Manmade Hazards

September 2022

CITY OF PETALUMA
GENERAL PLAN UPDATE

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Responses to Community Feedback on Environmental Existing Conditions Reports

The following responses were drafted by the consultant team in response to extensive community feedback on topics that crosscut the seven Environmental Existing Conditions Reports.

Trees and Urban Canopy: Maintaining and expanding a robust urban forest is a priority for the City and will be incorporated into the updated General Plan goals, policies, and programs to further develop and maintain the urban forest and protect trees of aesthetic, cultural, and biological value to the community. The General Plan Update will capitalize on ways to build on and expand existing plans and programs through tools like tree inventories and tree preservation ordinances.

River Enhancement Program: The River Enhancement Plan will provide an existing foundation for goals, policies, and programs to be implemented as this plan will continue to be in effect and utilized after the General Plan Update. Throughout the General Plan Update process, this plan will be thoroughly reviewed and incorporated into the General Plan.

Wildlife Corridors: The information regarding the wildlife corridors discussion were a compiling of local resources that can be used to understand the stakeholders that the City can partner with in supporting efforts to conserve wildlife corridors, especially in support of efforts by the State, to preserve a statewide network of wildlife movement corridors. There will be opportunities in future steps of the General Plan Update process to include more detail of the wildlife corridors surrounding Petaluma using data from CDFW and other available sources.

Climate Impacts Data: The State of California requires local jurisdictions to use specified data sources for identified hazards such as FEMA for the flood hazards analysis and the Cal Adapt tool for climate change projections. These are the data sources used to conduct the analysis of climate and flood hazards, which will inform various aspects of the General Plan Update.

Integration of Environmental Topics: Environmental issues and considerations will be integrated throughout the General Plan Update process and additional information will be gathered and analyzed during future phases of the project. In particular, environmental analysis will be done during the alternatives and environmental review phases.

Manmade Hazards

This Chapter highlights the City of Petaluma's existing manmade hazards. It contains a summary of the regulatory framework from the federal, State, and local levels of government and an overview of existing hazardous material sites in Petaluma. This includes a description of how local hazardous materials are managed. Local government plays an important role in the management of hazardous materials and coordinating with State and federal regulators is part of the management process to keep people in Petaluma safe.

Key Findings and Constraints

- There are currently 20 active hazardous pollution sites in the City of Petaluma, identified using the California Water Resources Board GeoTracker database. Six of these sites are part of the State Water Control Board's Cleanup Program Sites and the other 14 are Leaking Underground Storage Tanks (LUST) Cleanup Sites.
- There are a total of seven contaminated sites in the City of Petaluma identified using the EnviroStor tool from the Department of Toxic Substances Control within the City's limits.
- There is a 35-acre site in the City of Petaluma formerly listed on the EPA's Superfund program's National Priorities List (NPL). It was previously occupied by Sola Optical USA, which produced optical lenses from 1978 to 2001. The site has groundwater contaminants with volatile organic compounds (VOCs) and solvents. Following cleanup, the EPA took the site off the Superfund program's National Priorities List (NPL) in 2013. This site is located along Highway 116 near South McDowell Boulevard. Other former Superfund sites may be redeveloped but are often unsafe for residential uses.

Planning and Regulatory Setting

U.S. Environmental Protection Agency (EPA)

The EPA is the agency primarily responsible for enforcement and implementation of federal laws and regulations pertaining to hazardous materials. Applicable federal regulations pertaining to hazardous materials are contained in the Code of Federal Regulations (CFR) Titles 29, 40, and 49. Hazardous materials, as defined in the CFR, are listed in 49 CFR 172.101. The management of hazardous materials is governed by the following laws:

- Resource Conservation and Recovery Act of 1976 (RCRA) (42 U.S. Code [USC] 6901 et seq.);
- Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA, also called the Superfund Act) (42 USC 9601 et seq.);
- Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) (7 USC 136 et. Seq.); and
- Superfund Amendments and Reauthorization Act (SARA) of 1986 (Public Law 99 499).

