
13. HAZARDOUS MATERIALS

This EIR chapter describes known and potentially hazardous materials conditions in the project vicinity and project area, related potentially significant adverse public health impacts anticipated as a result of the proposed project, and associated mitigation needs.

13.1 SETTING

13.1.1 General Concerns

For purposes of this EIR, "hazardous materials" are defined as substances with certain chemical and physical properties that could pose a substantial present or future hazard to human health or the environment if improperly handled, stored, disposed, or otherwise managed. If improperly handled, hazardous materials can result in public health hazards through human contact with contaminated soils or groundwater, or through airborne releases in vapors, fumes, or dust. There is also the potential for accidental or unauthorized releases of hazardous materials that would pose a public health concern.

Construction workers typically have the greatest risk of exposure to contaminated soil or groundwater. Accidents or spills during transport of hazardous materials or wastes can also expose the general public and the environment to these substances. If contamination at a site remains undetected, workers and the public may be at risk of exposure if precautions are not taken during site development.

13.1.2 Records Search

For the purposes of this analysis, the "project area" is defined as the Downtown Improvement Program Update project area as delineated on Figure 3.1 (Regional Location Map and Project Area) in this EIR.

As indicated in Table 13.1 and described below, a number of sites in the project vicinity (i.e., in the project area or within an approximate one-half-mile radius of the project area) may contain hazardous materials and have the potential for related public health hazards, including possible soil or groundwater contamination, and hazards associated with other potentially toxic sources. Table 13.1 was developed from a search of electronic database sources conducted

Table 13.1
**SUMMARY OF RECORDED SITES CONTAMINATED WITH AND/OR GENERATORS OF
 HAZARDOUS MATERIALS IN THE PROJECT VICINITY**

Note: This table provides electronic database information as a general indicator of possible hazardous materials sites in the project vicinity (i.e., the area within an approximate one-half-mile radius of the project area). The list has not been verified in the field by the EIR authors.

<u>Database</u>	<u>Description</u>	<u>Number of Sites¹</u>
National Priority List Sites (Superfund Sites)	Superfund priority cleanup site	1
Records of Decision (ROD)	Technical and health information pertaining to Superfund site cleanup	1
Cal-Sites	Known and potential hazardous substance sites	1
California Hazardous Material Incident Report System (CHMIRS)	Reported hazardous material incidents (i.e., accidental releases or spills)	5
Emergency Response Notification System (ERNS)	Sites of reported releases of oil or hazardous substances	7
Annual Work Plan (AWP)	Known hazardous substance sites targeted for cleanup	1
Cortese	Public drinking water wells with detectable levels of contamination; sites selected for remediation; sites with known toxic material; UST sites; solid waste disposal facilities	16
Leaking Underground Storage Tanks (LUST)	Reported leaking underground storage tank incidents	22
Underground Storage Tanks (UST)	Registered underground storage tanks	10
Historical Underground Storage Tanks (HIST UST)	Historical listing of UST sites from State Water Resources Control Board	18
Facility Inventory Database (CAFID)	Active and inactive underground storage tank locations	8
Hazardous Waste Information System (HAZNET)	Data extracted from copies of hazardous waste manifests received by the California Department of Toxic Substances Control	69

Table 13.1 (cont.)

Resource Conservation and Recovery Information System (RCRIS)	Sites that generate, transport, store, treat, and/or dispose of hazardous waste; includes small- and large-quantity operators and handler violations	24 ²
Facility Index System (FINDS)	Facility information and "pointers" to other sources of information that contain more detail (e.g., RCRIS, CERCLIS)	31
CERCLIS	Potentially hazardous waste sites reported to US EPA. Includes sites proposed for or on NPL.	1
CERCLIS-NFRAP	Sites where no further remedial action is planned	1
PADS	PCB generator, transporter, storage, brokers, or disposers	1

SOURCE: Environmental Data Resources, Inc., January 2003.

¹ Some sites may be included on more than one database.

