

## 13 HAZARDOUS MATERIALS

A hazardous material is a substance that poses a risk to human health, safety, or the environment. Hazardous materials are mainly produced from industries involving chemical byproducts from manufacturing, petrochemicals, and hazardous building materials. This chapter discusses regulations pertaining to hazardous materials, identifies hazardous materials known to be present in Novato, and discusses the transportation and disposal of these materials.

### *A. Regulatory Framework*

#### **1. Federal Regulations**

##### a. Environmental Protection Agency

The United States Environmental Protection Agency (USEPA) is the federal agency responsible for enforcement and implementation of federal laws and regulations pertaining to hazardous materials. Key legislation includes the Clean Water Act (CWA) of 1972, the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA; also known as Superfund), the Superfund Amendments and Reauthorization Acts of 1986 (SARA), and the Resource Conservation and Recovery Act of 1986 (RCRA). Federal regulations are primarily codified in Title 40 of the Code of Federal Regulations. The USEPA provides oversight and supervision for site investigations and remediation projects, and establishes land disposal restrictions and treatment standards for the disposal of certain hazardous wastes.

##### b. U.S. Department of Transportation

Transportation of chemicals and hazardous materials are governed by the U.S. Department of Transportation (DOT), which establishes regulations for the movement of hazardous material on interstate highways. Regulations require the use of a system of placards, labels, and shipping papers that identify the hazards of shipping each class of hazardous material. Existing federal laws which address risks associated with the transport of hazardous materials include the Materials Transportation Act, administered by the DOT.

#### **2. State Regulations**

In California, regulation of hazardous materials falls under the authority of the California Environmental Protection Agency (Cal/EPA). This large agency includes CalRecycle, formerly the California Integrated Waste Management Board (responsible for oversight of solid waste disposal), and the Department of Toxic Substances Control (DTSC), which is chiefly responsible for regulation, handling, use, and disposal of toxic materials in California.<sup>1</sup> The State Water Resources Control Board (SWRCB) regulates discharge of potentially hazardous materials to waterways and aquifers, and administers the basin plans for groundwater resources in the various regions of the State.<sup>2</sup>

California Health and Safety Code Section 25531 incorporates the federal law as it pertains to hazardous materials. This includes development of a Risk Management Plan (RMP) for facilities that store or handle acutely hazardous materials in reportable quantities. California Code of Regulations (CCR) Title 8 requires facility owners to prepare and implement

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<sup>1</sup> California Environmental Protection Agency, *The History of the California Environmental Protection Agency*, Cal/ EPA website, <http://www.calepa.ca.gov/about/history01/>, accessed December 11, 2013.

<sup>2</sup> State Water Resources Control Board, SWRCB web site <http://www.swrcb.ca.gov/>, accessed December 11, 2013.

safety management plans where large quantities of hazardous materials are handled. The California Fire Code has requirements for storing and handling hazardous materials.

The California Department of Industrial Relations, Division of Occupational Safety and Health, requires that employees of businesses using or storing hazardous materials receive hazard communication training. The training is intended to ensure that employees understand the nature of the hazardous materials that they handle, and can safely use, store, and dispose of the materials in accordance with Title 8 of the CCR. The hazard communication standard requires that employers must:

- ◆ Prepare an inventory of hazardous materials.
- ◆ Make material safety data sheets available to employees.
- ◆ Conduct employee training on chemical hazards and safe handling of materials.
- ◆ Ensure that hazardous material containers are properly stored and labeled.

### 3. Local Regulations

Agencies responsible for local enforcement of State and federal laws controlling hazardous materials management include the Waste Management Division of the Marin County Department of Public Works and the Environmental Health Services Division (EHSD) of the Marin County Community Development Department. The EHSD is primarily responsible for household hazardous wastes, swimming pool public health and safety, solid waste disposal sites, and well installation and abandonments.<sup>3</sup>

#### a. Marin County Department of Public Works

The Waste Management Division of the Marin County Department of Public Works has been certified by Cal/EPA as the Certified Unified Program Agency (CUPA).<sup>4</sup> The CUPA is the local agency responsible for coordination of hazardous waste generator programs, fuel underground storage tank (UST) management, the tiered permitting process for waste treatment, and administering the Hazardous Materials Business Plan (HMBP) program. Businesses that store, handle, or dispose of hazardous materials must submit a HMBP in accordance with California Health and Safety Code Section 25504. The HMBP must be updated every two years, or within 30 days after a substantial change in site operations. The HMBP must:

- ◆ List all the hazardous materials stored at a site.
- ◆ Identify emergency response procedures for spills and personnel.
- ◆ Identify evacuation plans and procedures.
- ◆ Identify training records for personnel to substantiate annual refresher training.

#### b. Novato General Plan

Hazardous materials are addressed in the Safety and Noise chapter of the existing General Plan. SF Objective 8 calls for the City to “reduce hazards of transportation, storage and disposal of hazardous wastes and hazardous materials.” Poli-

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<sup>3</sup> County of Marin, Community Development Department, Environmental Health Services Division website at <http://www.co.marin.ca.us/ehs/>, accessed December 18, 2013.

<sup>4</sup> County of Marin, Department of Public Works, Waste Management Division website at <http://www.marincounty.org/depts/pw/divisions/waste-management>, accessed December 18, 2013.

cies and programs implementing this objective call for the City to refer proposed projects involving hazardous materials regulations to the appropriate agencies, establish a household hazardous waste collection and disposal program, adopt a Hazardous Materials and Waste Ordinance, and implement the Commercial Occupancy Ordinance requiring notification of transportation, storage, treatment, or release of all hazardous materials.

c. NFPD Ordinance 2013-1

NFPD Ordinance 2013-1 adopts the California Fire Code which regulates hazardous conditions from fire or explosion, and permits for hazardous uses or operations. This ordinance also establishes a fire loss management division, and defines the powers and duties of its officers.

