

Redwood City General Plan

Hazards and Hazardous Materials

Background Report

This Background Report describes existing conditions related to hazardous materials¹ and other public health and safety issues within the City of Redwood City. The purpose of this report is to provide information to assist in the preparation and evaluation of a new General Plan for the City, proposed to replace the General Plan which was prepared in 1990. The evaluation was based on existing plans and policies and a review of regulatory agency database listings of hazardous materials release sites.² Information from this report will also be used in California Environmental Quality Act (CEQA)-related environmental review of the new General Plan.

Hazardous Materials

Products as diverse as gasoline, paint, solvents, household cleaning products, refrigerants, and radioactive substances are categorized as hazardous materials. What remains of a hazardous material after use, or processing, is considered to be a hazardous waste. Of concern to all communities are the handling, transportation, and disposal of such wastes, as well as proper handling of hazardous materials.

Beginning in the 1970s, governments at the federal, state, and local level became increasingly concerned about the effects of hazardous materials

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

² Environmental Data Resources (EDR), 2008a, EDR Zip/Plus Report, Redwood City, CA 94065, May 15; EDR, 2008b, EDR Zip/Plus Report, Redwood City, CA 94063, May 15; EDR, 2008c, EDR Zip/Plus Report, Redwood City, CA 94062, May 15; EDR, 2008d, EDR Zip/Plus Report, Redwood City, CA 94061, May 15 (see Appendix A).

management on human health and the environment. Numerous laws and regulations were developed to investigate and mitigate these effects. As a result, the storage, use, generation, transport, and disposal of hazardous materials and waste are highly regulated by federal, state, and local laws and regulations.

Regulatory Agency Framework

A myriad of laws and regulations at the federal, state, and local levels regulate the management of hazardous materials. In California, the U.S. Environmental Protection Agency (U.S. EPA) has granted most enforcement authority over federal hazardous materials regulations to the California Environmental Protection Agency (Cal/EPA). In turn, a local agency, the San Mateo County Health Department, Environmental Health Division (SMCEHD) has been granted responsibility for implementation and enforcement of many hazardous materials regulations in the County under the Certified Unified Program Agency (CUPA) Program (described below).

In California, regional agencies are responsible for programs regulating emissions to the air, surface water, and groundwater. In Redwood City, the Bay Area Air Quality Management District (BAAQMD) has oversight over air emissions, and the San Francisco Bay Area Regional Water Quality Control Board (Water Board) regulates discharges and releases to surface and groundwater. The Cal/EPA Department of Toxic Substances Control (DTSC) regulates remediation of sites where discharges to land could potentially present a public health risk.

Oversight over investigation and remediation of sites affected by hazardous materials releases can be performed by state agencies, such as DTSC, regional agencies, such as the Water Board, or local agencies, such as SMCEHD, which oversees investigation and remediation of leaking underground petroleum storage tank (LUST) sites in Redwood City.

The Redwood City Fire Department (RCFD) provides emergency services to the Plan Area, including acting as first responder to potential hazardous material incidents. The RCFD requires permits for storing, dispensing, using, or handling hazardous materials in excess of quantities [regulated by the International Fire Code and other Local, State and Federal regulations](#). The Redwood City [Building and Inspection Department and Fire Department](#) enforce sections of the [International Building Code and International Fire Code](#) that relate to hazardous materials, such as requirements for spill control and secondary containment and fire control measures. [\(LV-Fire\)](#)

The Fire Prevention Code, Chapter 12, Article II, of the Redwood City Municipal Code identifies geographical limits in which the storage of hazardous materials is prohibited. This section of the Municipal Code incorporates the aspects of the 2006 International Fire Code, which prohibit in certain sensitive zoning districts the storage of potentially flammable cryogenic fluids, highly combustible liquids, and liquefied natural gas.³

The U.S. Department of Transportation (DOT) is the Federal administering agency for hazardous materials transportation safety. The DOT Office of Hazardous Materials Safety oversees a national safety program to minimize the risks related to commercial transportation of hazardous materials. The Federal hazardous materials transportation law (49 United States Code 5101 et seq.) is the basic statute regulating hazardous materials transportation in the United States. Federal hazardous materials transportation regulations are contained in 49 Code of Federal Regulations Parts 171-180. In California, the California Department of Transportation (Caltrans) is the implementing agency for DOT laws and regulations.

Certified Uniform Program Agency (CUPA) Program

The CUPA program was established under California Senate Bill 1082 to reduce the cost and improve the efficiency of hazardous materials regulations. Redwood City's hazardous materials programs are administered and enforced by SMCEHD under the CUPA program. The CUPA program encompasses several hazardous materials programs: Hazardous Materials Management Plans (HMMP) program, California Accidental Release Prevention (CalARP) program, underground storage tank (UST) programs, above ground storage tank (AST) programs, and hazardous waste generation and disposal. The five hazardous materials programs administered under the CUPA program are described briefly below.

Hazardous Materials Management Plan

Businesses that store hazardous materials in excess of specified quantities must report their chemical inventories to SMCEHD by preparing a Hazardous Materials Management Plan (HMMP), also known as a Business Plan. This information informs the community on chemical use, storage, handling, and disposal practices. It is also intended to provide essential information to fire fighters, health officials, planners, elected officials, workers, and their representatives so

³ Zoning districts in which these materials are prohibited include residential, general commercial, neighborhood commercial, central business, tidal plain, and mobile home park, as defined in the Redwood City Zoning Code, Zoning Ordinance No. 2326. March 14, 2006.

that they can plan for and respond to potential exposures to hazardous materials.

California Accidental Release Prevention Program

Under the California Accidental Release Prevention (CalARP) Program, businesses that use large quantities of acutely hazardous materials must prepare a detailed engineering analysis of the potential accident factors present at a business and the mitigation measures that can be implemented to reduce this accident potential.

Underground Storage Tank Programs

Due to fire hazards, flammable liquids, such as gasoline, have historically been stored in USTs, which, over time, tend to leak, resulting in potential risks for the general public and the environment. Current regulations require that USTs be installed, monitored, operated, and maintained in a manner that protects public health and the environment. Tanks must be constructed with primary and secondary levels of containment and be designed to protect public health and the environment for the lifetime of the installation. The USTs must be monitored for leaks and built such that a leak from the primary container into the secondary container will be detected. When a UST is proposed to be removed, a detailed permit application must be submitted to SMCEHD, which oversees removal activities to identify evidence of leakage.

Above Ground Storage Tank Programs

Inspections and permits are required for facilities storing hazardous materials in above ground storage tanks (ASTs) by SMCEHD. In addition, any facility operating ASTs with an aggregate tank capacity of 1,320 gallons or more must: 1) complete a Spill Prevention Control and Countermeasure (SPCC) plan to provide a detailed engineering analysis of the potential for release from ASTs present at a facility and the measures, such as secondary containment and emergency response that can be implemented to reduce the release potential and 2) file a storage statement, as required by the State Water Resources Control Board.

