

1 **5.7 HAZARDS AND HAZARDOUS MATERIALS**

2 **5.7.1 Regulatory Setting**

3 ***Types of Hazardous Materials***

4 A material is considered hazardous if it appears on a list of hazardous materials prepared by a
5 federal, state, or local agency, or if it has characteristics defined as hazardous by such an
6 agency. Chemical and physical properties cause a substance to be considered hazardous,
7 including the properties of toxicity, ignitability, corrosivity, and reactivity. These properties are
8 defined in the California Code of Regulations (CCR), Title 22, Sections 66261.20-66261.24.
9 Within typical construction sites, materials that could be considered hazardous include fuels,
10 motor oil, grease, various lubricants, solvents, soldering equipment, and glues. Also, excavation
11 may expose buried hazardous materials resulting from prior use of the proposed site or adjacent
12 property.

13 A “hazardous waste” is any hazardous material that is discarded, abandoned, or to be recycled.
14 The criteria that render a material hazardous also make a waste hazardous (California Health
15 and Safety Code, Section 25117).

16 ***Hazardous Materials Management***

17 Federal and state laws require detailed planning to ensure that hazardous materials are properly
18 handled, used, stored, and disposed of, and in the event that such materials are accidentally
19 released, to prevent or to mitigate injury to health or the environment. The Federal Emergency
20 Planning and Community Right-to-Know Act of 1986 imposes hazardous materials planning
21 requirements to help protect local communities in the event of accidental release.

22 The California Hazardous Materials Release Response Plans and Inventory Law of 1985
23 (Business Plan Act) requires preparation of Hazardous Materials Business Plans and disclosure
24 of hazardous materials inventories. A business plan includes information such as an inventory
25 of hazardous materials handled, facility floor plans showing where hazardous materials are
26 stored, an emergency response plan, and provisions for employee training in safety and
27 emergency response procedures (California Health and Safety Code, Division 20, Chapter 6.95,
28 Article 1). Statewide, the California Environmental Protection Agency (Cal-EPA), Department
29 of Toxic Substances Control (DTSC) has primary regulatory responsibility for management of
30 hazardous materials, with delegation of authority to local jurisdictions that enter into
31 agreements with the state. The laws and regulations are administered locally by Alameda
32 County Environmental Health Department, Hazardous Materials Division.

33 Under certain circumstances, a business must prepare a Risk Management Plan (RMP) to
34 minimize off-site risks associated with the storage and use of acutely hazardous materials. The
35 new RMP program, which was developed under Senate Bill 1889 to comply with Section 112(r)
36 of the federal Clean Air Act, replaced the California Risk Management and Prevention Program
37 (RMPP). The regulations that define the RMP process are given in the California Health and

1 Safety Code, Sections 25531-25543.3. An RMP provides additional planning information that
2 covers equipment and systems safety, operating procedures, preventive maintenance, upset risk
3 assessments, and safety auditing. The State Office of Emergency Services has primary
4 responsibility for regulating acutely hazardous materials. Local governments have the lead role
5 for working directly with businesses in implementing this program.

6 Storage of hazardous materials in underground tanks is regulated by the State Water Resources
7 Control Board, which has overall responsibility for implementing all regulations set forth in
8 Title 23 of the CCR. State standards cover installation and monitoring of new tanks, monitoring
9 of existing tanks, and corrective actions for removed tanks. State underground storage tank
10 regulations, including permitting for all hazardous materials storage, are enforced by local fire
11 departments.

12 ***Hazardous Materials Transport***

13 The U.S. Department of Transportation regulates hazardous materials transportation between
14 states. State agencies with primary responsibility for enforcing federal and state regulations and
15 responding to hazardous materials transportation emergencies are the California Highway
16 Patrol and the California Department of Transportation. Together, these agencies determine
17 container types used and license hazardous waste haulers for hazardous waste transportation
18 on public roads.

19 ***Hazardous Waste Management***

20 The California DTSC regulates the generation, transportation, treatment, storage, and disposal
21 of hazardous waste under the federal Resource Conservation and Recovery Act (RCRA) and the
22 state Hazardous Waste Control Law. Both laws impose “cradle to grave” regulatory systems for
23 handling hazardous waste in a manner that protects human health and the environment.