***B. Hazardous Materials Sites***

This section describes hazardous material sites in Novato. The locations of hazardous materials sites are recorded in databases from various agencies, such as the USEPA, SWRCB, and DTSC. Sites listed in the databases have been identified or investigated in relation to the generation, use, or disposal of hazardous materials. Since 2011, in addition to including documented cases of leaking underground storage tanks (LUST), the SWRCB's GeoTracker database includes non-UST cleanup cases.<sup>5</sup> The databases used to identify locations of hazardous materials sites in Novato are provided in Appendix C, Table C-1.

The sites described below currently or previously have documented soil and/or groundwater contamination and are considered open and active remedial and/or assessment cases, open and inactive cases, or closed cases. Figure 13-1 shows the location of these sites. Appendix C includes maps showing contamination plumes and groundwater flow direction and gradient for the sites.

**1. Journey Ford-Lincoln Automobile Dealership – 6995 Redwood Boulevard**

This site is listed in the SWRCB GeoTracker database as a LUST cleanup site, which was formerly occupied by the Novato Ford automobile dealership. On September 22, 1997, one 2,000-gallon gasoline underground storage tank (UST) was removed from the site. Since September 1998, several phases of investigations have been conducted. High concentrations of petroleum hydrocarbons have been detected in groundwater in the area of the former UST location, near the western corner of the service building. The main chemical of concern is methyl tertiary-butyl ether (MTBE). In accordance with the approved Feasibility Study/Corrective Action Plan and Remedial Action Plan for the site, an ozone sparge and hydrogen peroxide injection remediation system has been operating since February 8, 2008. The ozone-sparging process involves the injection of ozone into groundwater to provide in-situ treatment and has been proven to be effective for remediation of volatile organic compounds (VOCs), such as MTBE. Cleanup status is open and under remediation as of October 15, 2004. On February 14, 2013, the SWRCB issued a letter requiring the shutdown of the remediation system, the implementation of two post-treatment monitoring assessments, and the provision of reports to the SWRCB by July 30, 2013 and January 30, 2014, as a path to closure of the site.<sup>6</sup>

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<sup>5</sup> State Water Resources Control Board, GeoTracker database at [http://www.swrcb.ca.gov/ust/electronic\\_submission/about.shtml](http://www.swrcb.ca.gov/ust/electronic_submission/about.shtml) accessed December 18, 2013.

<sup>6</sup> State Water Resources Control Board, GeoTracker database at, [http://geotracker.waterboards.ca.gov/profile\\_report.asp?global\\_id=T0604100308](http://geotracker.waterboards.ca.gov/profile_report.asp?global_id=T0604100308), accessed December 18, 2013.

