3.8 Hazards and Hazardous Materials

This section focuses on those human-made hazards associated with the potential exposure to hazardous materials. To provide a better understanding of the extent of existing human-made hazard concerns within the PWIMP Planning Area, topics covered in this section include federal, state, and local regulations; and existing human-made hazards in the PWIMP Planning Area.

3.8.1 Introduction

This evaluation of geologic and seismic hazard conditions was based on information from the City of Oxnard's 2030 General Plan and was obtained from various State agencies (e.g., California Department of Toxic Substances Control, etc.) that monitor or compile information related to the locations of hazardous waste generators, hazardous materials treatment, storage and disposal facilities, and underground storage tank locations. Key Terms and concepts include the following:

- **Hazardous Materials.** A hazardous material is defined by the California Code of Regulations (CCR) as a substance that, because of physical or chemical properties, quantity, concentration, or other characteristics, may either (1) cause an increase in mortality or an increase in serious, irreversible, or incapacitating, illness; or (2) pose a substantial present or potential hazard to human health or environment when improperly treated, stored, transported or disposed of (CCR, Title 22, Division 4.5, Chapter 10, Article 2, Section 66260.10).
- **Hazardous Wastes.** Similarly, hazardous wastes are defined as materials that no longer have practical use, such as substances that have been discarded, discharged, spilled, contaminated, or are being stored prior to proper disposal. According to Title 22 of the CCR, hazardous materials and hazardous wastes are classified according to four properties: toxic, ignitable, corrosive, and reactive (CCR, Title 22, Chapter 11, Article 3).

3.8.2 Regulatory Context

The storage, use, and handling of hazardous materials by industries and businesses are subject to various Federal, State and local regulations. A brief overview of these regulations follows.

3.8.2.1 Federal Regulations

Detailed below are the relevant federal regulations.

Resource Conservation and Recovery Act (RCRA). The principal Federal legislation is RCRA, which are administered by the United States Environmental Protection Agency (EPA). RCRA imposes reporting, permitting, and operational control requirements on those who generate, treat, store, or dispose of hazardous waste. The Federal Hazardous Materials Transport Act, administered by the U.S. Department of Transportation, requires detailed manifesting and reporting of hazardous materials shipped on the U.S. highway system; it also

contains packaging requirements for shipped materials. The Clean Water Act, also administered by the EPA, controls the discharge of hazardous materials or hazardous waste to waters of the U.S. or to local wastewater treatment plants.

Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). CERCLA, commonly referred to as Superfund, was enacted on December 11, 1980. The purpose of CERCLA was to provide authorities the ability to respond to uncontrolled releases of hazardous substances from inactive hazardous waste sites that endanger public health and the environment. CERCLA established prohibitions and requirements concerning closed and abandoned hazardous waste sites, provided for liability of persons responsible for releases of hazardous waste at such sites, and established a trust fund to provide for cleanup when no responsible party could be identified. Additionally, CERCLA provided for the revision and republishing of the National Contingency Plan (NCP) that provides the guidelines and procedures needed to respond to releases and threatened releases of hazardous substances, pollutants, or contaminants. The NCP also provides for the National Priorities List, a list of national priorities among releases or threatened releases throughout the United States for the purpose of taking remedial action.

The Superfund Amendments and Reauthorization Act (SARA). SARA amended CERCLA on October 17, 1986. This amendment increased the size of the Hazardous Response Trust Fund to $8.5 billion, expanded EPA's response authority, strengthened enforcement activities at Superfund sites; and broadened the application of the law to include Federal facilities. In addition, new provisions were added to the law that dealt with emergency planning and community right to know. SARA also required EPA to revise the Hazard Ranking System to ensure that it accurately assesses the relative degree of risk to human health and the environment posed by sites and facilities subject to review for listing on the National Priorities List.

Resource Conservation and Recovery Act of 1976 (RCRA). RCRA is the nation's hazardous waste control law. It defines hazardous waste, provides for a cradle-to-grave tracking system and imposes stringent requirements on treatment, storage and disposal facilities. RCRA requires environmentally sound closure of hazardous waste management units at treatment, storage, and disposal facilities. The EPA is the principal agency responsible for the administration of RCRA, SARA, and CERCLA.

Occupational Safety and Health Administration (OSHA). Through the enactment of the Occupational Safety and Health Act, OSHA was obligated to prepare and enforce occupational health and safety regulations with the goal of providing employees a safe working environment. OSHA regulations apply to the work place and cover activities ranging from confined space entry to toxic chemical exposure. OSHA regulates workplace exposure to hazardous chemicals and activities through the specification of work place procedures and equipment.

