3.6 HAZARDS AND HAZARDOUS MATERIALS

3.6.1 INTRODUCTION

This section analyzes the proposed project's impacts with respect to hazards and hazardous materials—impacts resulting both from the presence of hazardous materials on the proposed project site and from the proposed project's potential to release hazardous materials into the environment during and after construction.

Development of the Added Area might create significant hazards to the public and the environment, particularly from hazardous materials handling, inadvertent release, and, notably, creating residential and commercial uses on two former heavy-industrial sites. Several hazards assessments have been conducted on both sites that would be added under the Updated 2009 Redevelopment Plan. Phase I and Phase II assessments were performed for the Sycamore Crossing site in 1997, 2004, and January and August 2007, by Treadwell & Rollo (T&R), and for the Hill Town property in 1994, 1995, 2000, 2003, and 2004 by several consultants. The August 2007 Treadwell & Rollo Phase I and II, a 2000 Geomatrix report, and the 2003–2004 Terrasearch reports are included as **Appendix 3.6**.

The sites were visually inspected and soil samples were tested for various contaminants (detailed below); records searches were performed to investigate the historic uses of both sites and prior remediation (cleanup) efforts. Records and references included both primary and secondary sources of information:

- Aerial Photographs for the years 1939, 1958, 1965, 1970, 1982, 1993, and 1998 for the Sycamore Crossing site.
- Aerial Photographs for the years 1949, 1953, 1957, 1963, 1968, 1974, and 1978 for the Hill Town site.
- California Environmental Protection Agency News Release, DTSC Certifies Gelsar Site, January 2004 (adjacent to Sycamore Crossing).
- Dibblee, Thomas W., Preliminary Geologic Map of the Mare Island Quadrangle, USGS Open File Report, 81-234, 1981.
- Department of Toxic Substances Control, Remedial Action Certification, Gelsar Site (aka Sycamore Crossing), Hercules, California, December 2003.
- Environmental Data Resources Inc. (EDR), 2007. The EDR Radius Map with GeoCheck, Parcels 404-020-057-0 and 404-020-058-8, San Pablo Avenue and Sycamore Avenue, Hercules, California, June 7, 2007 (Sycamore Crossing site).
- Geomatrix Consultants, Inc., *Limited Phase II Environmental Site Assessment, Hercules Pumping Station, 4200 San Pablo Avenue, Hercules, California*, May 3, 2000.

- Graymer, R. W., et al, *Preliminary Geologic Map Emphasizing Bedrock Formations in Contra Costa County*, USGS Open File Report 94-622, 1994.

- Historical Topographic Maps for the years 1902, 1914, 1947, 1949, 1959, 1968, 1980 for the Sycamore Crossing site.

- Sims, J. D., et al, Preliminary Geologic Map of Solano County and Parts of Napa, Contra Costa, Marin and Yolo Counties, U.S. Geological Survey Map MF-484, 1973.

- Terrasearch, Inc., *Peer Review of Environmental Reports, PG&E Hercules Pumping Station, Hercules, California*, prepared for Santa Clara Valley Housing Group (SCVHG), Santa Clara, California (Terrasearch I), April 14, 2003. This report assessed the reliability and thoroughness of prior reports prepared for the Hill Town property.

- Uribe & Associates, *Phase I Environmental Site Assessment, PG&E Richmond to Pittsburg Pipeline, and Hercules Pumping Station, Hercules, California*, April 4, 1994. This report was prepared for Pacific Gas and Electric Co. to assess its 35-mile-long pipeline and the Hercules Pumping Station facility. Pages 4-1 – 4-8, Table 4-2 and Appendix A of the Uribe report detail the records search performed in a radius of one-half to one mile of the Pumping Station property. Among the records were US and California databases (US EPA National Priorities List [Superfund] [NPL], Comprehensive Environmental Response, Compensation and Liability Information System [CERCLIS], Resource Conservation and Recovery Information System [RCRIS], Emergency Response Notification System [ERNS], State of California State Priority List [SPL], Leaking Underground Storage Tanks list [LUST], Underground Storage Tanks list UST], Aboveground Storage Tank Database [AST], Solid Waste Landfills, Incinerators and Transfer Stations [SWLF]), and the Sanborn Fire Insurance Maps. Additionally, U&A reviewed PG&E Oil Spill and other internal site management plans, and interviewed PG&E personnel, the State Fire Marshall, the Regional Water Quality Control Board, Contra Costa County Environmental Health Department, and the Rodeo Historical Society.

- Wagner, D. C., et al., Geologic Map of San Francisco and San Jose Quadrangle, CDMG Map No. 54, 1982.

These reports can be reviewed at the City's Planning Department at 111 Civic Drive, Hercules, California. The department can be contacted at (510) 799-8200.

The Sycamore Crossing site was not listed in any regulatory agency databases searched by EDR and no records were available at the Contra Costa County Environmental Health Department (CCCDEH), Regional Water Quality Control Board (RWQCB), and Rodeo Hercules Fire Department (RHFD) regarding fuel or hazardous material uses or releases at the site. The Hill Town site and environs were listed in six federal and nine state listings in 1994.[1]

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1 California Environmental Protection Agency, Department of Toxic Substances Control (DTSC), Envirostor project search results, search term "Hercules," available at http://www.envirostor.dtsc.ca.gov/public/search.asp?cmd=search&city=Hercules&zip=&county=Contra%20Costa&federal_superfund=True&state_response=True&voluntary_cleanup=True&school_cleanup=True&permitted=True&corrective_action=True&display_results=Report&pub=True.

3.6.2 ENVIRONMENTAL SETTING

The Updated 2009 Redevelopment Plan, including the Hill Town and Sycamore Crossing sites (Added Area), lies on coastal flatlands and low hills near the eastern shore of San Pablo Bay, approximately 20 miles northeast of San Francisco, California. The elevations in this area range between 10 and 240 feet above sea level. The climate of this low-lying coastal region is characterized by mild summers with frequent fog and wind and moderately wet winters (Jepson 1993) with rainfall totals between 20 and 25 inches.

The surrounding hills and Refugio Valley are within a broad belt of northwest-trending mountain ranges and valleys that comprise the California Coast Ranges. The alignment of valleys and mountains has developed in response to deformation along faults associated with the San Andreas system of active faults, including the Hayward fault. The oldest widespread rocks in the region are highly deformed sedimentary and volcanic rocks of the Tertiary-age Franciscan Assemblage. These rocks are in fault contact with the similar age and younger sedimentary rocks of the Mesozoic-age Great Valley Sequence. The Mesozoic rocks are, in turn, overlain by a diverse sequence of Cenozoic-age sedimentary and volcanic rocks. Since their deposition, the Mesozoic- and Tertiary-age rocks have been extensively deformed by repeated episodes of folding and faulting.

Many valleys within the region, such as Refugio Valley, have been partially filled with unconsolidated sedimentary deposits of Quaternary age. These deposits underlie the gently sloping valley bottoms and include marine and non-marine clay, silt, sand, and gravel. Regional geologic mapping by Dibblee (1981) indicates the hills in the project area are comprised of marine sedimentary rock of Miocene age. Graymer et al. (1994), Wagner and Bortugno (1982), and Sims et al. (1973) identified these Miocene-age marine sedimentary rocks as the Rodeo shale and Hambre sandstone, members of the Monterey Group. Several periods of tectonic deformation have occurred in the Coast Ranges Province during Mesozoic and Cenozoic time that produced numerous faults, most of which are no longer active. Presently, active faulting occurs most frequently along northwest-trending, strike-slip faults associated with the San Andreas fault system (Treadwell & Rollo, Inc., 1996).

Land uses in the vicinity include residential and commercial development, a large refinery to the north, and other industrial facilities. The nearest school (Ohlone Elementary, 1616 Pheasant Drive, Hercules) is 0.8 mile southeast of the Hill Town site, east of Interstate 80. There are no airports in the vicinity or airport land use plans with jurisdiction over the proposed Updated 2009 Redevelopment Plan Area.

3.6.2.1 Existing Conditions – Sycamore Crossing

The 14-acre Sycamore Crossing property is characterized by gently sloping, open, disturbed terrain with scattered native and non-native trees and shrubs. The West Branch of Refugio Creek bisects the property, flowing southwest to northeast. Depth to groundwater was observed in 1996 tests to be approximately five to 16.5 feet below ground surface (bgs).[3] Remnant foundations of the industrial structures and an asphalt path remain on the property near the site's southern boundary along its San Pablo Avenue frontage. A soil stockpile, approximately 20 feet in depth and graded level, covers much of the western portion of the site, west of the Refugio Creek.[2]

Existing suburban-density development surrounds the site. A single-family residential subdivision occupies the property on the west side, and a recently constructed residential development of two-story, single-family homes lies on the north side of Sycamore Avenue. A BART transit center lot is located east of the site. Commercial buildings, including a Shell gas station and residences beyond are located to the south and southeast of the site, across San Pablo Avenue.