² Includes 23 small quantity generators and 1 large quantity generator.

by Environmental Data Resources, Inc., in order to provide a general indication of possible hazardous material sites on or near the proposed project area.¹

The database represents a very broad listing of sites with varying potential for risk from the possible existence of hazardous materials. The table information has not been field checked to verify its accuracy. A copy of the records search is on file with the City of Sunnyvale Department of Community Development. Each database listed in Table 13.1 is described below.

(a) National Priority List Sites. Also known as Superfund, the National Priority List database is a subset of the Comprehensive Environmental Response, Compensation, and Liability Information System, and identifies over 1,200 sites nationwide proposed for priority cleanup under the Superfund program. One site in the project vicinity, the Northrop Grumman site at 401 East Hendy Avenue (north of the project area), is on this list. The source of this information is the U.S. Environmental Protection Agency (EPA).

(b) RODS (Record of Decision). RODS mandate a permanent remedy at an NPL (Superfund) Site and contain technical and health information to aid in the cleanup. One RODS site, the Northrop Grumman site noted above, is located in the project vicinity.

(c) Cal-Sites Database. This database contains both known and potential hazardous substance sites. The source of these data is the California Department of Toxic Substance Control. As shown in Table 13.1, there is one site in the project vicinity listed on the Cal-Sites database, the Northrop Grumman site noted above.

(d) CHMIRS Data. The California Hazardous Material Incident Report System (CHMIRS) contains information on reported hazardous materials incidents (i.e., accidental releases or spills). The source of this information is the California Office of Emergency Services. There are five CHMIRS sites in the project vicinity.

(e) ERNS Sites. The Emergency Response Notification System (ERNS) records and stores information on reported releases of oil and hazardous substances. The source of this database is the U.S. EPA. Seven ERNS sites are located in the project vicinity.

(f) AWP Database. The California Department of Toxic Substance Control's Annual Workplan (AWP) identifies known hazardous substance sites targeted for cleanup. The source of these data is the California Environmental Protection Agency (CAL-EPA). As shown in Table 13.1, there is one AWP site (the Northrop Grumman site noted above) in the project vicinity.

¹Environmental Data Resources, Inc. EDR Environmental Atlas, Area/Corridor Study, Sunnyvale Downtown. January 24, 2003.

(g) Cortese Database. The Cortese database identifies public drinking water wells with detectable levels of contamination, hazardous substance sites selected for remedial action, sites with known toxic material identified through the abandoned site assessment program, sites with underground storage tanks (USTs) having a reportable release, and all solid waste disposal facilities from which there is known hazardous substance migration. The source of this database is the California Environmental Protection Agency (CAL-EPA). Sixteen sites in the project vicinity are listed on the Cortese database.

(h) LUST Reports. The Leaking Underground Storage Tank (LUST) Incident Reports contain an inventory of reported leaking underground storage tank incidents. This information comes from the State Water Resources Control Board Leaking Underground Storage Tank Information System. There are 22 sites in the project vicinity that are on the LUST list.

(i) UST Database. The Underground Storage Tank (UST) database lists registered USTs. USTs are regulated under Subtitle I of the Resource Conservation and Recovery Act (RCRA). The UST information comes from the State Water Resources Control Board's Hazardous Substance Storage Container Database. There are ten UST sites listed in the project vicinity.

(j) HIST UST Sites. The Hazardous Substance Storage Container Database is a historical listing of UST sites. The data source is the State Water Resources Control Board. There are 18 HIST UST sites in the project vicinity.

(k) CA FID Information. The Facility Inventory Database (CA FID) lists active and inactive underground storage tank locations. This database is maintained by the State Water Resource Control Board. Eight CA FID sites are listed in the project vicinity.

(l) HAZNET Database. The Hazardous Waste Information System (HAZNET) includes data extracted from the copies of hazardous waste manifests each year by the State Department of Toxic Substance Control. There are 69 HAZNET listed sites in the project vicinity.