24 ***Laws Regulating Hazardous Materials and Wastes***

25 The U.S. Environmental Protection Agency (EPA) regulates the management of hazardous
26 materials and wastes. The primary federal hazardous materials and waste laws are contained
27 in RCRA, the Comprehensive Environmental Response, Compensation and Liability Act
28 (CERCLA), and the Toxic Substances Control Act (TSCA). These laws apply to hazardous
29 waste management, soil and groundwater contamination, and the controlled use of particular
30 chemicals. In California, EPA has delegated most of its regulatory responsibilities to the state.
31 TSCA allows EPA to ban (or phase out) the use of chemicals that may present unreasonable
32 risks to public health or the environment.

33 The state agencies most involved in enforcing public health and safety laws and regulations
34 include the Cal-EPA DTSC, the California Occupational Safety and Health Administration (Cal-
35 OSHA), the San Francisco Bay Regional Water Quality Control Board, the Bay Area Air Quality
36 Management District, and the California Integrated Waste Management Board.

1 DTSC enforces hazardous materials and waste regulations in California under the authority of
2 EPA. California's Hazardous Waste Control Law incorporates the federal hazardous materials
3 and waste standards of RCRA, but California's regulations are stricter in many respects.

4 In California, Cal-OSHA assumes primary responsibility for enforcing worker safety regulations
5 such as the federal Hazard Communication Program regulations. Cal-OSHA regulations are
6 found in the CCR Title 8. Although Cal-OSHA regulations have incorporated federal OSHA
7 standards, Cal-OSHA regulations are generally more stringent than those of the federal
8 government.

9 **5.7.2 Environmental Setting**

10 The majority of the proposed San Francisco Bay Area Network is routed through railroad rights-
11 of-way, which are commonly located in industrial areas where the potential for ground
12 contamination is relatively high compared to other land uses. However, the majority of the
13 proposed Los Angeles Basin Network is routed through public roadways which could be
14 expected to have less potential for ground contamination than railroad right-of-ways. Given the
15 length of the proposed new conduit segments, there are likely thousands of hazardous waste
16 generators, leaking tank sites, and toxic spills within 1,000 feet of the project segments.

17 In order to assess potential impacts of the project, Phase I Environmental Site Assessments were
18 conducted for each of the six proposed new POP sites that are to be constructed as stand-alone
19 structures. Copies of the Phase I reports are available in the Proponent's Environmental
20 Assessment (ESA 2000a), which is on file at the CPUC. Each of these Phase I Reports includes
21 an updated database search of the seven state and federal lists that document known locations
22 of hazard material releases. These lists include the following:

- 23 • "Calsites" — California Dept. of Health Services/Cal EPA
- 24 • Cortese List — Office of Planning and Research
- 25 • Leaking Underground Storage Tanks (LUST) — Regional Water Quality Control Board
- 26 • CERCLIS — US EPA Superfund sites
- 27 • National Priority List (NPL) — U.S. EPA Priority Superfund sites
- 28 • Annual Work Plan (AWP) — California EPA
- 29 • Spills, Leaks, Investigations, and Clean-ups (SLIC) — California Regional Water Quality
30 Control Board

31 The Cortese and LUST lists primarily document release incidents from underground storage
32 tanks and were searched within a ½-mile radius of the proposed new POP Sites. The other lists
33 identify more extensive contamination incidents in which the state or the EPA is the lead
34 agency. The Phase I Site Assessments also included a site inspection by a California Registered
35 Environmental Assessor and a survey of historic land uses in the area.

1 **5.7.2.1 San Francisco Bay Area Network**

2 *Phase I Site Assessments of POP Sites*

3 All seven of the POP sites to be constructed as stand-alone structures are located on the San
4 Francisco Bay Area Network. The following text summarizes the conclusions of each of the
5 Phase I Environmental Site Assessments for the new POP Sites.