The site was used between 1881 and 1977 as part of a 1,300-acre industrial facility for explosives and fertilizer manufacture. California Powder Works began manufacturing explosives here in 1881, and was reportedly producing nine million pounds of dynamite per year by 1895. The property was purchased by E.I. DuPont de Nemours Powder Company in 1906 and then subsequently acquired by the Hercules Powder Company in 1912 or 1913. Hercules Powder Company primarily manufactured black powder (gunpowder) and dynamite until World War I, when military demand motivated the company to focus on trinitrotoluene (TNT), increasing production from 500,000 pounds per month to approximately seven million pounds per month by 1915. In 1940, Hercules Powder Company reduced explosives manufacturing and began manufacturing nitrogen fertilizer. By 1964, all explosives manufacturing at the Hercules Powder Company had ceased and the buildings and structures were demolished, leaving only concrete foundation walls. The company changed names to Hercules Incorporated and produced methanol, formaldehyde, and urea formaldehyde until 1976. Valley Nitrogen Producers purchased the property in 1976 but subsequently declared bankruptcy in 1979. Hercules Property Ltd. purchased 358 acres from Valley Nitrogen Producers at that time; the subject site is a portion of that acreage.[4] The site has remained vacant since then, except for use as Little League baseball fields during the 1990s.

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3 Ibid. 4.

2 Treadwell & Rollo, *Phase I and Phase II Environmental Site Assessment, Parcels 404-020-057-0 and 404-020-058-8, San Pablo Avenue and Sycamore Avenue, Hercules, California*, August 6, 2007, 10-11.

4 Treadwell & Rollo, *Phase II Soil Investigation, Lucky Store #110-101, Hercules, California*, April 22, 1998, 2.

From 1983 to at least 2004, remediation of the Hercules Powder Company's property (which includes the Sycamore Crossing site) took place, and much of the area was certified as safe for residential development.[5]

Hazardous Materials Assessment – Sycamore Crossing

Off-site Listings

There are two petroleum pipelines within a mile of the project site, owned by ConocoPhillips and Shell. There is also a PraxAir hydrogen pipeline located in the BNSF railroad right-of-way west of the site. Most of the off-site environmental records database listings for the surrounding area do not include hazardous material violations, were closed by the enforcement agency, were hydrologically cross- to down-gradient from the site, or were evaluated to be a significant distance from the site. For example, a dry cleaner is located within 0.25 mile of the site. However, no hazardous material violations are reported for this location. The facilities associated with off-site listings are thus not expected to pose a significant environmental risk to the site and are not discussed. The most pertinent listings are described below in order of nearest proximity to the site.

Gelsar, Inc.

The former Gelsar, Inc., parcel consisted of approximately 104 acres adjacent to the Sycamore Crossing site to the north. The majority of this parcel lies in the broad floodplain with Refugio Creek flowing though the middle. The parcel was once used for the storage of industrial products associated with the former Hercules Powder Company, and as such, according to DTSC documentation, the contaminants of concern at the parcel were cadmium, copper, lead, zinc, dinitrobenzene (DNB), dinitrotoluene (DNT), and trinitrotoluene (TNT). The property was initially remediated in 1985 to industrial standards by excavation and removal of contaminated soil. In 1995, the property owner, Gelsar Investments, entered into a Voluntary Cleanup Agreement (VCA) with DTSC. In 1999, the new property owner, LCRI Investments, entered into a VCA with DTSC. Based on remediation actions taken in 2004, the DTSC indicated that the parcel was being certified for hazardous substance cleanup, and was subsequently granted unrestricted land use and developed.

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5 California Department of Toxic Substances Control, "Brownfield Revitalization: Hercules Powder Works," October 2005, http://www.dtsc.ca.gov/Success/index.cfm; California Environmental Protection Agency, News Release, "DTSC Certifies Gelsar Site," January 14, 2004, http://www.dtsc.ca.gov/PressRoom/index_2004.cfm.

D&S Property/Olympian Hills Condominiums

The D&S Property/Olympian Hills Condominiums property is located to the west of the site and was purchased from Hercules Properties, Inc., in 1980. It was originally part of the Hercules Powder Company. In studies of this parcel by WESCO, samples from two ponds on the property showed concentrations of DNB and DNT at 5,800 parts per million (ppm) and 12,400 ppm, respectively. These two ponds were part of the wastewater treatment system for the Hercules Powder Company plant. According to the DTSC, this property was successfully remediated as part of the Hercules Property, Inc., DTSC-approved remediation and has been developed into the Olympian Hill condominiums.

North Shore Business Park

The North Shore Business Park is located to the north of the Gelsar, Inc., property, approximately 1,000–2,000 feet north of the Site. The parcel was purchased from Hercules Property Ltd. by Bio-Rad Laboratories in 1983, and has since been developed into the North Shore Business Park. The property was found to be contaminated with heavy metals and explosives residue and was remediated prior to development with DTSC approval.

Sensitive Receptors

No sensitive receptors are located within a 0.25 mile radius of the Added Area. Within a one-mile radius of the Added Area, there are 100- and 500-year flood zones and federal wetlands. There are no National Priority List sites, active landfill sites, or Indian Reservations within a 1-mile radius of the Added Area.

On-Site Assessments 1997–2007

Numerous site assessments were conducted on the Sycamore Crossing site; these assessments are listed in **Subsection 3.6.1**. This section summarizes the assessments. More detail about the individual assessments can be found in the assessment reports, which are available for review at the City's Planning Department.

Treadwell and Rollo (T&R) performed successive site investigations on Sycamore Crossing since 1997, beginning with a Phase II Site Investigation[6] in January 1997, when the site was still occupied by the three Little League baseball fields. T&R collected 20 shallow soil samples and analyzed them in the field for nitroaromatics and for two nitroamines, TNT, and DNT, sending four samples to a laboratory for confirmation. Low concentrations of TNT and various DNT concentrations were detected in the confirmation samples including 2,4-DNT ranging from 0.27 to 4.3 milligrams per kilogram (mg/Kg); 4-a-2,6-DNT ranging from 0.39 to 1.1 mg/Kg; and 2-a-4,6-DNT ranging from non-detect (ND) to 0.76 mg/kg. These numbers did not exceed the numbers used and approved by the DTSC in the 2000 Removal Action Workplan (RAW) for residential soils.[7]

Several years later, in 2004, T&R performed a subsequent Phase I and II investigation, to investigate soil contamination at depth, particularly to assess the presence of TNT and DNT in the subsurface soil. T&R drilled eight borings to approximately 10 feet bgs, obtained 32 samples representing a range of depths, and analyzed 16 of these samples. No TNT or DNT was detected.[8]

In 2006, T&R investigated the stockpiled soil on the western portion (Parcel 404-020-057-0) of the site, drilling 10 borings to approximately 20 feet bgs. The resulting soil samples were tested for volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs), total petroleum hydrocarbons as gasoline (TPHg), diesel (TPHd), and motor oil (TPHo), polychlorinated biphenyls (PCBs), LUFT 5 metals, CAM 17 metals,[9] organochlorine pesticides, and asbestos.

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6 A Phase I assessment looks for readily observable environmental conditions on a property, such as storage tanks, chemical drums, evidence of material spills, etc.; additionally, the assessor reviews historic property records and conducts interviews to ascertain the past uses of the site and the likelihood of hazardous materials to be present. A Phase II assessment constitutes laboratory testing of soil or water samples for an array of known chemical toxins, with the goal of determining the degree of hazardous material present and necessary remediation. Industry-wide performance standards for such assessments are set by ASTM International (formerly the American Society for Testing and Materials). See generally http://www.astm.org/cgi-bin/SoftCart.exe/DATABASE.CART/ REDLINE_PAGES/E1527.htm?L+ mystore+owdj4560 (ASTM E1527-05 for Phase I assessments, currently being updated) and http://www.astm.org/cgi-bin/SoftCart.exe /STORE/filtrexx40.cgi?U+mystore+owdj4560+L +PHASE:I:ESA+/usr6/htdocs/astm.org/DATABASE.CART/REDLINE_PAGES/E1903.htm (ASTM E1903-97(2002) for Phase II assessments, last updated 2002) (last accessed April 17, 2008).

7 Treadwell & Rollo, 11.

8 Ibid., 12.

9 CAM-17 metals are listed in the California Code of Regulations Title 22 Section 66261.24, Table II. "CAM" was the *1981 California Assessment Manual*, which is no longer used. However, industry and environmental assessors still use the term "CAM-17" for a list of toxic metals and materials including antimony, arsenic, asbestos, barium, beryllium, cadmium, chromium, cobalt, copper, lead, mercury, molybdenum, nickel, selenium, silver, thallium, vanadium and zinc. E-mail from Gloria Conti, Regulatory Assistance Officer, DTSC Cypress Office, to Christine Kudija, Consulting Senior Planner, Willdan, CAM-17 References (April 14, 2008).

The analytical results were compared to the San Francisco Bay RWQCB Environmental Screening Levels (ESLs) for unrestrictive use (residential standard). SVOCs, TPHg, PCBs, organochlorine pesticides, and asbestos were not detected. Acetone, TPHd, and TPHo were detected, but at concentrations below the applicable ESLs. Methylene chloride was detected above the applicable ESL; however, both methylene chloride and acetone are commonly used in the analytical laboratory and T&R concluded that low concentrations of methylene chloride and acetone were not present in the stockpiled soil but instead arose from laboratory contamination.