CITY OF NOVATO  
 EXISTING CONDITIONS REPORT  
 HAZARDOUS MATERIALS

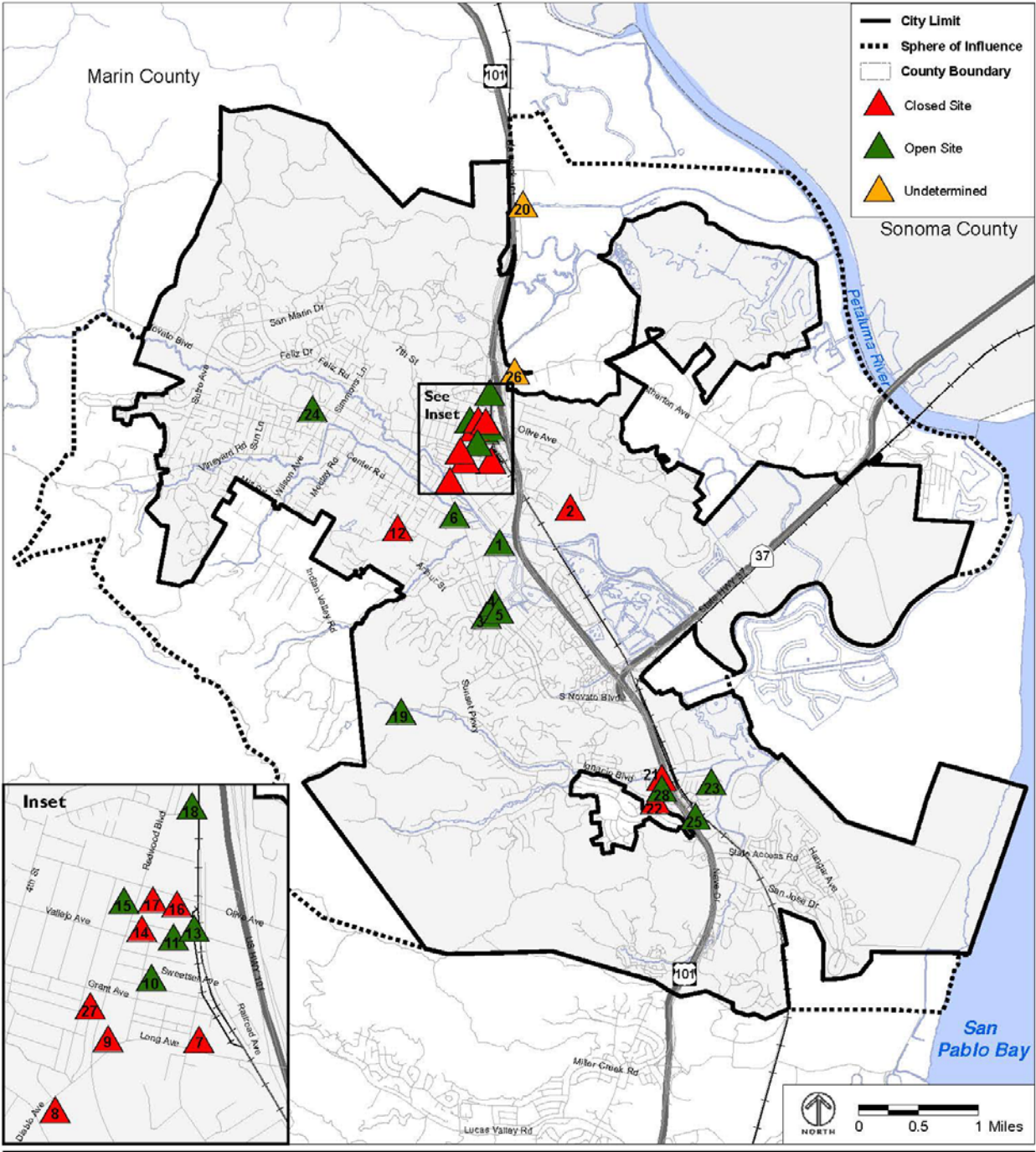


FIGURE 13-1  
 HAZARDOUS MATERIAL SITES

## **2. Novato Sanitary District Wastewater Treatment Facility – 500 Davidson Street**

This site is listed in the SWRCB GeoTracker database as a LUST cleanup site associated with a release in a former diesel-containing product line in connection with a fuel-containing UST; both were removed in October 1998. Concentrations of diesel, MTBE, benzene, toluene, ethylbenzene, and total xylenes (BTEX) were detected in soil and groundwater. However, due to the numerous pipelines associated with the wastewater treatment plant running beneath the site, only a portion of the contaminated soil could be removed. From 1999 to 2003, 4,870 gallons were removed from an extraction well. Concentrations detected in three monitoring wells in July 2007 were below laboratory detection levels for diesel and BTEX in all three monitoring wells. Following additional remedial soil excavation and extraction well dewatering in 2008, closure was requested from the SWRCB in May 2008. A closure letter by the SWRCB was issued for this site on April 6, 2010. Cleanup status is completed and the case is closed.<sup>7</sup>

## **3. O'Reilly Auto Parts (former ExxonMobil) – 1400 South Novato Boulevard**

This site is listed in the SWRCB GeoTracker database as a LUST cleanup site associated with three gasoline USTs, one used-oil UST, dispenser islands, and piping removed in 1986. Multiple phases of assessment have occurred since January 1992; the latest action is the installation of soil vapor monitoring points in July 2008. Results from the latest available groundwater monitoring event conducted in April 2008, indicate the following: gasoline at 13,000 micrograms per liter ( $\mu\text{g/L}$ ), benzene at 1,500  $\mu\text{g/L}$ , toluene at 56  $\mu\text{g/L}$ , ethylbenzene at 1,200  $\mu\text{g/L}$ , and total xylenes at 820  $\mu\text{g/L}$ . These contaminant levels are well above the San Francisco Bay Regional Water Quality Control Board (SFBRWQCB) Environmental Screening Levels (ESLs) for commercial/industrial sites. The results of investigations to date indicate that petroleum hydrocarbons are present in high concentrations in soil at the site. The SWRCB approved a Corrective Action Plan submitted in December 2012 to address the residual, soil, groundwater, and soil vapor pollution, on March 11, 2013. Cleanup status is open and active remediation and monitoring continues at the site.<sup>8</sup>

## **4. Armstrong Garden Center (former Seven to Seven Cleaners) –1432 South Novato Boulevard**

This site is listed in the SWRCB's Site Cleanup Program (SCP), formerly Spills, Leaks, Investigation and Cleanup (SLIC) database for disposal and contamination associated with the use of tetrachloroethylene (PCE) in dry cleaning activities. The former Seven to Seven Cleaners facility was located in a strip mall that has been demolished and replaced with the Armstrong Garden Center on site. Investigation on the site began in 1991, and contamination was discovered in both soil and groundwater. Two phases of soil excavation in 1996 and 2002, the installation of a dual-phase soil vapor and groundwater extraction system in 2002, and three rounds of HRC and bio-nutrients injections between April 2003 and April 2005 have significantly reduced the concentrations of contamination at the site. Contaminant concentrations detected during the latest available monitoring event conducted in December 2007, indicate the highest concentrations are closest to the former source area: PCE at 390  $\mu\text{g/L}$ , trichloroethylene at 280  $\mu\text{g/L}$ , cis-1,2-dichloroethene at 9,000  $\mu\text{g/L}$ , trans-1,2-dichloroethene at 1,600  $\mu\text{g/L}$ , and vinyl chloride at 1,700  $\mu\text{g/L}$ . These contaminant levels are well above the RWQCB Environmental Screening Levels for commercial/industrial sites. Cleanup status is open and site assessment is ongoing as of April 17, 2010. Soil vapor and groundwater extraction, and groundwater monitoring are ongoing at the site.<sup>9</sup>

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<sup>7</sup> State Water Resources Control Board, GeoTracker database at [http://geotracker.waterboards.ca.gov/profile\\_report.asp?global\\_id=T0604100322](http://geotracker.waterboards.ca.gov/profile_report.asp?global_id=T0604100322), accessed on December 18, 2013.

<sup>8</sup> State Water Resources Control Board, GeoTracker database at [http://geotracker.waterboards.ca.gov/profile\\_report.asp?global\\_id=T0604100080](http://geotracker.waterboards.ca.gov/profile_report.asp?global_id=T0604100080), accessed December 18, 2013.

<sup>9</sup> State Water Resources Control Board, GeoTracker database at [http://geotracker.waterboards.ca.gov/profile\\_report.asp?global\\_id=SL20248866](http://geotracker.waterboards.ca.gov/profile_report.asp?global_id=SL20248866), accessed December 18, 2013.