Hazardous Waste Generation and Disposal

Once a hazardous material has been used or processed, what remains may be considered a hazardous waste. Many items routinely used by residents and businesses, such as paints and thinners, cleaning products, and motor oil, are considered hazardous waste once they are ready for disposal. Nearly all

businesses and residences in Redwood City are expected to generate some amount of hazardous wastes (including household hazardous wastes). Hazardous waste generation and disposal regulations are administered and enforced by SMCEHD. Businesses that generate more than 100 kilograms of hazardous waste per month, or more than one kilogram of acutely hazardous waste, must be registered with U.S. EPA's Resource Conservation and Recovery Act (RCRA) program and are subject to extensive regulations regarding storage and disposal. Redwood City businesses that do not exceed the RCRA thresholds can take advantage of San Mateo County's Very Small Quantity Generator (VSQG) program, which assists small businesses not subject to the RCRA program to dispose of their hazardous wastes safely and cost-effectively. San Mateo County conducts regular Household Hazardous Waste collection events at the Municipal Service Center in Redwood City.

Brownfields Programs

As cities age and patterns of development change, former industrial properties, gasoline stations, and other parcels with land uses associated with hazardous materials are often abandoned. These properties, where soils and groundwater are known or suspected to be contaminated, are often referred to as "brownfields." The threat of contamination and potential liability for cleanup costs drives developers away from brownfields and encourages growth on previously undeveloped parcels at the outskirts of urban areas. This results in the inefficient use of land and blight in older portions of cities.

A variety of state and federal programs encourages the safe reuse of brownfields properties. Grants, loans, and environmental insurance products for brownfields redevelopment projects are available from U.S. EPA, Cal/EPA, and other agencies. State legislation, such as SB 1248,⁴ and other initiatives have made changes to regulatory oversight programs to make the process of remediation of brownfield sites more uniform and efficient.

In addition, the Polanco Redevelopment Act⁵ grants redevelopment agencies substantial discretion and authority in the cleanup process. The powers granted under the Act can allow a redevelopment agency to significantly speed up the investigation and remediation process of potentially contaminated properties, and provides mechanisms for recovery of the costs incurred. Following successful assessment and remediation of a property under the provisions of the Polanco Redevelopment Act, developers and future land owners are no longer liable for future cleanup costs incurred as a result of historic contamination.

⁴ California Health and Safety Code, Section 25260 et seq.

⁵ California Health and Safety Code, Section 33459 et seq.

The California Land Reuse and Revitalization Act,⁶ which went into effect in January 2005, provides additional immunity to developers of urban infill parcels that enter into agreements with regulatory oversight agencies. Once an agreed-upon program of investigation and remediation has been completed, immunity for additional hazardous materials response costs or other damages may be granted.

DTSC and the Water Board have developed a number of remedial programs specifically designed to speed the investigation and remediation of low-risk brownfields properties. These include the Voluntary Cleanup Program (VCP), Expedited Remedial Action Program, Prospective Purchasers Agreement, and the Spills, Leaks, Investigation, and Cleanup (SLIC) Program.

Reported Hazardous Material Release Sites

Significant quantities of hazardous materials are currently and have historically been used at heavy industrial sites in Redwood City, such as those along Seaport Boulevard and the Port of Redwood City, as well as light industrial and commercial sites throughout the City. Releases of hazardous materials may occur during use, storage, transfer, and disposal of these materials, and can contaminate soil and groundwater at these sites. Releases that affect groundwater can migrate with the groundwater and contaminate other nearby sites.

Construction and maintenance workers may be exposed to hazardous materials releases through direct exposure to soils and groundwater during earthmoving and other construction activities. Workers, residents, and other members of the general public may be exposed to hazardous materials in surface soils or volatile hazardous materials that migrate into buildings from contaminated soils or groundwater through soil gases. Use of groundwater for irrigation or other purposes can also expose workers and the general public to contaminants from the subsurface.

To evaluate the potential for hazardous materials to be present in soils and groundwater at redevelopment sites within the City, regulatory agency listings of hazardous materials release sites for Redwood City zip codes⁷ were reviewed. Sites currently under regulatory oversight are listed on **Table X-1**, and sites that are inactive are listed on **Table X-2**. Inactive sites have been investigated and remediated under the oversight of a regulatory agency (such as SMCDEH, DTSC,

⁶ California Health and Safety Code, Section 25395.60 et seq.

⁷ Environmental Data Resources (EDR), 2008a, 2008b, 2008c, 2008d, *op cit*.

or the Water Board), but residual contamination could still be present that may affect future land uses. For example, an industrial property could be remediated to cleanup levels appropriate for future industrial land uses, but contamination could remain at concentrations that may be incompatible with residential or other sensitive land uses.

Hazardous materials release sites in the City are summarized below, and the complete environmental database reports reviewed for this background report are included in electronic format as Appendix **XXX**.

CERCLIS

Two active and nine inactive sites were listed on the US EPA Comprehensive Environmental Response, Compensation, and Liability Information System (CERCLIS) database (Tables X-1 and X- 2). CERCLIS is a federal program to investigate and remediate high-priority hazardous material sites, excluding those where only petroleum contamination is discovered. Depending on the preliminary findings of the investigations and potential health risks of the site, the sites may be elevated to the US EPA National Priority List (NPL, commonly referred to as "Superfund"). No current or former NPL sites were identified in Redwood City.

Table X-1 6 pages
Active Hazardous Materials Sites in Redwood City

Table X-2 7 pages
Inactive (Closed) Hazardous Materials Release Sites in Redwood City

Bond Expenditure Program

One inactive site was listed on the Bond Expenditure Program list of sites that were targeted for cleanup by DTSC under the Expenditure Plan for the Hazardous Substance Cleanup Bond Act of 1984 (Table X-2). No sites were added to this program after 1989,⁸ and the program was officially closed in January 2007.⁹

DTSC Evaluation/Voluntary Cleanup Program

One active and six inactive sites were listed on the DTSC Envirostor database of hazardous materials sites evaluated by DTSC (Tables X-1 and X- 2). The active site is in the Voluntary Cleanup Program (VCP), a program designed for the remediation of low-risk sites. None of the DTSC Envirostor sites in Redwood City were listed on the Annual Work Plan database of high-priority hazardous material sites (AWP, also referred to as "State Superfund").

Leaking Underground Storage Tanks

The majority of hazardous materials release sites in Redwood City are related to leaking underground storage tanks. Although current regulations requiring double-wall construction and leak monitoring equipment for underground storage tanks should reduce the number of releases in the future, many underground tanks installed in previous decades have failed, causing petroleum contamination in soils and groundwater. These releases are often discovered during tank removal or upgrade activities. Sixty-six active and 146 inactive leaking underground tank sites were identified within Redwood City (Tables X-1 and X- 2).

Spills, Leaks, Investigations, and Cleanups

Sites with groundwater contamination, not related to underground storage tanks, may be investigated and remediated under the Water Board Spills, Leaks, Incidents, and Cleanups (SLIC) program. Thirty-two active and 19 inactive SLIC sites were identified in Redwood City (Tables X-1 and X- 2).

⁸ *Ibid.*

⁹ California Health and Safety Code, Section 25173.6(h).

Other Hazardous Materials Concerns

Aerially-Deposited Lead Near Major Roadways

Aerially-deposited lead is a common hazardous materials issue in urban areas. Soils adjacent to major roadways often contain elevated concentrations of lead. The lead deposition is the result of airborne particulates and surface water runoff associated with tailpipe emissions prior to the time lead was phased out of vehicle fuels. Studies by the California Department of Transportation (Caltrans) suggest that hazardous waste levels of lead, if present, are generally found in soils within 30 feet of the edge of the pavement.¹⁰

Redwood City contains a number of heavily-trafficked roadways, including US Highway 101 and State Highways 82 (El Camino Real) and 84 (Woodside Road). Properties located adjacent to the roadways may contain elevated concentrations of lead in exposed surface soils, which could pose a health hazard to construction workers and users of the properties. Lead is a state-recognized carcinogen (causes cancer) and reproductive toxicant (causes birth defects or other reproductive harm).¹¹ Exposure of construction workers or future site occupants to lead in soil could result in adverse health effects, depending on the duration and extent of exposure.