Detected concentrations of metals were below the applicable ESLs, except for arsenic and cadmium. However, the concentrations of arsenic and cadmium detected were within background levels for the site and were likely naturally-occurring. No detected concentrations exceeded the hazardous waste criteria in the *California Code of Regulations*, Title 22, Section 66261.24. Although analyses were not performed for soluble concentrations of chemicals, no concentrations exceeded the "ten times" benchmark for soluble chemical hazardous waste criteria.[10]

In 2007, T&R performed a Phase II Environmental Site Assessment on the eastern portion of the site (Parcel 404-020-058-8) to assess the presence of regulated chemical compounds in soil. T&R excavated four exploratory test pits, selecting their locations based on the presence of concrete rubble that may have been associated with former Hercules Powder Company munitions bunkers.[11] Test pits TP-1 and TP-2 were excavated to approximately 5 feet below ground surface (bgs); two other test pits could not be excavated to that depth because workers encountered bedrock between 2 and 3 feet bgs. The excavated soil was typically sand with silt and gravel, with sandy clay at the Refugio Creek tributary. Seven soil samples were tested for TPHd, TPHo, HVOCs, PCBs, nitroaromatics (TNT, DNT, DNB), perchlorate, Leaking Underground Fuel Tank (LUFT 5) metals, and total copper.

No HVOCs, nitroaromatics, perchlorate, PCBs, or TPHd were detected at or above the laboratory reporting limits in any of the soil samples analyzed. TPHo was detected at a low concentration of 10.1 mg/Kg in one sample. The total metal concentrations were within normal background ranges for the San Francisco Bay Area and below the DTSC residential soil remediation criteria.

Throughout its investigations, T&R found no evidence of hazardous materials release (i.e., spilled or dumped material) on the Sycamore Crossing site. T&R generally concluded that significant contamination did not exist on the site, and that what contamination did exist was either below the DTSC residential soil remediation criteria, below ESLs for residential development, or within naturally

10 T&R, at footnote 2 above, 12. See Appendix E for a table of analytical results.

11 Ibid., Fig. 2.

occurring background concentrations; therefore, contamination would not pose a significant risk to future residential occupants.

3.6.2.2 Existing Conditions – Hill Town Site

The 44-acre Hill Town site is dominated by a large hill, 240 feet in elevation above mean sea level (msl), in the northern portion of the property, which slopes downward to the south and southwest and terminates at the 30-foot elevation at the southerly property boundary along San Pablo Avenue. Vegetation on the undeveloped portions of the site consists primarily of nonnative grassland with scattered trees, with a small patch of wetland vegetation in a swale near the site's southern perimeter. Depth to groundwater was measured in 2004 to range from 13 to 18 feet bgs.

The property has been used for industrial purposes since at least 1949, and the facilities of the former Hercules Pumping Station remain on site. The station was constructed in the mid-1970s by the Pacific Gas & Electric Company (PG&E) to temporarily store and to facilitate transport of low-sulfur fuel oil from the Richmond Chevron Oil Refinery 35 miles via the Richmond-Antioch pipeline to PG&E's former Pittsburg and Contra Costa power plants. Prior to PG&E's ownership, the Hurmah Oil Company occupied the site; aerial maps show no site development before 1949.[12] Oil was transported through the pipeline until 1982.[13]

The station included a control building and septic tank, a fire water pump building, an equipment pad with pumps and fuel heating units, a facility drainage collection and treatment system, and eight aboveground storage tanks (ASTs): one 97,000-barrel (bbl) or 5,300,000-gallons cutter stock tank, three 250,000-bbl or 13,750,000-gallon heated[14] and insulated fuel oil tanks, a 1 million-gallon fire water tank, one 36,806-gallon diesel tank within a secondary containment structure, and two 550-gallon diesel tanks for fire water pumps. Additionally, an underground 2,000-gallon emergency containment tank and two transformers near the control building may still exist on the property.[15] The containment tank was installed for intermittent pressure-relief discharge from the pipeline system.[16] **Figure 3.6-1, Historic**

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12 Terrasearch, Inc., *Peer Review of Environmental Reports, PG&E Hercules Pumping Station, Hercules, California,* prepared for SCVHG, Santa Clara, California (Terrasearch I), April 14, 2003, 2.

13 Uribe & Associates, *Final Report, Phase I Environmental Site Assessment, PG&E Hercules Pumping Station, Hercules, California*, April 4, 1994, 3-6. This study evaluated both the site and the pipeline corridor from the Chevron refinery in Richmond, California, to the pipeline terminus at the PG&E power plant at Pittsburg, California.

14 Ibid., 3-2–3-3. Heaters in the pump station maintained oil temperatures between 150°F and 200°F to maintain proper flow conditions.

15 Ibid., 3-4.

16 Ibid., 5-5. This tank is part of the intrastate pipeline; the California Pipeline Safety Act regulates this type of pipeline-associated tank separately, and excludes it from regulations for underground storage tanks. See *California Health and Safety Code* Section 25281.5(a)(2).

Maximum Extent of Hill Town Tank Farm, illustrates the site facilities as they existed in 1994. As of November 2008, three of the four large petroleum storage tanks have been removed. The last tank contains the remnant oil and water from the tanks that have been removed.

Also present on the site are two large detention/evaporation ponds and a cellular telephone tower. A paved perimeter road provides access to the property, which is enclosed with an 8-foot fence and protected by security gates. The facility drainage system consists of catch basins and drainage channels that convey runoff from the facility to the impounding basin. Concrete dikes surround the cutter stock and fuel oil tank locations and direct runoff into the basin; the remaining diesel tanks are protected by a secondary containment

structure. An oil-water separator adjacent to the basin was designed for waste oil to be recovered and stored in a concrete-lined pit; the remaining water would then be discharged into the detention/evaporation ponds. There is some evidence that the separator may never have been used.[17]

Hazardous Materials Assessment – Hill Town Site

Numerous assessments were conducted on the Hill Town site; these assessments are listed in **Subsection 3.6.1**. This section summarizes the assessments. More detail about the assessments can be found in the assessment reports, which are available for review at the City's Planning Department.