(m) RCRIS Database. The Resource Conservation and Recovery Act Information System (RCRIS) database includes selected information regarding sites that generate, store, treat, or dispose of hazardous waste as defined by the RCRA. The source of this database is the U.S. Environmental Protection Agency (EPA). The RCRIS includes small and large quantity generators (SQGs and LQGs). SQGs generate or handle 100 to 1,000 kilograms of hazardous waste per month, and LQGs generate or handle more than 1,000 kilograms per month. One RCRIS-LQG site and 23 RCRIS-SQG sites are listed in the project vicinity.

(n) FINDS Data. The Facility Index System (FINDS) contains both facility information and "pointers" to other sources of information that contain more detail [e.g., RCRIS, Permit Compliance System (PCS), Aerometric Information Retrieval System (AIRS)]. The source of this information is the U.S. EPA. There are 31 FINDS sites listed in the project vicinity.

(o) CERCLIS Database. The Comprehensive Environmental Response, Compensation, and Liability Information System (CERCLIS) contains data on potentially hazardous waste sites that have been reported to the US EPA by pursuant to Section 103 of the Comprehensive Response, Compensation, and Recovery Act (CERCLA). CERCLIS contains sites that are either proposed for or on the National Priorities List (NPL), and sites that are in the screening and assessment phase for possible inclusion on the NPL. One site in the project vicinity, the Northrop Grumman site at 401 East Hendy Avenue (north of the project area), is on this list.

(p) CERCLIS-NFRAP Database. This database identifies CERCLIS sites designated "No Further Remedial Action Planned" (NFRAP) as of February 1995. These sites may be sites where, following an initial investigation, no contamination was found, contamination was removed quickly, or the contamination was not serious enough to require federal Superfund action. As indicated in Table 13.1, one CERCLIS-NFRAP site was identified in the project vicinity, the Signetics Corporation site at 305 Mathilda Avenue (in the project area).

(q) PADS Database. The PCB Activity System Database (PADS) identifies generators, transporters, commercial storers, and/or brokers and disposers of PCBs who are required to notify the U.S. EPA of such activities. One site in the project vicinity (but outside the project area), the Northrop Grumman site noted above, is on this list. The source of this database is the U.S. EPA.

13.1.3 Soil/Groundwater Contamination Potential

As indicated by the data described above and summarized in Table 13.1, the project vicinity contains numerous sites where hazardous materials are generated, stored, handled, and/or treated, including sites of existing and past industrial uses, gas stations, auto repair enterprises, and other land uses that use, store, or dispose of hazardous materials and wastes. The data indicate that some underground tanks in the project vicinity have leaked. It is also possible that fuel spills have occurred around associated above- or below-grade fuel storage tanks. Both types of occurrences could result in contamination of soil and/or groundwater in the vicinity. If fuel spills or leaks have occurred and the soil or groundwater is contaminated, project construction workers could be exposed to contamination in the short term during site preparation work. In addition, past transport, handling, and storage of fuels and other hazardous materials associated with such uses may have resulted in soil or groundwater contamination in the project vicinity. However, none of the identified sites in or immediately adjacent to the project area have been determined to pose a hazard to human health.

13.1.4 Asbestos and PCB Potential

Existing buildings in the project area could contain asbestos and/or polychlorinated biphenyls (PCBs). The presence of asbestos in a building does not necessarily mean that the building

poses a health hazard. In many cases, asbestos within buildings is inaccessible or sealed within another material, and thus unable to cause a health hazard. However, asbestos fibers can be released during building renovation or demolition, unless proper precautions are taken.

The adverse health effects associated with asbestos exposure have been extensively studied. Studies have demonstrated that inhalation of asbestos fibers may lead to increased risk of developing respiratory or abdominal cancers. There is no known safe level of exposure.

The removal, handling, transport, and disposal of asbestos are heavily regulated at the federal, state, and local levels. These regulations are designed to minimize any exposure of on-site employees (e.g., construction workers) and the general public to asbestos. The U.S. EPA provides asbestos standards. The federal Occupational Safety and Health Administration (OSHA) and its state counterpart, CalOSHA, regulate various aspects of asbestos removal, handling and disposal, to ensure worker safety. Transport and disposal of asbestos-containing material is also regulated.

