discharge Pipeline are located within agricultural areas, and the proposed MPWSP Desalination Plant site is adjacent to agricultural fields. Historical agricultural land uses often leave behind residual pesticides and herbicides in soils. In addition, farm equipment typically uses petroleum products and cleaning solvents (for equipment maintenance), which, in some cases, are stored in unpermitted tanks. According to the Phase I Environmental Assessment for the 46-acre MPWSP Desalination Plant parcel,[2] the site was formerly owned by Dole Food Company; however, the site appears to have historically been utilized as vacant land and no evidence of recognized environmental conditions were noted (RBF Consulting, 2012).

- ***Railroad Operations.*** Portions of the Transmission Main and Monterey Pipeline are proposed within or adjacent to the TAMC right-of-way, adjacent to railroad tracks. The TAMC right-of-way is the former Monterey Branch Line of the Union Pacific Railroad. Railroad rights-of-way may contain contamination resulting from the use of herbicides for weed control, the historic transport of hazardous materials, and chemically-treated railroad ties. A preliminary environmental assessment performed for the approximately15-mile segment of the TAMC right-of-way from Castroville to Monterey identified a number of onsite and offsite sources of potential soil and/or groundwater contamination: hydrocarbon and metals from leakage of running engines; creosote, arsenic-based wood preservatives, and pentachlorophenol associated with the treatment of railroad ties; herbicides; disposal and dumping of hazardous materials behind numerous automobile repair facilities adjacent to the TAMC right-of-way in the cities of Sand City, Seaside, and Monterey; a petroleum hydrocarbon plume that exists near Monterey State Beach beneath the railroad right-of-way

[2] As described in Section 3.4.2 of Chapter 3, Project Description, the MPWSP Desalination Plant would be constructed on the upper terrace (approximately 25 acres) of the 46-acre parcel.

and Del Monte Avenue (near Ramona Avenue) from former bulk fuel terminals; lead in soils resulting from degradation of lead-based paint on rail bridges and trestles; buried utilities such as natural gas pipelines; and grease from flange lubricators used to prevent flange and rail wear at curves (Kleinfelder, 2010).

- ***Sand Mining.*** The proposed Seawater Intake System and a portion of the Source Water Pipeline would be located within the CEMEX sand mining facility. Mining operations typically require the use of fuels and lubricants for equipment. The CEMEX facility was not listed as having a permitted UST or recorded releases in the regulatory agency database search discussed below under the heading, Regulatory Agency Database Searches.

- ***Former Fort Ord Military Base.*** Fort Ord was listed on the National Priorities List in 1990. Contaminated areas include: munitions response sites; the Fritze Airfield Fire Drill Pit (Operable Unit [OU] 1); the Fort Ord landfill (OU2); motor pools; vehicle maintenance areas; dry cleaners; firing ranges; hazardous waste storage areas; and unregulated disposal areas. Both soil and groundwater were impacted by contaminates in these areas, which have been investigated separately. The proposed Terminal Reservoir and ASR Pump Station would be within the Fort Ord Seaside Munitions Response site (LFR et al, 2011), which has potential unexploded ordnance hazards.[3] The former Fort Ord military base site is discussed in more detail below.

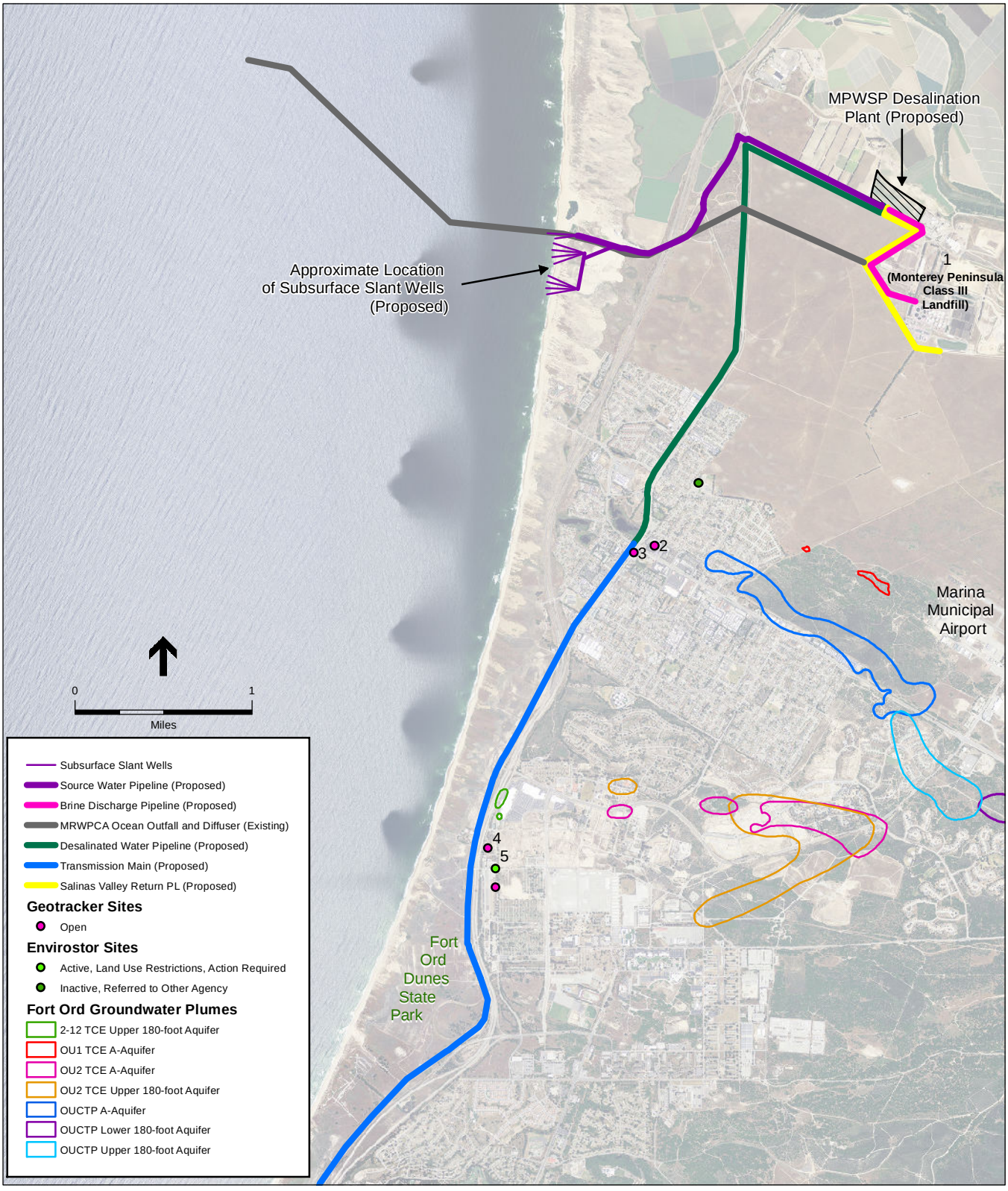
Regulatory Database Searches of Hazardous Materials Sites

The following regulatory agency databases of hazardous materials sites that are compiled pursuant to Government Code Section 65962.5 were reviewed to identify documented releases of hazardous materials in soil and groundwater[4] within 0.25 mile of the project area: the California State Water Resources Control Board (SWRCB) GeoTracker database (SWRCB, 2013) and the California Department of Toxic Substances Control (DTSC) EnviroStor database (DTSC, 2013). A 0.25-mile search radius from the project area was utilized to encompass the potential for migration of shallow groundwater contaminant plumes from typical leaking underground storage tank cases to adversely affect groundwater in the project area. **Figures 4.7-1** and **4.7-2** show the location of environmental cases identified within this area. Open environmental cases and their distance from project components are discussed in **Table 4.7-1**. Leaking underground storage tank (LUST) sites that have been closed by the regulatory agency are not discussed because site closure indicates that the regulatory agency considers these sites to pose a low threat to human health and groundwater quality.

Sites associated with past hazardous materials use and environmental cases identified during the regulatory agency database review that are considered to have a high potential to impact soil and/or groundwater in the project area based on remedial investigation findings, proximity to individual project component sites, and/or groundwater gradient (i.e., the site is upgradient from the project area with respect to the direction of groundwater flow) are discussed further below.

3 *Unexploded ordnance* refers to explosive weapons (bombs, bullets, shells, grenades, land mines, etc.) that did not explode when they were employed and still pose a risk of detonation, potentially many decades after they were used or discarded.

4 Unless listed in association with a documented release, it is assumed that facilities permitted to use, store, generate, or dispose of hazardous materials handle such materials in accordance with applicable laws and would not affect soil or groundwater in the project area.

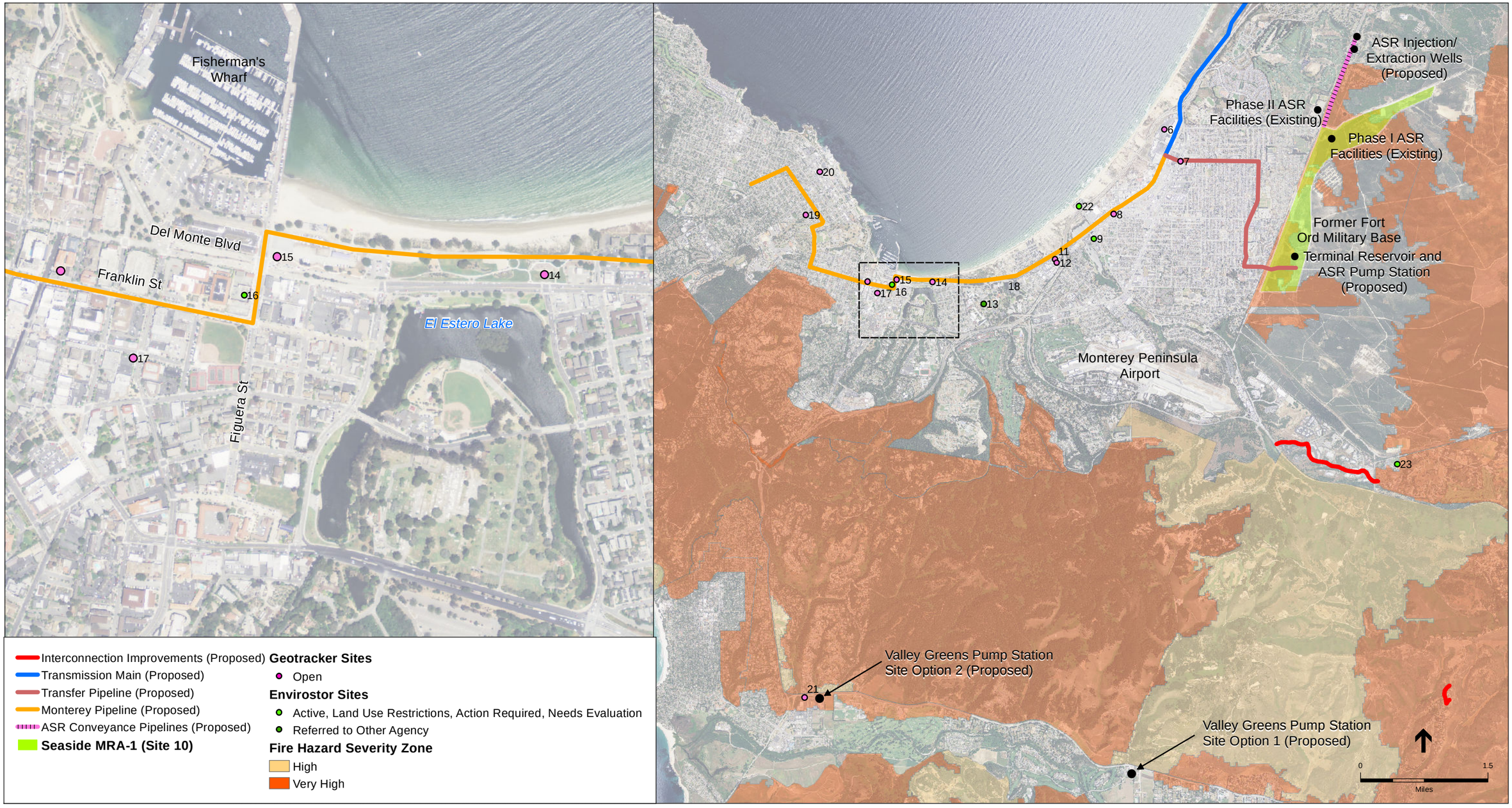


SOURCE: ESRI, 2007; DTSC, 2013; MCALUC, 1996;
RMC Geoscience, 2013; RWQCB, 2013; U.S. Department of the Army, 2012