These laws and associated regulations include specific requirements for facilities that generate, use, store, treat, and/or dispose of hazardous materials. EPA provides oversight and supervision for Federal Superfund investigation/remediation projects, evaluates remediation technologies, and develops hazardous materials disposal restrictions and treatment standards.

U.S. Department of Transportation

The U.S. Department of Transportation (DOT) is responsible for the planning of federal transportation projects and the regulatory environment of the national transportation network. Developments in national transportation regulation established by the DOT frequently address the trucking industry, especially trucking and driver safety. Waste hauling is a major component of the U.S. trucking industry and is therefore required to meet DOT safety requirements for any hauling practices.

Porter-Cologne Water Quality Control Act (1969)

The Porter-Cologne Water Quality Control Act mandates protection of Waters of the State such that activities that may affect Waters of the State be regulated to attain the highest quality water. The SWRCB is given authority to enforce Porter-Cologne Water Control Act and SWRCB regulations mandate a "non-degradation policy" for state waters, especially those of high quality. Under the authority of the SWRCB, the protection of water quality in the Petaluma River Watershed and its tributaries is under the jurisdiction of the San Francisco RWQCB. The RWQCB establishes requirements prescribing the quality of point sources of discharge and establishes water quality objectives. These objectives are established based on the designated beneficial uses for a particular surface water or groundwater. Beneficial uses of the Petaluma River Watershed above the estuary include municipal, domestic, agricultural, and industrial service supply; groundwater recharge; contact water recreation; non-contact water recreation; wildlife habitat; cold freshwater habitat; wetlands habitat; warm freshwater habitat; migration of aquatic organisms; rare, threatened, or endangered species; freshwater replenishment; and commercial and sport fishing.

Superfund Amendments and Reauthorization Act (SARA) Title III, the Emergency Planning and Community Right to Know Act

SARA requires companies to declare potential toxic hazards to ensure that local communities can plan for chemical emergencies. EPA maintains a National Priority List of uncontrolled or abandoned hazardous waste sites identified for priority remediation under the Superfund program. EPA also maintains the Comprehensive Environmental Response, Compensation and Liability Information System (CERCLIS) database, which contains information on hazardous waste sites, potential hazardous waste sites, and remedial activities across the nation.

Resource Conservation and Recovery Act (RCRA)

Under RCRA, EPA regulates hazardous waste from the time that the waste is generated until its final disposal. RCRA also gives EPA or an authorized State the authority to conduct inspections to ensure that individual facilities comply with regulations, and to pursue enforcement action if a violation is discovered. EPA can delegate its responsibility to a state if the state's regulations are at least as stringent as the Federal regulations. RCRA was updated in 1984 by the passage of the Federal Hazardous and Solid Waste Amendments, which required phasing out land disposal of hazardous waste. Title 22, Section 66261.24 of the California Code of Regulations (CCR) defines characteristics of toxicity, which is used to help guide the federal program.

The Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA)

FIFRA (7 USC 136 et seq.) provides federal control of pesticide distribution, sale, and use. EPA was given authority under FIFRA not only to study the consequences of pesticide usage, but also to require users (farmers, utility companies, and others) to register when purchasing pesticides. Later amendments to the law required users to take exams for certification as applicators of pesticides. All pesticides used in the United States must be registered (licensed) by EPA. Registration assures that pesticides will be properly labeled and that, if used in accordance with specifications, they will not cause unreasonable harm to the environment.

Federal Clean Water Act

The Clean Water Act (CWA) establishes the basic structure for regulating discharges of pollutants into the waters of the United States and regulating quality standards for surface waters. The basis of the CWA was enacted in 1948 and was called the Federal Water Pollution Control Act, but the Act was significantly reorganized and expanded in 1972. Under the CWA, Environmental Protection Agency (EPA) has implemented pollution control programs such as setting wastewater standards for industry. EPA has also developed national water quality criteria recommendations for pollutants in surface waters

Hazardous Waste Operations and Emergency Response (HAZWOPER)

HAZWOPER requirements include Federal regulations for clean-up operations required by a governmental body involving hazardous substances that are conducted at uncontrolled hazardous waste sites. This includes the EPA's National Priority Site List (NPL), State priority site lists, sites recommended for the EPA NPL, and other initial investigations of government-identified sites, which are conducted before the presence or absence of hazardous substances has been ascertained. A person who is engaged in work with any potential for exposure to hazardous substances must comply with HAZWOPER regulations.