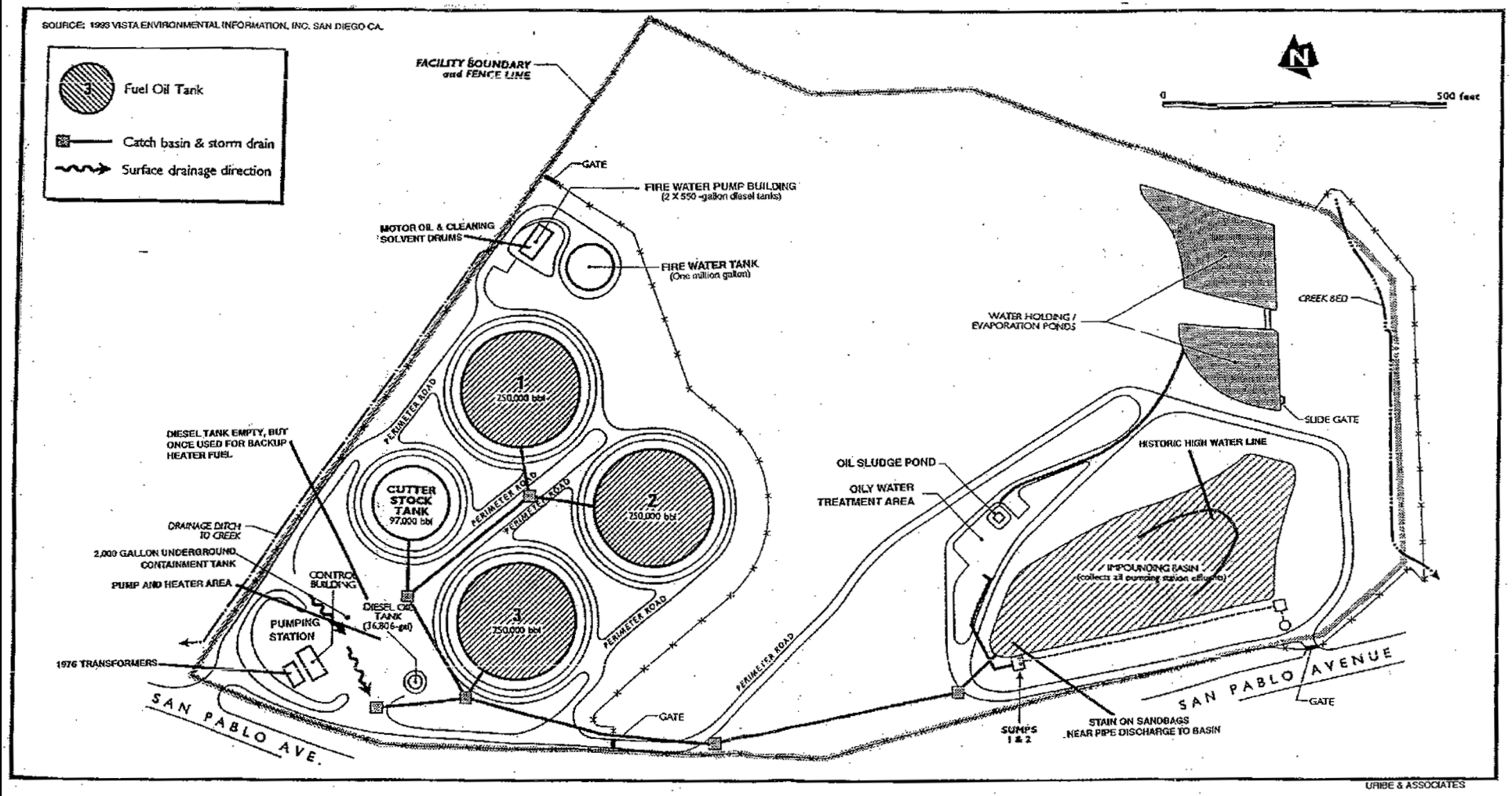
Site Assessments 1995–2000

Several consultants have examined the Hill Town site for hazardous material contamination, dating from at least 1994.[18] In 1994, Uribe and Associates (Uribe) conducted a Phase I Site Assessment for PG&E to evaluate the pump station and the portion of the PG&E pipeline extending from Richmond to Pittsburg. Uribe documented the existing facilities and observed seven 55-gallon drums of new motor oil and one 55-gallon drum of cleaning solvent stored on the property. Uribe further noted that 0.5 foot to 1.5 feet of product could remain in the emptied aboveground storage tanks on the property, due to the location of the tanks' drainage valves. The emergency 550-gallon diesel tanks were also full at the time. Finally, Uribe noted two transformers, which may have contained PCBs, near the control building; the transformers were on concrete slabs, protected by metal collision posts, and showed no evidence of leakage.[19] Uribe also performed a Sanborn Map review and subcontracted VISTA Environmental

17 Ibid., 5-3.

18 Ibid.

19 Ibid., 5-6.



Note: Tanks 1 and 2 and the Cutter Stock Tank have been removed as of November 2008.

SOURCE: City of Hercules - September 1982

FIGURE **3.6-1**

Historic Maximum Extent of Hill Town Tank Farm

Information, Inc., of San Diego to search available environmental databases, including four EPA lists and four California lists.[20] None of the searches revealed potential secondary contamination sources within 0.25 mile of the site. Aside from noting the potential risks of material left in the storage tanks, Uribe found no adverse environmental conditions on site.

Uribe identified 15 off-site locations in its environmental database search: one RCRA "Large Quantity Generator," three RCRA "Small Quantity Generators," one RCRA "Transporter," one ERNS site, two UST sites, and one AST site.[21] Appendix A of the Uribe report details the nature and location of these sites; however, the report does not indicate that these sites represent a hazard to the subject property.

In 2000, Geomatrix Environmental Consultants conducted a limited Phase II site assessment for the property, under contract to PG&E, incorporating data from a 1995 investigation by Geraghty & Miller (G&M).[22] G&M took soil samples from 15 shallow borings (less than 20 feet bgs) and several deep borings, and submitted 39 soil samples for laboratory analysis. The samples were tested for CAM 17 metals, TPHg, TPHd, oil and grease, benzene, toluene, ethyl benzene, total xylenes (BTEX), and metals. Selected soil samples were also analyzed for PCBs, VOCs, and SVOCs. None of the 1994 borings encountered groundwater.

G&M's 1995 analysis showed CAM 17 metals were present at or below background (naturally occurring) concentrations, but revealed elevated concentrations of total oil and grease within the surficial soil (1 foot bgs) within the aboveground tank area and the impound basin area, ranging from 53 mg/Kg to 6,200 mg/Kg, respectively. G&M also found low to moderate levels of TPHd within the surficial soil samples (up to 500 mg/Kg). Total oil and grease concentrations generally decreased to less than 20 mg/Kg with depth (from 1 foot to 5 feet bgs), except for one sample collected at the bottom of the impound basin that showed total oil and grease concentration of 300 mg/Kg at 1 foot bgs and 400 mg/Kg at 5 feet bgs. Analytical results of the soil samples collected from five deeper borings reported no detectable to low total oil and grease concentrations (not detected to 20 mg/Kg) for samples collected at 5 feet. A single soil sample collected at 20 feet bgs reported a detectable concentration of total oil and grease at 30 mg/Kg.

With this data in hand, Geomatrix drilled 23 new borings, six near-surface sediment sample locations, and four temporary groundwater monitoring wells. They also documented an array of soil types comprising light brown sandy silt, silty sand, silt with sand, clayey silt and clay. Grayish to light brown lean clay was encountered beneath the impound basin area to 30.5 feet bgs. Soil samples collected from

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20 Ibid, 4-1.

21 Uribe, at footnote 13 above, Table 4-2, 4-4.

22 Geomatrix Consultants, Inc., *Limited Phase II Environmental Site Assessment, Hercules Pumping Station, 4200 San Pablo Avenue, Hercules, California*, May 3, 2000.

borings B-1 through B-3 were analyzed for total petroleum hydrocarbons as mineral oil (TPHmo) and PCBs. Samples collected from borings B-1, B-10, and B-18 were also analyzed for herbicides. Samples collected from borings B-4 through B-6, B-8 through B-16, B-19, and B-20 were analyzed for TPHg, TPHd, TPHo, polynuclear aromatic hydrocarbons (PAHs) and BTEX. Samples collected from borings B-17 and B-18 were analyzed for TPHg, TPHd, TPHo, VOCs, and SVOCs. Silica gel clean-up was performed prior to analysis for TPHd, TPHo, and TPHmo. Groundwater samples were analyzed for TPHg, TPHd, TPHo, PNAs, and BTEX.

Geomatrix reported generally non-detectable concentrations of most chemical constituents, with the exception of TPHd and TPHo in samples B-16 (42 mg/Kg TPHd and 170 mg/Kg TPHo) and B-17 (500 mg/Kg TPHd and 1,100 mg/Kg TPHo). These samples were collected within the northeastern section of the aboveground storage tank area at depths of 0.5 foot bgs. Laboratory analysis of the groundwater reported no detectable concentrations of the chemical constituents analyzed.[23]

In 2003, Terrasearch, Inc., reviewed the Uribe and Geomatrix Phase I and II reports for conformance to then-current ASTM standards. That report recommended additional database search to supplement the 1994 Uribe study,[24] and identified three areas of concern: petroleum-hydrocarbon impacted surficial soil across the property, petroleum-hydrocarbon impacted soil beneath the aboveground storage tanks, and petroleum-hydrocarbon impacted soil beneath the former retention basins.[25] In 2003–2004, Terrasearch prepared another Phase II report to investigate the lateral and vertical extent of petroleum-hydrocarbons in the soil and groundwater at those locations.

Terrasearch drilled five borings and collected six surficial soil samples and three groundwater samples. These were tested for total extractable petroleum hydrocarbons (TEPH) and total oil and grease (TOG) with silica gel cleanup, TPHg, BTEX, lead, VOCs, and SVOCs. Laboratory tests revealed low to moderate concentrations of petroleum hydrocarbons in the subsurface soil samples collected near the aboveground tanks (between 120 and 6,700 mg/Kg) and elevated concentrations of petroleum hydrocarbons (up to 12,000 mg/Kg) were detected within surficial soil samples collected from the bottom of the impound basin.[26] Correlating this information to the boring depths and locations, Terrasearch concluded that soil beneath the aboveground storage tanks was moderately contaminated with petroleum hydrocarbons at

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23 Terrasearch notes that Geomatrix's initial analysis of one sample showed detectable concentrations of TPHd, TPHg, PNAs, TPHo and BTEX, but on retesting showed no detectable levels. Terrasearch I, at footnote 12 above, 4.

24 Ibid., 2.

25 Terrasearch, Inc., Phase *II Environmental Site Assessment, Former PG&E Hercules Pumping Station*, (Terrasearch II) January 27, 2004, 2.

26 Ibid., Table 1.

depths between 1 to 2 feet bgs, and that the impound basin area had more extensive contamination, up to 3 feet bgs.[27] Low concentrations of VOCs (0.68 to 3.3 micrograms/liter [ug/L]) and SVOCs (6.8-11 ug/L), and moderate concentrations of TEPH as diesel (53-420 milligrams/liter [mg/L]) were detected within groundwater samples. However, these levels are below the Environmental Screening Levels (ESLs) for residential development. [28]

To summarize, the types of hazardous materials associated with the pump station generally fell into the following categories:

- Residual petroleum fuel products remained in the bulk ASTs and the underground containment tank. This material likely could be recycled at a licensed off-site facility.
- Soil and groundwater at the site could be affected by hazardous materials from the past operations of the former pump station. The affected soil or groundwater, if removed from the project area, would be transported for disposal at a licensed off-site facility as a waste.
- Certain building components or equipment could contain hazardous materials, such as ACMs, lead-based paint (LBP), the ASTs for the former storage of petroleum fuels, the electric transformers, and the piping, pumps, valves, fittings, manifold, and other equipment associated with the former operations of the pump station facility. Some of the materials and parts could be reused or recycled, such as scrap metal.