205335.01 Monterey Peninsula Water Supply Project

Figure 4.7-1

Environmental Cases Near Project Components - Northern Portion



SOURCE: CAL FIRE, 2007; CAL FIRE 2008; DTSC, 2013; ESRI, 2013; RWQCB, 2013

205335.01 Monterey Peninsula Water Supply Project

Figure 4.7-2

Environmental Cases Near Project Components - Southern Portion

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TABLE 4.7-1
OPEN ENVIRONMENTAL CASES IDENTIFIED WITHIN 0.25 MILE OF THE PROJECT AREA

Map ID	Site Name/Address	Approximate Distance & Direction from Project Area	Regulatory List	Site Summary	Potential to Affect Soil and/or Groundwater in the Project Area
1	Monterey Peninsula Class III Landfill	500 feet east of the project area (Salinas Valley Return and Brine Discharge Pipelines)	Land Disposal Site	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).	Low
2	Don's 1 Hour Dry Cleaners 215 Reservation Road	475 feet east of the project area (Desalinated Water Pipeline and Transmission Main)	Cleanup Program Site	Shallow soil and groundwater contamination from chlorinated hydrocarbons and tetrachloroethylene (PCE) (up to 499 microgram per liter (ug/L)). Groundwater is approximately 15 feet below ground surface (CapRock, 2012). Site is upgradient from project area.	Moderate
3	Beacon Station 730 3144 Del Monte Boulevard	100 feet east of the project area (Transmission Main)	LUST Cleanup Site	Groundwater remediation performed June 2008 to 2012 reduced contaminant levels. Residual contaminants in groundwater include total petroleum hydrocarbon (TPH)-gasoline (up to 1,200 ug/L) and benzene (up to 83 ug/L) (Trinity, 2012). Site is upgradient from project area.	High
4	US Army Fort Ord Sites 2 and 12	425 feet east of the project area (Transmission Main)	Cleanup Program Site/Military Cleanup Site	Groundwater contamination from petroleum hydrocarbons and solvents, including TCE, in the Upper 180-foot Aquifer. The 2-12 TCE plume is shown on **Figure 4.7-1** (US Army, 2012).	Low
5	US Army Fort Ord University Villages 8th Street and First Avenue to the south and Highway 1 to the north	800 feet east of the project area (Transmission Main)	National Priorities List DTSC Cleanup Site Program	Voluntary Cleanup Agreement for removal of soil impacted by lead-based paint (DTSC, 2013).	Low
6	Economy Cleaners 840 Playa Avenue, Sand City	500 feet northwest of the project area (Transmission Main)	LUST Cleanup Site	Shallow soil contamination from PCE. A work plan for soil vapor extraction has been prepared (Taber Consultants, 2012). Site is downgradient of project area.	Low

TABLE 4.7-1 (Continued)
OPEN ENVIRONMENTAL CASES IDENTIFIED WITHIN 0.25 MILE OF THE PROJECT AREA

Map ID	Site Name/Address	Approximate Distance & Direction from Project Area	Regulatory List	Site Summary	Potential to Impact Soil and/or Groundwater in the Project Area
7	Rod and Ros Gas Mart 1898 Fremont Boulevard (southeast corner of La Salle Avenue and Fremont Boulevard), Seaside	50 feet south of the project area (Transfer Pipeline)	LUST Cleanup Site	Inactive service station with petroleum hydrocarbon contamination. TPH-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. Groundwater flows to the south, away from project area (Red Hills Environmental, 2013).	Low
8	Diaz Property 1561, 1563, and 1569 Del Monte Boulevard, Seaside	100 feet southeast of the project area (Monterey Pipeline)	LUST Cleanup Site	Fuel leak reported in 2009; no further investigation or cleanup activities have occurred (SWRCB, 2013).	Moderate
9	Embassy Suites Hotel 1441 Canyon del Rey, Seaside	500 feet southeast of the project area (Monterey Pipeline)	DTSC Cleanup Site	Lead-contaminated soil associated with a former automobile junkyard. This property has an environmental deed restriction for maintenance of an asphalt cap covering affected areas (DTSC, 2014a).	Low
10	Fort Ord Military Base Seaside Munitions Response Area	Within project area (Terminal Reservoir and ASR Pump Station)	National Priorities List	Potential for unexploded ordnance (UXO) hazards and munitions debris. See additional discussion below.	High
11	Former Chevron Bulk Plant 205 Ramona Avenue, Monterey	150 feet southeast of the project area (Monterey Pipeline)	LUST Cleanup Site	Soil and groundwater contamination primarily by benzene, diesel, and gasoline. See additional discussion below.	High
12	Former Texaco Bulk Terminal, Del Monte Dunes Lower Dunes Area, Monterey	150 feet west of the project area (Monterey Pipeline)	LUST Cleanup Site	Soil and groundwater contamination by crude oil and other oils, diesel, and gasoline. See additional discussion below.	High
13	Monterey Naval Postgraduate School 1 University Circle, Monterey	1,100 feet south of the project area (Monterey Pipeline)	DTSC Cleanup Site: Military Evaluation	Potential for soil contamination. Potential contaminants of concern include radioactive isotopes (DTSC, 2014b).	Low
14	Former Vapor Sudden Service Cleaners 951 Del Monte Avenue, Monterey	30 feet south of the project area (Monterey Pipeline)	Cleanup Site Program	Soil and groundwater contamination associated with former dry cleaning facility, including heating oil, fuel oil, stoddard solvent, mineral spirits, distillates, and PCE. Site was purchased by the City of Monterey in 2001 for a public park. Since then, five USTs have been removed. The most recent site investigation report from 2005 identified concentrations of up to 47,000 ug/L of PCE and 63 ug/L of TPH-stoddard solvents in groundwater (Remediation Testing and Design.	High

TABLE 4.7-1 (Continued)
OPEN ENVIRONMENTAL CASES IDENTIFIED WITHIN 0.25 MILE OF THE PROJECT AREA

Map ID	Site Name/Address	Approximate Distance & Direction from Project Area	Regulatory List	Site Summary	Potential to Impact Soil and/or Groundwater in the Project Area
14 cont.				2005). Groundwater flow direction is reported to be variable, so site may be upgradient of the project area. The RWQCB has recently reinitiated enforcement efforts (SWRCB, 2013)	
15	Russo's Marine Fueling Station Northeast corner of Del Monte Avenue and Figueroa Street, Monterey	20 feet south of the project area (Monterey Pipeline)	Cleanup Site Program	Soil and groundwater contamination from former LUSTs. A high vacuum extraction system for groundwater cleanup was installed in 1998. Current remediation consists of a passive skimmer. Contaminants of concern include benzene, diesel, gasoline, and toluene. In June 2013, free petroleum product was present in several site wells. Groundwater flows to the north, towards the bay (Iris Environmental, 2013). Site is upgradient of the project area.	High
16	Pacific Gas and Electric (PG&E), Manufactured Gas Plant Southwest Corner of Figueroa Street and Del Monte Avenue, Monterey	20 feet west and north of the project area (Monterey Pipeline)	DTSC Cleanup Site	Soil and groundwater contamination from former manufactured gas plant that operated from 1902 to 1928. Potential contaminants of concern include metals, petroleum hydrocarbons, polychlorinated biphenyls (PCBs), and polynuclear aromatic hydrocarbons (PAHs). Known contaminants remain in place beneath Del Monte Avenue. See additional discussion below.	High
17	Former Washington Mutual Bank (now JP Morgan Chase) 468 Washington Street, Monterey	500 feet south of the project area (Monterey Pipeline)	Cleanup Site Program	Dry cleaner reportedly operated at the site from at least 1953 to 1977. Site remediation in 2010 removed VOC-affected soils at the site. 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 (cis-1,2-DCE) was reported at 11 ug/L. Groundwater flows to the north-northeast towards the project area. Up to 1.6 ug/L 1,1-DCE was detected in a well located across Washington Street (Arcadis, 2013).	Moderate
18	Monterey Naval Postgraduate School Monterey	(Monterey Pipeline)	Cleanup Site Program/ Military Cleanup Site	Residual insignificant contamination of soil and groundwater related to former gasoline and diesel USTs (Monterey County, 2009).	Low
19	O'Neal Property 456 Pine Street, Monterey	500 feet southwest of the project area (Monterey Pipeline)	LUST Cleanup Site	Soil and groundwater contamination from former dry cleaning facility located at this site. Stoddard solvent, mineral spirits, and distillates have been detected in soil and groundwater. Remedial activities have included soil vapor extraction that removed an estimated 1,200 pounds	Moderate

TABLE 4.7-1 (Continued)
OPEN ENVIRONMENTAL CASES IDENTIFIED WITHIN 0.25 MILE OF THE PROJECT AREA

Map ID	Site Name/Address	Approximate Distance & Direction from Project Area	Regulatory List	Site Summary	Potential to Impact Soil and/or Groundwater in the Project Area
19 cont.				of hydrocarbons. The most recent groundwater sampling performed in 2008 detected concentrations of up to 4,200 ug/L of TPH-stoddard solvent, 4,100 ug/L of TPH-gasoline, and low concentrations of VOCs (Trinity Source Group, 2008). Site is upgradient of the project area.	
20	One Hour Martinizing 724 Lighthouse Avenue	1,200 feet southeast of project area (Monterey Pipeline)	Cleanup Site Program	PCE and TCE groundwater contamination from dry cleaners. Groundwater sampling in 2009 detected the presence of up to 770 ug/L of PCE and 190 ug/L of TCE at the dry cleaners site. Groundwater flow direction is to the northeast, cross-gradient from the project area. No offsite contamination has been detected (Point Environmental, 2009).	Low
21	Tosco Facility #4598 544 Carmel Rancho Boulevard, Carmel	750 feet west of the project area (Valley Greens Pump Station site Option 2)	LUST Cleanup Site	Site remediation to address tertiary-butyl alcohol and methyl tertiary-butyl ether in soil and groundwater has been completed. Contaminant plume extends to the south of the facility and cross-gradient from the project area (Antea Group, 2012).	Low
22	Fort Ord AMB Training Area Sand Dunes Drive and Canyon Del Rey Boulevard, Monterey	1,200 feet northwest of project area (Monterey Pipeline)	DTSC Cleanup Site	Former military training area with potential for unexploded ordnance and munitions and explosives of concern (MEC) in soil. Site under land use restrictions (SWRCB, 2014).	Low
23	Fort Ord York School Agreement York Road, Monterey	1,200 feet northeast of project area (Ryan Ranch Bishop Interconnection Improvements)	National Priorities List DTSC Site Cleanup	Former firing range with potential munitions debris (DTSC, 2014c).	Low

KEY FOR POTENTIAL TO IMPACT SOIL AND/OR GROUNDWATER:

Low Potential – The potential to affect soil or groundwater conditions in the project area is considered to be low for one or more factors including: direction of groundwater flow is away from the project area; distance from project area is considered great enough to preclude migration of contaminants; only soil was affected by the occurrence.

Moderate Potential – The potential to affect soil or groundwater conditions in the project area is considered to be moderate due to one or more factors: occurrence reported but remedial status unknown; unable to confirm remedial action completed; proximity to project area; groundwater flow direction is towards the project area.

High Potential – The potential to create environmental condition in the project area is considered to be high due to one or more factors: occurrence noted on-site and status of remedial action unknown; occurrence affected groundwater and is located up-gradient and near the project area.

Former Fort Ord Military Base

From 1917 until its deactivation in 1994, the Fort Ord military base served as a training and staging facility for United States Army (U.S. Army) infantry troops. Industrial chemicals, and munitions and explosives of concern (MECs) have been detected in soil and groundwater at numerous locations across the former Fort Ord military base.

In 1990, the United State Environmental Protection Agency (USEPA) placed the military base on the National Priorities List, indicating that the Superfund cleanup process would be applied to the site. This action was taken primarily due to the presence of unexploded ordnance (UXO) on the surface and subsurface of the property (USEPA, 2012). Investigations regarding the locations of MEC were initiated by the U.S. Army in 1993. These investigations resulted in the delineation of Munitions Response Areas (MRAs) that include approximately 12,000 acres of the former Fort Ord military base (U.S. Army, 2012). Smaller units, known as Munitions Response Sites (MRS), are defined within the MRA. Cleanup at the former Fort Ord military base is the responsibility of the U.S. Army, which is conducting ordnance cleanup for 8,000 acres. The U.S. Army has also entered into an Environmental Services Cooperative Agreement (ESCA) with the Fort Ord Reuse Authority (FORA) for MEC remediation and transfer of the remaining 3,340 acres (USEPA, 2012; FORA, 2013). These 3,340 acres, referred to as the Seaside MRA, will be available for redevelopment under a redevelopment plan adopted by FORA once remediation is complete. The Terminal Reservoir, ASR Pump Station, and part of the Transfer Pipeline are proposed within the Seaside MRA (Site 10 on **Figure 4.7-2**), specifically within the Munitions Response Site 1 (MRS-15 SEA 01), which is adjacent to and east of General Jim Moore Boulevard. The southernmost end of the ASR Conveyance Pipelines and ASR Pump-to-Waste Pipeline at Eucalyptus Boulevard may be within MRS-15 SEA 03; however, most of the alignment and the proposed ASR-5 and ASR-6 Wells are not within delineated MRSs.