The Department of Toxic Substances Control (DTSC)

DTSC is a division of the California Environmental Protection Agency (CalEPA) and has primary regulatory responsibility over hazardous materials in California, working in conjunction with the Federal EPA to enforce and implement hazardous materials laws and regulations. DTSC can delegate enforcement responsibilities to local jurisdictions.

The Hazardous Waste Control Act

The hazardous waste management program enforced by DTSC was created by the Hazardous Waste Control Act (California Health and Safety Code Section 25100 et seq.), which is implemented by regulations described in CCR Title 26. The State program is similar to, but more stringent than, the federal program under RCRA. The regulations list materials that may be hazardous, and establish criteria for their identification, packaging, and disposal. Environmental health standards for management of hazardous waste are contained in CCR Title 22, Division 4.5. In addition, as required by California

Government Code Section 65962.5, DTSC maintains a Hazardous Waste and Substances Site List for the State called the Cortese List.

Comprehensive Environmental Response, Compensation and Liability Act (CERCLA)

CERCLA is informally called Superfund. It allows EPA to clean up contaminated sites. It also forces the parties responsible for the contamination to either perform cleanups or reimburse the government for EPA-led cleanup work.

Unified Program

CalEPA has established a unified hazardous waste and hazardous materials management regulatory program (Unified Program) as required by Senate Bill 1082 (1993). The Unified Program consolidates, coordinates, and makes consistent the administrative requirements, permits, inspections, and enforcement activities for the following environmental programs under CalEPA, the State Water Resources Control Board (SWRCB), including the Regional Water Quality Control Boards (RWQCB) within each region of the state, State Office of Emergency Services, and the State Fire Marshal:

- Underground Storage Tank program;
- Hazardous materials release response plans and inventories;
- California Accidental Release Prevention Program (CalARPP);
- Above ground Petroleum Storage Act requirements for spill prevention, control, and countermeasure plans; and
- California Uniform Fire Code (UFC) hazardous material management plans and inventories.

The five environmental programs within the Unified Program are implemented at the local level by local agencies, known for this purpose as Certified Unified Program Agencies (CUPA). CUPAs carry out the responsibilities previously handled by approximately 1,300 State and local agencies, providing a central permitting and regulatory agency for permits, reporting, and compliance enforcement.

Regional Water Quality Control Board (RWQCB)

The RWQCB is authorized by the Porter Cologne Water Quality Control Act of 1969 to protect the waters of the State. The RWQCB provides oversight for sites where the quality of groundwater or surface waters is threatened. Extraction and disposal of contaminated groundwater due to investigation/remediation activities or due to dewatering during construction would require a permit from the RWQCB if the water were discharged to storm drains, surface water, or land. Petaluma is within the jurisdiction of the San Francisco RWQCB and must meet the specific requirements and protocols established by this regional authority.

California Department of Pesticide Regulations, Department of Food and Agriculture, and the Department of Public Health

The California Department of Pesticide Regulations (DPR), a division of CalEPA, in coordination with the California Department of Food and Agriculture (CDFA), a division of Measurement Standards and the California Department of Public Health (CDPH) have the primary responsibility to regulate pesticide use, vector control, food, and drinking water safety. CCR Title 3 requires the coordinated response between the County Agricultural Commissioner and SBDEH to address the use of pesticides used in vector control for animal and human health on a local level. DPR registers pesticides, and pesticide use is tracked by the County. Title 22 is used also to regulate both small (less than 200 connections regulated by the SBC Water District) and large CDPH water systems.