U.S. Department of Transportation (DOT). The DOT regulates the interstate transport of hazardous materials and wastes through implementation of the Hazardous Materials Transportation Act. This act specifies driver-training requirements, load labeling procedures, and container design and safety specifications. Transporters of hazardous wastes must also meet the requirements of additional statutes such as RCRA, discussed previously

3.8.2.2 State Regulations

At the State level, State agencies accept delegation of Federal responsibility for the administration of hazardous materials and hazardous waste management. The Porter-Cologne Water Quality Control Act allows the State Water Resources Control Board (SWRCB) and the Regional Water Quality Control Board (RWQCB) to accept implementation responsibility for the Clean Water Act. The Hazardous Waste Control Act of 1977, and recent amendments to its implementation regulations, has given the Department of Health Services (DHS) the lead role in administering the RCRA (RCRA) program. The Hazardous Substances Highway Spill Containment Act gives the California Highway Patrol (CHP) the authority to respond to spills of hazardous materials on the State's highway system. Detailed below are the other relevant state regulations.

Hazardous Substance Account Act (1984), California Health and Safety Code Section 25300 ET SEQ (HSAA). This act, known as the California Superfund, has three purposes: 1) to respond to releases of hazardous substances; 2) to compensate for damages caused by such releases; and 3) to pay the State's 10% share in CERCLA cleanups. Contaminated sites that fail to score above a certain threshold level in the EPA's ranking system may be placed on the California Superfund list of hazardous wastes requiring cleanup.

California Environmental Protection Agency (CAL/EPA). The Cal/EPA was created in 1991 to coordinate State environmental programs, reduce administrative duplication, and address the greatest environmental and health risks. Cal/EPA unifies the State's environmental authority under a single accountable, cabinet-level agency. The Secretary for Environmental Protection oversees the following agencies: Air Resources Board, Integrated Waste Management Board, Department of Pesticide Regulation, State Water Resources Control Board, Department of Toxic Substances Control, and the Office of Environmental Health Hazard Assessment.

Department of Toxic Substance Control (DTSC). Cal/EPA has regulatory responsibility under Title 22 of the California Code of Regulations (CCR) for administration of the State and Federal Superfund programs for the management and cleanup of hazardous materials. The DTSC is responsible for regulating hazardous waste facilities and overseeing the cleanup of hazardous waste sites in California. The Hazardous Waste Management Program (HWMP) regulates hazardous waste through its permitting, enforcement and Unified Program activities. HWMP maintains the EPA authorization to implement the RCRA program in California, and develops regulations, policies, guidance and technical assistance/training to assure the safe storage, treatment, transportation and disposal of hazardous wastes. The State Regulatory Programs Division of DTSC oversees the technical implementation of the State's Unified Program, which is a consolidation of six environmental programs at the local level, and conducts triennial reviews of Unified Program agencies to ensure their programs are consistent statewide and conform to standards.

State Water Resources Control Board (SWRCB). Acting through the RWQCB, the SWRCB regulates surface and groundwater quality pursuant to the Porter-Cologne Water Quality Act, the Federal Clean Water Act, and the Underground Tank Law. Under these laws, RWQCB is authorized to supervise the cleanup of hazardous waste sites referred to it by local agencies in those situations where water quality may be affected.

Depending on the nature of contamination, the lead agency responsible for the regulation of hazardous materials at the site can be the DTSC, RWQCB, or both. DTSC evaluates contaminated sites to ascertain risks to human health and the environment. Sites can be ranked by DTSC or referred for evaluation by the RWQCB. In general, contamination affecting soil and groundwater is handled by RWQCB and contamination of soils is handled by DTSC.

California Occupational Safety and Health Administration (Cal/OSHA). Cal/OSHA and the Federal OSHA are the agencies responsible for assuring worker safety in the handling and use of chemicals in the workplace. Pursuant to the Occupational Safety and Health Act of 1970, Federal OSHA has adopted numerous regulations pertaining to worker safety, contained in the Code of Federal Regulations Title 29 (29 CFR). These regulations set standards for safe workplaces and work practices, including standards relating to hazardous material handling. Cal/OSHA assumes primary responsibility for developing and enforcing State workplace safety regulations. Because California has a federally approved OSHA program, it is required to adopt regulations that are at least as stringent as those found in 29 CFR. Cal/OSHA standards are generally more stringent than Federal regulations.