From 1997 to 2004, the U.S. Army performed sampling and removal investigations on the four Seaside MRSs (MRS-15 SEA 01-04). During these investigations, MEC items were identified and removed from the MRSs, with the exception of several areas totaling about 35 acres scattered through the Seaside MRA. These areas are referred to as special case areas that could not be investigated because of physical obstructions (such as fences, asphalt, latrines, and berms) or interference with geophysical instruments. Phase II investigations of the special case areas in the Seaside MRA took place initially for the roadway alignment and utility corridor along General Jim Moore Boulevard (LFR et al, 2008) and the subsequently for the areas outside roadway alignment and utility corridor (LFR et al, 2011). Together, these actions resulted in removal of detected MEC to a depth of 4 feet, except in a few areas where anomalies were left in place because they were likely the result of existing infrastructure (e.g., transmission towers, culverts, fence posts, monitoring wells), and completed the Phase II removal action for the Seaside MRA (LFR et al, 2011). The results of these actions will be incorporated into the U.S. Army's Remedial Investigation/Feasibility Study to support a final remedial decision. No decision-making regarding the long-term use and management of these areas can occur until the USEPA, in consultation with the DTSC, has certified completion of remedial action (Cook, 2013).

The Findings of Suitability for Early Transfer (FOSET) agreement (FOSET, 2007) restricts the use of the Seaside MRS parcels for any purposes other than investigation and remediation of MEC and installation of utilities (including water supply infrastructure) until site remediation activities are deemed complete by the responsible agencies. FORA retains ownership the Seaside MRS parcels until remediation is complete and the parcels are transferred to the City of Seaside, which is not expected to occur until at least 2015. All ground-disturbing activity in this area requires a Right of Entry agreement with FORA and compliance with the Ordnance Remediation District Regulations of the City of Seaside.

In addition to hazards related to unexploded ordnance and military munitions, groundwater in the aquifers located beneath the former Fort Ord military base is contaminated with volatile organic compounds (VOCs), mostly trichloroethylene (TCE) and carbon tetrachloride. These contaminant plumes, known as the OU1 TCE, the OU2 TCE, and the OUCTP, are present in the A-Aquifer and Upper 180-foot Aquifer of the Salinas Valley Groundwater Basin in the vicinity of Imjin Parkway and Reservation Road, to the east of Del Monte Boulevard in Marina (Fort Ord Base Realignment and Closure Office, 2012). These plumes have undergone considerable investigation, source removal, and remedial action, including continued operation of groundwater treatment systems (USEPA, 2013). Minor levels of contamination have been detected in the lower 180-Foot Aquifer and in the 400-Foot Aquifer. These groundwater contamination plumes are shown on **Figure 4.7-1**. Another 44 sites of concern have been investigated and many of these cleanup actions have been completed (U.S. Army, 2012).

Bulk Fuel Terminal Facilities, Monterey

The former Chevron Oil Bulk Terminal No. 206136, located at 205 Ramona Avenue on the northeast corner of Ramona Avenue and Del Monte Boulevard in Monterey (Site 11 on **Figure 4.7-2**), operated from 1924 to 1983. Bulk terminal facilities removed in 1982 included seven aboveground storage tanks (ASTs), a pump island, and product piping. A 550-gallon waste oil UST was removed in 1990. Nearby properties include several automobile dealerships and service stations that also have had USTs removed. Between 1995 and 1996, a subsurface investigation consisting of 38 soil borings delineated the highest concentrations of petroleum hydrocarbons were in the vicinity of the former fuel distribution area near the center of the terminal site.

The former Texaco bulk terminal site is located across Del Monte Boulevard to the northwest of the Chevron site in the Del Monte Dunes, Lower Dunes Area (Site 12 on **Figure 4.7-2**). This site was formerly the location of a crude oil and refined petroleum products terminal constructed in 1926. Historically, crude oil was poured into the sand to stabilize the sand and form a partial water vapor barrier to prevent rusting of the bottom of the ASTs. Currently this site consists of open space and a bicycle trail. The Lower Dunes Area site is subject to an environmental deed restriction that requires Monterey County Department of Health to review a health and safety plan for any trenching or excavation within the site (SAIC, 2013).

In groundwater monitoring wells located adjacent to Del Monte Boulevard and the Monterey Peninsula Recreational Trail, in the vicinity of the proposed Monterey Pipeline, concentrations of Total Petroleum Hydrocarbons as gasoline (TPH-gasoline) range from not detected to 660 ug/L; and concentrations of benzene range from not detected to 21 ug/L. Depth to groundwater is roughly 8 to 12 feet below ground surface (SAIC, 2012).

Pacific Gas and Electric Company Manufactured Gas Plant, Monterey

The former Monterey manufactured gas plant (MGP) occupied 2.1 acres that are currently owned by Pacific Gas and Electric Company (PG&E) and the City of Monterey. The site is presently occupied by an electrical substation/natural gas meter and regulator station and a public sports center complex. Previous remedial investigations were conducted to define the lateral and vertical extent of impacted soil at the substation and offsite areas. Constituents included PAHs, PCBs, TPH, and heavy metals. Groundwater sampling detected TPH-diesel and TPH-motor oil. An additional off-site remedial investigation was conducted because PG&E was unable to delineate the northern boundary of MGP impacts in soil and groundwater. Impacts to the north of the former MGP site were related to the backfill of a drainage channel with MGP wastes. Sampling detected elevated concentrations of PAHs of up to 362 milligrams per kilogram (mg/kg); TPH-gasoline at up to 180 mg/kg; TPH diesel at up to 12,000 mg/kg, and low levels of VOCs. Based on these results, additional remediation was performed for the City of Monterey West Cattelus Parking Lot, located to the north of Del Monte Avenue. Offsite areas located beneath City streets and sidewalks were considered inaccessible and were not included in the cleanup action. Soil removal was conducted over a total area of 18,700 square feet to depths ranging from 2 to 8.5 feet below ground surface from the West Cattelus Parking Lot, and a total of 6,127 tons of treated soil was shipped offsite to a disposal facility. The remediation efforts reduced the constituents of potential concern to levels that would be considered protective of future residential land use scenarios. Land use covenants will be prepared to address inaccessible offsite areas, including Del Monte Avenue and the utility corridor between the West Catellus Parking Lot and Del Monte Avenue, and all on-site areas of the PG&E substation (Parsons, 2012). The Monterey Pipeline would be located in Figueroa Street adjacent to the PG&E MGP site.

Monterey Wharf Area LUST Sites

A number of open and closed LUST sites are located just east of the municipal wharf at Figueroa Street and Del Monte Avenue in Monterey, in close proximity to the Monterey Pipeline, as shown on **Figure 4.7-2**. Groundwater contamination arising from the Former Vapor Sudden Service Cleaners and Russo's Marine Fueling Station (see sites 14 and 15 in **Table 4.7-1**) likely extends into the proposed pipeline alignment area. Residual contaminants may also remain in soil and groundwater at closed LUST sites in the nearby vicinity.

Seaside Auto Shops

A preliminary environmental assessment of the TAMC railroad corridor (Kleinfelder, 2010) identified a number of automobile dealerships and repair facilities, tire shops, and light industrial businesses adjacent to the proposed Monterey Pipeline alignment in Sand City, Seaside, and

Monterey as a potential source of environmental concern. Based on the historical uses of these types of facilities and site observations, potential disposal and dumping behind the businesses adjacent to the rail line may have affected shallow soil within the TAMC right-of-way.

4.7.1.2 Structural and Building Components

Hazardous materials, such as asbestos, lead, and polychlorinated biphenyls, may occur in older building materials and be released during demolition or renovation of existing facilities. Because the proposed project does not include demolition or renovation of existing facilities, buildings, or structures, hazardous materials in building debris would not be encountered and, therefore, are not discussed in detail in this section.

4.7.1.3 Existing Hazardous Materials Usage

Hazardous materials are currently used at the existing ASR injection/extraction wells (ASR-1, ASR-2, ASR-3, and ASR-4 Wells) and existing California American Water Company (CalAm) pump station sites. Operation of the ASR wells involves the storage and use of carbon dioxide, lime, sodium hypochlorite (bleach) solution, and other substances required for water treatment. Existing CalAm pump stations are powered by electricity, but may store fuel for backup emergency generators, and minor amounts of solvents and lubricants for maintenance.

4.7.1.4 Nearby Airports

Project facilities are located within 2 miles of the Marina Municipal Airport and the Monterey Peninsula Airport. The Marina Municipal Airport is located north of the intersection of Reservation Road and Imjin Road in Marina (see **Figure 4.7-1**). The Monterey Peninsula Airport is located east of Highway 1 and north of Highway 68 in Del Rey Oaks (see **Figure 4.7-2**).

4.7.1.5 Nearby Schools

Schools are considered sensitive receptors for hazardous materials because children are more susceptible than adults to the effects of hazardous materials. Schools that are located within 0.25 mile of the project are listed in **Table 4.7-2**.

4.7.1.6 Wildfire Hazards

California Department of Forestry and Fire Protection (CAL FIRE) maps identify fire hazard severity zones in state and local responsibility areas for fire protection. Portions of the southern project area are situated either within or near a very high or high fire hazard severity zone (CAL FIRE, 2007, 2008). Project components in these areas include the Main System-Hidden Hills Interconnection Improvements, the Ryan Ranch-Bishop Interconnection Improvements, and the Valley Greens Pump Station (both site options).

TABLE 4.7-2
SCHOOLS IN THE VICINITY OF PROJECT COMPONENTS

Project Component	Schools within 0.25 Mile of Project Components	
Desalinated Water Pipeline	• Olsen Elementary 261 Beach Road, Marina	
Transmission Main	• Marina Del Mar Elementary School 3066 Lake Drive, Marina	• Central Coast High School 200 Coe Avenue, Seaside
Transfer Pipeline	• Monterey Adult School/ Cabrillo Family Center 1295 La Salle Avenue, Seaside • Monterey Bay Christian Middle School 1395 La Salle Avenue, Seaside • Ord Terrance Elementary 1755 La Salle Avenue, Seaside	• International School of Monterey 1720 Yosemite Street, Seaside • King Elementary School 1713 Broadway Avenue, Seaside • Highland Elementary 1650 Sonoma Avenue, Seaside
ASR Conveyance Pipelines and ASR Pump-to-Waste Pipeline	• Seaside Middle School 999 Coe Avenue, Seaside	
Monterey Pipeline	• Bayview Elementary School 680 Belden Street, Monterey • Monterey High School 101 Herrmann Drive, Monterey	• Pacific Grove Middle School 835 Forest Avenue, Pacific Grove • Robert Down Elementary School 485 Pine Avenue, Pacific Grove
Valley Greens Pump Station (Option 2)	• Carmel Middle School 4380 Carmel Valley Road, Carmel	

SOURCE: MPUSD, 2013; PGUSD, 2013.

4.7.2 Regulatory Framework

4.7.2.1 Federal Regulations

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 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. The applicable part of SARA for the MPWSP is Title III, otherwise known as the Emergency Planning and Community Right-To-Know Act of 1986. Title III 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.

Clean Air Act (42 USC 7401 et seq. as amended)

The federal Clean Air Act (CAA) is a comprehensive law that regulates air emissions from mobile and stationary sources. The law authorized the USEPA to establish National Ambient Air Quality Standards and to regulate the emissions of hazardous air pollutants. Notably, CAA Section 112(r) requires facilities that store a threshold quantity or greater of listed regulated substances to develop a risk management plan, including hazard assessments and response programs to prevent accidental releases of listed chemicals.

Toxic Substances Control Act (15 USC 2605)/Resource Conservation and Recovery Act (42 USC 6901 et seq.)/Hazardous and Solid Waste Act

The federal Toxic Substances Control Act of 1976 and the Resource Conservation and Recovery Act of 1976 authorized the USEPA to regulate the generation, transportation, treatment, storage, and disposal of hazardous waste. The Resource Conservation and Recovery Act was amended in 1984 by the Hazardous and Solid Waste Act, which affirmed and extended the "cradle to grave" system of regulating hazardous wastes.

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

The U.S. Department of Transportation, in conjunction with the USEPA, 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.

Occupational Safety and Health Act (29 USC 15)

The Occupational Safety and Health Act of 1970 was passed to address employee safety in the workplace. The Act created the Occupational Safety and Health Administration (OSHA), whose mission is to ensure the safety and health of America's workers by setting and enforcing standards; providing training, outreach, and education; establishing partnerships; and encouraging continual improvement in workplace safety and health. The OSHA staff establishes and enforces protective standards and reaches out to employers and employees through technical assistance and consultation programs.