California Air Toxic “Hot Spots” (AB 2588) Program

The Air Toxics "Hot Spots" Information and Assessment Act (AB 2588, Connelly, 1987: chaptered in the California Health and Safety Code Section 44300, et. al.) established a formal regulatory program for site-specific air toxics emissions inventory and health risk quantification that is managed by California air districts. Under this program, a wide variety of industrial, commercial, and public facilities are required to report the types and quantities of toxic substances their facilities routinely release into the air. The goals of the Air Toxics Hot Spots (ATHS) program are to collect emissions data, to identify facilities with potential for localized health impacts, to ascertain health risks, to notify nearby residents of risks that are determined to warrant such notification, and to reduce significant risks. The city of Petaluma is located within the Bay Area Air Quality Management District (BAAQMD). BAAQMD is responsible for managing the air toxic emissions inventory and quantifying the health risks associated with identified “hot spots”.

Sonoma Countywide Integrated Waste Management Plan (CoIWMP)

With the enactment of the California Integrated Waste Management Act of 1989 (AB 939), the State of California has required each City and County to prepare solid waste management planning documents that demonstrate reduction of the amount of solid waste landfilled, long-term ability to ensure the implementation of countywide diversion programs, and provision of adequate disposal capacity for local jurisdictions through the siting of disposal and transformation facilities. This planning document is known as the Countywide Integrated Waste Management Plan (CoIWMP) and includes the Source Reduction and Recycling Element (SRRE), Household Hazardous Waste Element (HHWE), Non-Disposal Facility Element (NDFE), and the Siting Element. In 1995, the Sonoma County Waste Management Agency (SCWMA) was designated a regional agency as defined under Section 40970 of the California Public Resource Code, for the purpose of implementing, monitoring and reporting programs to meet the goals established by AB 939. In addition, the SCWMA also assumed the responsibility of maintaining all AB 939 planning documents for Sonoma County jurisdictions.

Certified Unified Program Agency (CUPA)

The City of Petaluma Municipal Code addresses the management of hazardous materials and hazardous sites in Chapter 17.21 Certified Unified Program Agency (CUPA). State law requires that communities

form a CUPA to manage the acquisition, maintenance, and control of hazardous waste by industrial and commercial business. In Petaluma, the Fire Marshal's Office administers the CUPA programs. As the CUPA, the Fire Department regulates all aspects of hazardous materials storage, use, and waste disposal. This includes policy, training of personnel, and procedures for processing the various elements of the CUPA program. The CUPA shall administer and enforce hazardous materials and hazardous waste laws and regulations pursuant to Section 17.21.010(C) of the City's municipal code. A permit is required under this program for the handling, storing, dispensing, or use of hazardous material as required per the City's municipal code guidance.

City of Petaluma General Plan

The current General Plan for the City of Petaluma addresses Hazardous Materials within Chapter 10 (Health and Safety). The General Plan outlines the following policies and programs related to hazardous material management:

10-P-4 Minimize the risk to life and property from the production, use, storage, and transportation of hazardous materials and waste by complying with all applicable State and local regulations.

- Require compliance with Sonoma's Countywide Integrated Waste Management Plan (CoIWMP) as well as all of the Consolidated Unified Protection Agency (CUPA) program elements.
- Prepare and maintain an inventory of environmentally contaminated sites to educate future landowners about contamination from previous uses. Work directly with landowners in the cleanup of these sites, particularly in areas with redevelopment potential.
- The U.S. Environmental Protection Agency (EPA) in 2005 awarded the City of Petaluma two grants to assess potential brownfield properties within the city. In addition, the City has applied to the EPA for a revolving loan fund grant to help developers, non-profits, and the City clean up brownfield sites.
- Establish special zoning designations and environmental review processes that limit the location of industry, research, and business facilities using hazardous materials. Require safe distances between these sites and residential areas, groundwater recharge areas (see Chapter 8: Water Resources), and waterways.

Management of Hazardous Materials

The Petaluma Fire Department's Fire Prevention Bureau is the Certified Unified Program Agency (CUPA) that provides regulatory oversight for hazardous materials and hazardous waste programs in Petaluma. The programs include the Hazardous Materials Business Plan (HMBP), Hazardous Waste Generator, Underground Storage Tank, Above-ground Petroleum Storage Tanks, Accidental Release Prevention, and the portions of the California Fire Code that address hazardous materials.