PCBs are another potentially hazardous class of compounds commonly found in the electrical transformers in older commercial buildings. While manufacture of PCBs has been banned since 1977, some older pieces of equipment may still contain PCBs.

13.1.5 Regulatory and Planning Considerations

The following agencies have regulatory authority for the handling and management of hazardous materials/wastes within Sunnyvale.

(a) Environmental Protection Agency. The Environmental Protection Agency (EPA), Region IX, regulates chemical and hazardous materials use, storage, treatment, handling, transport, and disposal practices; protects workers and the community (along with CalOSHA--see below); and integrates the federal Clean Water Act and Clean Air Act into California legislation.

(b) Federal Occupational Health and Safety Administration. The federal Occupational Health and Safety Administration (OSHA) establishes and enforces regulations related to health and safety of workers exposed to toxic and hazardous materials. In addition, OSHA sets health and safety guidelines for construction activities and manufacturing facility operations.

(c) California Occupational Safety and Health Administration. The California Occupational Safety and Health Administration (CalOSHA) is responsible for promulgating and enforcing health and safety standards and implementing federal OSHA laws.

(d) State of California Water Quality Control Board. The Regional Water Quality Control Board (RWQCB), San Francisco Region, protects surface and groundwater quality from pollutants discharged or threatened to be discharged to the waters of the state. The RWQCB issues and enforces National Pollutant Discharge Elimination System (NPDES) permits.

(e) California Department of Toxic Substances Control. The California EPA, Department of Toxic Substances Control, regulates hazardous substances and wastes, oversees remedial investigations, protects drinking water from toxic contamination, and warns public exposed to listed carcinogens.

(f) Bay Area Air Quality Management District. The Bay Area Air Quality Management District (BAAQMD) is responsible for the permitting of industrial air emissions and sets and enforces air quality standards.

(g) Santa Clara Valley Water District. The Santa Clara Valley Water District has some oversight responsibilities (along with the RWQCB) on groundwater plumes that could affect water supplies.

(h) Santa Clara County. The Santa Clara County Planning Department administers the Santa Clara County Hazardous Waste Management Plan.

(i) City of Sunnyvale. The City of Sunnyvale Department of Public Safety is a State-Certified Unified Program Agency (CUPA). The Bureau of Special Operations implements all elements of the Program, including hazardous materials business plans, underground storage tanks, aboveground storage tanks (SPCC Plans), CalARP (risk management plans), hazardous waste generation, and hazardous waste treatment. The Hazardous Materials Storage Ordinance (Title 20, Sunnyvale Municipal Code) specifies additional requirements for secondary containment of hazardous materials, and the Toxic Gas Ordinance (Title 16.53, Sunnyvale Municipal Code) requires the installation of engineering controls to reduce the likelihood of an off-site release of toxic gases.

The City has implemented a Hazardous Materials Program. The Fire Prevention Bureau has jurisdiction over the storage and handling of hazardous materials/wastes, monitoring of storage tanks, toxic gasses permits, business plans for reporting of on-site hazardous materials/wastes, and right-to-know requirements. In addition, the Solid Waste Division of the City of Sunnyvale Public Works Department operates a program for disposal of hazardous waste by small generators. The Public Safety Department's Hazardous Materials Response Team responds to industrial emergencies and chemical releases and spills. The City has adopted the Santa Clara County Hazardous Waste Management Plan as the policy document and planning guide for all decisions regarding the development of off-site hazardous waste management facilities and all programs related to management of hazardous waste within the City.¹

¹City of Sunnyvale. Draft Environmental Impact Report for the Sunnyvale Town Center Mall Modifications Project, prepared by Wagstaff and Associates, January 1999.