#### **5. Shell – 1390 South Novato Boulevard**

This site is listed in the SWRCB GeoTracker database as a LUST cleanup site. Gasoline was discovered in a utility vault located downgradient of the site in 1985. This prompted the installation of groundwater monitoring wells on the site in 1986. Maximum contaminant concentrations detected indicate the following: total petroleum hydrocarbons as gasoline (TPHg) at 35,000 ug/L, benzene at 2,400 ug/L, toluene at 380 ug/L, ethylbenzene at 690 ug/L, total xylenes at 2,870 ug/L, and MTBE at 920 ug/L. These contaminant levels are well above the SFBRWQCB ESLs for commercial/industrial sites. Soil vapor and groundwater extraction, and groundwater monitoring are ongoing at the site. Cleanup status is open and site assessment is ongoing as of August 4, 1989. The SWRCB has issued in its Path to Closure Plan as of December 2013, a request for further investigations that adequately define the groundwater plume at the site.<sup>10</sup> In late 2013, a new project was approved through the planning division for this site, authorizing the complete demolition, expansion, and renovation of the existing gas station.<sup>11</sup>

#### **6. North Bay Cleaners, Triangle Plaza – 1557-1559 South Novato Boulevard**

North Bay Cleaners is an active dry cleaner located within the Triangle Plaza Shopping Center. This site is listed in the SWRCB's SCP database, for disposal and contamination associated with the use of PCE in dry cleaning activities. An investigation at the site in November 2006 detected concentrations of PCE and some of its breakdown products in groundwater at concentrations up to 160 parts per billion (ppb) of PCE, 360 ppb of trichloroethylene (TCE), and 5.0 ppb of vinyl chloride. Soil gas investigations conducted in May and July 2007 detected several VOCs in exceedance of SFBRWQCB ESLs. Four groundwater monitoring wells and one soil vapor monitoring well were installed in July 2008 in accordance with a Work Plan dated March 20, 2008 submitted to the SWRCB. Results from sampling conducted in March 2012 indicate that the PCE is degrading. However, the SWRCB has determined that it is necessary to assess whether the PCE degradation is progressing to its final end products. Therefore, cleanup status is open and site assessment is ongoing as of January 22, 2007.<sup>12</sup>

#### **7. 790 De Long Avenue Property**

This site is listed in the SWRCB GeoTracker database as a LUST cleanup site associated with a LUST discovered on the property in 2007. The tanks, along with associated contaminated soil and groundwater, were removed in 2007. Subsequent additional borings in the area revealed impacted groundwater. Additional soil excavation (for geotechnical purposes) and soil vapor sampling were conducted in 2008, along with the installation of groundwater monitoring wells. Results from the well sampling revealed all contaminants at levels below their respective SFBRWQCB ESLs. The SWRCB issued a letter stating that no further remedial action was required and that the site is suitable for residential and commercial use. However, the SWRCB issued land use restrictions, site management requirements, and a deed restriction dated June 25, 2009 restricting extraction of groundwater under the site. A closure letter by the SWRCB was issued for this site on November 10, 2009. Cleanup status is completed and the case is closed.<sup>13</sup>

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<sup>10</sup> State Water Resources Control Board, GeoTracker database at [http://geotracker.waterboards.ca.gov/profile\\_report.asp?global\\_id=T0604100118](http://geotracker.waterboards.ca.gov/profile_report.asp?global_id=T0604100118), accessed December 18, 2013.

<sup>11</sup> Personal communication with Alan Lazure, Principal Planner, City of Novato, January 7, 2014.

<sup>12</sup> State Water Resources Control Board, GeoTracker database at [http://geotracker.waterboards.ca.gov/profile\\_report.asp?global\\_id=SL0604178867](http://geotracker.waterboards.ca.gov/profile_report.asp?global_id=SL0604178867), accessed December 18, 2013.

<sup>13</sup> State Water Resources Control Board, GeoTracker database at [http://geotracker.waterboards.ca.gov/profile\\_report.asp?global\\_id=T0604183233](http://geotracker.waterboards.ca.gov/profile_report.asp?global_id=T0604183233), accessed December 18, 2013.

#### **8. Former Norge /Holiday Cleaners, Novato Fair Shopping Center – 936-938 Diablo Avenue**

This site is listed in the SWRCB's SCP database for contamination associated with PCE use for dry cleaning. The site has undergone extensive remediation between 1991 and 2003, including soil excavation, soil vapor extraction, and in-situ treatment using potassium permanganate. The levels of contaminants in soil and groundwater were reduced to near-zero levels, and it was determined that further treatment was no longer effective. A deed restriction limiting the property to commercial/industrial office use was recorded in 2004, and is still in place. A closure letter by the SWRCB was issued for this site on May 15, 2009. Cleanup status is completed and the case is closed.<sup>14</sup>

#### **9. Shell – 7300 Redwood Boulevard**

This site is listed in the SWRCB GeoTracker database as a LUST cleanup site. The site is an active gasoline station, and USTs are currently located on-site. Previous investigations and remedial actions have been conducted on the site since 1986, including groundwater and soil sampling and monitoring. In 2007, the SFBRWQCB requested off-site soil and groundwater monitoring downgradient from the site. Although contamination was detected at low levels, the SFBRWQCB determined that the site met the SWRCB's Low Threat Case Closure Policy. A closure letter by the SWRCB was issued for this site on July 3, 2013. Cleanup status is completed and the case is closed.<sup>15</sup>

#### **10. George Roth 1991 Trust – 879 Sweetser Avenue**

Regulatory databases do not include a description of what type of commercial use historically was located on this site which caused the contamination. There has been little or no investigation or remedial work on this property; no cleanup actions exist. The status of cleanup was open for site assessment in March 2001, however potential contaminants of concern were not specified. Cleanup status is open and inactive since May 1, 2002.<sup>16</sup>