Hazardous Waste Producers in Petaluma

A wide variety of products, chemical and purified chemical compounds, and elements considered hazardous or toxic are used in households, commercial businesses, and industrial operations and processes. These include home and pool related chlorine products, chemical fertilizers, herbicides and pesticides, stored fuels and waste oil, chemical solvents and lubricants, and a variety of medical materials. The improper use and management of hazardous materials can pose a potential threat to the community and the environment.

There are various sources of hazardous material pollution that can exist within a city. These sources include leaking underground storage tanks (LUSTs) and former industrial, commercial, and agricultural sites. These pollution sources can expose the community to hazardous materials by impacting the surrounding environment. LUST pollution is associated with gasoline storage tanks from former or current gas stations that are subject to leaking over time. This leaking can contaminate surrounding soil, groundwater and/or surface water. Leaks require immediate action upon detection to reduce the spread of contaminants and reduce potential harm.

Industrial, commercial, and agricultural activities may result in environmental pollution due to the utilization of hazardous and toxic chemicals for operations. Spills or mishandling of hazardous materials can result in site contamination. These contaminated sites are known as “brownfields” and their clean-up and revitalization is regulated by the Sonoma County Community Development Commission and U.S. Environmental Protection Agency (US EPA). The Regional Water Quality Control Boards and the Department of Toxic Substances Control function as oversight agencies for various pollution remediation projects. Existing hazardous materials and/or wastes within Petaluma include underground storage tanks, Polychlorinated Biphenyls (PCBs), asbestos, and pesticides.

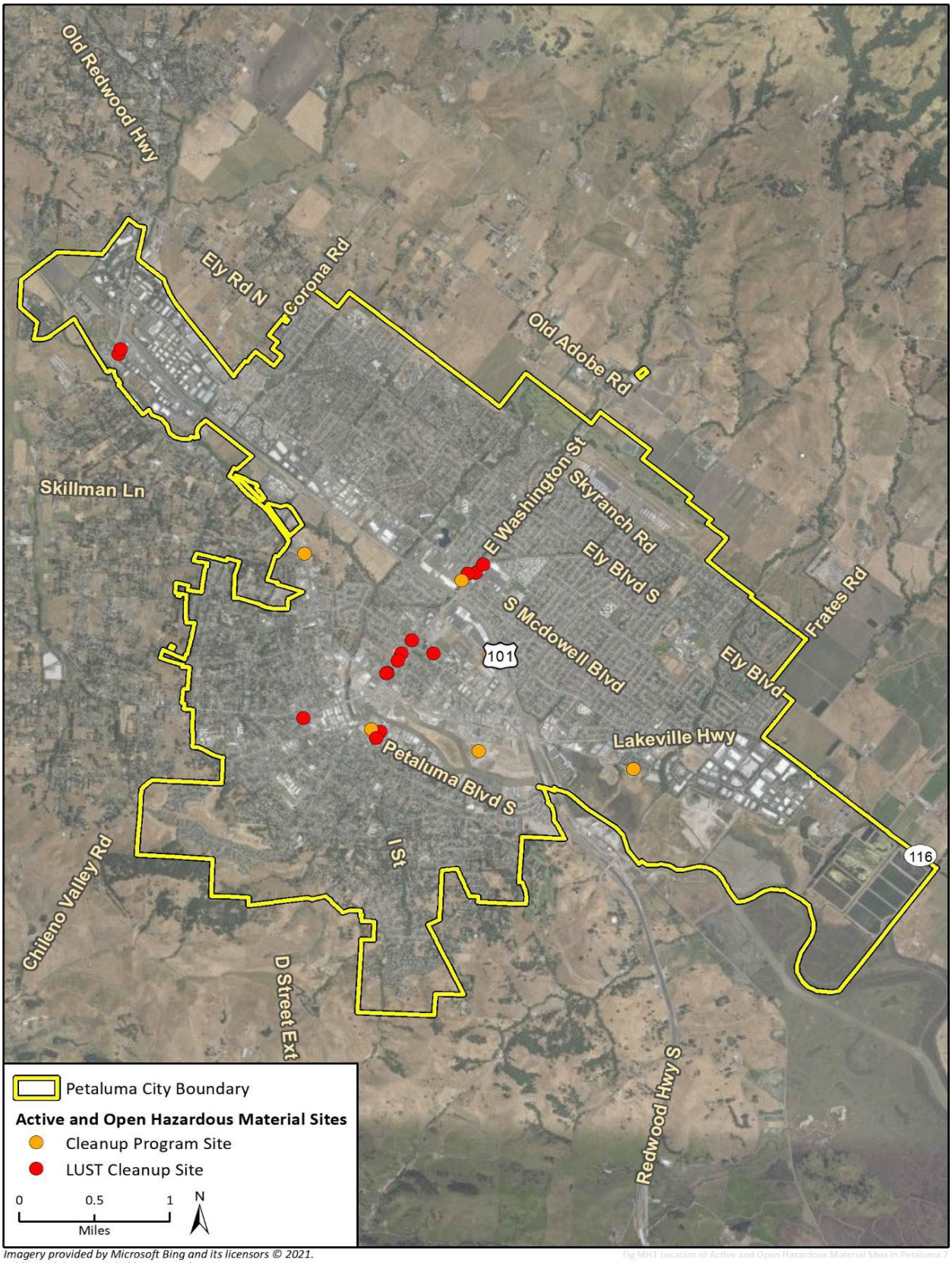
Locations of Active and Open Hazardous Pollution Sites (State Water Board LUST and Cleanup Program Sites)