Cal/OSHA regulations concerning the use of hazardous materials in the workplace, as detailed in Title 8 of the CCR, include requirements for safety training, availability of safety equipment, accident and illness prevention programs, hazardous substance exposure warnings, and emergency action and fire prevention plan preparation. Cal/OSHA enforces hazard communication program regulations that contain training and information requirements, including procedures for identifying and labeling hazardous substances, communicating hazard information related to hazardous substances and their handling, and preparation of health and safety plans to protect workers and employees at hazardous waste sites. The hazard communication program requires that Material Safety Data Sheets (MSDSs) be available to employees and that employee information and training programs be documented.

Hazardous Materials Transport. California law requires that Hazardous Waste (as defined in California Health and Safety Code Division 20, Chapter 6.5) be transported by a California registered hazardous waste transporter that meets specific registration requirements. The requirements include possession of a valid Hazardous Waste Transporter Registration, proof of public liability insurance, which includes coverage for environmental restoration, and compliance with California Vehicle Code registration regulations required for vehicle and driver licensing. Additional requirements can be found in Title 22 CCR, Chapter 13.

State agencies with primary responsibility for enforcing Federal and State regulations and responding to hazardous materials transportation emergencies are the CHP and Caltrans. Together, these agencies determine container types used and license hazardous waste haulers for hazardous waste transportation on public roads. The CHP designates State and Federal roadways as hazardous materials truck routes. The CHP classifies hazardous materials into three categories: explosives, poisons that can be inhaled, and radioactive material. U.S. Route 101 and Hueneme Road from Port Hueneme to Las Posas Road in Ventura County are the only locally designated truck routes for hazardous materials.

3.8.2.3 Local Regulations

The relevant local regulations are discussed below.

Ventura County – Hazardous Waste Management Plan. Assembly Bill 2948 (Tanner, 1986) established procedures for the preparation of a County Hazardous Waste Management Plan (CHWMP). The CHWMP is intended to serve as the primary planning document for hazardous waste management within a County, and contains goals, policies and recommended programs for the management, recycling and disposal of hazardous wastes. The CHWMP principally governs the coordination and planning of hazardous waste disposal capacity between the County and State. The California Department of Health Services must give its approval to the plan before the document becomes effective.

A Hazardous Waste Management Plan (HWMP) was developed in 1988 and adopted in 1989 by Ventura County in response to the Tanner Act (AB 2948). In accordance with Tanner Act requirements, the HWMP includes information on current and projected hazardous waste generation in the County, including household hazardous waste, an inventory of contaminated sites and hazardous waste treatment, storage, and disposal facilities. The HWMP contains descriptive background information and policy guidance for: current hazardous waste generation; hazardous waste treatment, storage, or disposal facilities; and hazardous waste reduction. The HWMP also identifies a comprehensive set of siting criteria for hazardous waste facilities and proposes designated routes for the transportation of hazardous wastes and materials through the County.

City of Oxnard - Oxnard 2030 General Plan. The Safety Element of the City's existing General Plan contains two objectives and several policies pertinent to human-made hazards.

City of Oxnard – Fire Department. The Oxnard Fire Department administers the City's Environmental Health Hazardous Materials Program and is a Certified Unified Program Agency (CUPA). A CUPA is a single local agency designated by the California Environmental Protection Agency as having regulatory authority for six environmental programs. These programs are Hazardous Waste, Hazardous Waste On-site Treatment, Spill Prevention Countermeasure Plan (aboveground tanks), Underground Storage Tanks, Hazardous Materials Business Plan and Inventory, and Risk Management Plan. As the City's CUPA, the Oxnard Fire Department implements the Hazardous Materials Ordinance and monitors the use of hazardous materials throughout the Planning Area.

3.8.3 Environmental Setting

Hazardous wastes generated by both residents and businesses within the Planning Area contribute to environmental and human health hazards that have become an increasing public concern. However, proper waste management and disposal practices can minimize public concern over toxicity and the contamination of soils, water, and the air. This section provides information on several locations known to generate hazardous materials or other hazardous conditions within the PWIMP Planning Area. This information is based on existing information from a variety of Federal and State agency databases including those maintained by the SWRCB and DTSC.

Flooding and Sea Level Rise. Due to its low land profile, the City of Oxnard became a member of the National Flood Insurance Program (NFIP). The City also adopted a Master Plan of Drainage (1979) and a Floodplain Management Ordinance (Chapter 35 of the Oxnard City Code) to protect its residents and businesses. The City of Oxnard falls within the Santa

Clara River's 1,600 square mile watershed. Areas along the northern border of the City fall within the river's 100-year floodplain with a larger portion of Oxnard's core falling within the 500-year floodplain. The Multi-Jurisdictional Hazard Mitigation Plan for Ventura County identifies one critical facility and 279 commercial and residential buildings as susceptible to coastal and riverine flooding.