13.2 PERTINENT PLANS AND POLICIES

The City of Sunnyvale General Plan Environmental Management Element, Water Resources Sub-Element (adopted 1996) contains the following action statements relevant to consideration of potentials for hazardous materials impacts in the project vicinity:

- *Monitor all known underground contaminations.* (Action Statement 3.1B.3a, p. 70)
- *Ensure responsible parties are taking all reasonable steps to clean up known underground contaminations.* (Action Statement 3.1B.3b, p. 70)
- *Ensure responsible enforcement agencies are taking all reasonable steps to have responsible parties clean up known underground contaminations.* (Action Statement 3.1B.3c, p. 70)
- *Ensure all business and industry are complying with the City's hazardous materials storage ordinance.* (Action Statement 3.1B.3d, p. 70)

The Community Development Element, Seismic Safety and Safety Sub-Element (adopted 1993) contains the following policies and action statements pertinent to consideration of potentials for hazardous materials impacts in the project vicinity:

- *Promote a living and working environment safe from exposure to hazardous materials.* (Policy A3, p.78)
- *Maintain current information on the hazardous materials used in Sunnyvale businesses and their potential hazards to the community.* (Action Statement A.3.1, p. 78)
- *Use the Santa Clara County Hazardous Waste Management Plan (CHWMP) as Sunnyvale's policy document and planning guide for planning off-site hazardous waste management facilities and all hazardous waste management programs within the city.* (Action Statement A.3.4, p. 78)

13.3 IMPACTS AND MITIGATION MEASURES

13.3.1 Significance Criteria

Based on the CEQA Guidelines (2002), the project would be considered to have a significant impact if it would directly or indirectly:

- (a) create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials;¹
- (b) create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment;²
- (c) emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school;³
- (d) be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, create a significant hazard to the public or the environment;⁴ or
- (e) impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan.⁵

13.3.2 Impacts and Mitigation Measures

Existing and Future Hazardous Materials Use and Disposal. Hazardous substances may be stored, generated, and/or used in association with future new commercial uses permitted or facilitated by the project. Future project vicinity occupants may be exposed to accidental spillage or leakage of hazardous materials stored in on-site commercial areas. The Sunnyvale Department of Public Safety considers such existing and potential commercial uses (e.g., photo developers, jewelers, medical-related activities) as "very low risk sites" and anticipates no significant hazardous materials impact from their current or future operation.⁶

All hazardous materials are required to be stored and handled according to manufacturer's directions and local, state, and federal regulations. Some of these regulations may include posting of signs, Fire Prevention Bureau notification, and specialized containment facilities.

¹CEQA Guidelines, Appendix G, item VII(a).

²CEQA Guidelines, Appendix G, item VII(b).

³CEQA Guidelines, Appendix G, item VII(c).

⁴CEQA Guidelines, Appendix G, item VII(d).

⁵CEQA Guidelines, Appendix G, item VII(e).

⁶Ron Staricha, Hazardous Materials Coordinator, City of Sunnyvale Department of Public Safety, written communication, October 17, 2002.

The City would require all new commercial and other uses in the project area to follow applicable regulations and guidelines regarding the storage and handling of hazardous waste. These established measures would be expected to ensure that the potentially significant health and safety effects associated with project-related potential exposure to stored hazardous materials would remain a ***less-than-significant impact***.

Mitigation. No significant adverse impact has been identified; no additional mitigation is required.

Exposure to Existing Hazardous Materials Contamination. Due to the large number of contaminated sites in the project vicinity, there is always a small possibility that project construction could encounter contamination and expose construction workers to existing spilled, leaked, or otherwise discharged hazardous materials or wastes. Each developer of a site in the project area would be required to comply with all applicable existing state- and county-mandated site assessment, remediation, removal, and disposal requirements for soil, surface water, and/or groundwater contamination. In particular, these include the requirements of the City of Sunnyvale, Regional Water Quality Control Board (RWQCB), and California Department of Toxic Substances Control (DTSC). Compliance with these established requirements would be expected to assure that this possible health and safety impact would be ***less-than-significant***.