4.7.2.2 State Regulations

Safe Drinking Water and Toxics Enforcement Act, Proposition 65 - Health and Safety Code, Section 25249.5 et seq.

This law identifies chemicals that cause cancer and reproductive toxicity, provides information for the public, and prevents discharge of the chemicals into sources of drinking water. Lists of the chemicals of concern are published and updated periodically. Businesses are required to notify Californians about the chemicals in products they purchase, in the workplace, or that are released to the environment. By providing this information, individuals are able to make informed decisions about protecting themselves from exposure to these chemicals.

Aboveground Petroleum Storage Act - Health and Safety Code, Section 25270

Health and Safety Code Sections 25270 to 25270.13 ensure compliance with the federal Clean Water Act. The law applies to facilities that operate a petroleum aboveground storage tank with a capacity greater than 660 gallons or combined aboveground storage tanks capacity greater than 1,320 gallons or oil-filled equipment where there is a reasonable possibility that the tank(s) or equipment may discharge oil in "harmful quantities" into navigable waters or adjoining shore lands. If a facility falls under these criteria, it must prepare a Spill Prevention Control and Countermeasure Plan.

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 (CCR) 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 (HMBP) to their local Certified Unified Program Agency (CUPA) and to report releases to their CUPA 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.

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.

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 CUPA. 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)
- Aboveground 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
- UST 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 CUPAs. Most CUPAs have been established as a function of a local environmental health or fire department. The local CUPA for this project is the Monterey County Environmental Health Division. Some CUPAs have contractual agreements with another local agency, a participating agency, which implements one or more Program Elements in coordination with the CUPA.

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.

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).

Water Main Separation – California Code of Regulations, Title 22, Section 64572

California Code of Regulations, Title 22, Section 64572 states that new water mains and supply lines shall not be within the same trench as, and must be located least 10 feet horizontally from, any parallel pipeline conveying sewage, secondary-treated recycled water, and hazardous fluids such as fuels, industrial wastes, and wastewater sludge. In addition, new water mains may not be installed within 100 horizontal feet of any sanitary landfill, wastewater disposal pond, or hazardous waste disposal site, or within 25 horizontal fee of the nearest edge of any cesspool, septic tank, sewage leach field, underground hazardous material storage tank, or groundwater recharge site.

Utility Notification Requirements – California Code of Regulations, Title 8, Section 1541

California Code of Regulations, Title 8, Section1541 requires excavators to determine the approximate locations of subsurface installations, such as sewer, telephone, fuel, electric, and water lines (or any other subsurface installations that may reasonably be encountered during excavation work) prior to opening an excavation. The California Government Code (Section 4216 et seq.) requires owners and operators of underground utilities to become members of and participate in a regional notification center. According to Section 4216.1, operators of subsurface installations who are members of, participate in, and share in the costs of a regional notification center, such as Underground Services Alert, are in compliance with this section of the code. Underground Services Alert (known as USA North 811) receives planned excavation reports from public and private excavators and transmits those reports to all participating members of USA North that may have underground facilities at the location of excavation. Members will mark or stake their facilities, provide information, or give clearance to dig (USA North, 2014).

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

The California Public Resources Code (PRC) restricts the use of internal combustion engines in forest-, brush-, and grass-covered lands, unless the engine is equipped with a spark arrester[5]; specifies requirements for the safe use of gasoline-powered tools in fire hazard areas; and specifies fire suppression equipment that must be provided onsite for various types of work in fire-prone areas. More specifically, the PRC requires the following:

- Earthmoving and portable equipment with internal combustion engines must be equipped with a spark arrestor to reduce the potential for igniting a wildland fire (PRC Section 4442).
- 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 would 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).

Hazardous Materials Storage and Handling, California Fire Code, California Code of Regulations, Title 24, Part 9, Section 2700 et seq.

The California Fire Code (Chapter 27) includes specific requirements for the safe storage and handling of hazardous materials. These requirements 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, or appropriate distance separation.
- Spill control in all storage, handling, and dispensing areas.
- 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 a catastrophic spill.

California Fire Code (Chapter 14) addresses fire safety during construction and demolition and includes requirements for smoking, waste disposal, cutting and welding, fire protection equipment, fire reporting, access for fire fighting.

[5] A spark arrestor is a device that prohibits 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.

Screening Levels for Hazardous Materials in Soil or Groundwater

The RWQCB Environmental Screening Levels (ESLs) (RWQCB, 2013) are guidelines used to evaluate the potential risk associated with chemicals found in soil or groundwater where a release of hazardous materials has occurred. The RWQCB has established ESLs for both residential and commercial/industrial land uses, and for construction workers. Residential screening levels are the most restrictive; soil with chemical concentrations below these levels generally would not require remediation and would be suitable for unrestricted uses if disposed of offsite. Commercial/industrial screening levels are generally less restrictive than residential screening levels because they are based on potential worker exposure to hazardous materials in the soil (and these are generally less than residential exposures). Screening levels for construction workers are also less restrictive than for commercial/industrial workers because construction workers are only exposed to the chemical of concern during the duration of construction, while industrial workers are assumed to be exposed over a working lifetime.

The California Environmental Project Agency (Cal/EPA) has also developed screening levels for human exposure to potentially hazardous chemicals. The California Human Health Screening Levels (CHHSLs) (Cal/EPA, 2005) are concentrations of 54 hazardous chemicals in soil or soil gas that Cal/EPA considers to be below thresholds of concern for risks to human health. The CHHSLs can be used to screen sites for potential human health concerns where releases of hazardous chemicals have occurred. The presence of a chemical at concentrations in excess of a CHHSL does not indicate that adverse impacts are occurring or will occur, but suggests that further evaluation is warranted. The CHHSLs are guidance, and not regulatory cleanup standards.

4.7.2.3 Applicable State, Regional, and Local Land Use Plans and Policies Relevant to Hazards and Hazardous Materials

Table 4.7-3 describes the state, regional, and local land use plans, policies, and regulations pertaining to hazards and hazardous materials that are relevant to the MPWSP and that were adopted for the purpose of avoiding or mitigating an environmental effect. A general overview of these policy documents is presented in Section 4.8, Land Use, Land Use Planning, and Recreation. Also included in **Table 4.7-3** is an analysis of project consistency with such plans, policies, and regulations. Where the analysis concludes the proposed project would not conflict with the applicable plan, policy, or regulation, the finding is noted and no further discussion is provided. Where the analysis concludes the proposed project may conflict with the applicable plan, policy, or regulation, the reader is referred to Section 4.7.3, Impacts and Mitigation Measures, for additional discussion.

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TABLE 4.7-3
APPLICABLE STATE, REGIONAL, AND LOCAL PLANS AND POLICIES RELEVANT TO HAZARDS AND HAZARDOUS MATERIALS

Project Planning Region	Applicable Planning Document	Plan Element/ Section	Project Component	Specific Policy or Program	Relationship to Avoiding or Mitigating a Significant Environmental Impact	Project Consistency with Policies and Programs
Cities of Marina and Monterey (coastal zone)	California Coastal Act	Marine Environment	Subsurface Slant Wells and Monterey Pipeline	***Section 30232: Oil and hazardous substance spills.*** Protection against the spillage of crude oil, gas, petroleum products, or hazardous substances shall be provided in relation to any development or transportation of such materials. Effective containment and cleanup facilities and procedures shall be provided for accidental spills that do occur.	This policy is intended to protect the marine environment from the damaging effects of hazardous material releases.	Consistent: As required by California Health and Safety Code Section 25500 et seq., CalAm would submit a HMBP for the project components to the Monterey County Environmental Health Division prior to the start of project operations. The plan must be approved by the County prior to commencement of project construction. The HMBP 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 components would be subject to post-construction compliance inspections. In addition, the proposed project would be subject to the state Construction General Permit, which requires the implementation of specific construction-related best management practices (BMPs), including measures to prevent spills, equipment and fuel storage inspections, and spill response protocols.
City of Marina (coastal zone)	City of Marina LCP Land Use Plan	Policies	Subsurface Slant Wells, Source Water Pipeline, Desalinated Water Pipeline, Transmission Main	***Policy 20:*** The policy of the City of Marina shall be: To seek assistance and direction in protecting Marina's beach resources from destruction by oil spills and other hazardous substances.	The intent of this policy is to protect beach resources from the damaging effects of hazardous material releases.	Consistent: As required by California Health and Safety Code Section 25500 et seq., CalAm would submit a HMBP for the project components to the Monterey County Environmental Health Division prior to the start of project operations. The HMBP 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 plan must be approved by the County prior to commencement of project construction and the project components would be subject to post-construction compliance inspections. In addition, the proposed project would be subject to the state Construction General Permit, which requires the implementation of specific construction-related BMPs, including measures to prevent spills, equipment and fuel storage inspections, and spill response protocols. These measures would reduce potential impacts on beach resources and reinforce the City's policy of seeking assistance and direction in protecting beach resources.
City of Marina (coastal zone and inland areas)	City of Marina General Plan	Community Design and Development	Subsurface Slant Wells, Source Water Pipeline, Desalinated Water Pipeline, Transmission Main	***Policy 4.103:*** To protect the public from heath threats posed by hazardous materials, the following policies shall be adhered to: 1. The City shall support all local, regional and state efforts directed at preventing injuries and avoiding environmental contamination due to the uncontrolled release of hazardous substances. The City shall follow all applicable regulations and procedures related to the use, storage and transportation of toxic, explosive and other hazardous materials to prevent uncontrolled discharges. 2. The City shall require discretionary review and approval of all commercial and industrial uses which will generate more than 27 gallons of hazardous wastes monthly (the limitation imposed by Monterey Regional Waste Management District for non-household hazardous wastes). City approval of these uses shall be contingent upon preparation and approval by the County Health Department of a hazardous-waste-disposal plan for these uses prepared in accordance with the requirements of the Monterey County Health Department. 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. The City shall ensure that proposed industrial or commercial projects that will use or generate hazardous materials shall be compatible with surrounding uses as designated by the General Plan. Residential uses and other sensitive uses such as schools shall be adequately buffered from adjoining uses which involve the use or generation of hazardous materials.	This policy is intended to protect the public and the environment from health risks associated with the use, storage, transport, and uncontrolled release of 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). Preparation of and adherence to plans prepared as required under these regulations would be required. These measures would reduce potential impacts to the public and the environment resulting from exposure to uncontrolled release of hazardous materials. As noted in Section 4.8, Land Use, Land Use Planning, and Recreation, all pipelines and the subsurface slant wells would be compatible with adjacent land uses.

TABLE 4.7-3 (Continued)
APPLICABLE STATE, REGIONAL, AND LOCAL PLANS AND POLICIES RELEVANT TO HAZARDS AND HAZARDOUS MATERIALS