Terrasearch stated that remediation would require testing the entire property, removing all tanks and piping, and documenting any presence of petroleum-hydrocarbons during the demolition process. Terrasearch also cautioned that a follow-up Phase I investigation to the 1994 Uribe study should be performed to ensure that all information is current. However, the overall conclusion of the report was that the property could be remediated to safe levels for residential occupancy.

3.6.3 REGULATORY FRAMEWORK

Numerous federal, state, and local laws and regulations control the generation, storage, handling, transportation, and disposal of hazardous materials and hazardous wastes, as well as site remediation and brownfield development. Those with particular application to the Updated 2009 Redevelopment Plan Area are detailed below.

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27 Ibid., 3.

28 Ibid.

"Hazardous material" has different definitions depending on the federal or state regulatory scheme with jurisdiction over the material or the industrial operation. This environmental impact report (EIR) uses the *California Health and Safety Code* Section 25501 definition:

- any material that, because of its quantity, concentration, or physical, chemical, or biological characteristics, poses a potential hazard to human health or safety, or to the environment. Hazardous materials include, but are not limited to hazardous substances, hazardous wastes, and any material which a handler or the administering agency has a reasonable basis for believing that it would be injurious to the health and safety of persons or harmful to the environment if released into the workplace or the environment.

In California, hazardous waste is a discarded material that meets any of a list of criteria in the *California Code of Regulations* (CCR), including:

- The waste exhibits the characteristics of hazardous wastes identified in CCR Title 22, Division 4.5, Chapter 11, Article 3. Such characteristics include whether the material is ignitable, corrosive, reactive, or toxic.[29]

- The waste is listed, contains a constituent that is listed, or is a mixture of hazardous waste that is listed in CCR Title 22, Division 4.5, Chapter 11.

Hazardous material may include products such as pesticides, petroleum products, solvents, chemical intermediates, and heavy metals. Hazardous waste may include spent, discarded, spilled, or contaminated products, or wastes from certain industrial processes, as well as a mixture (e.g., soil, water, carbon, construction debris, building materials) that exhibits the characteristics of hazardous wastes. California regulates hazardous waste management under CCR Title 22, Division 4.5.

The need for and the level of remediation of soil or groundwater affected by hazardous materials at a site depend on specific site conditions, including planned site use, potential receptors, and exposure pathways. Cleanup requirements are typically evaluated on a case-by-case basis by the lead regulatory agency overseeing a site.

3.6.3.1 Federal Regulations

Generally administered by the Environmental Protection Agency (EPA), federal statutes and regulations both set forth federal responsibilities for dealing with hazardous materials and, where appropriate, authorize the EPA to delegate responsibility to state agencies.

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29 22 CCR Sec. 66261.20-66161.24.

Toxic Substances Control Act of 1976

The Toxic Substances Control Act (TSCA) (15 USC Sections 2601–2692) authorizes the EPA to require chemical manufacturers to provide data about their products' effects on human health and on the environment (Sections 2603–2604). TSCA further authorizes the EPA to regulate their production and use to reduce health or environmental risks (Sections 2604–2605). Moreover, TSCA sets forth regulations for lead-based paint abatement, including authorizing regulations for building renovation or demolition to reduce lead exposure (Sections 2682–2688).

Solid Waste Disposal Act and Resource Conservation and Recovery Act of 1976

The Solid Waste Disposal Act (SWDA) (42 USC Sections 6901–6992(k)), which includes as a subsection the Resource Conservation and Recovery Act (RCRA) (42 USC sections 6921–6939(e)), creates a "cradle-to-grave" (from manufacture to disposal) regulatory system for hazardous wastes, and delegates substantial authority to the states for waste management under EPA supervision.[30] RCRA requires the EPA to adopt criteria for identifying hazardous wastes, to formulate a list of "designated" hazardous wastes, and to set forth standards for facilities that handle them.[31]

Comprehensive Environmental Response, Compensation and Liability Act of 1980, as amended by the Superfund Amendments and Reauthorization Act of 1986

The Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) (42 USC sections 9601–9675), which was later amended by the Superfund Amendments and Reauthorization Act of 1986 (SARA), sets forth regulations for cleanup of hazardous wastes after improper disposal; identifies federal response authority; and outlines responsibilities and liabilities of "potentially responsible parties"—those parties who have control over the hazardous material itself, the property where hazardous material has been disposed or spilled, the vehicle that it was spilled from, etc. The CERCLA also specifies where Superfund money can be used for site cleanup. Notably, CERCLA cross-references other statutes for hazardous material definition, but permits the EPA to add materials as their hazardous properties become known.[32]

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30 See discussion under *California Code of Regulations*, Hazardous Waste Control Act.

31 See EPA regulations at 40 CFR pts 260 (general regulations and procedures), 261 (characteristics and listing of hazardous waste), 262 (standards for waste generators), 273 (standards for universal waste handlers) and 279 (standards for used oil management)).

32 42 USC Section 9601(14), Section 9602.

3.6.3.2 California Regulations

The California Department of Toxic Substances Control (DTSC) and the Regional Water Quality Control Boards (RWQCB) administer most of California's hazardous waste regulations. The principal California regulations for hazardous materials are in the *Government Code*: the California Emergency Services Act (*California Government Code* Sections 8574.1–8574.23), Oil Spill Response and Contingency Planning (sections 8670.1-8670.73), and the Elder California Pipeline Safety Act of 1981 (Sections 51010–51019.1) as well as in numerous provisions in the *Health and Safety Code*, such as the Hazardous Waste Control Act (Sections 25100–25250.28), the Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65) (Sections 25249.5–25249.13), Aboveground Storage of Petroleum (Sections 25270–25270.13), the California Land Use and Revitalization Act of 2004 (Sections 25395.6–25395.109), the California Land Environmental Restoration and Reuse Act (Sections 25401–25402.3), the Unified Hazardous Waste and Hazardous Materials Management Regulatory Program (Sections 25404–25404.9), Asbestos and Hazardous Substance Removal Contracts (Sections 25914–25914.3), Asbestos Notification (Sections 25915–25919.7), and Hazardous Materials Release Response Plans and Inventory (Sections 25500–25546.5). The Porter-Cologne Water Quality Control Act in the Water Code (Sections 13000–13953.4) addresses hazardous material discharge into water bodies and groundwater. The following statutes would apply to the proposed project:

Hazardous Waste Control Act (HWCA)

The California Hazardous Waste Control Act (HWCA) (*Health and Safety Code* Sections 25100–25250.28) is the primary state law that regulates hazardous waste and hazardous waste disposal facilities, and is administered by the DTSC. Like the federal RCRA, the HWCA regulates transportation and disposal of hazardous wastes, sets forth hazardous waste facility standards and directs administrative and enforcement procedures. It also lists and categorizes specific hazardous wastes (Sections 25140–25145.4).

Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65)

The Safe Drinking Water and Toxic Enforcement Act (*Health and Safety Code* Sections 25249.5–25249.13), commonly referred to by its ballot measure, Proposition 65, prohibits businesses from discharging known carcinogens or reproductive toxins into sources of drinking water, and requires businesses (such as grocery stores) to warn persons about possible exposure on the business premises to such carcinogens or toxins.

Aboveground Storage of Petroleum Act of 2007

The Aboveground Storage of Petroleum Act (*Health and Safety Code* Sections 25270–25270.13) establishes an inspection and monitoring program for aboveground oil storage tanks and funds oil spill cleanup. Its scope is generally limited to those tanks that are subject to federal regulation or have a capacity of more than 1,320 gallons. It requires operators of tank facilities to implement plans to prevent spills and to notify the Office of Emergency Services in the event of a petroleum release or spill.

California Land Use and Revitalization Act of 2004

The California Land Use and Revitalization Act (*Health and Safety Code* Sections 25401–25402.3) is intended to encourage cleanup and development of polluted sites, and protects good-faith buyers or developers from liability that might arise from the release of hazardous materials. It requires a purchaser or developer to conduct "all appropriate inquiries," including site assessments, and to comply with EPA and state standards for site remediation.

California Land Environmental Restoration and Reuse Act of 2001

The California Land Environmental Restoration and Reuse Act (*Health and Safety Code* Sections 2540-25402.3) authorizes a city or county to require site assessments and initiate remedial actions for property within its jurisdiction, with a number of exceptions for such properties that are already federally designated, under state investigation, have been successfully remediated, or are undergoing remediation, among others.[33] Section 25401.1(h)(2)(H) expressly excludes sites within redevelopment areas.

Unified Hazardous Waste and Hazardous Materials Management Regulatory Program

The Unified Hazardous Waste and Hazardous Materials Management Regulatory Program (*Health and Safety Code* Sections 25404–25404.9), enacted in 1993, enabled a statewide program to consolidate the numerous hazardous waste and materials programs then in existence. It assigns lead responsibility to the California Environmental Protection Agency (Cal/EPA) to certify subsidiary public agencies to administer the program's regulations (Certified Unified Program Agencies [CUPAs]), and enables participating agencies (PAs) to enforce one or more program elements. Notably, the Program requires Cal/EPA to establish a statewide database and geographic information system to collect and make public the data that CUPAs and PAs obtain. Implementing regulations are at 27 CCR Sections 15100–15620.

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33 *Health and Safety Code* Section25401.1(h)(2)(A-R).