Schools and Other Sensitive Receptors

Some populations, such as children, the elderly, and the infirm, are more susceptible to health effects of hazardous materials than the general population. Hazardous materials use near schools, day care centers, senior housing, and hospitals must consider potential health effects to these populations, often referred to as "sensitive receptors." Construction or redevelopment on contaminated properties that could potentially generate vapors or fugitive dust containing contaminants may potentially pose a health risk to these populations. In addition, commercial businesses in proximity to sensitive receptors may have hazardous emissions or handle hazardous or acutely hazardous materials or wastes that could pose a health risk to these sensitive receptors.

¹⁰ Cal/EPA, DTSC, 2000, Fact Sheet, Variance for Caltrans Districts 4,6,7,8,10,11,12 for Reuse of Lead-Contaminated Soils.

¹¹ Cal/EPA, Office of Environmental Health Hazard Assessment, Safe Drinking Water and Toxic Enforcement Act of 1986, 2007, Chemicals Known to the State to Cause Cancer or Reproductive Toxicity, 1 June.

Lead, Asbestos, and Other Hazardous Materials in Buildings

Hazardous materials are commonly found in building materials that may be affected during demolition and renovation activities associated with redevelopment. Prior to 1978, lead compounds were commonly used in interior and exterior paints. Prior to the 1980s, building materials often contained asbestos fibers, which were used to provide strength and fire resistance. In addition, other common items are present in buildings, such as electrical transformers, fluorescent lighting, electrical switches, heating/cooling equipment, and thermostats that can contain hazardous materials, which may pose a health risk if not handled and disposed of properly.

Demolition of buildings has the potential to release lead particles, asbestos fibers, and/or other hazardous materials to the air where they may be inhaled by construction workers and the general public. Federal and state regulations govern the demolition of structures where lead or material containing lead is present. During demolition, lead-based paint that is securely adhering to wood or metal may be disposed of as demolition debris, which is a non-hazardous waste. Loose and peeling paint must be disposed of as a California and/or federal hazardous waste if the concentration of lead exceeds applicable waste thresholds. State and federal construction worker health and safety regulations require air monitoring and other protective measures during demolition activities where lead-based paint is present.

Federal, state, and local requirements also govern the removal of asbestos or suspected asbestos-containing materials (ACMs), including the demolition of structures where asbestos is present. All friable (crushable by hand) ACMs, or non-friable ACMs subject to damage, must be abated prior to demolition in accordance with applicable requirements, including notification to the BAAQMD. Friable ACM must be disposed of as an asbestos waste at an approved facility. Non-friable ACM may be disposed of as non-hazardous waste at landfills that will accept such wastes. Workers conducting asbestos abatement must be trained in accordance with state and federal Occupational Safety and Health Administration (OSHA) regulations.

Fluorescent lighting tubes and ballasts, computer displays, and several other common items containing hazardous materials are regulated as "universal wastes" by the State of California. Universal waste regulations allow common, low-hazard wastes to be managed under less stringent requirements than other hazardous wastes. Management of other hazardous wastes is governed under DTSC hazardous waste rules.

Worker Health and Safety

The U.S. Department of Labor, OSHA regulates worker health and safety at the federal level. The Federal Occupational Safety and Health Act of 1970 authorizes states (including California) to establish their own safety and health programs with OSHA approval; the California Department of Industrial Relations (DIR) regulates implementation of worker health and safety in California. The DIR includes the Division of Occupational Safety and Health (DOSH), which acts to protect workers from safety hazards through its California OSHA (Cal/OSHA) program and provides consultative assistance to employers.

California standards for workers dealing with hazardous materials are contained in Title 8 of the California Code of Regulations (CCR) and include practices for all industries (General Industrial Safety Orders), and specific practices for construction and other industries. Workers at hazardous waste sites (or working with hazardous wastes as might be encountered during excavation of contaminated soil) must receive specialized training and medical supervision according to the Hazardous Waste Operations and Emergency Response (HAZWOPER) regulations.¹² Additional regulations have been developed for construction workers potentially exposed to lead¹³ and asbestos.¹⁴ Cal/OSHA enforcement units conduct on-site evaluations and issue notices of violation to enforce necessary improvements to health and safety practices.

Operations at the Port of Redwood City

Many businesses throughout Redwood City routinely handle potential hazardous materials and are regulated as described in the paragraphs above. Some businesses operating near the Port of Redwood City merit particular mention in this overview. The vast majority of materials transferred in the Port, in terms of weight, are not hazardous. These materials include scrap metal, sand, concrete, and other inert materials.

However, the Port is of one of only two hazardous waste- rail transfer sites in the State of California. Three businesses operating at the Port ~~which~~that handle large volumes of hazardous waste materials are:

- Basic Chemical Solutions, ~~which~~ distributes inorganic mineral acids and bases to international and domestic customers

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¹² Title 8, CCR Section 5192.

¹³ Title 8, CCR Section 1532.1.

¹⁴ Title 8, CCR Section 1529.

- Clean Harbors Environmental Services, Inc. (located at the former Romic Environmental Technologies facility) transships millions of gallons a year of recycled industrial fuel.
- Seaport Refining and Environmental recycles petroleum pipeline waste for resale as useable fuel and also provides wastewater treatment in Redwood City.

Port businesses directly handling, recycling, and/or generating hazardous materials are monitored by the local and regional regulatory agencies. These agencies mandate the provision of hazardous waste management plans, implement regular audits and inspections of the facilities, and also determine remediation and abatement programs in instances of an unauthorized release of hazardous materials. As part of the General Plan update, potential uses in and near the Port must take into consideration these existing uses, along with other industrial operations in and near the area. Any new uses in the area may require buffering from such uses to ensure the long-term viability of existing and any new uses.

Relevant City Policies

As described under Regulatory Framework, above, County and State agencies have most of the responsibility for the administration and enforcement of hazardous materials laws, regulations, and programs within the City. The current General Plan contains one Objective and one Policy related to hazardous materials:¹⁵

Safety Objective 2: Protect city residents from the risks inherent in the use, storage, transport, and distribution of hazardous materials.

Safety Policy S-9: Adopt a hazardous waste ordinance which is compatible with the County hazardous waste management plan.

As noted under Regulatory Framework, above, the Redwood City Community Development Services Department, Building and Inspection Division, and the Redwood City Fire Department assist in the implementation of these policies through the enforcement of those sections of the Uniform Building Code and Uniform Fire Code relating to hazardous materials.

¹⁵ City of Redwood City, 1990, Strategic General Plan, Safety Element, Chapter 12, Page 12-3.

Other Public Health and Safety Concerns

Aviation Hazards

San Carlos Airport is a general aviation facility located along the northwest border of Redwood City (**Figure X-1**). Land uses near the airport are regulated by the San Mateo County City/County Association of Governments (CCAG) Airport Land Use Committee (ALUC). The ALUC maintains and implements the Comprehensive Airport Land Use Plan (CLUP) for San Carlos Airport.