Project Planning Region	Applicable Planning Document	Plan Element/ Section	Project Component	Specific Policy or Program	Relationship to Avoiding or Mitigating a Significant Environmental Impact	Project Consistency with Policies and Programs
City of Marina (coastal zone and inland areas)	Marina Municipal Code	Chapter 15.56 - Digging and Excavation the Former Fort Ord	Subsurface Slant Wells Source Water Pipeline, Desalinated Water Pipeline Transmission Main	***Chapter 15.56 - Digging and Excavation the Former Fort Ord*** 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.	This section of municipal code is intended to protect the public, workers, and the environment from uncontrolled detonation of ordnance.	Consistent: No project components proposed for Marina would be located within former Fort Ord lands.
City of Marina (coastal zone and inland areas)	Marina Municipal Code	Chapter 8.12 – Hazardous Materials Storage and Registration	Subsurface Slant Wells, Source Water Pipeline, Desalinated Water Pipeline, Transmission Main	***Section 8.12.050: Hazardous materials registration form.*** Any person who owns or operates an establishment that contains at any one time during the year, hazardous materials as defined in Section 8.12.020 shall file a completed hazardous material registration form with the health department within ninety days of the effective date of this chapter (1983).	This policy is intended to protect the public and the environment from health risks associated with uncontrolled releases of hazardous materials.	Consistent: As part of the building or land use permitting process, CalAm would be required to report to the Monterey County Environmental Health Division any hazardous materials to be used as part of the project. The Monterey County Environmental Health Division would determine requirements for compliance with California Health and Safety Code Section 25505, including the preparation of a Hazardous Materials Business Plan (see Section 4.7.2.2, above, for a description of contents). This plan must be reviewed and updated annually by the applicant. In addition, the proposed project would be subject to the state Construction General Permit and the Monterey County Erosion Control Ordinance, which also require the implementation of specific construction-related BMPs to prevent stormwater pollutants from leaving construction sites.
City of Monterey (coastal zone and inland areas)	Monterey City Code	Chapter 13 – Fire Protection	Monterey Pipeline, Ryan Ranch-Bishop Interconnection Improvements	***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.	The intent of this city code is to protect the public and the environment from fire hazards and uncontrolled hazardous material releases.	Consistent: Project components would be required to be constructed in accordance with the California Fire Code (Title 24, Part 9), as amended by the local jurisdiction. Project plans would need to demonstrate Fire Code conformance and would require local fire jurisdiction approval prior to building permit issuance.
City of Monterey (coastal zone and inland areas)	Monterey City Code	Chapter 9 – Building Regulations	Monterey Pipeline, Ryan Ranch-Bishop Interconnection Improvements	***Chapter 9, Article 8:*** Contains digging and excavation standards that apply to land once part of the former Fort Ord, including prohibition of digging, excavation, and development of this land until ordnance or explosive remediation is completed.	This policy is intended to protect the public, workers, and the environment from uncontrolled detonation of ordnance.	Consistent**:** None of the project components within the city of Monterey would be constructed within the boundaries of the former Fort Ord military base.
City of Pacific Grove (inland areas)	Pacific Grove Municipal Code	Chapter 18.32 – Fire Prevention	Monterey Pipeline	***Chapter 18.32:*** describes fire prevention standards that apply to the city of Pacific Grove and establishes the locations of very high fire hazard severity zones within the city. The standards are based upon the International Fire Code and the California Fire Code.	This ordinance is intended to protect the public and the environment from fire hazards.	Consistent: The portion of the Monterey Pipeline proposed for Pacific Grove does not traverse any State-designated and locally accepted very high fire hazard severity zones. As part of the City of Pacific Grove building permit process, CalAm would be required to obtain certification from the City that the pipeline complies with all State and local building standards.
City of Pacific Grove (inland areas)	Pacific Grove Municipal Code	Chapter 23.64 – General Provisions	Monterey Pipeline	***Section 26.34.340: Consistency with county hazardous waste management plan.*** The Pacific Grove Municipal Code requires that any approved applications for use permits, variances, subdivisions, or other land use entitlements shall be consistent with portions of the Monterey County hazardous waste management plan which identify general areas or siting criteria for hazardous waste facilities.	This policy is intended to ensure public safety and land use compatibility in the siting of new hazardous waste facilities.	Consistent: The proposed project would not involve the construction of any hazardous waste facilities.
City of Sand City (coastal zone)	Sand City Municipal Code	Chapter 8.12 – Hazardous Materials	Transmission Main, Monterey Pipeline, Transfer Pipeline	***Section 8.12.120: Clean-up Responsibility.*** A "responsible party" shall be defined as any person, firm, or corporation responsible for the storage or transportation of hazardous material, or any such person, firm or corporation which, by their own acts of negligence or such acts of their agents, heirs, assigns or employees, whether such acts be intentional or unintentional, causes or allows the unauthorized discharge, spill, or release of any hazardous substance. Such responsible party or parties shall institute and complete all actions necessary to remedy the effects of any substance that may endanger public safety or create a public nuisance, whether such discharge, spill or release is sudden or gradual. The Monterey Fire Department shall take appropriate abatement action to remedy the effects of any such discharge, spill or release. The Monterey Fire Department will mitigate, or authorize mitigation, of all incidents endangering the public safety of the citizens of Monterey or creating a public nuisance.	The intent of this code is to protect the public and the environment from health risks and nuisance posed by uncontrolled release of hazardous materials.	Consistent: The proposed project would be required to comply with this ordinance. Project approval would not exempt or otherwise prohibit the applicant from complying with the requirements of this section, should uncontrolled release of hazardous materials occur during construction of the Transmission Main, the Monterey Pipeline, or the Transfer Pipeline.

TABLE 4.7-3 (Continued)
APPLICABLE STATE, REGIONAL, AND LOCAL PLANS AND POLICIES RELEVANT TO HAZARDS AND HAZARDOUS MATERIALS

Project Planning Region	Applicable Planning Document	Plan Element/ Section	Project Component	Specific Policy or Program	Relationship to Avoiding or Mitigating a Significant Environmental Impact	Project Consistency with Policies and Programs
City of Sand City (coastal zone) (cont.)				The responsible party shall be liable to the city of Sand City for reimbursement of all costs incurred by the city in remedying the effects of such unauthorized discharge, spill, or release of hazardous substance, including the costs of fighting fires to the extent allowed by law. This responsibility is not conditioned upon willfulness or negligence of the party causing or allowing such unauthorized discharge, spill, or release of any hazardous substance. Any responsible party who undertakes action to remedy the effects of an unauthorized discharge, spill, or release of any hazardous substance shall not be barred by this Ordinance from seeking to recover appropriate costs and expenditures for other responsible parties except as provided in Section 8.12.130. (Ord. 93-03 §1, 1993)		
City of Seaside (coastal zone)	City of Seaside Local Coastal Program Land Use Plan	Natural Hazards	Monterey Pipeline	***Coastal Act Section 30253 Minimization of adverse impacts:*** New development shall do all of the following: (a) Minimize risks to life and property in areas of high geologic, flood, and fire hazard.	The intent of this policy is to protect public health and property from natural hazards, including fire hazards.	Consistent: Project components would be required to be constructed in accordance with the California Fire Code (Title 24, Part 9), as amended by the local jurisdiction. Project plans would need to demonstrate Fire Code conformance and would require local fire jurisdiction approval prior to building permit issuance. The proposed project's implications for geologic and flood hazards are discussed in EIR Sections 4.2 Geology, Soils, and Seismicity and 4.3 Surface Water Hydrology and Water Quality, respectively. Specifically, please refer to **Tables 4.2-6** and **4.3-6** for additional discussion of the project's conformity with applicable Seaside Local Coastal Program Land Use Plan policies related to these resource areas, respectively.
City of Seaside (coastal zone and inland areas)	Seaside General Plan	Safety	Transmission Main, Transfer Pipeline, Monterey Pipeline, ASR Conveyance Pipeline, ASR Pump-to-Waste Pipeline, ASR Settling Basin, ASR Pump Station, Terminal Reservoir	***Policy S-2.2:*** Minimize the risk to community associated with hazardous materials.	The intent of this policy is to protect the public and the environment from health risks 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. These measures would reduce potential impacts to the public and the environment resulting from exposure to uncontrolled release of hazardous materials.
City of Seaside (coastal zone and inland areas)	Seaside General Plan	Safety	Transmission Main, Transfer Pipeline, Monterey Pipeline, ASR Conveyance Pipeline, ASR Pump-to-Waste Pipeline ASR Settling Basin, ASR Pump Station, Terminal Reservoir	***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.	This plan is intended to protect the public and the environment from health risks associated with the use, storage, transport, and uncontrolled release of 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. By preparing these required plans CalAm 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. These measures would reduce potential impacts to the public and the environment resulting from exposure to uncontrolled release of hazardous materials.
City of Seaside (coastal zone and inland areas)	Seaside Municipal Code	Chapter 15.34 - Digging and Excavation the Former Fort Ord	Transfer Pipeline, ASR Conveyance Pipeline, ASR Pump-to-Waste Pipeline, ASR Pump Station, Terminal Reservoir	***Chapter 15.34: Digging and Excavation the Former Fort Ord*** contains the "Ordnance Remediation District Regulations of the City" (Ord. 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. 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	The intent of this code is to protect the public, workers, and the environment from health risks associated with uncontrolled ordnance detonation.	Consistent: Prior to any construction, the applicant or its contractor would need to obtain a Right of Entry agreement from FORA (or the future property owner) and obtain a permit for digging and excavation from the City of Seaside. As part of the permit application, CalAm or its contractors would be required to provide the following: proposed project plans; a technical summary of ordnance removal activities performed on the property in the past; a soils management plan; a UXO support workplan; oversight reimbursement agreement; and

TABLE 4.7-3 (Continued)
APPLICABLE STATE, REGIONAL, AND LOCAL PLANS AND POLICIES RELEVANT TO HAZARDS AND HAZARDOUS MATERIALS

Project Planning Region	Applicable Planning Document	Plan Element/ Section	Project Component	Specific Policy or Program	Relationship to Avoiding or Mitigating a Significant Environmental Impact	Project Consistency with Policies and Programs
City of Seaside (coastal zone and inland areas) (cont.)				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.		confirmation of DTSC approval. By undertaking these mandatory measures, the proposed project would be consistent with this section of the Seaside Municipal Code.
City of Seaside (coastal zone and inland areas)	Seaside Municipal Code	Chapter 8.50 – Hazardous Materials Registration	Transmission Main, Transfer Pipeline, Monterey Pipeline, ASR Conveyance Pipeline, ASR Pump-to-Waste Pipeline, ASR-5 and ASR-6 Wells, ASR Settling Basin, ASR Pump Station, Terminal Reservoir	***Chapter 8.50: Hazardous Materials Registration*** requires that any person who owns or operates an establishment that contains hazardous materials any time during the year file a completed hazardous material registration form with the department of health. This form must be updated annually to ensure that the City has current information regarding hazardous substances and materials being used in the city.	This policy is intended to protect the public and the environment from health risks associated with the use, storage, transport, and uncontrolled release of 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. These measures would reduce potential impacts to the public and the environment resulting from exposure to uncontrolled release of hazardous materials.
County of Monterey (coastal zone)	North County Land Use Plan	2.3 Environmentally Sensitive Habitats	Source Water Pipeline, MPWSP Desalination Plant, Desalinated Water Pipeline; Brine Discharge Pipeline, Salinas Valley Return Pipeline	***2.3.3.B.8*** Oil and other toxic substances shall not be allowed to enter or drain into the estuarine system. Oil spill and toxic substance discharge contingency plans shall be developed by the appropriate agencies of Monterey County to coordinate emergency procedure for clean-up operations of all foreseeable conditions. New development shall be permitted adjacent to estuarine areas only where such development does not increase the hazard of oil spill or toxic discharge into the estuaries.	This policy is intended to protect estuaries from the unintended release of hazardous substances.	Consistent: As required by California Health and Safety Code Section 25500 et seq., CalAm would submit a HMBP for the project components to the Monterey County Environmental Health Division prior to the start of project operations. The HMBP 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 plan must be approved by the County prior to commencement of project construction and the project components would be subject to post-construction compliance inspections. In addition, the proposed project would be subject to the State Construction General Permit, which requires the implementation of specific construction-related BMPs, including measures to prevent spills, equipment and fuel storage inspections, and spill response protocols.
County of Monterey (coastal zone)	North County Land Use Plan	2.8 Hazards	Source Water Pipeline, MPWSP Desalination Plant, Desalinated Water Pipeline, Brine Discharge Pipeline, Salinas Valley Return Pipeline	***2.8.2 (1):*** All development shall be sited and designed to minimize risk from geologic, flood, tsunami or fire hazards to a level generally acceptable to the community. Areas of a parcel which are subject to high hazard(s) shall generally be considered unsuitable for development. Any proposed development in high hazard areas shall require the preparation of an environmental or geotechnical report prior to County review of the project.	This policy is intended to protect the public and property from natural hazards.	Consistent: The proposed project components within the area covered by this land use plan are not within a high fire hazard zone. Project plans would need to demonstrate Fire Code conformance and would require local fire jurisdiction approval prior to building permit issuance. The proposed project's implications for geologic and flood hazards are discussed in EIR Sections 4.2, Geology, Soils, and Seismicity, and 4.3, Surface Water Hydrology and Water Quality, respectively. Specifically, please refer to **Tables 4.2-6** and **4.3-6** for additional discussion of the project's conformity with applicable North County Land Use Plan policies related to these resource areas, respectively.
County of Monterey (coastal zone and inland areas)	Monterey County Code	Chapter 10.65 – Hazardous Materials Registration	Source Water Pipeline, MPWSP Desalination Plant, Desalinated Water Pipeline, Brine Discharge Pipeline, Salinas Valley Return Pipeline, Main System-Hidden Hills Interconnection Improvements, Valley Greens Pump Station (both site options)	***Chapter 10.65: Hazardous Materials Registration*** requires that any person who owns or operates an establishment that contains hazardous materials at any one time during the year file a completed hazardous materials registration form to the Department of Health. An updated completed hazardous material form must be submitted to the Department of Health annually.	The intent of this policy is to protect the public and the environment from health risks associated with the use, storage, transport, and uncontrolled release of hazardous materials.	Consistent: CalAm would be required to obtain a permit from the Monterey County Health Officer prior to operation of desalination treatment facilities, hazardous materials storage, or a public water system in Monterey County. As part of this permitting process, CalAm would be required to report to the Monterey County Environmental Health Division any hazardous materials to be used as part of the project. The Monterey County Environmental Health Division would determine requirements for compliance with California Health and Safety Code Section 25505, including the preparation of a Hazardous Materials Business Plan (see Section 4.7.2.2, above, for a description of contents). This plan must be reviewed and updated annually by the applicant. In addition, the proposed project would be subject to the state Construction General Permit and the Monterey County Erosion Control Ordinance, which also require the implementation of specific construction-related BMPs to prevent stormwater pollutants from leaving construction sites.