#### **11. Thorsson's Auto Center – 862 Vallejo Street/Arnold's Dismantlers –864 Vallejo Street**

This site is listed in the SWRCB's SCP database. However, there has been little or no investigation or remedial work on this property; no cleanup actions exist. The case was opened in December 1993, and potential contaminants of concern at the site include heavy metals, and petroleum and oil products. Cleanup status is open and inactive since April 17, 2009.<sup>17</sup>

#### **12. Novato Community Hospital – 1625 Hill Road**

This site is listed in the SWRCB GeoTracker database as a LUST cleanup site for contamination associated with a leaking diesel UST. The status of cleanup was open for site assessment in August 1999. However, there has been little or no investigation or remedial work on this property; no cleanup actions exist. A closure letter by the SWRCB was issued for this site on July 31, 2009. Cleanup status is completed and the case is closed.<sup>18</sup>

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<sup>14</sup> State Water Resources Control Board, GeoTracker database at [http://geotracker.waterboards.ca.gov/profile\\_report.asp?global\\_id=SL1822T642](http://geotracker.waterboards.ca.gov/profile_report.asp?global_id=SL1822T642), accessed December 19, 2013.

<sup>15</sup> State Water Resources Control Board, GeoTracker database at [http://geotracker.waterboards.ca.gov/profile\\_report.asp?global\\_id=T0604100150](http://geotracker.waterboards.ca.gov/profile_report.asp?global_id=T0604100150), accessed December 18, 2013.

<sup>16</sup> State Water Resources Control Board, GeoTracker database at [http://geotracker.waterboards.ca.gov/profile\\_report.asp?global\\_id=SLT2O128134](http://geotracker.waterboards.ca.gov/profile_report.asp?global_id=SLT2O128134), accessed December 19, 2013.

<sup>17</sup> State Water Resources Control Board, GeoTracker database at [http://geotracker.waterboards.ca.gov/profile\\_report.asp?global\\_id=SL18270691](http://geotracker.waterboards.ca.gov/profile_report.asp?global_id=SL18270691), accessed December 19, 2013.

<sup>18</sup> State Water Resources Control Board, GeoTracker database at [http://geotracker.waterboards.ca.gov/profile\\_report.asp?global\\_id=T0604100150](http://geotracker.waterboards.ca.gov/profile_report.asp?global_id=T0604100150), accessed December 18, 2013.

### 13. Novato Unified School District – 819 Olive Street

This site is listed in the SWRCB GeoTracker database as a LUST cleanup site for contamination associated with a leaking diesel UST. The status of cleanup was open for site assessment in December 1994. However, there has been little or no investigation or remedial work on this property; no cleanup actions exist. Pollutant sources have not been adequately identified and the extent of contamination has not been determined, therefore cleanup status is open and site assessment is ongoing as of July 19, 2001. The SWRCB recently issued a Path to Closure Plan which requires investigations that adequately characterize the site, with a projected completion date of December 2014. They have also requested a Conceptual Site Model be developed assessing the nature, extent, and mobility of the release, with a projected completion date of April 2015.<sup>19</sup>

### 14. Former H&J Tire/Leonardi Auto Electric Inc. – 7426 Redwood Boulevard

This site is listed in the SWRCB GeoTracker database as a LUST cleanup site. One waste oil tank (WOT) was removed in April 1990. No remedial action was taken at the site. Soil samples taken at the site in 1991 (groundwater was not affected), contained total oil and grease (TOG), total petroleum hydrocarbons as diesel (TPHd), and total petroleum hydrocarbons as motor oil (TPHmo). The SWRCB considers this site a low risk case since the WOT was removed and contaminated soil was excavated and disposed. A closure letter by the SWRCB was issued for this site on April 20, 2009. Cleanup status is completed and the case is closed.<sup>20</sup>

### 15. Former Unocal/Chevron Station – 7455 Redwood Boulevard

This site is listed in the SWRCB GeoTracker database as a LUST cleanup site, which was formerly occupied by Unocal/Chevron, for contamination associated with LUSTs removed in the 1990s. Contaminated soil and groundwater were discovered. Remedial activities included excavating contaminated soil, removing contaminated groundwater, and installing groundwater monitoring wells. The latest available groundwater monitoring event data are from December 2008. The highest concentrations detected were the following: TPHg at 35,000 ug/L, TPHd at 20,000 ug/L, MTBE at 140 ug/L, and BTEX at 5,000 ug/L.<sup>21</sup> These contaminant levels are well above the SFBRWQCB ESLs for commercial/industrial sites. Cleanup status is open and under remediation as of June 26, 2007. Soil, soil vapor, and groundwater extraction, and groundwater monitoring are ongoing at the site. The site recently underwent in-situ chemical oxidation injection, and the SWRCB has issued in its Path to Closure Plan as of December 2013, a request for post-remediation monitoring to evaluate effectiveness.<sup>22</sup>

### 16. Big 4 Rents Inc. /Hertz Equipment Rental – 875 Olive Avenue

This site is listed in the SWRCB GeoTracker database as a LUST cleanup site. Two USTs, one diesel and one gasoline, were removed and replaced with aboveground storage tanks in July 1990 after both tanks had repairs of minor leaks in 1987. No remedial action was taken at the site. Soil and groundwater samples taken at the site in 1998 and in 2000 contained low or non-detectable (ND) concentrations of TPHg, TPHd, BTEX, and MTBE. The SWRCB considers this site

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<sup>19</sup> State Water Resources Control Board, GeoTracker database at [http://geotracker.waterboards.ca.gov/profile\\_report.asp?global\\_id=T0604100097](http://geotracker.waterboards.ca.gov/profile_report.asp?global_id=T0604100097), accessed December 19, 2013.

<sup>20</sup> State Water Resources Control Board, GeoTracker database at [http://geotracker.waterboards.ca.gov/profile\\_report.asp?global\\_id=T0604100243](http://geotracker.waterboards.ca.gov/profile_report.asp?global_id=T0604100243), accessed December 17, 2013.