Asbestos-Related Statutes

Health and Safety Code Sections 25914–25914.3 specifies contract conditions for work involving asbestos or other hazardous substance removal, requiring that such removal work be performed by a properly certified contractor; Sections 25915–25919.7 require building owners to notify tenants, construction workers, etc., about the presence of asbestos in buildings constructed before 1979.

Hazardous Materials Release Response Plans and Inventory

The Hazardous Materials Release Response Plans and Inventory (*Health and Safety Code* Sections 25500-25546.5) requires local governments and businesses to adopt plans to respond to releases of hazardous materials and to develop risk management and prevention programs to minimize risks from acutely hazardous materials accidental releases. Minimum requirements for such plans are in the *California Code of Regulations* at Title 19, Sections 2720–2732.

Porter-Cologne Water Quality Control Act

The Porter-Cologne Water Quality Control Act (*Water Code* Sections 13000–13953.4) regulates water quality within the State and implements the Federal Water Pollution Control Act, including the National Pollutant Discharge Elimination System (NPDES) (see discussions under **Section 3.7, Hydrology and Water Quality**). The Regional Water Quality Control Boards exercise primary enforcement authority for waste discharges affecting water quality, including drafting regional water quality plans and issuing permits and cleanup and abatement orders. The boards may also seek judicial relief, including both civil and criminal penalties, against unlawful waste dischargers.

3.6.3.3 Local Policies and Ordinances

Contra Costa County

The Contra Costa Health Services Hazardous Materials Program Office (CCHS-HazMat) is the CUPA for all cities and unincorporated areas within Contra Costa County. As the CUPA, CCHS-HazMat administers the six elements of the Unified Hazardous Waste and Hazardous Materials Management Regulatory Program (Unified Program), including

1. the hazardous materials business plan/emergency response plans and inventory program
2. the hazardous waste program
3. the California Accidental Release Prevention (CalARP) program
4. the underground storage tank (UST) program

5. the aboveground storage tank (AST) program

6. the uniform hazardous materials management plan program

The CCHS-HazMat published its most recent update of the Contra Costa County Hazardous Materials Area Plan (HMAP) on December 30, 2005.[34] The HMAP is designed to protect human health and the environment through hazardous materials emergency planning and community right-to-know programs. The HMAP identifies the roles and responsibilities of local, state and federal government agencies necessary to minimize the impacts of a hazardous materials incident.

The CCHS-HazMat also administers the CalARP Program (CCR Title 19, Division 2, Chapter 4.5) and Industrial Safety Ordinances (ISO). The CalARP Program includes the federal Accidental Release Prevention Program (40 CFR, Part 68) with certain additions specific to the state pursuant to HSC Article 2, Chapter 6.95. The purpose of the CalARP Program is to prevent the accidental releases of regulated substances (CCR Title 19, Division 2, Chapter 4.5, section 2770.5). Stationary sources with more than a threshold quantity of a regulated substance are required to be evaluated to determine the potential for and impacts of accidental releases from that covered process. The tasks of the CUPA include reviewing the Risk Management Plans (RMPs) and auditing the facilities that are subject to the CalARP Program as well as the ISO.

Bay Area Air Quality Management District

The Bay Area Air Quality Management District (BAAQMD) is the local air pollution control authority with jurisdiction over Contra Costa County. The agency develops air quality standards, regulates facilities, evaluates air toxins, responds to emergencies and complaints, monitors air quality, and maintains an analytical laboratory. The BAAQMD also responds to emergency releases of air contaminants that can potentially create a public nuisance or violate a BAAQMD rule or regulation.

San Francisco Bay Regional Water Quality Board

The San Francisco Bay RWQCB (SFBRWQCB)oversees decommissioning and dismantling of facilities like those on the Hill Town site. Such work would include removal of structures (building materials, aboveground and underground tanks, and pipelines) and hazardous materials from the project area, and collecting and testing soil samples from the project area to confirm that the levels allowing for unrestricted land use have been achieved. On completion, the decommissioning and dismantling

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[34] Contra Costa County Health Services Department, Hazardous Materials Program Office, Contra Costa County *Hazardous Materials Area Plan*, December 30, 2005, http://www.cchealth.org/groups/hazmat/pdf/2005_area_plan.pdf.

contractor would prepare a report documenting the process and delivering confirmation sample results to the SFBRWQCB and other appropriate regulatory agencies.

City of Hercules General Plan, Hazardous Waste Management Element 1998

The *Hercules General Plan* Hazardous Waste Management Element provides for safe and effective management of hazardous waste within the City and protects public health and safety and the environment. The following policies are relevant to the proposed project because of past hazardous materials use at both the Sycamore Crossing and Hill Town sites and the continuing presence of hazardous materials and waste at the Hill Town site.

Section 4.3, Policies: To coordinate city actions with the Rodeo-Hercules Fire Protection District and other emergency response agencies. To train city personnel in the emergency response procedures in interagency agreements through establishment of an interagency emergency response task force for this purpose.

Section 4.4, Recommendations: Participate, in conjunction with appropriate County and state agencies in monitoring programs for air and water which will adequately protect the health and safety of Hercules citizens from potential exposures to hazardous materials on a sustained basis and which will alert citizens to any incidents or short-term threats of exposure.

3.6.4 THRESHOLDS OF SIGNIFICANCE

According to Appendix G of the *2008 California Environmental Quality Act* (*CEQA) Statutes and Guidelines,* a project would have a significant impact with respect to hazards and hazardous materials if it would cause or result in:

- creation of a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials;
- creation of 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;
- hazardous emissions or handling of hazardous or acutely hazardous materials, substances, or waste within 0.25 mile of an existing or proposed school;
- creation of a significant hazard to the public or the environment because the project is located on a site that is included on a list of hazardous materials sites compiled by the DTSC, the State

Department of Health Services, the State Water Resources Control Board, or the local enforcement agency pursuant to *Government Code* Section 65962.5;[35]

- for a project located within an airport land use plan area, or where such a plan has not been adopted, within 2 miles of a public airport or public use airport, or within the vicinity of a private airstrip, a safety hazard for people residing or working in the project area;

- impairing the implementation of, or physically interfering with an adopted emergency response plan or emergency evacuation plan.

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

3.6.5 IMPACTS AND MITIGATION MEASURES

3.6.5.1 Issues Not Discussed Further

Implementation of the Updated 2009 Redevelopment Plan, as it relates to potential development of the Hill Town and Sycamore Crossing sites, would not result in significant impacts from development on a site included on a list of hazardous materials sites compiled by the DTSC, the State Department of Health Services, the State Water Resources Control Board, or the local enforcement agency because the Hill Town property is not included on any such list, and the Sycamore Crossing site has been successfully remediated and certified as clean as part of the Hercules Powder Works/Gelsar site remediation, discussed above. Furthermore, the Sycamore Crossing site was subsequently tested in two Phase II assessments, and no contaminants were discovered at levels that would cause it to be considered hazardous for site development. The proposed project therefore would not expose site occupants to contaminants on a listed site, and would cause no related adverse impacts.

There are no public or private airports within 10 miles of the City of Hercules, nor is the City located within an airport land use plan area. The nearest airports to the project site include the Oakland International Airport in Oakland to the south, the Buchanan Field in Concord to the east, the Napa County Airport in Napa to the north, and the Marin County Airport–Gnoss Field in Novato to the northwest. These airports are all located over 10 miles from the Redevelopment Plan Area. Therefore, the proposed project would not result in an airport-related safety hazard for people residing or working in the project area, and would have no associated impacts.

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35 *California Government Code* Section 65962.5 requires comprehensive listing of sites that have been associated with hazardous materials, and disclosure of their status to prospective developers. http://www.leginfo.ca.gov/cgi-bin/displaycode?section=gov&group=65001-66000&file=65960-65964.

Both project sites include patches of vacant land within an urbanized area. The vegetative cover on both sites is considered by fire safety agencies as wildfire fuel. The future buildout of these sites would reduce wildfire potential by eliminating such fuel from the sites, introduce irrigated landscaping and construction built to current fire-safety building code regulations. The proposed project thus would not expose people or structures to significant risk of loss, injury, or death involving wildland fires and would cause no related adverse impacts.

Project Impacts

Impact HAZ-1: **The proposed project could involve hazardous material releases during the process of decommissioning and dismantling the industrial facilities within the Hill Town property.** ***(Potentially Significant; Less than Significant with Mitigation)***

The proposed project could result in potentially significant impacts related to hazardous material use, handling, transport, or disposal, as well as reasonably foreseeable upset and accident conditions involving hazardous material release with respect to the Hill Town property. Of the two sites in the Updated 2009 Redevelopment Plan Area, only the Hill Town site currently includes soil contamination conditions and contains industrial facilities (the tank farm location, underground tank, pipeline, control building, detention ponds, etc.). It should be noted that three of the four large petroleum storage tanks have been removed and site cleanup is underway. The remaining storage tank contains remnant oil and water from the dismantled tanks. Project implementation would involve the removal of hazardous materials from the site that would ultimately reduce potential hazards to the public or the environment. However, during the decommissioning and dismantling process, hazardous materials could have been or be released into the environment, creating a potentially significant hazard to construction workers, the public, or the environment through the transport, handling, or disposal of hazardous materials.