TABLE 4.7-3 (Continued)
APPLICABLE STATE, REGIONAL, AND LOCAL PLANS AND POLICIES RELEVANT TO HAZARDS AND HAZARDOUS MATERIALS

Project Planning Region	Applicable Planning Document	Plan Element/ Section	Project Component	Specific Policy or Program	Relationship to Avoiding or Mitigating a Significant Environmental Impact	Project Consistency with Policies and Programs
County of Monterey (coastal zone and inland areas)	Monterey County Code	Chapter 10.67 - Hazardous Materials Emergency Response	Source Water Pipeline, MPWSP Desalination Plant, Desalinated Water Pipeline, Brine Discharge Pipeline, Salinas Valley Return Pipeline, Main System-Hidden Hills Interconnection Improvements, Valley Greens Pump Station (both site options)	***Chapter 10.67: Hazardous Materials Emergency Response*** establishes a surcharge that applies to businesses that use, store, or otherwise handle hazardous materials. The surcharge funds current or future Fire Hazardous Material Emergency Response Teams that would respond to threats to life, property, or natural resources arising from the use, storage, or handling of hazardous materials by these businesses.	This code is intended to protect public health and the environment from risks associated with the uncontrolled release of hazardous materials from businesses that use, store, or handle these substances.	Consistent: CalAm would be required to obtain a permit from the Monterey County Health Officer prior to operation of desalination treatment facilities, hazardous materials storage, or a public water system in Monterey County. Per Monterey County Municipal Code Section 10.67.050, businesses that are subject to an annual operating permit are required to pay the surcharge or the operating permit will not be issued.
County of Monterey (coastal zone and inland areas)	Monterey County General Plan	Safety	Source Water Pipeline, MPWSP Desalination Plant, Desalinated Water Pipeline, Brine Discharge Pipeline, Salinas Valley Return Pipeline; Main System-Hidden Hills Interconnection Improvements, Valley Greens Pump Station (both site options)	***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.	This policy is intended to protect the public and the environment from fire hazards associated with new development.	Consistent: The proposed project would not exempt or otherwise prohibit the applicant from complying with the requirements of this policy. Project plans would need to demonstrate Fire Code conformance and would require local fire jurisdiction approval prior to building permit issuance.
County of Monterey (coastal zone and inland areas)	Monterey County General Plan	Safety	Source Water Pipeline, MPWSP Desalination Plant, Desalinated Water Pipeline, Brine Discharge Pipeline, Salinas Valley Return Pipeline, Main System-Hidden Hills Interconnection Improvements, Valley Greens Pump Station (both site options)	***Policy S-4.13:*** The County shall require all new development to have adequate water available for fire suppression. The water system shall comply with Monterey County Code Chapter 18.56, NFPA Standard 1142, or other nationally recognized standard. The fire authority having jurisdiction, the County Departments of Planning and Building Services, and all other regulatory agencies shall determine the adequacy and location of water supply and/or storage to be provided.	The intent of this policy is to ensure that new development would be served by water supplies adequate to protect the public and the environment from fire hazards.	Consistent: Project plans would need to demonstrate conformance with California Fire Code (California Code of Federal Regulations Title 24, Part 9) Appendix B, Fire Flow Requirements for Buildings, and would require local fire jurisdiction approval prior to building permit issuance.
County of Monterey (coastal zone and inland areas)	Monterey County General Plan	Safety	Source Water Pipeline, MPWSP Desalination Plant, Desalinated Water Pipeline, Brine Discharge Pipeline, Salinas Valley Return Pipeline, Main System-Hidden Hills Interconnection Improvements, Valley Greens Pump Station (both site options)	***Policy S-4.14:*** Water systems constructed, extended, or modified to serve a new land use or a change in land use or an intensification of land use, shall be designed to meet peak daily demand and recommended fire flow.	This policy is intended to ensure that water utility systems have capacity to protect the public and the environment from fire hazards associated with changes in land use within the County.	Consistent: Project plans would need to demonstrate conformance with California Fire Code (California Code of Federal Regulations Title 24, Part 9) Appendix B, Fire Flow Requirements for Buildings, and would require local fire jurisdiction approval prior to building permit issuance.
County of Monterey (coastal zone and inland areas)	Monterey County General Plan	Safety	Source Water Pipeline, MPWSP Desalination Plant, Desalinated Water Pipeline, Brine Discharge Pipeline, Salinas Valley Return Pipeline, Main System-Hidden Hills Interconnection Improvements, Valley Greens Pump Station (both site options)	***Policy S-4.21:*** All permits for residential, commercial, and industrial structural development (not including accessory uses) shall incorporate requirements of the fire authority having jurisdiction.	The intent of this policy is to protect the public and the environment from fire hazards.	Consistent: Building permits issued by County Building Services would require the proposed project to comply with California Code Title 24, Part 9 (California Fire Code), as amended by local jurisdictions, which mandates building construction practices designed to protect the public and the environment from fire hazards. By undertaking these mandatory measures, the proposed project would be consistent with this policy.
County of Monterey (coastal zone and inland areas)	Monterey County General Plan	Safety	Source Water Pipeline, MPWSP Desalination Plant, Desalinated Water Pipeline, Brine Discharge Pipeline, Salinas Valley Return Pipeline, Main System-Hidden Hills Interconnection Improvements, Valley Greens Pump Station (both site options)	***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.	This policy is intended to protect the public and the environment from hazards associated with structures, including fire hazards and seismic hazards.	Consistent: CalAm would be required to prepare building plans that 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.
County of Monterey (coastal zone and inland areas)	Monterey County General Plan	Safety	Source Water Pipeline, MPWSP Desalination Plant, Desalinated Water Pipeline, Brine Discharge Pipeline, Salinas Valley Return Pipeline, Main System-Hidden Hills Interconnection Improvements, Valley Greens Pump Station (both site options)	***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.	This policy is intended to protect the public, the environment, and utility systems from wildfire hazards.	Consistent: The Valley Greens Pump Station (site Options 1 and 2) and the Ryan Ranch-Bishop and Main System-Hidden Hills Interconnection Improvements are proposed for areas designated by CAL FIRE as being at risk of high or very high fire hazard. State law, including Title 24 Chapter 7A which 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 be required to implement the above measures, which would ensure project conformity with this policy.

TABLE 4.7-3 (Continued)
APPLICABLE STATE, REGIONAL, AND LOCAL PLANS AND POLICIES RELEVANT TO HAZARDS AND HAZARDOUS MATERIALS

Project Planning Region	Applicable Planning Document	Plan Element/ Section	Project Component	Specific Policy or Program	Relationship to Avoiding or Mitigating a Significant Environmental Impact	Project Consistency with Policies and Programs
County of Monterey (coastal zone and inland areas)	Monterey County General Plan	Safety	Source Water Pipeline, MPWSP Desalination Plant, Desalinated Water Pipeline, Brine Discharge Pipeline, Salinas Valley Return Pipeline, Main System-Hidden Hills Interconnection Improvements, Valley Greens Pump Station (both site options)	***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.	The intent of this policy is to protect people and structures from risk of loss, injury, or death associated with wildland fires.	Consistent: The Valley Greens Pump Station is the only above-ground MPWSP component proposed for Monterey County that would be constructed in a designated fire hazard area. The Valley Greens Pump Station would be constructed in the immediate vicinity of existing development around which zones have already been established to inhibit the spread of wildfire. Project plans would need to demonstrate California Fire Code conformance and would require local fire jurisdiction approval prior to building permit issuance.
County of Monterey (coastal zone and inland areas)	Monterey County General Plan	Safety	Source Water Pipeline, MPWSP Desalination Plant Desalinated Water Pipeline, Brine Discharge Pipeline, Salinas Valley Return Pipeline, Main System-Hidden Hills Interconnection Improvements, Valley Greens Pump Station (both site options)	***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 CDFFP and/or other fire protection agencies in compliance with State Law.	The intent of this policy is to protect people and structures from risk of loss, injury, or death associated with wildland fires.	Consistent: The Valley Greens Pump Station is the only above-ground MPWSP component proposed for Monterey County that would be constructed in a designated fire hazard area. The Valley Greens Pump Station would be constructed in the immediate vicinity of existing development around which zones have already been established to inhibit the spread of wildfire. Project plans would need to demonstrate Fire Code conformance and would require local fire jurisdiction approval prior to building permit issuance.
Fort Ord Reuse Authority (Seaside)	Fort Ord Reuse Plan	Safety	ASR Conveyance Pipelines, ASR Pump-to-Waste Pipeline, ASR Settling Basin, ASR Pump Station, Terminal Reservoir, Transmission Main	***Hazardous and Toxic Materials Safety Policy C-1:*** The City of Seaside shall require hazardous materials management and disposal plans for any future projects involving the use of hazardous materials.	This policy is intended to protect the public and the environment from health risks associated with the use, storage, transport, and uncontrolled release of hazardous materials.	Consistent: As required by California Health and Safety Code Section 25500 et seq., CalAm would submit a HMBP for the project components to the Monterey County Environmental Health Division prior to the start of project operations. The HMBP 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 plan must be approved by the County prior to commencement of project construction and the project components would be subject to post-construction compliance inspections. In addition, the proposed project would be subject to the state Construction General Permit, which requires the implementation of specific construction-related BMPs, including measures to prevent spills, equipment and fuel storage inspections, and spill response protocols.
Fort Ord Reuse Authority (Monterey County)	Fort Ord Reuse Plan	Safety	Ryan Ranch–Bishop Interconnection Improvements	***Hazardous and Toxic Materials Safety Policy C-1:*** The County of Monterey shall require hazardous materials management and disposal plans for any future projects involving the use of hazardous materials.	This policy is intended to protect the public and the environment from health risks associated with the use, storage, transport, and uncontrolled release of hazardous materials.	Consistent: As required by California Health and Safety Code Section 25500 et seq., CalAm would submit a HMBP for the project components to the Monterey County Environmental Health Division prior to the start of project operations. The plan must be approved by the County prior to the start of project construction. The HMBP 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. Project components would be subject to post-construction compliance inspections. In addition, the proposed project would be subject to the state Construction General Permit, which requires the implementation of specific construction-related BMPs, including measures to prevent spills, equipment and fuel storage inspections, and spill response protocols.

SOURCES: City of Marina, 1982; City of Marina, 2006; City of Seaside, 2004; City of Seaside, 2012; FORA, 1997; Monterey County, 1982; Monterey County, 2010.

4.7.3 Impacts and Mitigation Measures

4.7.3.1 Significance Criteria

Appendix G of the CEQA Guidelines recommends the following significance criteria for the evaluation of hazards and hazardous materials. Implementation of the proposed project would have a significant impact related to hazards and hazardous materials if it would result:

- Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials;
- 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;
- Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within 0.25 mile of an existing or proposed school;
- Be located on a site, which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, create a significant hazard to the public or the environment;
- 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;
- 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;
- Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan; or
- 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.

Based on the nature of the proposed project, there would be no impacts related to the following CEQA significance criteria for the reasons described below:

Be located within the vicinity of a private airstrip and result in a safety hazard for people residing or working in the project area. The proposed project would not be located within the vicinity of a private airstrip; therefore, no safety hazard would result from project implementation.

Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan. The Monterey County Emergency Operations Plan provides an overview of agency roles and responsibilities during emergencies (Monterey County Office of Emergency Services, 2011). The proposed project would not interfere with the designated agency responsibilities and reporting in the event of an emergency. No impact would result.

Increase risk of wildland fire during operations. Operation of the proposed project would not introduce potentially flammable activities in fire-prone areas. Project components 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.

4.7.3.2 Approach to the Analysis

This impact analysis focuses on potential effects of hazards and hazardous materials associated with the proposed project. The evaluation considers current conditions in the project area, findings of regulatory agency database searches, review of hazardous materials investigation reports, site reconnaissance, applicable regulations and guidelines, and proposed project construction and operations.

Table 4.7-4 summarizes the significance determinations of identified hazards and hazardous materials impacts as they apply to each project facility, and collectively for the project as a whole.