The California Water Resource Control Board tracks sites that impact or have the potential to impact groundwater. These tracked sites include Leaking Underground Storage Tanks (LUST) and sites with historic or recent unauthorized pollutant releases, identified in the Water Board’s Site Cleanup Program (SCP). Within Petaluma, there are 14 “open” LUST sites, or sites where regulatory oversight activities are being conducted by the Petaluma Fire Department. LUST sites are the leading cause of soil and groundwater contamination in the county. As shown in **Figure 1** below, there is a high concentration of these LUST sites around the downtown area along the Petaluma River.

In addition to the LUST sites, there are six active Cleanup Program Sites within Petaluma, as part of State Water Resources Control Board's Site Cleanup Program. The LUST and SCP project locations, including the address, site type, and status are listed in **Table 1** below. SCP sites are varied and can include but are not limited to pesticide and fertilizer facilities, rail yards, ports, equipment supply facilities, metals facilities, industrial manufacturing and maintenance sites, dry cleaners, bulk transfer facilities, refineries, mine sites, landfills, and some brownfields. There are no identified “brownfield” properties in the city.

In addition to the active and open hazardous pollution sites in Petaluma, there are a significant number of closed LUST and SCP sites throughout the city. There are over 40 closed sites, many of which are clustered around the city center. Development on closed LUST or SCP sites may still require the employment of certain remediation strategies and therefore these sites are notable for growth planning.

Figure 1: Locations of Active and Open Hazardous Pollution Sites in Petaluma



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Additional data provided by Geotracker, 2021.