As discussed above in the setting section, low to moderate concentrations of petroleum hydrocarbons were identified in the subsurface soil samples near the aboveground tanks and throughout the Hill Town site. Surficial soil samples collected from the bottom of the impounding basin primarily included motor oil and diesel fuel, (between 120 and 6700 mg/Kg), and elevated concentrations of petroleum hydrocarbons (up to 12,000 mg/Kg). Low concentrations of VOCs (0.68 to 3.3 mcg/L) and SVOCs (6.8-11 mcg/L), and moderate concentrations of TEPH as diesel (53-420 mg/L) were detected within groundwater samples. However these concentration levels were considered to be within safe limits for residential development using DTSC and RWQCB standards. Although the most recent records search for hazardous material sites in the project vicinity dates from 1994, there are potentially unknown hazards

located in the project vicinity that could expose future project residents to a potentially significant release of hazard materials if not remediated properly.

Site cleanup methods are heavily regulated by both federal and state statutes and procedures designed to bring contaminated sites into productive use. Decommissioning and dismantling work has included removing hazardous materials from the pump station facility. The remaining pump station facility structures were in the process of being demolished and dismantled at the time this draft EIR was prepared. Construction materials, including scrap metal and building debris, have been and would continue to be transported to appropriate licensed off-site facilities for recycling or disposal. Hazardous materials such as ACMs, LBP, PCBs, petroleum fuels, affected soil, or groundwater have been and would continue to be removed and transported to an appropriate hazardous waste facility. Finally, follow-up soil testing would ensure that no further contamination exists on site. Implementation of **Mitigation Measures HAZ-1a** through **HAZ-1c**, which incorporate federal, state, and local regulations and address site-specific issues, would reduce on-site impacts to less than significant levels.

MM HAZ-1a: Prior to the decommissioning and dismantling of the remaining petroleum storage tank and any other equipment that contained hazardous materials at the Hill Town site, and to the satisfaction of the City of Hercules, the project proponent shall retain qualified and licensed environmental professional(s) to perform a final assessment of the existing facility for the presence of petroleum hydrocarbons, asbestos, PCBs, mercury, lead, or other hazardous materials throughout the site, including inspecting the underground containment tank on the Hill Town site. If hazardous materials are identified at levels that require special handling, the Project Sponsors and their contractors shall manage these materials in accordance with applicable federal, state, and local regulations and guidelines, including those of the DTSC, BAAQMD, and Cal/OSHA.

MM HAZ-1b: Prior to the decommissioning and dismantling of the remaining petroleum storage tank and any other equipment that contained hazardous materials at the Hill Town site, and to the satisfaction of the City of Hercules, the project proponent shall retain qualified and licensed environmental professional(s) to perform a Phase One Environmental Site Assessment, to confirm the search performed by Uribe and Associates in 1994, to discover if additional sites have been listed, and to recommend corrective action. This report shall be placed in the project file of all appropriate City departments. If the presence of recently listed sites would affect either project workers or future residents on the project site, the project proponent shall perform the corrective action the report recommends.

MM HAZ-1c: The following measures shall be required at the time development applications are filed with the City.

- The project proponent shall retain qualified and licensed environmental professional(s) to prepare a work plan for the decommissioning and dismantling of the remaining industrial structures associated with the former tank farm. The work plan shall be submitted to the RWQCB and other appropriate regulatory agencies for review and approval prior to the decommissioning and dismantling work.

- The work plan shall summarize previous environmental site remediation work and propose additional environmental work for the property to evaluate the lateral and vertical extent of petroleum-hydrocarbon impacted soil and groundwater beneath the site. The proposed method shall include the development of an adequate grid-sampling pattern for the subject site and appropriate laboratory analyses of the soil and groundwater samples collected from the borings.

- The work plan shall describe the procedures for decommissioning and dismantling of the remaining industrial structures and the removal and management of hazardous materials identified during the pre-decommissioning and dismantling assessments. Soil and groundwater containing hazardous materials at the project area, if identified, shall be remediated on site or removed and transported to appropriate off-site facilities for treatment and/or disposal. Soil and groundwater affected by hazardous materials, if identified, shall be remediated or removed to levels below the ESLs established by the RWQCB and/or other applicable cleanup criteria for subsequent development of the project area to residential units.

- If asbestos-containing materials (ACMs) are identified during the pre-decommissioning and dismantling assessment, an asbestos abatement plan, prepared by a certified asbestos consultant, shall be included in the facility decommissioning and dismantling work plan. The work plan shall also include a Sampling and Analysis Plan (SAP), a site Health and Safety Plan (HASP), a Storm Water Pollution Prevention Plan (SWPPP), an Air Monitoring Plan (AMP), a Transportation Plan (TP), and a Soil Management Plan (SMP) for post-decommissioning and dismantling construction activities. These plans are described below.

  – The SAP shall describe the methodology for collecting confirmation soil, water, wipe, and/or materials samples and the analyses for these samples. The analytical data shall be used to demonstrate that hazardous materials have been removed from the project area to levels allowing for unrestricted land use and safe handling. The SAP shall also include analytical methods for samples for waste characterization and waste management purposes.

  – The HASP shall specify that the project proponent's consultants and contractors performing work at the project site adhere to applicable federal, state, and local regulations and codes relating to health and safety, including sections of Cal/OSHA regulations contained in CCR Title 8 as they apply to the site activities.

- The SWPPP shall provide information of best management practices and other actions designed to mitigate potential impacts to storm water during construction activities at the site, including facility decommissioning and dismantling and site development activities. Dust control shall be addressed in this plan. The SWPPP shall be developed using guidelines provided by the State Water Resources Control Board (SWRCB) in the General Construction Activity Storm Water Permit (General Permit), in accordance with federal regulations for a National Pollution Discharge Elimination System (NPDES) permit.

- The AMP shall provide information about the collection and analysis of real-time air quality data at the work zone as well as site perimeter, including volatile organic compounds (VOCs) and dust. The data shall be evaluated using appropriate regulatory criteria, including Cal/OSHA standard limits and California Air Resource Board (CARB) ambient air quality standards. Action levels shall be developed and appropriate actions to be taken if action levels are exceeded shall be described in this plan.

- The TP shall describe the destination of the hazardous materials and hazardous wastes, the designated route for transporting these materials from the site to the selected disposal and recycling facilities, the proposed staging area(s), procedures for loading and covering trucks, the estimated number and load capacity of trucks, anticipated hours or operation, and emergency procedures. Hazardous materials from the project site shall be transported in accordance with applicable regulations, including 49 *Code of Federal Regulations* (CFR) Parts 100–199 and 350–399 (42 *US Code* 6901, et seq.); 40 CFR Parts 260–268; *California Vehicle Code*; California Hazardous Waste Control laws; and *Health and Safety Code*, Division 20 (CCR Title 22, Division 4.5). Based on analytical results, materials, if classified as California Hazardous Waste, shall be handled and transported in accordance with CCR Title 22, which includes waste generator requirements (i.e., manifests) and hazardous waste transporter requirements (i.e., valid registration, proof of insurance, and inspection of vehicles by the California Highway Patrol [CHP]).

- The SMP shall address the handling and disposal of additional soil affected by hazardous materials, if identified during the post-decommissioning and dismantling construction activities of the project. The soil affected by hazardous materials shall be managed in accordance with applicable federal, State, and local regulations and guidelines.

- If identified during the pre-decommissioning and dismantling assessments, hazardous materials shall be removed from the facility prior to the start of the decommissioning and dismantling work in accordance with state and federal safety standards for the transport and disposal of hazardous materials. This might include asbestos abatement, removal of transformers containing PCBs, removal of LBP, removal of the residual fuels in the ASTs for recycling, etc.

Significance after Mitigation: Less than significant.

Impact Haz-2: **The proposed project could create a significant hazard to the public or the environment through the accidental upset or release of hazardous material from an existing petroleum pipeline located within the Hill Town property.** ***(Less than Significant)***

An existing 6-inch petroleum pipeline owned and operated by Unocal traverses the eastern portion of the Hill Town site. This petroleum pipeline is located immediately adjacent to the 20-foot-wide easement for a water line owned by the East Bay Municipal Utilities District (EBMUD). There is a potential hazard to the future residents at the project area through accidental release of hazardous materials from the existing pipeline into the environment.

Pipeline safety is regulated by the federal government for both inter-and intrastate pipelines under the Hazardous Liquid Pipeline Safety Act of 1979. The safety standards of this act are described in 49 CFR 195 and include design, construction, and operation of pipelines. California has a number of additional pipeline safety programs. State law prohibits building structures on pipeline rights-of-way.

The project is subject to the policies, programs, and mitigation measures incorporated into the City's *General Plan Update EIR*, including those that pertain to development near pipelines, as described below:

MM HAZ-2e: Consistent with pipeline operators' standards, no buildings or other structures that could impede access shall be installed in any pipeline right-of-way.

MM HAZ-2f: The City shall permit pipeline operators with pipelines and pipeline rights-of-way adjacent to parcels subject to Tentative Map approval to review these maps.