TABLE 4.7-4
SUMMARY OF HAZARDS AND HAZARDOUS MATERIALS IMPACTS

Impacts	Significance Determinations
Impact 4.7-1: Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials during construction.	LS
Impact 4.7-2: Reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment during construction.	LSM
Impact 4.7-3: Project facilities would be located on a known hazardous materials site.	LS
Impact 4.7-4: Handle hazardous materials or emit hazardous emissions within 0.25 mile of schools during construction.	LS
Impact 4.7-5: Increase risk of wildland fires during construction.	LS
Impact 4.7-6: Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials during project operations.	LS
Impact 4.7-7: Handle hazardous materials or emit hazardous emissions within 0.25 mile of a school during project operations.	LS
Impact 4.7-8: Project facilities are located within an airport land use plan area, presenting a potential safety hazard for people residing or working in the project area.	LS

LS = Less than Significant impact, no mitigation required
LSM = Less than Significant impact with Mitigation

4.7.3.3 Construction Impacts and Mitigation Measures

Impact 4.7-1: Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials during construction. (*Less than Significant*)

All Project Components

Petroleum products, such as gasoline, diesel fuel, lubricants, and cleaning solvents would be utilized to fuel and maintain construction vehicles and equipment. Reasonably foreseeable upset and accident conditions could result in inadvertent releases of small quantities of these materials,

which could adversely affect construction workers, soil, and surface water. However, construction activities must comply with numerous hazardous materials and stormwater regulations designed to ensure that hazardous materials are transported, used, stored, and disposed of in a safe manner to protect worker safety, and to reduce the potential for a release of construction-related fuels or other hazardous materials to affect stormwater and downstream receiving water bodies (see Section 4.7.2, Regulatory Framework). These requirements would ensure that hazardous materials used for construction are stored in appropriate containers, with secondary containment to contain a potential release. As discussed in Section 4.3, Surface Water Hydrology and Water Quality, the construction contractor would be required to prepare a Stormwater Pollution Prevention Plan (SWPPP) for construction activities according to the National Pollutant Discharge Elimination System (NPDES) General Construction Permit requirements. The SWPPP would list the hazardous materials (including petroleum products) proposed for use during construction and describe spill prevention measures, equipment inspections, equipment and fuel storage, and protocols for responding immediately to spills. Through compliance with applicable hazardous materials storage, disposal, and stormwater permitting regulations, hazardous materials impacts associated with potential releases from the transport, use, or disposal of hazardous materials during construction would be less than significant for all project components.

Mitigation Measures

None required.

Impact 4.7-2: Reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment during construction. (*Less than Significant with Mitigation*)

All Pipelines and Conveyance Facilities

The proposed project involves excavation, trenching, and grading for the construction of water conveyance pipelines, building footings and utilities. As identified in **Table 4.7-1**, a number of sites with known soil and/or groundwater contamination are located within 0.25 mile of project facilities and may have affected subsurface conditions at various locations along the project area. The contaminants anticipated to be encountered during project construction activities include petroleum hydrocarbons, VOCs, PAHs, and metals from gasoline service stations, dry cleaners, former fuel terminals, and a manufactured gas plant. In particular, there are several locations along the proposed Monterey Pipeline where contamination from nearby facilities extends into the proposed alignment. These areas are adjacent to the former bulk fuel facilities (Sites 11 and 12), a cluster of open and closed LUST sites near Del Monte Avenue (Sites 14 and 15) in Monterey, and the former PG&E manufactured gas plant (Site 16), discussed above and shown on **Figure 4.7-2**. Additionally, construction activities within the former Fort Ord military base, a National Priorities List site, could result in exposure to unexploded ordnance, which is discussed separately under Impact 4.7-3, below. 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 (i.e., dewatering effluent) is not handled properly. The potential for contaminated soil and groundwater to be released into the environment during project construction is considered a significant impact.

Impacts resulting from the potential release of or exposure to hazardous materials in soil or groundwater would be reduced to a less-than-significant level with implementation of **Mitigation Measures 4.7-2a (Health and Safety Plan)** and **4.7-2b (Soil and Groundwater Management Plan)**. **Mitigation Measure 4.7-2a (Health and Safety Plan)** would require that construction contractors prepare a health and safety plan in accordance with Cal OSHA regulations. The plan would specify personal protective equipment for workers, outline construction measures to reduce the potential for workers' exposures to hazardous materials in soil and groundwater, and describe procedures for handling accidental hazardous materials releases and unanticipated contamination. **Mitigation Measure 4.7-2b (Soil and Groundwater Management Plan)** requires construction contractors to comply with all relevant environmental regulations and plan appropriately for the safe and lawful handling and disposal of excavated soil and groundwater, when encountered. With implementation of **Mitigation Measures 4.7-2a** and **4.7-2b**, the potential for harmful exposure to hazardous materials present in soil or groundwater during pipeline and other conveyance facility construction would be reduced to a less-than-significant level.

All Other Project Components

Although hazardous materials sites are not currently identified in proximity to other proposed project components, newly discovered sites may arise prior to the time of construction that could affect subsurface conditions in the project area. Encountering unanticipated soil or groundwater contamination could result in potential exposures to construction workers, the public, or the environment, resulting in a significant impact. However, this impact could be reduced to a less-than-significant level with implementation of **Mitigation Measures 4.7-2a (Health and Safety Plan)** and **4.7-2b (Soil and Groundwater Management Plan)**. These measures would require that construction contractors prepare a Health and Safety Plan and a Soil and Groundwater Management Plan that include procedures to follow if unanticipated contamination is discovered during construction.

Impact Conclusion

There is a potential to encounter contaminated soil and/or groundwater during construction of all proposed project components. Thus, the potential for contaminated soil and groundwater to be released into the environment during project construction is considered a significant impact for all project components. However, with implementation of **Mitigation Measures 4.7-2a (Health and Safety Plan)** and **4.7-2b (Soil and Groundwater Management Plan)**, and through compliance with applicable hazardous materials laws and regulations, the potential for exposure to hazardous materials in soil and groundwater during construction would be reduced to a less-than-significant level.

Mitigation Measures

Mitigation Measure 4.7-2a applies to all project components.

Mitigation Measure 4.7-2a: Health and Safety Plan.

The construction contractor(s) shall prepare and implement a site-specific Health and Safety Plan in accordance with 29 CFR 1910.120 to protect construction workers and the public during all excavation and grading activities. This plan shall be submitted to the California Public Utilities Commission for review prior to commencement of construction. The Health and Safety Plan shall include, but is not limited to, the following elements:

- Designation of a trained, experienced site safety and health supervisor who has the responsibility and authority to develop and implement the site health and safety plan;
- A summary of all potential risks to construction workers and maximum exposure limits for all known and reasonably foreseeable site chemicals;
- Specified personal protective equipment and decontamination procedures, if needed;
- Emergency procedures, including route to the nearest hospital; and
- 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.

Mitigation Measure 4.7-2b applies to all project components.

Mitigation Measure 4.7-2b: Soil and Groundwater Management Plan.

CalAm or its contractor shall develop and implement a Soil and Groundwater Management Plan that includes a materials disposal plan specifying how the construction contractor will remove, handle, transport, and dispose of all excavated material in a safe, appropriate, and lawful manner. The plan must identify protocols for soil testing and disposal, identify the approved disposal site, and include written documentation that the disposal site will accept the waste. Contract specifications shall mandate full compliance with all applicable local, state, and federal regulations related to the identification, transportation, and disposal of hazardous materials, including those encountered in excavated soil or dewatering effluent.

As part of the Soil and Groundwater Management Plan, CalAm or its contractor shall develop a groundwater dewatering control and disposal plan specifying how contaminated groundwater (dewatering effluent), if encountered, will be handled and disposed of in a safe, appropriate and lawful manner. The plan must identify the locations at which groundwater dewatering is likely to be required, 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 4.5.3 in Section 4.3, Surface Water Hydrology and Water Quality, 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 a publicly owned treatment works such as the MRWPCA Regional Wastewater Treatment Plant. This plan shall be submitted to the California Public Utilities Commission for review and approval prior to commencement of construction.

Impact 4.7-3: Project facilities would be located on a known hazardous materials site. (*Less than Significant*)

Terminal Reservoir, ASR Pump Station, ASR Conveyance Pipelines, ASR Pump-to-Waste Pipeline, and Transfer Pipeline

As discussed above in Section 4.7.1.1, Soil and Groundwater Conditions, the Terminal Reservoir and ASR Pump Station and, potentially, a short section of the alignment for the ASR Conveyance Pipelines and ASR Pump-to-Waste Pipeline would be located in the former Fort Ord Seaside MRA. The portion of the Transfer Pipeline located east of General Jim Moore Boulevard would also be within the Seaside MRA. This is a known hazardous materials site and is identified on the National Priorities List. 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.

As discussed in the setting section, above, the investigations and remedial actions conducted for the Seaside MRSs will be reviewed by the USEPA prior to certifying site cleanup and approving redevelopment of the area. Specific regulations apply to any ground-disturbing activities within these areas, including the City of Seaside's Ordnance Remediation District regulations and the environmental protection provisions of the FOSET agreement. Prior to any construction, the applicant or its contractor would need to obtain a Right of Entry agreement from FORA (or the future property owner) and obtain a permit for digging and excavation from the City of Seaside. As part of the permit application, CalAm or its contractors would be required to provide the following: proposed project plans; a technical summary of ordnance removal activities performed on the property in the past; a soils management plan; a UXO support workplan; oversight reimbursement agreement; and confirmation of DTSC approval. The FORA Right of Entry and permit application process currently takes 9 to 12 months to complete (Cook, 2013). Compliance with the City of Seaside digging and excavation permit and FORA Right of Entry requirements would ensure that all personnel authorized to access the former Fort Ord Seaside MRAs are provided MEC recognition training, coordinate with a qualified Ordnance and Explosive Safety Specialist during all activities on the site, and comply with all requirements placed on the property by an agreement between the City of Seaside, FORA, and DTSC. All permits require ceasing soil disturbance activities and notification to the Seaside Police Department, the Presidio law enforcement, the U.S. Army, and DTSC of any suspected UXO immediately upon discovery. Compliance with the foregoing regulations for construction work at the former Fort Ord military base would ensure the potential impact of encountering unexploded ordnance during project construction is less than significant.

All Other Project Components

None of the other project components would be located on known hazardous materials sites. Therefore, no impact associated with the siting of these facilities on a known hazardous materials site would occur. The potential for contaminated soil or groundwater from nearby hazardous materials sites to migrate into the project area and then be encountered during project construction is addressed above under Impact 4.7-1.

Impact Conclusion

The proposed Terminal Reservoir, ASR Pump Station, and portions of the Transfer Pipeline, ASR Conveyance Pipelines, and ASR Pump-to-Waste Pipeline would be located on a known hazardous materials site. However, with compliance with the above-described regulations, the project would ensure the impact is less than significant. None of the other project components are located within a known hazardous materials site.

Mitigation Measures

None required.

Impact 4.7-4: Handle hazardous materials or emit hazardous emissions within 0.25 mile of a school during construction. (*Less than Significant*)

Desalinated Water Pipeline, Transmission Main, Transfer Pipeline, ASR Conveyance Pipelines, ASR Pump-to-Waste Pipeline, Monterey Pipeline, and Valley Greens Pump Station (Site Option 2)

As shown in **Table 4.7-2**, above, the project components located within 0.25 mile of a school are the Desalinated Water Pipeline, Transmission Main, Transfer Pipeline, ASR Conveyance Pipelines, ASR Pump-to-Waste Pipeline, Monterey Pipeline, and Valley Greens Pump Station (site Option 2).

As discussed above under Impact 4.7-1, project construction could require the use of small quantities of fuel, lubricants, paints, and solvents. Construction for project facilities would occur within 0.25 mile of schools; however, the hazardous materials storage and stormwater permitting requirements discussed under Impact 4.7-1, above, impose performance standards on the construction activities that would ensure the risk of release of hazardous materials during construction would be low. Therefore, the potential for a hazardous materials release during construction to result in increased exposure to hazardous materials at the nearby schools is remote; therefore, this impact is less than significant.

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 4.10, Air Quality, DPM 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.

All Other Project Components

None of the other proposed project components are located within 0.25-mile of a school. No impact would result.

Impact Conclusion

The Desalinated Water Pipeline, Transmission Main, Transfer Pipeline, ASR Conveyance Pipelines, ASR Pump-to-Waste Pipeline, Monterey Pipeline, and Valley Greens Pump Station (site Option 2) would result in a less-than-significant impact the handling of hazardous materials within 0.25 mile of schools during construction.

Mitigation Measures

None required.

Impact 4.7-5: Increased risk of wildland fires during construction. (*Less than Significant*)

Ryan Ranch-Bishop Interconnection Improvements, Main System-Hidden Hills Interconnection Improvements, and Valley Greens Pump Station

As illustrated in **Figure 4.7-2**, some of the project facilities are proposed in or near areas classified by CAL FIRE as High or Very High Fire Hazard Severity Zones:

- Main System-Hidden Hills Interconnection Improvements
- Ryan Ranch-Bishop Interconnection Improvements
- Valley Greens Pump Station – Site Options 1 and 2

California regulations governing the use of construction equipment in fire prone areas are designed to minimize the risk of wildland fires during construction activity (e.g., PRC Sections 4411 et seq.). 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. In addition, the California Fire Code addresses the fire safety of general construction operations. The construction contractor must comply with these regulations and any additional requirements imposed by CAL FIRE or the local fire protection departments. With compliance, the impact associated with an increased risk of wildland fires during construction of the Highway 68 interconnection improvements and the Valley Greens Pump Station would be less than significant.