Fig MH1 Location of Active and Open Hazardous Material Sites in Petaluma 2

Table 1: Locations of Active and Open Hazardous Pollution Sites in Petaluma

Project Name	Status	Site Type	Address
2592 Lakeville Highway	Open – Assessment & Interim Remedial Action	Cleanup Program Site	2592 Lakeville Highway, CA
7-Eleven Store #18878	Open - Eligible for Closure	LUST Cleanup Site	201 McDowell Blvd S, Petaluma, CA 94952
Arco Station #2150	Open - Remediation	LUST Cleanup Site	101 McDowell Blvd N, Petaluma, CA 94952
Bar Ale Inc	Open - Site Assessment	LUST Cleanup Site	225 2ND ST, PETALUMA, CA 94952
Basin Street Properties	Open - Site Assessment	Cleanup Program Site	111 C STREET, Petaluma, CA 94952
Chevron #9-4081	Open - Site Assessment	LUST Cleanup Site	1440 Washington St E, Petaluma, CA 94952
Former City Maintenance Yard	Open - Verification Monitoring	Cleanup Program Site	991 Lindberg Lane, Petaluma, CA 94952
Former Johnson Property	Open - Assessment & Interim Remedial Action	Cleanup Program Site	1478 Petaluma Blvd. North, Petaluma, CA 94952
Jos. Ellwood Comm. Ctr.	Open - Verification Monitoring	LUST Cleanup Site	301 Payran St, Petaluma, CA 94952
Petaluma Car Wash	Open - Site Assessment	LUST Cleanup Site	483 Washington St E, Petaluma, CA 94952
Petaluma Car Wash	Open - Site Assessment	LUST Cleanup Site	483 Washington Street East, Petaluma, CA 94952
Petaluma Development	Open - Verification Monitoring	LUST Cleanup Site	627 Washington St E, Petaluma, CA 94952
Plaza Cleaners	Open - Verification Monitoring	Cleanup Program Site	101-181 North McDowell Blvd, Petaluma, CA 94952
Scannell Properties #388	Open - Site Assessment	Cleanup Program Site	500 Hopper Street, Petaluma, CA 94952
Shell Service Station (T0609700916)	Open - Verification Monitoring	LUST Cleanup Site	4990 Petaluma Blvd N, Petaluma, CA 94952
Shell Service Station (T0609700918)	Open - Remediation	LUST Cleanup Site	Washington St E, Petaluma, CA 94952
Shell Service Station (T0609700915)	Open - Verification Monitoring	LUST Cleanup Site	Washington St, Petaluma, CA 94952
Silva Partnership	Open - Verification Monitoring	LUST Cleanup Site	601 Washington St E, Petaluma, CA 94952

Project Name	Status	Site Type	Address
Unocal #5406 (T0609700962)	Open - Verification Monitoring	LUST Cleanup Site	4998 Petaluma Blvd N, Petaluma, CA 94952
Unocal #6152 (T0609700960)	Open - Remediation	LUST Cleanup Site	201 Petaluma Blvd S, Petaluma, CA 94952
Source: State Water Resources Control Board. GeoTracker. 2021.			

Many of the LUST Cleanup Sites have a status of verification monitoring, some are conducting site assessments, and three are undergoing remediation. The Cleanup Program Sites included a status of verification monitoring, site assessments, and two assessment & interim remedial action. A majority of the projects consist of gas stations, car washes, and a former city maintenance yard.

Locations of Contaminated Sites (DTSC EnviroStor Sites)