6 HAYWARD POP SITE PHASE I SITE ASSESSMENT

7 There are 15 hazardous material release incidents known to have occurred within a ½-mile
8 radius of the Hayward POP Site. This POP site is not listed as a location of leaking underground
9 storage tanks or a generator of hazardous waste. The listed hazardous material release incidents
10 within close proximity to the Hayward POP site were reviewed, one of which could pose an
11 environmental threat to the POP site in terms of migrating groundwater contamination. The
12 Thrifty Oil site at 2522 Mission Boulevard is within 800 feet of the POP site with documented
13 groundwater contamination migrating toward the POP site. Depth to groundwater has been
14 documented to be between 28 and 40 feet below grade. Consequently, while the potential exists
15 for contaminated groundwater to have migrated beneath the Hayward POP site, the
16 documented depth to groundwater in the area is such that proposed excavations would not be
17 expected to encounter groundwater contamination. Recognized environmental conditions
18 identified in the assessment for the Hayward POP site consisted of the potential presence of
19 groundwater contamination from an adjacent fuel leak to the southeast.

20 FREMONT POP SITE PHASE I SITE ASSESSMENT

21 There are 13 hazardous material release incidents known to have occurred within a ½-mile
22 radius of the Fremont POP site. The POP site is not listed as a location of leaking underground
23 storage tanks or a generator of hazardous waste. The listed hazardous material release
24 incidents within close proximity to the subject site were reviewed, one of which could pose an
25 environmental threat to the Fremont POP site in terms of migrating groundwater
26 contamination. The former Fremont Lumber site at 3560 Washington Boulevard is an adjacent
27 property with documented groundwater contamination. Depth to groundwater has been
28 documented to be between 50 and 60 feet below grade. Consequently, while the potential exists
29 for contaminated groundwater to have migrated beneath the subject site, the documented depth
30 to groundwater in the area is such that proposed excavations would not be expected to
31 encounter groundwater contamination. Recognized environmental conditions identified in the
32 Assessment for the Fremont POP site consisted of the potential presence of creosote in surface
33 soils from application to railroad ties and potential groundwater contamination from an
34 adjacent fuel leak to the west.

35 SANTA CLARA POP SITE PHASE I SITE ASSESSMENT

36 There are over 60 hazardous material release incidents known to have occurred within a ½-mile
37 radius of the Santa Clara POP site. The POP site is not listed as a location of leaking

1 underground storage tanks or a generator of hazardous waste. The listed hazardous material
2 release incidents within close proximity to the subject site were reviewed; none of which pose a
3 significant environmental threat to the site in terms of migrating groundwater contamination.
4 Depth to groundwater has been documented to be between 18 and 20 feet below grade.
5 Consequently, it is unlikely that proposed shallow excavations would encounter groundwater.
6 The assessment revealed no evidence of recognized environmental conditions in connection with
7 the Santa Clara POP site, except for the potential presence of creosote from railroad ties.

8 MOUNTAIN VIEW POP SITE PHASE I SITE ASSESSMENT

9 There are over 30 hazardous material release incidents known to have occurred within a ½-mile
10 radius of the Mountain View POP site. The POP site is not listed as a location of leaking
11 underground storage tanks or a generator of hazardous waste. The listed hazardous material
12 release incidents within close proximity to the subject site were reviewed, none of which pose a
13 significant environmental threat to the subject site in terms of migrating groundwater
14 contamination. Depth to groundwater has been documented to be between 18 and 25 feet
15 below grade. Consequently, it is unlikely that proposed shallow excavations would encounter
16 groundwater. The assessment revealed no evidence of recognized environmental conditions in
17 connection with the Mountain View POP site, except for the potential presence of creosote in
18 surface soils from application to railroad ties.

19 PALO ALTO POP SITE PHASE I SITE ASSESSMENT

20 There are over 37 hazardous material release incidents known to have occurred within a ½-mile
21 radius of the Palo Alto POP site. The POP site is not listed as a location of leaking underground
22 storage tanks or a generator of hazardous waste. The listed hazardous material release
23 incidents within close proximity to the subject site were reviewed, several of which could pose
24 an environmental threat to the Palo Alto POP Site in terms of migrating groundwater
25 contamination. The Hewlett Packard site at 620 Page Mill Road is an upgradient Superfund site
26 known to be the source of an extensive solvent contamination plume. Depth to groundwater
27 has been documented to be between 15 and 30 feet below grade. Consequently, it is unlikely
28 that the proposed shallow excavations would encounter groundwater that has a high potential
29 to be contaminated. Recognized environmental conditions identified in the assessment in
30 connection with the Palo Alto POP site consisted of the potential presence of creosote in surface
31 soils from application to railroad ties and potential groundwater contamination from adjacent
32 solvent fuel leaks to the southeast.