MM HAZ-2g: Prior to the start of construction on any parcel that includes or is bordered by a pipeline or pipeline right-or-way or easement, the City shall consult with the Rodeo-Hercules Fire Protection District and the operator(s) of affected pipeline(s) regarding the adequacy of safety procedures for pipeline accidents.

MM HAZ-2h: The City shall consider a requirement that sponsors of residential development notify homeowners of the presence of adjacent or nearby pipelines.

The alignment of the existing petroleum pipeline and water line would be relocated to the eastern perimeter of the Hill Town site and outside of any proposed building footprint before the redevelopment of the area. No structures would be built within the pipeline rights-of-way. Implementation of these existing policies, regulatory requirements, and the mitigation measures listed above would reduce the

potential impact of developing the project area adjacent to existing pipeline to a less than significant level, and no additional project-specific mitigation is required.

Significance after Mitigation: Less than significant.

Impact Haz-3: The proposed project would not create a significant hazard to the public or the environment through the routine use, transport and disposal of household hazardous materials. (*Less than Significant*)

Once the sites are developed, they could potentially include the use, storage, release, or disposal of hazardous materials. These materials likely would include household products such as cleaning agents, solvent, paint, oils, pesticides, etc. These products are commercially available for public use and are typically sold with warning labels and use/storage recommendations from the manufacturers. These materials are typically used or stored in residences in small quantities. Such uses of hazardous materials do not generate hazardous air emissions and rarely, if ever, involve the use of acutely hazardous materials that could pose a significant threat to the environment or human health.

Contra Costa County has drop-off sites available for household hazardous wastes (HHW). Residents of Hercules can take their HHW to the West County HHW Collection Facility located in Richmond, California.[36] This service is free to Hercules residents.

Additionally, the City's *General Plan Update EIR* (1995) identified impacts related to the generation of HHW as less than significant. The City's Hazardous Waste Management Plan (1990), which is an element of the *General Plan* (1998), encourages community participation in municipal HHW collection through educational and technical programs, including distribution of educational materials, sponsoring educational events, and arranging community HHW collection days. The proposed project would be consistent with applicable federal and state regulations regarding hazardous waste and materials. Compliance with the applicable regulations would minimize or avoid significant environmental hazards to the environment and people. With these existing programs in place, the potential impact to the public and environment from the use, storage, release, or disposal of hazardous materials in household products from the developed project area would be less than significant. No mitigation measures are required.

Mitigation Measure: None required.

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36 West Contra Costa Integrated Waste Management Authority, http://www.recyclemore.org.

Impact Haz-4: **The proposed project could interfere with local emergency response plans, particularly during decommissioning and dismantling of the industrial facilities on the Hill Town site and project construction.** ***(Less than Significant).***

The proposed project could interfere with local emergency response plans, particularly during decommissioning and dismantling of the industrial facilities on the Hill Town site and project construction. Such interference would likely be completely managed by existing hazard-response procedures administered by the Contra Costa County Health Services Hazardous Materials Program Office (CCHS-HazMat). CCHS-HazMat provides incident response to chemical spills, toxic releases and drug labs, including cleanup oversight and community warning system activation. CCHS-HazMat administers the Contra Costa County Hazardous Materials Area Plan (HMAP), which describes the overall hazardous materials emergency response organization within Contra Costa County, establishes the lines of authority and coordination for hazardous materials incidents affecting Contra Costa County, and identifies the roles and responsibilities of local, state, and federal government agencies necessary to minimize the impacts of a hazardous materials incident.

These agencies also participate in hazardous material emergency response in Contra Costa County:

- The local law enforcement agency with jurisdiction at the location of the incident[37] isolates the incident area, assumes the role of Incident Commander (IC) and manages the scene as outlined in the HMAP, initiates actions (evacuation or shelter-in-place) to protect persons immediately threatened by the incident, and activates the appropriate Community Warning System (CWS).

- The local fire suppression agency with jurisdiction at the location of the incident[38] initiates rescue actions to remove persons from harm (including decontamination of victims and providing patient triage), provides emergency medical services, confines the hazardous materials, and confines or extinguishes fires to prevent ignition.

- The CCHS-HazMat assesses the risks the incident presents to responders, public heath, and the environment, identifies unknown substances and determines the hazards of the involved hazardous materials, monitors and evaluates the impact of the incident on the community, advises and coordinates with the IC on public heath and safety, containment, decontamination, mitigation and cleanup related to the incident.

- The CHP provides traffic control in support of evacuation and/or relocation, reroutes traffic under CHP jurisdiction in coordination with local authorities and prevents unauthorized entry into contaminated areas as requested by local authorities.

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37 The City of Hercules Police Department has jurisdiction at the project area.

38 The Rodeo-Hercules Fire District (RHFD) has jurisdiction at the project area.

- The BAAQMD responds to emergency releases of air contaminants that can potentially create a public nuisance or violate a BAAQMD rule or regulation.
- ARB staff supports the BAAQMD as requested, by providing technical advice, personnel and monitoring equipment.
- The SWRCB, working with the RWQCB, provides expert advice on the impact of the incident on water resources, conducts assessments to assist in evaluating or mitigating the problem, or utilizes statutory and regulatory authority to cause cleanup and press for recovery of costs of cleanup.
- The Cal/OSHA investigates accidents at industrial sites in which workers are killed or injured and responds to hazardous materials incidents at industrial sites.
- The DTSC provides technical advice on the safe handling of hazardous materials at the scene of an incident and assists local public health personnel when the incident threatens public health.
- The CSFM is authorized to investigate all fires in State-owned or occupied buildings and, upon request, to assist local agencies with fire investigations.

As discussed previously, the CCHS-HazMat also administers the CalARP Program and Industrial Safety Ordinance, including the federal Accidental Release Prevention Program. The three facilities located closest to the Project Area that are subject to the CalARP program are the ConocoPhillips Refinery, located in Rodeo about 1.5 miles north-northeast of the project site, the EBMUD Filter Plant, located in El Sobrante about 3.5 miles south of the project site, and the Crockett Cogeneration facility, located in Crockett about 4 miles northeast. These facilities have RMPs on file with the CCHS-HazMat office.

Additionally, the proposed project is subject to the policies, programs, and mitigation measures incorporated into the City's *General Plan Update EIR*, including the following mitigation measure:

> ***General Plan MM HAZ-3b:*** *Residents adjacent to new hazardous materials handling facilities shall be notified immediately by the City emergency response organization of any accidental occurrences such as spills, leakages, or eruptions which may affect the health, safety, and welfare of the public.*

The proposed project is subject to all of these regulations, which anticipate the need to react to emergencies and accidents near construction sites. Implementation of these regulations and procedures would reduce any interference with local emergency response plan to less than significant levels. No further mitigation measures are required.

Significance after Mitigation: Less than significant.

Impact HAZ-5: **Site remediation activities on the Hill Town site could result in hazardous material transport along a city street where a school is located. (*Potentially Significant; Less than Significant with Mitigation)***

There are no existing or proposed schools within 0.25 mile of the Added Area and the proposed project does not include school construction for either project site. Nonetheless, site remediation activities on the Hill Town site could result in hazardous material transport along a city street where a school is located. However, proper materials handling and routing for transport vehicles would reduce or avoid risks related to such transport. **Mitigation Measure HAZ-4** would reduce any remaining impacts to less than significant levels.

MM-HAZ-5: The remediation plan for the Hill Town site shall include a detailed transportation route for all materials removed from the site. This route shall, to the maximum extent feasible, avoid all existing and proposed school sites by a minimum of 0.25 mile from the boundary of any such site. The project proponent shall submit a map showing this route for the City's approval prior to initiating remediation work.

Significance after Mitigation: Less than significant.

3.6.6 CUMULATIVE IMPACTS

Implementation of the Updated 2009 Redevelopment Plan could result in a cumulative decrease in hazardous-waste landfill capacity because there is an undetermined soil volume that will likely require disposal prior to site development. That soil would displace landfill volume, potentially limiting access to that landfill space by other waste generators. However, soils on the Hill Town site are generally not contaminated below 3 feet, indicating that the total soil volume that must be transported off site will not significantly affect the capacity of the existing landfill system (see discussion in **Section 3.13, Utilities and Service Systems**). Therefore, the project's contribution to the cumulative impact of hazardous-waste landfill capacity is not considerable, and no further mitigation is necessary.

Development at both project sites would likely increase use and disposal of household and commercial-business-associated hazardous waste. However, household use of such materials is considered a less than significant impact. Moreover, ongoing "green" education programming by such entities as the Contra Costa County Community Development Department, such as its Waste Reduction and Recycling Web

site, should lead over time to a reduced use of hazardous household products.[39] No further mitigation is required.

Future development may potentially involve the use of some amount of hazardous materials during construction and/or operation and may generate hazardous wastes. The potential use and transport of hazardous materials in the project vicinity could potentially expose persons and/or the environment to hazardous materials. However, the applicants of future projects would be required to comply with regulating agencies as well as the County to implement appropriate measures for the land use proposed to reduce the risk associated with the use and transport of hazardous materials. As a result of all of the above, the project's contribution to exposure to unidentified hazardous materials in the soil or groundwater, in combination with future development would not be cumulatively considerable.

3.6.7 REFERENCES

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