Under the CLUP, the entire City of Redwood City is in San Carlos Airport Influence Area A, which requires real estate disclosures. Areas within 9,000 feet of San Carlos Airport, including portions of northern and eastern Redwood City, are in Airport Influence Area B (Figure X-1).¹⁶ Any development within Airport Influence Area B requires formal review by the ALUC to ensure that the development is consistent with aviation safety requirements.

The current General Plan contains one Objective and two Policies related to aviation hazards:¹⁷

Safety Objective 4: Protect the safety of people on the ground and in aircraft in flight in the vicinity of San Carlos Airport.

Safety Policy S-11: review and update the General Plan as necessary to ensure the General Plan is consistent with the county Airport Land Use Plan.

Safety Policy S-12: Regulate land uses surrounding airports to assure airport safety. Measures may include restrictions on permitted land uses and development criteria.

¹⁶ San Mateo County City/County Association of Governments Airport Land Use Committee (CCAG/ALUC), 2004, Revised Airport Influence Area Boundary for San Carlos Airport – Area B, Approved October 14.

¹⁷ City of Redwood City, 1990, *op cit.*, Pages 12-3 to 12-4.

Figure X-1 1 page
San Carlos Airport Influence Area Boundary (Area B)

Wildfire Hazards

In accordance with California Public Resource Code Section 4201-4204 and Government Code Section 51175-51189, the California Department of Forestry and Fire Protection (CDF) has mapped areas of significant fire hazards based on fuels, terrain, weather, and other relevant factors. These zones, referred to as Fire Hazard Severity Zones (FHSZ), represent the risks associated with wildland fires.

FHSZ for the City of Redwood City and surrounding areas are shown on Figure 3. Small areas of moderate and high wildland fire risk are mapped in eastern Redwood City, on Baiñ and Bird Islands (Figure 3). Larger areas of moderate, high, and very high wildland fire risk are mapped along hills near the western City boundary (Figure X-2).¹⁸

Under State regulations,¹⁹ areas within very high fire hazard risk zones must comply with specific vegetation management requirements intended to reduce property damage and loss of life within these areas. Redwood City Community Development Services Department, Code Enforcement staff enforce Redwood City Code 14.72F, which requires property owners to remove weeds, vegetation, and trees that may constitute a fire hazard.

Emergency Response

The City of Redwood City has developed a City Emergency Operations Plan²⁰ intended to provide a comprehensive emergency response document for natural disasters and man-made events. The Plan includes detailed emergency management procedures designed for prevention, preparedness, response, and recovery. The Plan is reviewed and revised annually by the City Manager, who is designated as Director of Emergency Services, assisted by the Fire Chief, who is designated as Emergency Operations Manager.

The current General Plan contains one Objective and five Policies related to emergency response:²¹

¹⁸ California Department of Forestry and Fire Protection (CDF), 2007, San Mateo County Fire Hazard Severity Zoning Map, adopted November 7.

¹⁹ Government Code, Section 51182.

²⁰ City of Redwood City, 2006, City of Redwood City Emergency Operations Plan, Version 1.1, May.

²¹ City of Redwood City, 1990, *op cit.*, Page 12-3.

Figure X-2 1 page
Wildfire Hazard Zones

Safety Objective 3: Improve the community capability to respond promptly, efficiently, and effectively in the event of a major earthquake or other natural or man-made disaster.

Safety Policy S-3: Review and update, as needed, the City's disaster response plans in coordination with the County's natural disaster preparedness plan.

Safety Policy S-4: Promote improved interjurisdictional cooperation and communication regarding disaster or emergency plans of San Mateo County, and the seismic safety of such features as dams, reservoirs, bayfront levees and highway structures.

Safety Policy S-5: Standing agreements should be reached with other public and private agencies to furnish specified aid upon demand in the event of a major emergency.

Safety Policy S-6: Alternative water resources for fire fighting purposes should be identified for use during a disaster.

Safety Policy S-7: New development should provide adequate access for emergency vehicles, particularly fire fighting equipment, as well as provide secure evacuation routes for the inhabitants of the area.

Comment [t1]: Flooding should be listed with FEMA level discussion; J.E. Planning

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Flood Hazards

~~The Federal Emergency Management Agency (FEMA) has mapped areas of significant flooding hazards on a national level. These areas are FEMA maps these areas are based on local Flood Insurance Rate Maps or (FIRMs.)- A typical FIRM will which presents show specific flood hazard areas, flood risk zones, and flood plains at a local level of detail applicable to the community. In some identified flood hazard zones, certain types of construction and/or uses are prohibited or are required to carry flood insurance. Cities and other jurisdictions use FIRMs to establish zoning districts, buffers, or other regulatory requirements intended to protect people and property from flood damage and minimize the cost of physical flood control mechanisms. Typically, FIRMs are used for planning or zoning purposes in an effort to control development within a flood way.~~

~~The latest official flood maps for Redwood City date from 1982. While FEMA is currently in the process of updating their maps, 1982 flood plain maps for San Mateo County, the review of the 1982 FIRMs FIRMs indicates that the north and~~

east portions of Redwood City are within a flood plain, particularly in areas near the San Francisco Bay and Redwood Creek. As indicated in the Redwood City FIRM, lands to the north and east of Highway 101 are located within the 100-year flood plain. This area includes the vicinity of Seaport Boulevard, the mobile home parks to the east of Highway 101, Bair Island, and low-lying portions of Redwood Shores, while areas to the south and west of Highway 101 are not within a designated flood plain or flood risk zone.²²

It is not known if or how new FIRM maps for the City will address the potential for sea level rise, which is acknowledged by most climatologists as a likelihood in the event of global warming.

The Intergovernmental Panel on Climate Change (IPCC) has released a report on earth's changing climate and the consequences thereof. One such consequence of the increase in global temperatures is the rise in sea levels due to thermal expansion of warming ocean water and melting of continental ice, including mountain glaciers and land bound polar ice on Greenland and Antarctica. In their report IPCC analyzed the likely effect on global sea levels that different future emission scenarios would have. The most optimistic scenario, that of a global population peaking mid-century and with rapid changes in economic structures toward a service and information technology, indicates a global sea level rise of 0.18 to 0.38 meters (about 7 inches to 1.25 feet) by the year 2100. The least optimistic scenario, that of rapid economic growth, a global population peaking mid-century and the use of fossil intensive energy sources, indicates a global sea rise of 0.26-0.59 meters (about 10 inches to nearly 2 feet). As portions of the City are at elevations as low as sea level, projected sea level rise is an important planning factor. A sea level rise on the higher end of the scenarios could inundate the lowest lying eastern portions of the City and exacerbate existing flood hazard areas.

The current General Plan contains two Policies related to flooding:

Safety Policy S-8: New development should be designed to provide protection from potential impacts of flooding during the 100-year flood.

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Safety Policy S-14: Existing levees which protect residential communities and commercial areas should be upgraded at regular and prudent intervals to assure acceptable safety margins from flooding resulting from land settlement or from the sea level increases expected from the greenhouse effect, as indicated by BCDC.

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²² Flood Insurance Rate Map, Redwood City/San Mateo County (Item 060325IND0), Federal Emergency Management Agency. May 17, 1982.