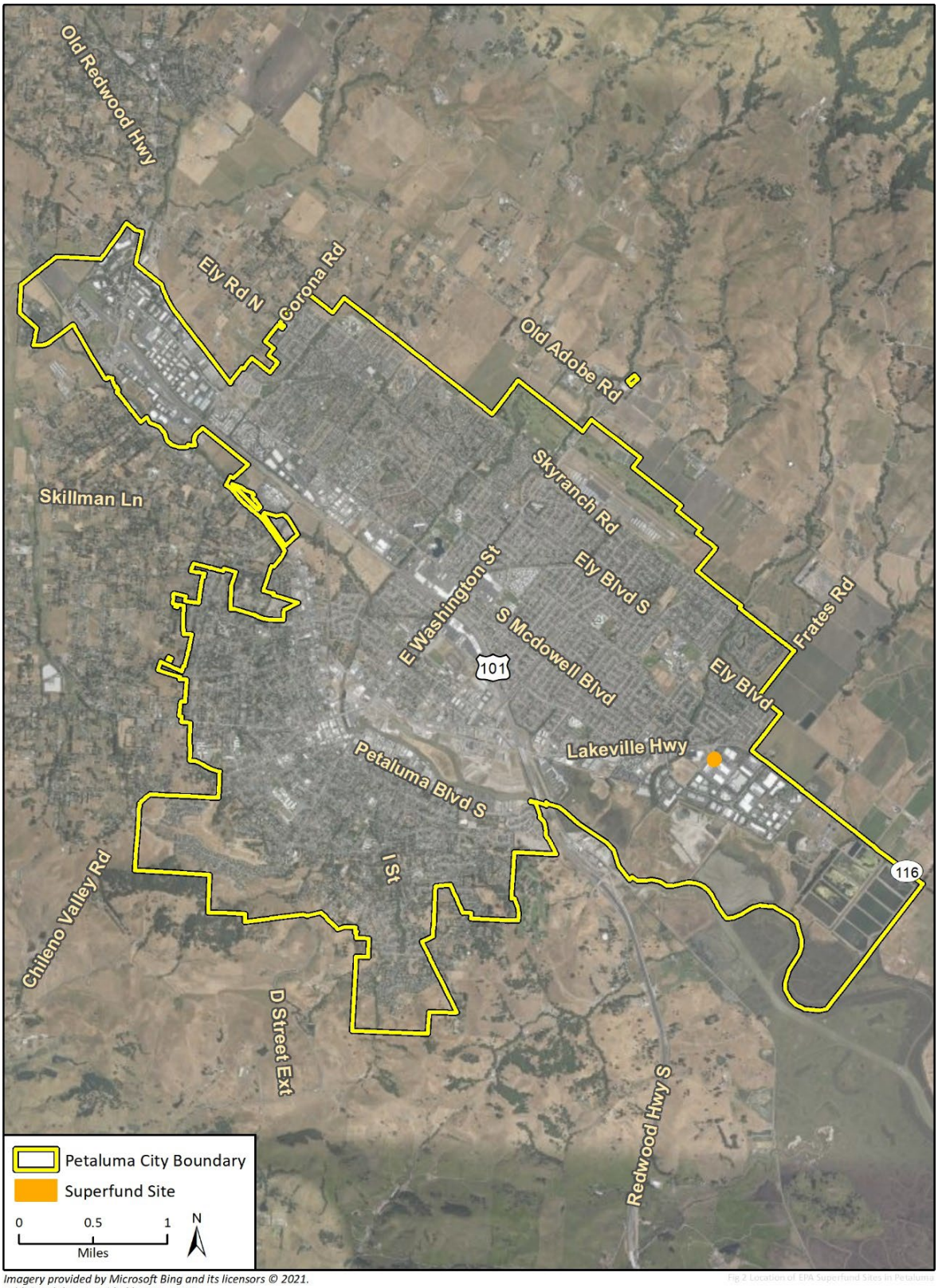
Reuse and intensification of former industrial and commercial areas, particularly in Central Petaluma, can be constrained by the presence of hazardous materials. The Department of Toxic Substances Control (DTSC) manages a system to identify and track hazardous waste facilities and sites with known contamination across the country. This tracking system, known as the DTSC EnviroStor database, tracks cleanup, permitting, enforcement and investigation efforts at these sites. According to the EnviroStor database, there are seven sites located around downtown Petaluma that handle hazardous materials. **Table 2** (below) identifies all seven sites, including the relevant address and current DTSC status. One of these seven sites was a federally recognized Superfund site until 2013 with the last registered activity in 1988. **Figure 2** below shows the site of the previously designated Superfund cleanup site in Petaluma. The site had groundwater contaminants with volatile organic compounds (VOCs) and solvents. Following cleanup, the EPA took the site off the Superfund program's National Priorities List (NPL). This site is located along Highway 116 near South McDowell Boulevard. Superfund sites are managed by the USEPA as part of CERCLA.

Table 2: Locations of Contaminated Sites in Petaluma

Project Name	Status	Project Type	Address	EnviroStor ID
Paul's Auto Dismantling	Refer: Local Agency	Evaluation	6622 Bodega Avenue	49500016
Sola Optical USA, INC.	Refer: RWQCB	Federal Superfund	3600 Lakeville Hwy	49300001
3M Optics Tech Center	Closed	Non-Operating	1331 Commerce St	CAT080033368
PG&E - Petaluma #1	Refer: RWQCB	State Response	First Street and D Street	49490001
McPhail's INC.	Certified / Operation & Maintenance	Voluntary Cleanup	1006 Lakeville St	49420003
Sonoma-Marin Fairgrounds	Refer: RWQCB	Voluntary Cleanup	100 Gnoss Concourse	49070001
Former Quality Dry Cleaning	Active	Voluntary Cleanup	214 Western Avenue	60002205

Source: EnviroStor. Department of Toxic Substances Control. 2021.

Figure 2: EPA designated Superfund sites in Petaluma



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Additional data provided by EPA, 2021.

Fig 2 Location of EPA Superfund Sites in Petaluma

Notes