Typically, implementation of these measures would involve the following steps:

(a) **Soil Contamination.** In order to mitigate potential health hazards related to construction personnel or future occupant exposure to soil contamination, developers would complete the following steps for each site proposed for disturbance as part of a project-facilitated construction activity in the project area:

- Step 1. Investigate the site to determine whether it has a record of hazardous material discharge into soils, and if so, characterize the site according to the nature and extent of soil contamination that is present before development activities proceed at that site.
- Step 2. Based on the proposed activities associated with the future project proposed, determine the need for further investigation and/or remediation of the soils conditions on the contaminated site. For example, if the area is slated for commercial land use, such as a retail center, the majority of the site will be paved and there will be little or no contact with contaminated soil. Industrial cleanup levels would likely be applicable. If the slated development activity could involve human contact with soils, such as may be the case with residential use, then Step 3 should be completed. If no human contact is anticipated, then no further mitigation is necessary.

Step 3. If it is determined that extensive soil contact would accompany the intended use of the site, undertake a Phase II investigation, involving soil sampling at a minimum, at the expense of the property owner or responsible party. Should further investigation reveal high levels of hazardous materials in the site soils, mitigate health and safety risks according to City of Sunnyvale, Santa Clara County Department of Environmental Health, and Regional Water Quality Control Board (RWQCB) regulations. This would include site-specific health and safety plans prepared prior to undertaking any building or utility construction. Also, if buildings are situated over soils that are significantly contaminated, undertake measures to either remove the chemicals or prevent contaminants from entering and collecting within the building. If remediation of contaminated soil is infeasible, a deed restriction would be necessary to limit site use and eliminate unacceptable risks to health or the environment.

(b) *Surface or Groundwater Contamination.* In order to reduce potential health hazards due to construction personnel or future occupant exposure to surface water or groundwater contamination, developers would complete the following steps for each site proposed for disturbance as part of a project-facilitated construction activity in the project area:

- Step 1. Investigate the site to determine whether it has a record of hazardous material discharge into surface or groundwater, and if so, characterize the site according to the nature and extent of contamination that is present before development activities proceed at that site.
- Step 2. Install drainage improvements in order to prevent transport and spreading of hazardous materials that may spill or accumulate on-site.
- Step 3. If investigations indicate evidence of chemical/environmental hazards in site surface water and/or groundwater, then mitigation measures acceptable to the RWQCB would be required to remediate the site prior to development activity.
- Step 4. Inform construction personnel of the proximity to recognized contaminated sites and advise them of health and safety procedures to prevent exposure to hazardous chemicals in surface water/groundwater.

Mitigation. No significant additional adverse impacts have been identified; no additional mitigation is required.

Potential Asbestos and PCB Exposure. Removal or disturbance of asbestos-containing material (ACM) and/or transformers during project-facilitated alteration, renovation, or demolition of existing structures within the project area could expose construction workers and the general public to friable asbestos and/or PCBs. Therefore, as a condition of project-

facilitated alteration, renovation, or demolition permit approval for buildings within the project area, the City would routinely require the project applicant to coordinate with the Bay Area Air Quality Management District (BAAQMD) to determine if asbestos or PCBs are present.

Ensuring proper identification and removal of ACM and/or PCBs requires each project applicant to complete the following steps:

- Step 1. Thoroughly survey the project site and existing structures for the presence of asbestos-containing material. The survey shall be performed by a person who is properly certified by OSHA and has taken and passed an EPA-approved building inspector course.
- Step 2. If building elements containing any amount of asbestos are present, prepare a written *Asbestos Abatement Plan* describing activities and procedures for removal, handling, and disposal of these building elements using the most appropriate procedures, work practices, and engineering controls.
- Step 3. Provide the asbestos survey findings, the written *Asbestos Abatement Plan* (if necessary), and notification of intent to demolish to the City of Sunnyvale and Santa Clara County Department of Environmental Health at least ten days prior to commencement of demolition.
- Step 4. Remove any on-site transformers prior to demolition of non-residential buildings.

Implementation of these required measures would be expected to reduce the potentially significant health and safety impacts associated with asbestos removal and PCBs to a **less-than-significant level**.

Mitigation. No significant adverse impacts have been identified; no additional mitigation is required.

Interference With Emergency Response Plans. The project would not interfere with any established emergency response plan, provided that mitigation measures identified in chapter 8 (Public Services and Utilities) are implemented.

Mitigation. No significant adverse impacts have been identified; no additional mitigation is required.