<sup>21</sup> Arcadis, May 2009. *Fourth Quarter 2008 Groundwater Monitoring Report*, Former Unocal No. 3642, 7455 Redwood Boulevard, Novato, California.

<sup>22</sup> State Water Resources Control Board, GeoTracker database at [http://geotracker.waterboards.ca.gov/profile\\_report.asp?global\\_id=T0604100194](http://geotracker.waterboards.ca.gov/profile_report.asp?global_id=T0604100194), accessed December 19, 2013.



a low risk UST case since the tanks were removed. A closure letter by the SWRCB was issued for this site on February 5, 2009. Cleanup status is completed and the case is closed. However, if land use at this site changes (e.g., residential), its closure status may need to be reevaluated.<sup>23</sup>

#### **17. A&A Gas Station – 7474 Redwood Boulevard**

This site is listed in the SWRCB GeoTracker database as a LUST cleanup site. It has been an operating gas station since 1967, and several phases of monitoring and remediation have occurred at the site since 1993. The main contaminants of concern were tertiary-butyl alcohol (TBA) and MTBE. In order to prevent further migration of the plume of contaminants off-site, a GW pump and treat system was installed prior to final remediation through an ozone microsparging system, which operated between 2004 and 2009 to remediate deeper groundwater contamination. A high vacuum dual phase extraction (HVDPE) remediation event was conducted in August 2009 to remediate shallow groundwater contamination. The post-HVDPE groundwater monitoring event in October 2009 indicated significantly lower reductions in contaminants of concern, with any elevated concentrations confined locally at the site. A closure letter by the SWRCB was issued for this site on February 10, 2012. Cleanup status is completed and the case is closed.<sup>24</sup>

#### **18. Novato Bus Facility – 801 Golden Gate Place**

This site is listed in the SWRCB GeoTracker database as a LUST cleanup site for contamination associated with a leaking diesel UST. The initial release was discovered in 1977. Subsequent investigations and remediation (including the replacement of the original USTs and hydrogen peroxide injections) have occurred from 1990 to the present. Results from the second quarter groundwater monitoring event conducted in June 2008 show the highest concentrations located on the northeast corner of the property. However, several wells on the interior of the property contain free-floating hydrocarbon product (free product), which floats as a layer on top of the water, making it difficult to sample.<sup>25</sup> Results from the fourth quarter 2010 groundwater monitoring event conducted in December 2010, and the first quarter 2011 groundwater monitoring event conducted in February 2011, indicate free product remains present.<sup>26</sup> The SWRCB has issued in its Path to Closure Plan as of December 2013, a request for determination if free product has been removed to the maximum extent practicable. Cleanup status is open and site assessment is ongoing as of August 2, 1994.<sup>27</sup>

#### **19. Indian Valley College – 1800 Ignacio Boulevard**

This site is listed in the SWRCB GeoTracker database as a LUST cleanup site for contamination associated with three historical gasoline USTs and one historical waste oil tank removed in 1989. Soil sampling conducted in 1991 indicates no concentrations of TPHg, MTBE, or BTEX above laboratory detection limits in the gasoline UST excavations. However, residual hydrocarbons such as gasoline, diesel, and waste oil were present in both soil and groundwater in the for-

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<sup>23</sup> State Water Resources Control Board, GeoTracker database at [http://geotracker.waterboards.ca.gov/profile\\_report.asp?global\\_id=T0604100316](http://geotracker.waterboards.ca.gov/profile_report.asp?global_id=T0604100316), accessed December 17, 2013.

<sup>24</sup> State Water Resources Control Board, GeoTracker database at [http://geotracker.waterboards.ca.gov/profile\\_report.asp?global\\_id=T0604100150](http://geotracker.waterboards.ca.gov/profile_report.asp?global_id=T0604100150), accessed December 17, 2013.

<sup>25</sup> PES Environmental, Inc., September 2008. *Second Quarter 2008 Groundwater Monitoring Report*. Golden Gate Bridge Highway and Transportation District, Novato Bus Facility, 801 Golden Gate Place, Novato, California.

<sup>26</sup> PES Environmental, Inc., April 2011. *Semi-annual Fourth Quarter 2010 and First Quarter 2011 Progress Report*. Golden Gate Bridge Highway and Transportation District, Novato Bus Facility, 801 Golden Gate Place, Novato, California.

<sup>27</sup> State Water Resources Control Board, GeoTracker database at [http://geotracker.waterboards.ca.gov/profile\\_report.asp?global\\_id=T0604100156](http://geotracker.waterboards.ca.gov/profile_report.asp?global_id=T0604100156), accessed January 8, 2014.

mer waste oil tank excavation.<sup>28</sup> The site was not ready for closure as of September 2009 due to the required submittal of a Sensitive Receptor Survey to the SFBRWQCB. In 2013 the SFBRWQCB determined that some waste oil residual remains but does not appear to be a significant threat to human health and the environment. Cleanup status is open and eligible for closure as of June 13, 2013.<sup>29</sup>

**20. Black John Slough Rancho Del Pantano/Binford Land  
Illegal Disposal Site – 8190 Binford Road**

This site is no longer listed in the SCP database. Little or no investigation or remedial work has been conducted on this property for several years, and the status of the site is unclear. The site is located just outside city limits.