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Summary

The storage, transportation, and clean-up (remediation) of hazardous materials are highly regulated by federal and state laws, regulations, and programs. In Redwood City, hazardous materials oversight is performed at the state, regional, and County level, with little direct role for the City government.

However, through the land use planning process, Redwood City could seek to exercise further control over hazardous materials. Currently, the General Plan limits heavy industrial (manufacturing) uses to areas immediately around the Port and along Redwood Creek. Research and development uses, some of which entail the use of hazardous materials, are currently allowed in numerous locations around Downtown. The General Plan update could set forth new goals and policies related to these different areas. For example, a “buffer” area could be established around existing heavy industrial areas that would preclude development allowing potential sensitive receptors (meaning residences, schools, etc.) from being in close proximity to hazardous materials. Conversely, weighing both safety and economic considerations, the City could seek to place further limitations on the amount of heavy industries allowed to operate, thereby reducing potential exposure to hazardous materials.

Redevelopment of properties where hazardous materials releases have occurred has the potential to expose workers and residents to contaminants in soils and groundwater. In order to minimize these risks, the City may wish to incorporate requirements for environmental site assessment into the planning process. The most commonly used guideline for environmental site assessment is the US EPA’s “All Appropriate Inquiries” (AAI) rule,²³ which was released in November 2005.

Compliance with AAI generally starts with preparation of a Phase I Environmental Site Assessment (ESA), which includes a site reconnaissance and review of readily available historical and regulatory records by an environmental professional. Should the Phase I ESA identify potential hazardous materials issues, a Phase II ESA would be performed, which would include the collection and analysis of soil and/or groundwater samples. For those sites where contamination is identified, the City may wish to take advantage of state and federal brownfields programs so that these sites can be remediated and redeveloped as quickly and cost-effectively as possible.

²³ Title 40, Code of Federal Regulations, Part 312.

Other public safety issues associated with redevelopment projects, including aviation hazards, wildfire hazards, and emergency response, appear to be adequately addressed by current State, County, and City programs.

TABLE X-1: Active Hazardous Materials Sites in Redwood City

Site Name	Address	Hazardous Material Involved	Status
CERCLIS			
Duolite International	800 Chestnut St	Not Reported	Corrective Measures Implemented Through RCRA Program
Pilot Petroleum Corp.	475 Seaport Blvd	Not Reported	Corrective Measures Implemented Through RCRA Program
DTSC EVALUATION/VCP			
Bradford Street Parcels	707 Bradford St	Polynuclear Aromatic Hydrocarbons (PAHs)	Active in Voluntary Cleanup Program
LUST			
Redwood Plaza Federal Mogul	Unknown (Street Address Not Reported)	Diesel and Solvents	Remedial Action Underway
5 th Ave Service/A-1 Gas Station	795 5 th Ave	Gasoline	Post Remedial Action Monitoring
Unocal #3810	844 5 th Ave	Misc. Fuels	Post Remedial Action Monitoring
A-1 Rental Co.	1125 Arguello St	Misc. Fuels	Post Remedial Action Monitoring
Ramirez/Bayshore Project	North of 1903 E. Bayshore Road	Not Reported	Preliminary Assessment
L & L Landscape Service	1995 Bayshore Road	Gasoline	Post Remedial Action Monitoring
Malibu Grand Prix	340 Blomquist St	Misc. Fuels	Post Remedial Action Monitoring
Unocal #0060	2653 Broadway	Gasoline	Pollution Characterization
Redwood Plaza Shopping Center	1200 Broadway	Solvents	Post Remedial Action Monitoring
Beacon Mobil	1100 Broadway	Gasoline	Post Remedial Action Monitoring
Broadway Produce & Flowers	1870 Broadway	Gasoline	Post Remedial Action Monitoring

TABLE X-1: Active Hazardous Materials Sites in Redwood City

Site Name	Address	Hazardous Material Involved	Status
Sav-On/Oak Knoll Station	590 Canyon Road	Misc. Fuels	Pollution Characterization
Demma Parcel	112 Cedar St	Not Reported	Pollution Characterization
Grant Yard, S.M.C.	752 Chestnut St	Misc. Fuels	Post Remedial Action Monitoring
L&L Landscape Service	1995 E. Bayshore Road	Not Reported	Verification Monitoring
Caltrans Redwood City	2501 E. Bayshore Road	Not Reported	Verification Monitoring Underway
Fontwerth Enterprises	1831 E. Bayshore Road	Not Reported	Remedial Action Underway
Former Shell (Harry's Hofbrau)	1909 El Camino Real	Gasoline	Post Remedial Action Monitoring
Beach Cleaners	2537 El Camino Real	Not Reported	Leak Being Confirmed
Touchless Carwash	215 El Camino Real	Misc. Fuels	Pollution Characterization
Former Shell/Kennedy Auto	1026 El Camino Real	Misc. Fuels	Preliminary Site Assessment
Davies Chevrolet	1101 El Camino Real	Diesel	Pollution Characterization
Robison Property	827 El Camino Real	Not Reported	Pollution Characterization
Former Texaco 211284	150 El Camino Real	Misc. Fuels	Pollution Characterization
Former Unocal #6896	699 El Camino Real	Misc. Fuels	Post Remedial Action Monitoring
Canada College	4200 Farm Hill Blvd	Misc Fuels	Pollution Characterization
Stulsaft Park	3700 Farmhill Blvd	Not Reported	Verification Monitoring
San Mateo County Motor Pool	590 Hamilton St	Misc. Fuels	Post Remedial Action Monitoring
Ritz Cleaners	37 James Ave	Solvents	Post Remedial Action Monitoring

TABLE X-1: Active Hazardous Materials Sites in Redwood City

Site Name	Address	Hazardous Material Involved	Status
Lucky Store #15	Jefferson Ave / El Camino Real (Street Address Not Reported)	Diesel	Remedial Action Underway
Grade Separation	923 Jefferson Ave	Not Reported	Verification Monitoring
USA Independent	3139 Jefferson	Misc. Fuels	Pollution Characterization
Former Mohawk Petroleum Station 307542	1001 Main St	Misc. Fuels	Preliminary Site Assessment
Cooks Auto Body	1104 Main St	Gasoline	Pollution Characterization
Former Mohawk Petroleum Station	1001 Main St	Not Reported	Preliminary Assessment
Rust Property	925 Main St	Not Reported	Pollution Characterization
Aloha State Flowers Inc.	1260 Marshall St	Gasoline	Pollution Characterization
Redwood City Police Dept.	1020 Middlefield Road	Not Reported	Preliminary Assessment
City of Redwood City	1036 Middlefield Road	Not Reported	Pollution Characterization
Culvert Realignment	1017 Middlefield Road	Not Reported	Pollution Characterization
ARCO #0306	1700 Middlefield Road	Not Reported	Remedial Action
Techcraft-Elgin Auto Supply/ Former Sequoia Laundry & Cleaners	55 Perry St	Stoddard Solvent	Preliminary Assessment
Redwood Motor Court	3706 Rolison Road	Lead	Post Remedial Action Monitoring
Shell Service Station	2108 Roosevelt Ave	Gasoline	Remediation Plan
Cargill Salt	Seaport Blvd (Street Number Not Reported)	Diesel	Pollution Characterization
Peninsula Building Supply	109 Seaport Blvd	Gasoline	Post Remedial Action Monitoring