Riverine flooding can occur as a result of heavy rains and melting snow. Heavy water volume can cause breaches of stream channels, river channels, or the structures designed to contain water (e.g., levees). The latter was the case in 1969 when 50- and 100-year peak discharge levels were reached in many channels of the Santa Clara and Ventura watersheds. During this episode, the City of Oxnard was threatened by a break in the Santa Clara River levee along the City's north border.

Flooding in Oxnard caused by rainwater is most likely to occur in the winter months when Ventura County receives most of it precipitation. In 2005, the majority of Oxnard's rain fell between late January and mid- March. On average, however, rainfall in the Oxnard area increases sharply in early November and does not decrease until mid/late-March

High winds or tides can cause seawater surges resulting in coastal flooding beyond the high tide line. Wave action can directly impact seaside homes and infrastructure. Indirectly, wave action can cause beach and bluff erosion resulting in damage to seaside homes and infrastructure.

Several dams are located at least 35 miles to the east and northeast of the City of Oxnard within Ventura and Los Angeles Counties. These include the Santa Felicia Dam at Lake Piru, the Castaic Lake Dam and the Pyramid Lake Dam. The major threat to Oxnard is upstream along the Santa Clara River corridor. Although the potential for a dam failure is considered low, should one or more of these dams fail, the entire city is located within the Dam Inundation Zone, also called Dam Failure Hazard Area. Damage to the city could be in the form of a wall of fast-moving water, mud, and debris. As identified in the *Multi-Jurisdictional Hazard Mitigation Plan for Ventura County*, 36,179 residential and commercial buildings and 99 critical facilities could be impacted by a dam failure.

Tsunami and Tidal Marine Hazards. A tsunami is a rapidly moving wave or series of waves caused by earthquakes or undersea landslides. Given its location along the Pacific Ocean coastline, the City of Oxnard could potentially be struck or impacted by a tsunami; however, the 2005 Multi-Jurisdictional Hazard Mitigation Plan for Ventura County, California considers this hazard to pose a remote threat to life and property in Ventura County due to the low likelihood of occurrence. Since 1946, only five major tsunamis have impacted the California coast, the most recent in 1964. Areas that are affected by flooding are also at risk for tsunamis. Oxnard's projected tsunami impact area extends inland from the shoreline approximately one mile.

The City's Channel Islands Harbor and Mandalay Bay could potentially be impacted by seiches. Seiches are oscillating waves in enclosed or partially enclosed bodies of water (e.g., lakes, bays, or gulfs) for varying lengths of time as a result of seismic or atmospheric disturbances.

Coastal Wave and Beach Erosion. Development and shoreline use from Point Mugu to Point Conception have been attributed to the loss of natural sand beaches and resulting beach erosion problems. Manmade structures such as breakwalls, piers, and oil platforms interrupt

the natural cycle of sand being eroded and deposited along the shoreline. In response to the widespread impacts of beach erosion along the entire length of Southern California, the Beach Erosion Authority for Clean Oceans and Nourishment (BEACON) was formed. BEACON is a California Joint Powers agency established to deal with coastal erosion and beach problems on the Central Coast of California. Member agencies include the Cities of Carpinteria, Goleta, Oxnard, Port Hueneme, San Buenaventura, Santa Barbara, and the Counties of Santa Barbara and Ventura.

BEACON is currently working on a comprehensive sand management and opportunistic beach replenishment program called South Central Coast Beach Enhancement Program (SCCBEP). Also, at the direction of the member agencies, BEACON has recently expanded its scope to include the problems of ocean water quality. It plans to coordinate activities by member agencies involving beach and ocean pollution.

Damage to Oxnard Shores, Oxnard's beachfront homes, flooding, as well as loss of beach sand and formation of extensive dunes due to blowing sand are some of the problems associated with the City of Oxnard's beach erosion.

Wildfires. Dense urban areas do not contain large amounts of continuous surface fuels to feed a wildfire. Therefore, these areas are generally more resistant to the spread of wildfires than other areas. The City of Oxnard is Ventura County's largest urban community and has limited exposed to the wildfire hazard. The Multi-Jurisdictional Hazard Mitigation Plan for Ventura County, California notes that no commercial buildings and only five residential building have potential exposure to high and very high wildfire hazards.