All Other Proposed Facilities

None of the other project facilities are located within or near an area classified by CAL FIRE as a High or Very High Fire Hazard Severity Zone; however, construction activities could temporarily increase fire risk. With compliance with California fire code regulations for construction, the potential impact associated with an increased risk of fire during construction of all other project components would be less than significant.

Impact Conclusion

The proposed project would result in a less-than-significant impact from potential increased fire risk during construction.

Mitigation Measures

None required.

4.7.3.4 Operational Impacts and Mitigation Measures

Impact 4.7-6: Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials during project operations. (*Less than Significant*)

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

Subsurface Slant Wells

Periodic maintenance of the subsurface slant wells would be required every 5 years. Maintenance workers would excavate and expose the wellheads, and lower mechanical brushes into the wells to mechanically clean the screens. If chemical cleaning products are needed for maintenance, only environmentally inert products would be used.

Excavation of the wellheads 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. Reasonably foreseeable upset and accident conditions could result in inadvertent releases of small quantities of these hazardous materials into soil and surface water. However, compliance with the various regulations regarding the safe transport, use, and storage of hazardous materials (see Section 4.7.2, Regulatory Framework) as well as the NPDES General Construction Permit requirements would ensure this impact is less than significant. The SWPPP would identify the hazardous materials to be used during slant well maintenance and would describe spill prevention measures, equipment inspection requirements, equipment and fuel storage, and spill response protocols. No mitigation measures are necessary.

MPWSP Desalination Plant

The MPWSP Desalination Plant operations would involve the use and storage of chemicals to remove performance-reducing deposits from the pretreatment filtration system and reverse osmosis (RO) membranes, as well as chemicals to adjust product water quality. The types and amounts of chemicals that would be utilized in the MPWSP Desalination Plant treatment processes are listed in **Table 4.7-5**.

TABLE 4.7-5
MPWSP DESALINATION PLANT (9.6 MGD) – WATER TREATMENT CHEMICALS

Chemical	Application	Approximate Chemical Usage (pounds/year)
Sodium Hypochlorite	Pretreatment / Post-treatment	140,000 / 55,000
Sodium Bisulfite	Pretreated source water	85,000
Carbon Dioxide	Post-treatment	420,000
Lime	Post-treatment	960,000
Sodium Hydroxide	Post-treatment	55,000
Orthophosphate	Post-treatment	30,000
RO Cleaning Chemicals (various)	RO membrane cleaning	To be determined
Coagulant (if needed)	Pretreatment	To be determined

SOURCE: RBF Consulting, 2013; CalAm, 2014.

Pretreatment Process. As discussed in Section 3.4.2.1 of Chapter 3, Project Description, source water would be pretreated using pressure filters or multimedia gravity filters to remove suspended solids, microbes, and other contaminants such as iron and manganese. Routine backwashing of the pretreatment filters would occur each day. Backwashing the pretreatment filters would require that a chlorine solution (sodium hypochlorite, similar to bleach) be added to the backwash water supply to control bacterial growth on the filters. If data collected during the pilot program indicates that a chemical coagulant (e.g. ferric chloride, a commonly used coagulant) is needed in the pretreatment process, the backwash effluent would be treated to remove the coagulant chemical prior to discharge. Waste effluent produced during backwashing would flow by gravity from the pretreatment filters to two 0.25-acre, 6-foot-deep lined backwash settling basins. Suspended solids in the waste effluent would settle to the bottom of the basins, and the clarified water would be decanted. Approximately 0.4 million gallons per day (mgd) of decanted backwash water may be pumped to the Brine Discharge Pipeline, blended with between 11.88 and 13.80 mgd of brine produced by the RO system, and discharged to the existing MRWPCA ocean outfall. Alternatively, the decanted backwash water could be blended with source water before undergoing pretreatment and the RO process. Sludge formed by the solids in the backwash effluent would be periodically removed from the backwash settling basin and disposed of at a sanitary landfill.

RO System. The RO system would remove salts and other minerals from the seawater. The RO membranes would be cleaned to remove the accumulation of silts or scale, which reduces membrane performance. The RO system is expected to require cleaning two to three times per year. The RO membranes would be cleaned by circulating a cleaning solution (comprised of strong bases or acids) through the membranes and then flushing the membranes with clean water to remove the spent cleaning solution and waste effluent from the RO system. The spent cleaning

solution and waste effluent would be discharged into a collection sump, chemically neutralized, then pumped into tank trucks and transported to an offsite disposal site.

Desalination Plant Post-Treatment Process. Desalinated water would be disinfected and treated with chemicals to adjust alkalinity and hardness. The primary disinfectant is a solution of sodium hypochlorite.

Bulk storage of these chemicals would be located in various 5,000- to 20,000-gallon tanks with secondary containment located within the process and electrical building. The capacity of the chemical storage tanks would vary by chemical. The design of the process and electrical building would incorporate all regulatory requirements for hazardous materials storage, such as spill containment features that exceed the capacity of the tanks; segregation of individual chemicals to prevent mixing in the case of accidental spillage; and appropriate alarm and fire sprinklers. Chemicals that have specific reactivity risks with one another will be stored at opposite ends of the storage area to reduce the potential risk of mixing. Lime and carbon dioxide would be used for post-treatment. In addition, a 750-kilowatt (KW) emergency diesel-gas powered generator and 2,000-gallon double-walled, aboveground diesel storage tank would be installed adjacent to the process and electrical building for emergency backup.

CalAm would be required to implement the project in accordance with all applicable laws and regulations governing hazardous materials storage, handling, and disposal. These regulations are designed to protect worker safety, provide for the safe storage and use of hazardous materials, reduce the potential for accidental releases, track and clean up accidental releases, and ensure that hazardous wastes are disposed of appropriately. A summary of these laws and regulations is provided in Section 4.7.2, Regulatory Framework. For example, California Fire Code, Article 80, requires all chemical storage and handling systems be designed and constructed to ensure the safe storage and handling of hazardous materials. Some of the requirements specifically applicable to the proposed 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 risk to workers, the public, and the environment.

As required by law, CalAm would submit a HMBP for the proposed project to the Monterey County Environmental Health Division prior to the start of project operations. The HMBP 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 plan must be approved by the County prior to commencement of project construction and the proposed project would be subject to post-construction compliance inspections. The HMBP would also provide the local agencies with the information they need to plan appropriately for a chemical release, fire, or other incident, which would reduce the potential for an accidental release to cause harmful health effects to workers or the public or substantial degradation to soil or water quality.

Transportation and disposal of wastes, such as spent cleaning solutions, would also be subject to regulations for the safe handling, transportation, and disposal such as the California Labor Code, Section 6300 et seq., California Vehicle Code Sections 32000 et seq., and Health and Safety Code, Sections 25100 et seq. Transporters licensed to haul hazardous wastes are required to meet requirements for training, secondary containment, and placarding to reduce the potential for a release of hazardous materials during transport to disposal facilities. Compliance with these various regulations would ensure this impact is less than significant. No mitigation measures are necessary.

ASR-5 and ASR-6 Wells, and ASR Pump Station/Terminal Reservoir

Water recovered from the two proposed ASR injection/extraction wells would be chlorinated for disinfection prior to being conveyed into the distribution system. The existing disinfection system has sufficient capacity to treat ASR product water extracted from all six ASR injection/extraction wells (e.g., the four existing ASR injection/extraction wells [ASR-1, ASR-2, ASR-3, and ASR-4 Wells] and the two new wells [ASR-5 and ASR-6 Wells] proposed under the MPWSP). The disinfection chemicals for the proposed ASR-5 and ASR-6 Wells would 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. Based on a typical disinfection concentration of 1 milligrams per liter sodium hypochlorite and the maximum extraction capacity of 4.3 mgd for the proposed ASR-5 and ASR-6 Wells, the maximum daily chemical usage is estimated to be about 35 pounds, resulting in an average annual increase in chemical usage of approximately 4,000 pounds.

Additional chemicals of concern are generated from the injection of chlorinated water into a groundwater aquifer. This process is known to result in the formation of disinfection by-products (DBPs) including trihalomethanes (THMs) and haloacetic acids (HAAs) from reactions with organic matter present in the aquifer. Studies regarding the fate and stability of DBPs injected into the groundwater aquifer at the MPWMD Santa Margarita Test Injection Well (Pueblo Water Resources, 2013) indicate that THMs appear to increase during the first 60 days of storage, then decline slowly over the following 90 to 150 days to below initial injection levels. According to the studies, HAAs declined steadily during aquifer storage, reaching non-detectable levels within 90 days. Groundwater extracted for drinking water supply would be required to meet drinking water requirements. The DBP data collected during the 2012 water year show that THMs were below regulatory limits for drinking water. Refer to Section 4.4, Groundwater Resources, for further discussion of groundwater quality.

Operation of the ASR system would require a 250-KW emergency diesel gas-powered generator and 1,000-gallon double-walled aboveground diesel storage tank at the Terminal Reservoir/ASR Pump Station site. With compliance with applicable regulations, the potential impact resulting from an accidental release of hazardous materials used during operation the ASR-5 and ASR-6 Wells, ASR Pump Station, and Terminal Reservoir would be less than significant.

Valley Greens Pump Station

A portable 50 kW portable diesel-gas powered generator would be stored at the Valley Greens Pump Station to provide backup power in the event of a power outage. The generator would be operated in compliance with all hazardous materials regulations. Therefore, the potential impact related to release of hazardous materials during operation of the Valley Greens Pump Station would be less than significant.

All Other Proposed Facilities

Operation of all pipelines, Ryan Ranch-Bishop Interconnection Improvements, and the Main System-Hidden Hills Interconnection Improvements would not involve the routine storage or use of hazardous materials. No impact related to the inadvertent release of hazardous materials during operation of these project components would result.

Impact Conclusion

Through compliance with existing state and federal laws and regulations regarding hazardous materials storage and management, the potential for environmental impacts due to the accidental release of hazardous materials associated with project operations would be less than significant.

Mitigation Measures

None required.

Impact 4.7-7: Handle hazardous materials or emit hazardous emissions within 0.25 mile of a school during project operations. (*Less than Significant*)

The proposed project components that would be located within 0.25 mile of a school are shown in **Table 4.7-2**, above. Of these, only the Valley Greens Pump Station (site Option 2) would handle hazardous materials and emit hazardous emissions.

Valley Greens Pump Station (Site Option 2)

A diesel generator and 1,000-gallon fuel storage tank would be located at the Valley Greens Pump Station (site Option 2). The storage and intermittent use diesel fuel for routine testing and emergency use of the generator would not result in hazardous materials releases or emissions that would cause harmful exposures to individuals at nearby schools. The impact would be less than significant.

All Other Project Components

The other project components identified in **Table 4.7-2**, above, that are proposed within 0.25 mile of existing schools would not involve the routine handling of hazardous materials or generation of hazardous emissions. Therefore, no impact would result.

No impact would result from operation and maintenance of the project components that would not be located within 0.25 of an existing school.

Impact Conclusion

Operation of the Valley Greens Pump Station (Site Option 2) would result in a less-than-significant impact associated with the handling of hazardous materials within 0.25 mile of a school. Hazardous materials would not be routinely used during operation of all other project components located within 0.25-mile of a school. The overall impact is less than significant.

Mitigation Measures

None required.

Impact 4.7-8: Project facilities are located within an airport land use plan area, presenting a potential safety hazard for people residing or working in the project area. (*Less than Significant*)

MPWSP Desalination Plant, Desalinated Water Pipeline, Brine Discharge Pipeline, Salinas Valley Return Pipeline, Transmission Main, Transfer Pipeline, Monterey Pipeline, and Ryan Ranch-Bishop Interconnection Improvements

The MPWSP Desalination Plant, Desalinated Water Pipeline, Brine Discharge Pipeline, and Salinas Valley Return Pipeline are at the edge of the Marina Municipal Airport's planning area boundary; however, no proposed facilities would be within the airport traffic pattern zone or approach protection zone (Monterey County Airport Land Use Commission, 1996). Similarly, the Transmission Main, Transfer Pipeline, Monterey Pipeline, and Ryan Ranch-Bishop Interconnection Improvements are located within the Monterey Peninsula Airport planning area but none of the proposed facilities would be located within the runway safety area (Monterey County Airport Land Use Commission, 1987). Further, because these improvements would be underground, they would not create any obstruction of open space areas or potential safety hazard for people residing or working in the project area. The impact would be less than significant.

All Other Project Components

No other project components are located within an airport land use plan area. Therefore, these project components would cause no impact related to airport safety hazards.

Impact Conclusion

The potential safety hazard related to construction and operation of project facilities within airport land use plan areas would less than significant.

Mitigation Measures

None required.

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