TABLE X-1: Active Hazardous Materials Sites in Redwood City

Site Name	Address	Hazardous Material Involved	Status
Marina Pump Station	473 Seaport Blvd	Misc. Fuels	Pollution Characterization
Pilot Petroleum Corp.	475 Seaport Blvd	Diesel	Remedial Action Underway
Port of Redwood City	775 Seaport Blvd	Not Reported	Remedial Action
Beals-Martin & Associates	2658 Spring St	Gasoline	Pollution Characterization
Former C&B Construction	438 Stanford Ave	Misc. Fuels	Pollution Characterization
Eggli Landscaping	19 Stein Am Rhein	Misc. Fuels	Post remedial Action Monitoring
LSG Properties	820 Veterans Blvd	Misc. Fuels	Post remedial Action Monitoring
Shell Oil	690 Veterans Blvd	Not Reported	Pollution Characterization
Olympian-Winston Tire	535 Whipple Ave	Misc. Fuels	Remediation Plan
Shell	639 Whipple Ave	Misc. Fuels	Post Remedial Action Monitoring
Texaco/Exxon	503 Whipple Ave	Gasoline	Remediation Plan
Chevron 9-4512	585 Whipple Ave	Gasoline	Post Remedial Action Monitoring
ARCO #0642	504 Whipple Ave	Gasoline	Post Remedial Action Monitoring
Silva Property	836 Willow St	Gasoline	Post Remedial Action Monitoring
Shell Station	1667 Woodside Road	Gasoline	Remedial Action
ARCO #6023	1801 Woodside Road	Gasoline	Remedial Action Underway
Fashion Cleaners	336 Woodside Road	Not Reported	Pollution Characterization
Helen's Cleaners	1594 Woodside Road	Not Reported	Pollution Characterization
Woodside Gas Mart	895 Woodside Road	Gasoline	Pollution Characterization
Woodside Road Exxon	820 Woodside Road	Misc. Fuels	Post Remedial Action Monitoring

SLIC

TABLE X-1: Active Hazardous Materials Sites in Redwood City

Site Name	Address	Hazardous Material Involved	Status
Westport Landfill	Not Reported	Not Reported	Not Reported
Redwood Plaza Federal Mogul	Unknown (Street Address Not Reported)	Not Reported	Remedial Action Underway
Zaccor Corp.	5 th /Middlefield Road (Street Address Not Reported)	Not Reported	Leak Being Confirmed
Zaccor Corporation	823 Arguello St	Not Reported	Leak Being Confirmed
Tyco Engineered Products	2201 Bay Road	Not Reported	Case Open
Vans Auto Wrecking	1831 Bayshore Road	Not Reported	Remedial Action Underway
Ramirez/Bayshore Project	North of 1903 E. Bayshore Road	Not Reported	Preliminary Assessment
Caltrans RWC Maintenance	2501 Bayshore Road	Not Reported	Verification Monitoring Underway
Malibu Grand Prix	340 Blomquist St	Not Reported	Pollution Characterization
Granite Rock Redwood	365 Blomquist St	Not Reported	Inactive Due to Bad Debt
Cargill Salt	Seaport Blvd	Not Reported	Pollution Characterization
Bradford Street Parcels	Bradford St (Street Address Not Reported)	Not Reported	Pollution Characterization
Ampex Property	401 Broadway, Douglas Ave / Bay Road	Not Reported	Not Reported
Demma Parcel	112 Cedar St	Not Reported	Pollution Characterization
Free Flow Packaging	1093 Charter St	Not Reported	Leak Being Confirmed
Willard Products	70 Chemical Way	Not Reported	Pollution Characterization
800 Chestnut (Rohm and Haas)	800 Chestnut Street	Not Reported	Verification Monitoring

TABLE X-1: Active Hazardous Materials Sites in Redwood City

Site Name	Address	Hazardous Material Involved	Status
Sequoia Station	El Camino Real/Sequoia Station Shopping Center (Street Address Not Reported)	Not Reported	Not Reported
Robison Property	827 El Camino Real	Not Reported	Pollution Characterization
Roy's Dry Cleaners	1100 El Camino Real	Not Reported	Leak Being Confirmed
Beach Cleaners	2537 El Camino Real	Not Reported	Leak Being Confirmed
Stulsaft Park	3700 Farmhill Blvd	Not Reported	Verification Monitoring
Dean's Anodizing, Inc.	819 Hurlingame Ave	Not Reported	Not Reported
Lucky Store #15	Jefferson Ave / El Camino Real (Street Address Not Reported)	Not Reported	Remedial Action Underway
On Broadway Parking Structure	850 Jefferson Ave	Not Reported	Case Open
USA Independent	3139 Jefferson Ave	Not Reported	Pollution Characterization
Rust Property	925 Main St	Not Reported	Pollution Characterization
Former Mobil 04-FNL	950 Main St	Not Reported	Remedial Action Underway
Orchard Supply Hardware	Middlefield/ Woodside Road (Street Address Not Reported)	Not Reported	Leak Being Confirmed
Culvert Realignment	1017 Middlefield Road	Not Reported	Pollution Characterization
Fashion Cleaners	336 Woodside Road	Not Reported	Pollution Characterization
Helen's Cleaners	1594 Woodside Road	Not Reported	Pollution Characterization

Source: EDR, 2008a, 2008b, 2008c, 2008d.

Notes: CERCLIS = US EPA database of known or suspected hazardous material sites.

DTSC Evaluation/VCP = DTSC database of known or suspected hazardous material sites and Voluntary Cleanup Program remediation sites.
LUST= State and RWQCB databases of leaking underground storage tank sites.
RCRA = Resource Conservation and Recovery Act (federal hazardous waste law).
SLIC = RWQCB database of Spills, Leaks, Investigations, and Cleanups (non-UST groundwater contamination cases).

TABLE X-2: Inactive (Closed) Hazardous Materials Release Sites in Redwood City

Site Name	Address	Hazardous Material Involved	Year Closed
BOND EXPENDITURE PLAN			
Willard Products	70 Chemical Way	Volatile and Semi-volatile Organic Compounds	1989
CERCLIS			
Tydeman Machine Works Inc.	Broadway & Charter (Street Address Not Reported)	Not Reported	1989
Redwood General Tire Service	1630 Broadway	Volatile Organic Compounds	2001
PG&E Gas Plant Redwood City	E. Marshall-Washington-Broadway (Street Address Not Reported)	Not Reported	1987
Johns Manville Corporation	Middlefield Road (Street Number Not Reported)	Not Reported	1987
Price Company	2110 Middlefield Road	Not Reported	1987
Redwood Food Packing Co.	2200 Middlefield Road	Not Reported	1986
Ideal Basic Inds Old Plt Site	Port of Redwood City (Street Address Not Reported)	Not Reported	1986
Redwood Shore Landfill	Redwood Shore (Street Address Not Reported)	Not Reported	1990
Klikok Co. (Bldg #4)	2661 Spring St	Not Reported	1989
DTSC EVALUATION/VCP			
Woodspring Center	800-898 Chestnut St	Volatile Organic Compounds	1993
Sequoia Station Shopping Center	El Camino Real/Harrison (Street Address Not Reported)	Not Reported	2003
Texaco, Inc.	475 Harbor Road	Waste Oil and Mixed Oil	2002