Underground Storage Tanks. As previously described, the Oxnard Fire Department administers the CUPA/Hazardous Materials Ordinance and has regulatory authority over the local Underground Storage Tank Program. The Leaking Underground Storage Tank Incident Report (LUST) contains an inventory of reported leaking underground tank incidents and is compiled from data provided by the SWRCB Leaking Underground Storage Tank Information System. A review of the current list indicates that there are currently 340 LUST sites within the Planning Area. These sites are predominately clustered around the City's primary transportation corridors including Oxnard Boulevard and Hueneme Road and are predominately associated with retail and commercial uses (e.g., gas stations, convenience stores, car washes, etc.). However, additional sites are associated with local industrial and agricultural uses. A summary of these sites by roadway is provided in Table 3.8-1.

Table 3.8-1
Leaking Underground Storage Tank Listings in the Planning Area

Roadway	Number of Sites
2nd Street	1 site - Ventura County Fire Protection
5th Street	11 sites - Various
23rd Street	1 site - Naval Construction Battalion
A Street	1 site - A Street Arco
Arcturus Avenue	5 sites - Various
Arnold Road	1 site - Del Norte Foods
Auto Center Drive	2 sites – Various
Azahar Street	1 site – Newton Building Materials

Table 3.8-1
Leaking Underground Storage Tank Listings in the Planning Area

Roadway	Number of Sites
Balboa Street	1 site – Navarro Property
Beardsley Road	1 site – Rancho Del Tio
Beedy Street	2 sites – Various
Bernoulli Circle	1 site – Wilma Pacific, Inc.
Bevra Avenue	1 site – Strathmore Homes
Bristol Road	1 site – Saticoy Lemon Association #1
Buena Vista Avenue	2 sites – Various
C Street	5 sites – Various
Calle Rocas	1 site – Herb Brisco Residence
Camino Avenue	1 site – Power Machinery
Central Avenue	4 sites – Various
Channel Islands Boulevard	6 sites – Various
Colonia Road	2 sites – Various
Commercial Avenue	6 sites – Various
Cooper Road	2 sites – Various
Cortez Street	1 site – Laidlaw Transit, Inc & bus yard
Country Club	1 site – Saticoy Country Club
Cypress	1 site – Miguel Ramos
Darling Road	1 site – Paramount Citrus
Date Street	1 site – Celso Cerri
Del Norte	3 sites – Various
Diaz Avenue	2 sites – Various
Dodge Road	1 site – Golden Coast Nursery
Doris Avenue	3 sites – Various
Dufau Road	1 site – Pleasant Valley Vegetable Coop
Edison Drive	3 sites – Various
El Rio Drive	2 sites – Various
Etting Road	4 sites – Various
Frazier	2 sites – Various
Gonzales Road	6 sites – Various
Hailes Road	1 site – Reiter Brothers, Inc.
Hueneme Road	10 sites – Various
Industrial Avenue	3 sites – Various
J Street	1 site – Wooley Gas Service
K Street	1 site – Oxnard Fire Station #1
La Vista	1 site – Seacoast Associates
Lambert Street	4 sites – Various
Leland Street	4 sites – Various
Lirio Avenue	6 sites – Various
Los Altos Street	1 site – Berdan Holding LLC
Los Angeles Avenue	4 sites – Various
Lockwood Street	3 sites – Various
Magnolia Street	1 site – Oxnard Roofing Company
Mallard Way	1 site – Ven Oaks Plumbing
Marquita	1 site – City of Oxnard
Maulhardt Avenue	9 sites – Various
Mercantile Street	2 sites – Various
Mesa School Road	1 site – Mesa Elementary School
Meta Street	1 site – Tri-County Yellow Cab
Montgomery	1 site – Tri-County Truck Company
Mountain View Avenue	6 sites – Various
Nardo Street	3 sites – Various