**21. Shell Station – 401 Enfrente Road**

This site is listed in the SWRCB GeoTracker database as a LUST cleanup site for contamination associated with a LUST discovered in 2003. Various forms of remediation occurred at the site between September 2003 and February 2005, including soil vapor extraction and pumping and treatment of groundwater. The residual TPHg and MTBE remaining in the groundwater at the site is expected to reach the lowest SWRCB ESLs in less than 8 years; all other constituents are below detection levels. A closure letter by the SWRCB was issued for this site on September 21, 2010. Cleanup status is completed and the case is closed.<sup>30</sup>

**22. Unocal Station #7381/Mobile Service Station/Novato 76/Greg's Service Center/Circle K Stores/Conoco Phillips – 375 Ignacio Boulevard**

This site is listed in the SWRCB GeoTracker database as a LUST cleanup site. Based on data obtained at the site from investigations prior to 2007, the SWRCB has determined the site is at low risk for groundwater contamination. In November 2008, four monitoring wells were installed. Based on the latest results from the monitoring wells, the concentrations of pollutants in groundwater (including TPHg, TPHd, and MTBE) are low or ND. A closure letter by the SWRCB was issued for this site on March 10, 2011. Cleanup status is completed and the case is closed.<sup>31</sup>

**23. 14 Commercial Boulevard**

This light industrial/office building in the Bel Marin Keys Industrial Park area is listed in the SCP database. However, little or no investigation or remedial work has been conducted on this property since the case and site assessment opened on March 8, 2001. Cleanup status is open and inactive since May 11, 2009.<sup>32</sup>

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<sup>28</sup> Environmental Resource Group, 1991. *Groundwater Monitoring Report, Indian Valley College, 1800 Ignacio Boulevard, Ignacio California.*

<sup>29</sup> State Water Resources Control Board, GeoTracker database at [http://geotracker.waterboards.ca.gov/profile\\_report.asp?global\\_id=T0604100251](http://geotracker.waterboards.ca.gov/profile_report.asp?global_id=T0604100251), accessed January 7, 2014.

<sup>30</sup> State Water Resources Control Board, GeoTracker database at [http://geotracker.waterboards.ca.gov/profile\\_report.asp?global\\_id=T0604170037](http://geotracker.waterboards.ca.gov/profile_report.asp?global_id=T0604170037), accessed December 19, 2013.

<sup>31</sup> State Water Resources Control Board, GeoTracker database at [http://geotracker.waterboards.ca.gov/profile\\_report.asp?global\\_id=T0604170262](http://geotracker.waterboards.ca.gov/profile_report.asp?global_id=T0604170262), accessed January 2, 2014.

<sup>32</sup> State Water Resources Control Board, GeoTracker database at [http://geotracker.waterboards.ca.gov/profile\\_report.asp?global\\_id=SLT2O126132](http://geotracker.waterboards.ca.gov/profile_report.asp?global_id=SLT2O126132), accessed January 2, 2014.

#### **24. Shell Oil Co. /West Novato Shell/Equilon Enterprises – 2085 South Novato Boulevard**

This site is listed in the SWRCB GeoTracker database as a LUST cleanup site. The SFBRWQCB has issued in its Path to Closure Plan as of December 2013 a directive to define the extent of the groundwater plume, and to identify contaminants that exceed water quality objectives. The SFBRWQCB confirmed the necessity for additional monitoring wells in July 2013, to assess the extent of groundwater pollution downgradient of monitoring well S-5 (MW S-5). High levels of TPHg, TPHd, benzene, and MTBE were detected in MW S-5 during the most recent semi-annual monitoring reports in 2012. Cleanup status is open and site assessment is ongoing as of September 4, 2013.<sup>33</sup> In late 2013, a new project was approved through the planning division for this site, authorizing the complete demolition, expansion, and renovation of the existing gas station.<sup>34</sup>

#### **25. Former Chevron Station – 5810 Nave Drive**

This site is listed in the SWRCB GeoTracker database as a LUST cleanup site for contamination associated with a LUST. Environmental investigations began at this site in 1983 when leaks were discovered in the product (gasoline) lines and the USTs. Historical maximum groundwater contamination was detected in the monitoring wells in 2006 (TPHg at up to 55,000 ppb, and benzene at up to 22,000 ppb). The maximum groundwater concentrations in 2013 were TPHg at 16,000 ppb, and benzene at 7,300 ppb. The SFBRWQCB has issued in its Path to Closure Plan as of December 2013, a directive to define the extent of the groundwater plume, to identify contaminants that exceed water quality objectives, and to conduct a soil gas investigation. Cleanup status is open and site assessment is ongoing as of July 30, 1983.<sup>35</sup>

#### **26. Atherton Avenue and Binford Road**

This undeveloped site is no longer listed in the GeoTracker database. The SWRCB anticipated review of the site in 2010 to determine if further action was needed.<sup>36</sup> The site presently consists of a Caltrans parking lot.<sup>37</sup>

#### **27. Former Pini Hardware – 1107 Grant Avenue**

This site is listed in the SWRCB GeoTracker database as a LUST cleanup site. In April 2006 a Phase I Environmental Site Assessment was performed at the site. Soil borings detected TPHg and TPHd, and subsequently a previously unknown UST containing residual gasoline product was excavated and removed. In addition, halogenated VOCs and low concentrations of PCE were also detected in groundwater samples. While there is no known historical use of PCE at the site, there has been a dry cleaning operation located directly across Grant Avenue from the site at 1110 Grant Avenue. PCE impacts to groundwater at the site are most likely associated with this dry-cleaning operation. The monitoring wells were decommissioned in October 2010. A closure letter by the SWRCB was issued for this site on April 18, 2011. Cleanup status is completed and the case is closed.<sup>38</sup>

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<sup>33</sup> State Water Resources Control Board, GeoTracker database at [http://geotracker.waterboards.ca.gov/profile\\_report.asp?global\\_id=T0604100119](http://geotracker.waterboards.ca.gov/profile_report.asp?global_id=T0604100119), accessed January 2, 2014.

<sup>34</sup> Personal communication with Alan Lazure, Principal Planner, City of Novato, January 7, 2014.