TABLE X-2: Inactive (Closed) Hazardous Materials Release Sites in Redwood City

Site Name	Address	Hazardous Material Involved	Year Closed
Stulsaft Park	Farm Hill Blvd (Street Number Not Reported)	Mercury	2000
Johns-Manville Products Corporation	2220 Middlefield Road	Not Reported	2003
Eichrome	2480 Middlefield Road	Asbestos	2001
LUST			
Gillis & Lane Inc.	830 2 nd Ave	Misc. Fuels	1999
Pacific Bell	867 2 nd Ave	Gasoline	2001
Mendoza Property	140 5 th Ave	Not Reported	Not Reported
Meier Property	142 5 th Ave	Not Reported	Not Reported
Bearcat Drilling Company	180 5 th Ave	Not Reported	Not Reported
S&M Sprinkler Corp.	197 5 th Ave	Misc. Fuels	2003
Alpha Omega	200 5 th Ave	Misc. Fuels	1999
Sequoia Hospital	170 Alameda De Las Pulgas	Misc. Fuels	2000
Butterfield Construction	823 Arguello St	Waste Oil	1996
Redwood City Pump Station #17	11 Avocet Dr	Diesel	1999
Texaco	20 Avondale Ave	Not Reported	1990
Deluca Foods	832 Barron Dr	Misc. Fuels	1999
Clarkson Warehouse	2710 Bay Road	Misc. Fuels	1994
Mewes Property	2906 Bay Road	Gasoline	2000
Koblick Supply	2950 Bay Road	Not Reported	1990
Thompson Toyota	525 E. Bayshore Road	Misc. Fuels	1996
Public Storage	1841 Bayshore Road	Misc. Fuels	1999
Aire Sheet Metal	1973 Bayshore Road	Misc. Fuels	1993
Caltrans RWC Maintenance	2501 Bayshore Road	Gasoline	2006
Sequoia Mill	2575 E. Bayshore Road	Misc. Fuels	1994
Malibu Castle	320 Blomquist St	Gasoline	1993

TABLE X-2: Inactive (Closed) Hazardous Materials Release Sites in Redwood City

Site Name	Address	Hazardous Material Involved	Year Closed
Fisk Firenze McLean Inc.	330 Blomquist St	Misc. Fuels	1995
Granite Rock	355-365 Blomquist St	Misc. Fuels	1996
Bradford Street Parking Lot	500 Block Bradford St	Solvents	1998
Mount Alverno	3910 Bret Harte Dr	Misc. Fuels	1998
Ampex Corporation	401 Broadway	Solvents	1995
Midpoint Technology	475 Broadway	Not Reported	Not Reported
Coors West	890 Broadway	Misc. Fuels	1995
LDM Movers/United Van Lines	899 Broadway	Gasoline	1997
Redwood City Corporation Yard	1400 Broadway	Diesel	1996
Chevron	1603 Broadway	Gasoline	2003
Redwood General Tire Service	1630 Broadway	Diesel	1995
Greenhouse Gardens	1225 Chantal Way	Waste Oil	1994
Sheahan Trucking	955 Charter St	Not reported	Not Reported
Crown Truck Parts	80 Chemical Way	Diesel	1991
Beeger Property	1135 Chestnut St	Gasoline	1999
Autohaus Brugger	350 Convention Way	Waste Oil	2001
Metals Heat Treating	1061 Douglas Ave	Misc. Fuels	2000
Sears Merchandise Group	1325 Douglas Ave	Not Reported	1995
Thierry Property	765 Edgewood Road	Misc. Fuels	1994
A-1 Party Rental Center	345 El Camino Real	Gasoline	2007
Peninsula Oldsmobile Inc.	543 El Camino Real	Diesel	1991
Peninsula Olds/Mazda II	570 El Camino Real	Not Reported	1991
Menlo Honda	601 El Camino Real	Misc. Fuels	1998
Ron's B.P.	602 El Camino Real	Waste Oil	2006
G&G Cleaners	729 El Camino Real	Not Reported	Not Reported
Sequoia Station Project	1001 El Camino Real	Misc. Fuels	2000

TABLE X-2: Inactive (Closed) Hazardous Materials Release Sites in Redwood City

Site Name	Address	Hazardous Material Involved	Year Closed
Charles Symes Property	1011 El Camino Real	Misc. Fuels	1997
Mid Peninsula Leasing	1039 El Camino Real	Misc. Fuels	1996
Former Humble Oil (Exxon #78476)	1201 El Camino Real	Not Reported	2005
Jules Duc Construction	1451 El Camino Real	Misc. Fuels	1996
Firestone Store #3671	1458 El Camino Real	Waste Oil	2001
Chevron 9-4256	1501 El Camino Real	Gasoline	1997
Towne Ford Sales	1601 El Camino Real	Waste Oil	1995
Feriante Property	1612 El Camino Real	Misc. Fuels	1999
U-Haul	2200 El Camino Real	Solvents (TCE)	1992
U Haul #708-61	2200 El Camino Real	Misc. Fuels	2005
Stuttgart Motors	2315 El Camino Real	Waste Oil	2000
Target Stores	2485 El Camino Real	Misc. Fuels	2001
Midland Cabinets	3093 El Camino Real	Not Reported	1989
Vela Corp.	3101 El Camino Real	Misc. Fuels	1993
San Mateo County Public Works	59 Entrada Way	Not Reported	Not Reported
Menlo Park Fire District #5	4101 Fair Oaks Ave	Not Reported	1998
San Mateo County Property	3220 Glendale Ave	Not Reported	Not Reported
Old Courthouse-San Mateo County	711 Hamilton St	Gasoline	1993
Bennett-Hopkins Corporation	3592 Haven Ave	Gasoline	2007
Lemmon's Signs	3636 Haven Ave	Misc. Fuels	1996
Horgan Properties	68 Horgan Ave	Gasoline	1991
Krieg Plumbing	809 Hurlingame Ave	Misc. Fuels	1996
California Equipment Co.	860 Hurlingame Ave	Misc. Fuels	1997
Shorebird Park	11 Island Dr	Diesel	1996
Sequoia Union High School	480 James Ave	Misc. Fuels	1995

TABLE X-2: Inactive (Closed) Hazardous Materials Release Sites in Redwood City

Site Name	Address	Hazardous Material Involved	Year Closed
Redwood City School District	601 James Ave	Misc. Fuels	2002
U.S. Postal Service	855 Jefferson Ave	Misc. Fuels	1996
Vanham Property	1015 Jefferson Ave	Misc. Fuels	1997
ARCO	1032 Jefferson Ave	Diesel	1996
Pacific Bell	1121 Jefferson Ave	Misc. Fuels	2001
Lucky Store #15	1250 Jefferson Ave	Not Reported	Not Reported
Autohaus Brugger	201 Main St	Misc. Fuels	2002
Former Mobil 04-FNL/Rust Property	950 Main St	Misc. Fuels	2005
RMC - Lonestar	25 Maple St	Misc. Fuels	1996
Hudson Property	135 Maple St	Not Reported	Not Reported
Dock Town Marina	1548 Maple St	Not Reported	1990
South Bayside System Authority	1581 Maple St	Misc. Fuels	1996
Pump Station 12	790 Marine World Pkwy	Misc. Fuels	2000
Delucchi Property	995 Marsh Road	Misc. Fuels	2003
City Center Parking	750 Marshall St	Misc. Fuels	1997
Former Chevron 20-6318	932 Middlefield Road	Misc. Fuels	2007
Redwood City City Hall	1017 Middlefield Road	Waste Oil	1995
Opfer Property	2233 Middlefield Road	Misc. Fuels	2007
De Olivera Property	2401 Middlefield Road	Misc. Fuels	1995
Coast Electric Company	2490 Middlefield Road	Misc. Fuels	1993
Fair Oaks Community Center	2600 Middlefield Road	Not Reported	Not Reported
Tilton Properties	2655 Middlefield Road	Misc. Fuels	1995
Beals & Martin Associates	2682 Middlefield Road	Gasoline	1998
Figueras Property	3157 Middlefield Road	Misc. Fuels	1997
Redwood City Centrum Pump Station	100 Oracle Pkwy	Diesel	1999