33 REDWOOD CITY POP SITE PHASE I SITE ASSESSMENT

34 There are over 40 hazardous material release incidents known to have occurred within a ½-mile
35 radius of the Redwood City POP site. The Redwood City POP site is not listed as a location of
36 leaking underground storage tanks or a generator of hazardous waste. The listed hazardous
37 material release incidents within close proximity to the subject site were reviewed, none of
38 which pose a significant environmental threat to the subject site in terms of migrating
39 groundwater contamination. Depth to groundwater has been documented to be between 7 and

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1 10 feet below grade. Consequently, it is unlikely that proposed shallow excavations would
2 encounter groundwater. The assessment revealed no evidence of recognized environmental
3 conditions in connection with the Redwood City POP site, except for the potential presence of
4 creosote in surface soils from application to railroad ties.

5 SAN MATEO POP SITE PHASE I SITE ASSESSMENT

6 There are over 70 hazardous material release incidents known to have occurred within a ½-mile
7 radius of the San Mateo POP site. The POP site is not listed as a location of leaking
8 underground storage tanks or a generator of hazardous waste. The listed hazardous material
9 release incidents within close proximity to the subject site were reviewed, three of which could
10 pose an environmental threat to the San Mateo POP site in terms of migrating groundwater
11 contamination. The San Mateo Corporation yard at 1949 Pacific Boulevard is an adjacent
12 property with documented groundwater contamination. Depth to groundwater has been
13 documented to be between 3 and 4 feet below grade. Consequently, the potential exists for
14 relatively shallow excavations to encounter groundwater and for that groundwater to be
15 contaminated. Recognized environmental conditions identified in the Assessment for the San
16 Mateo POP site consisted of the potential presence of creosote in surface soils from application to
17 railroad ties and potential groundwater contamination from adjacent fuel leaks to the east.

18 *Local Oversight Programs*

19 The Local County Department of Environmental Health is commonly the primary agency
20 responsible for the management of hazardous materials and wastes in a given area. The
21 department is responsible for hazardous waste generator and hauler inspections, underground
22 storage tank regulation, emergency response, hazardous site cleanup, and waste recycling and
23 recovery. Additional information can be found in a County's *Hazardous Waste Management Plan*.

24 Within the City of Hayward and the City of San Leandro, the local fire departments are
25 responsible for implementation of the Local Oversight Program (LOP). The LOP implements
26 and tracks various hazardous materials programs, including remediation of identified releases of
27 hazardous materials. Information regarding sites identified along the proposed pipeline routes
28 was reviewed at the relevant LOP. Other LOPs include the Alameda County Water District in
29 the cities of Fremont, Newark, and Union City and the Santa Clara Valley Water District in
30 most of Santa Clara County.

31 **5.7.2.2 Los Angeles Basin Network**

32 Installation of fiber optic conduit for the Los Angeles Basin Network would primarily be located
33 within public roadway rights-of-way, with a short section that would be located within the
34 Union Pacific railroad right-of-way.

1 *Methane and Hydrogen Sulfide Gas Seepage*

2 Naturally occurring methane gas and hydrogen sulfide gas (H₂S) have been known to migrate
3 into shallow geology deposits in certain areas of the Southern California region. In 1985, an
4 explosion occurred in the basement of a commercial retail outlet store (Ross Dress for Less) in
5 Los Angeles caused by methane accumulation through subsurface seepage. Methane gas and
6 H₂S can follow fissures or improperly abandoned oil wells to the surface or near-surface strata
7 from deeper oil producing formations. Areas above known petroleum resources are of
8 particular concern including central Los Angeles (Fairfax District), Huntington Beach, and Brea.
9 Methane may be trapped under impervious surfaces where concentrations can cause explosion
10 or hazardous breathing conditions. H₂S can be toxic to humans at elevated concentrations.
11 Excavations may experience pockets of accumulated methane or H₂S gas at shallow depths.

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16 storage tank regulation, emergency response, hazardous site cleanup, and waste recycling and
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