<sup>35</sup> State Water Resources Control Board, GeoTracker database at [http://geotracker.waterboards.ca.gov/profile\\_report.asp?global\\_id=T0604100029](http://geotracker.waterboards.ca.gov/profile_report.asp?global_id=T0604100029), accessed January 2, 2014.

<sup>36</sup> Jang, John. Lead Regulator, City of Novato, Regional Water Quality Control Board. Personal communication with Teal Glass, Stellar Environmental Solutions, Inc., December 10, 2008.

<sup>37</sup> Personal communication with Alan Lazure, Principal Planner, City of Novato, January 7, 2014.

<sup>38</sup> State Water Resources Control Board, GeoTracker database at [http://geotracker.waterboards.ca.gov/profile\\_report.asp?global\\_id=T10000001771](http://geotracker.waterboards.ca.gov/profile_report.asp?global_id=T10000001771), accessed January 2, 2014.

## **28. Former Location of Novato Fire Station #64 – 319 Enfrente Road**

This site is listed in the SWRCB's SCP database. In June 1989, two USTs containing gasoline and diesel were removed from the site. According to the SFBRWQCB case closure summary dated February 11, 2009, limited excavation was performed at the site and soil and groundwater impacts were successfully defined; the site was considered a low risk UST site. However, in May 2013 petroleum hydrocarbon odors were detected during demolition activities on the site. Soil sample results indicate contamination by diesel range organic compounds appearing to be related to the use of a backup power generator formerly located on the site. Cleanup status is open and site assessment and interim remedial action is ongoing as of October 14, 2013, consisting of excavation and proper disposal of the petroleum hydrocarbon impacted soil.<sup>39</sup>

### ***C. Groundwater Contamination Plumes***

There are no documented regional contaminant groundwater plumes within the City of Novato or its sphere of influence (SOI).<sup>40</sup> An area of sustained groundwater contamination is referred to as a plume. While there is groundwater contamination beneath several of the sites listed above, the contamination is confined to the sites themselves or immediately adjacent properties. These sites are not considered to have impacted the groundwater to the extent of creating a regional groundwater plume.

### ***D. Hazardous Materials Transport***

Nearly all of the hazardous materials transported to and from Novato are carried by truck on the state highway system. City streets are used to transport locally-generated wastes from the source to the regional highway system. The City has not quantified the amount of hazardous materials that are transported through it enroute to other destinations.

### ***E. Hazardous Waste Disposal***

Hazardous wastes are generated as a part of many normal business operations. For example, dry cleaners accumulate used chemical solvents which must be removed and transported by a licensed hauler to a storage and disposal facility permitted to accept hazardous materials. Most of these operations are small quantity generators (SQGs). A SQG generates more than 100 kilograms (kg) and less than 1,000 kg of hazardous waste per month. A large quantity generator (LQG) generates 1,000 kg or more of hazardous waste per month.

The Environmental Data Resources, Inc. database report for the Novato project area lists 72 SQGs and three LQGs. The three LQGs are:

- ◆ Costco Wholesale #141 – 300 Vintage Way
- ◆ Former 7 to 7 Cleaners – 1430 South Novato Boulevard
- ◆ Exxon Company USA #79259 – 490 Ignacio Boulevard

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<sup>39</sup> State Water Resources Control Board, GeoTracker database at [http://geotracker.waterboards.ca.gov/profile\\_report.asp?global\\_id=T10000005196](http://geotracker.waterboards.ca.gov/profile_report.asp?global_id=T10000005196), accessed January 2, 2014.

<sup>40</sup> Jang, John. Lead Regulator, City of Novato, Regional Water Quality Control Board. Personal communication with Teal Glass, Stellar Environmental Solutions, Inc. December 10, 2008.

CalRecycle has differentiated waste into several categories, including household hazardous waste and special wastes. The latter includes ash, sewage solids, industrial sludge, treated medical wastes, bulky items, tires, and composite waste.

#### ***F. Hazardous Materials Emergency Response***

In Novato, the agency that has the overall responsibility and authority to regulate hazardous materials storage and response is the County of Marin. Marin County is responsible for:

- ◆ Regulating hazardous materials over specified quantities.
- ◆ Receiving business plans, providing inventories, 24-hour response contact, and 30-day updates, and preparing hazardous waste estimates.
- ◆ Sending fire departments business plan information and notices of unauthorized releases (inspection requirements overlap with Fire Code requirements).
- ◆ Developing and implementing area plans for emergency response of hazardous materials spills.
- ◆ Implementing risk management and prevention programs, preparing inventories of hazardous waste storage and transportation, and implementing procedures for handling of hazardous substances.
- ◆ Receiving Risk Management and Prevention Programs, including specific procedures for handling materials and accidental releases.

Marin County Hazardous Waste Management forwards the Novato Fire Protection District (NFPD) updated Hazardous Material Management Plans (HMMP) and Hazardous Material Inventory Statements (HMIS) for businesses in areas served by the NFPD. Copies of these documents are available to the public at the NFPD headquarters.

#### **1. Hazardous Materials Training**

The NFPD is a member of the Marin County Hazardous Materials Response team. Currently, all personnel are trained at the Hazardous Material First Responder Operations level. The NFPD has also designated its truck company as a decontamination unit. The NFPD currently has the capability to respond to an incident, assist law enforcement with the role of incident commander, and isolate and deny entry to the site.

#### **2. Radioactive Materials**

Radioactive materials are distinguished from other hazardous materials. Specific federal and state regulations address handling and transport of these substances. The use and storage of radioactive materials in Novato is limited to medical facilities and the Buck Center for Research in Aging, since no other primary users of radioactive materials- such as research laboratories, nuclear power plants, or active military facilities- are located within the vicinity of the City. The principal potential danger to Novato residents from these materials is related to the possibility of a truck accident resulting in rupture of containers holding radioactive materials.