TABLE X-2: Inactive (Closed) Hazardous Materials Release Sites in Redwood City

Site Name	Address	Hazardous Material Involved	Year Closed
Redwood Shores II	Pico Blvd (Street Number Not Reported)	Diesel	2001
South Bay System Authority	1400 Radio Road	Misc. Fuels	2001
Sierra Nursery	1301 Redwood Ave	Misc. Fuels	1993
Redwood City Pump Station #13	291 Redwood Shores Pkwy	Diesel	1999
Redwood City Pump Station #18	748 Redwood Shores Pkwy	Diesel	1999
SP Derailment	Seaport Blvd (Street Number Not Reported)	Not Reported	Not Reported
Leslie Salt Company	296 Seaport Blvd	Misc. Fuels	2000
Lockheed Moat Area	888 Seaport Blvd	Misc. Fuels	1997
Pacific Shores Development	1000 Seaport Blvd	Not Reported	Not Reported
Acteron Corporation	851 Shasta St	Not Reported	Not Reported
G. R. Brown Co.	989 Shasta St	Gasoline	1991
Nurburg Ring	1202 Shasta St	Not Reported	Not Reported
Eureka Federal Savings	2225 Spring St.	Misc. Fuels	1996
The Bagel Works / Tahir, Ravil & Galina	2231 Spring St	Gasoline	1997
Marsili's Station	2303 Spring St	Misc. Fuels	1996
Brady Property	2585 Spring St	Misc. Fuels	1997
PIC	3004 Spring St	Diesel	1996
AT&T	3175 Spring St	Diesel	2000
Pride Paint Co.	820 Sweeney Ave	Not Reported	Not Reported
Hoffmann Paint Co., Inc.	823 Sweeney Ave	Lacquer Thinner	1996
Buon Tasto Sausage	1565 Tacoma Way	Gasoline	1994
Redwood Mechanical/Redwood Plumbing	1590 Tacoma Way	Gasoline	2001
Shores Center Unit 2	Twin Dolphin Dr (Street Number Not Reported)	Not Reported	Not Reported

TABLE X-2: Inactive (Closed) Hazardous Materials Release Sites in Redwood City

Site Name	Address	Hazardous Material Involved	Year Closed
Daniel Realty Corporation	10 Twin Dolphin Dr	Not Reported	Not Reported
Redwood City Pump Station #15	333 Twin Dolphin Dr	Diesel	2000
Pete's Harbor	1 Uccelli Blvd	Not Reported	Not Reported
Forest Nissan Inc.	480 Veterans Blvd	Misc. Fuels	1994
Bay Area Bank Building	900 Veterans Blvd	Gasoline	1997
Chevron	990 Veterans Blvd	Mineral Spirits	2002
Kaiser Permanente	1150 Veterans Blvd	Gasoline	1993
Stuart Floors	1455 Veterans Blvd	Gasoline	1993
Wyndham Place	1225 Warren St	Not Reported	Not Reported
Hodgson Construction	751 Warrington Ave	Misc. Fuels	1994
Chevron 9-5307	600 Whipple Ave	Misc. Fuels	2002
Mobil (Independent)	640 Whipple Ave	Gasoline	1998
Swif Kleen Cleaners	902 Whipple Ave	Not Reported	Not Reported
Woodside High School	Woodside/Churchill (Street Address Not Reported)	Diesel	1995
ARCO #0573	610 Woodside Road	Gasoline	2003
Borel Bank & Trust Co.	615 Woodside Road	Misc. Fuels	1995
Chevron 9-3591	710 Woodside Road	Misc. Fuels	2001
Kyo Assoc. AKA Exxon 7-3991	777 Woodside Road	Misc. Fuels	2001
Laurel Glen Convalescent Hospital	885 Woodside Road	Gasoline	2000
Woodside Car Wash	909 Woodside Road	Misc. Fuels	1995
Cannon Appliance	968 Woodside Road	Not Reported	Not Reported
Cannon Appliance	968 Woodside Road	Gasoline	1997
Chevron Station #2034	975 Woodside Road	Misc. Fuels	2005
Fifth Quarter	976 Woodside Road	Misc. Fuels	1996
Unocal #3502	1500 Woodside Road	Gasoline	2000

TABLE X-2: Inactive (Closed) Hazardous Materials Release Sites in Redwood City

Site Name	Address	Hazardous Material Involved	Year Closed
Mobil 04-FPA	1705 Woodside Road	Gasoline	2000
SLIC			
Mendoza Property	140 5 th Ave	Not Reported	Not Reported
Meier Property	142 5 th Ave	Not Reported	Not Reported
Bearcat Drilling Company	180 5 th Ave	Not Reported	Not Reported
Midpoint Technology	475 Broadway	Not Reported	Not Reported
Sheahan Trucking	955 Charter St	Not reported	Not Reported
G&G Cleaners	729 El Camino Real	Not Reported	Not Reported
San Mateo County Property	3220 Glendale Ave	Not Reported	Not Reported
San Mateo County Property	3220 Glendale Ave	Not Reported	Not Reported
Lucky Store #15	1250 Jefferson Ave	Not Reported	Not Reported
Unnamed Property	Northwest Corner of Main and Middlefield (Street Address Not Reported)	Not Reported	Not Reported
City of Redwood City	1036 Middlefield Road	Not Reported	Not Reported
SP Derailment	Seaport Blvd (Street Number Not Reported)	Not Reported	Not Reported
Lockheed Moat Area	888 Seaport Blvd	Not Reported	Not Reported
Pacific Shores Development	1000 Seaport Blvd	Not Reported	Not Reported
Acteron Corporation	851 Shasta St	Not Reported	Not Reported
Nurburg Ring	1202 Shasta St	Not Reported	Not Reported
Shores Center Unit 2	Twin Dolphin Dr (Street Number Not Reported)	Not Reported	Not Reported
Wyndham Place	1225 Warren St	Not Reported	Not Reported
Swif Kleen Cleaners	902 Whipple Ave	Not Reported	Not Reported

Source: EDR, 2008a, 2008b, 2008c, 2008d.

Notes: Bond Expenditure Program = database of former State hazardous waste remediation sites.

CERCLIS = US EPA database of known or suspected hazardous material sites.
DTSC Evaluation/VCP = DTSC database of known or suspected hazardous material sites and
Voluntary Cleanup Program remediation sites.
LUST= State and RWQCB databases of leaking underground storage tank sites.
RCRA = Resource Conservation and Recovery Act (federal hazardous waste law).
SLIC = RWQCB database of Spills, Leaks, Investigations, and Cleanups (non-UST groundwater
contamination cases).