Table 3.8-1
Leaking Underground Storage Tank Listings in the Planning Area

Roadway	Number of Sites
Naval Air Road	1 site – San Miguel Produce
Nyland Avenue	2 sites – Various
Olivas Park Drive	2 sites – Various
Oxnard Boulevard	33 sites – Various
Pacific Avenue	3 sites – Various
Paseo Mercado	1 site – Federal Express
Pelican Way	1 site – ARCO Fuel Docks
Peninsula Road	1 site – City of Oxnard Firehouse #6
Perkins Road	3 sites – Various
Pine Street	3 sites – Various
Pleasant Valley Road	5 sites – Various
Ramona Drive	2 sites – Various
Raytheon Road	1 site - Raytheon Company
Rice Avenue	2 sites – Various
Rice Road	1 site – Manabi Farms
Richmond Avenue	1 site – Western Technical
Roosevelt Boulevard.	1 site – Stark Realty Inc
Rose Avenue	11 sites – Various
Sandy Circle	1 site – Tri County Truck
Santa Clara Avenue	4 sites – Various
Saviers Road	18 sites – Various
Sherwin Avenue	2 sites – Various
Solar Drive	1 site – GTE California Inc.
Spinnaker Drive	1 site – Ventura Port District
Statham Boulevard	3 sites – Various
Strickland Drive	1 site – Estate of Lucille Borden
Sturgis Road	2 sites – Various
Sunkist Circle	1 site - Morse Signal Devices
Teal Club Road	2 sites – Various
Ventura Boulevard	10 sites – Various
Ventura Road	16 sites – Various
Victoria Avenue	8 sites – Various
Vineyards Avenue	17 sites – Various
Violeta Street	3 sites – Various
Walnut Avenue	1 site – Oro Del Norte Ranch
Wagon Wheel Road	3 sites – Various
Wells Road	1 site – Westerdale Trust
Winchester	2 sites – Various
Wolff Road	1 site – Hailwood, Inc.
Wooley Road	9 sites – Various
Wright Road	1 site – Ventura School

Source: Environmental Data Resources, Inc. 2016

Aboveground Storage Tanks. Similarly, the Oxnard Fire Department has regulatory authority over the Spill Prevention Countermeasure Plan for aboveground storage tanks. The Aboveground Storage Tank database provides a list of registered aboveground storage tanks. This information comes from the SWRCB's Hazardous Substance Storage Container Database. A review of the current list indicates that there are currently 28 aboveground storage tanks in the Planning Area, with many associated with industrial and agricultural uses. A summary of these locations by address is provided in Table 3.8-2.

Table 3.8-2 Aboveground Storage Tanks in the Planning Area	
Address	**Site**
1230 E 5th Street	Silvas Oil Company
1000 23rd Avenue	Naval Construction Battalion
1631 Auto Center Drive	Toyota of Oxnard
5900 Arctures Road	BMW Engineering and Emissions
5901 Arctures Road	Spare Parts Warehouse
501 Del Norte Boulevard	PTI Technologies Inc.
801 Del Norte Boulevard	Quinn Company
3803 Dufau Road	Mission Produce, Inc.
5601 Edison Drive	Wallenius Lines
251 S. Hayes Avenue	Water Division
201 N. Harbor Boulevard	Mandalay Onshore Facility
393 N. Harbor Boulevard	Mandalay Generating Station
2001 Lockwood Street	Former Autonation USA
666 Pacific Avenue	Oxnard Pest Control
1060 South Pacific Avenue	City of Oxnard Equipment Yard
5936 Perkins Road	Hueneme Mill
6001 South Perkins Road	Oxnard Wastewater Treatment Facility
6200 Perkins Road	Halaco Engineering Company
800 N. Rice Avenue	Procter & Gamble Paper Products
635 S. Rose Avenue	Helena Chemical Company
4000 S. Rose Avenue	Oxnard College
2934 Teal Club Road	Tri-County Builders Supply
2800 Sturgis Road	HAAS Automation
1500 E. Ventura Boulevard	Honda of Oxnard
3555 E. Vineyard Avenue	Hanson Aggregates
6029 Vineyard Avenue	Saticoy Facility
1015 E. Wooley Road	Oxnard Facility
1757 E. Wooley Road	Silvas Oil Company
Source: Environmental Data Resources, Inc. 2016	

Landfill and Recycling Site Locations. The California Integrated Waste Management Board (CIWMB) is responsible for managing California's solid waste stream. The CIWMB works in partnership with local government, industry, and the public to reduce waste disposal and ensure environmentally safe landfills are maintained. The CIWMB maintains a Solid Waste Information System database that contains information on solid waste facilities, operations, and disposal sites throughout the State. The types of facilities found in this database include landfills, transfer stations, material recovery facilities, composting sites, transformation facilities, waste tire sites, and closed disposal facilities. Table 3.8-3 provides a list of solid waste facilities or landfills (including closed facilities) identified by the CIWMB as occurring in the Planning Area. A list of recycling facilities is also provided in Table 3.8-4.

Table 3.8-3 Solid Waste and Landfill Sites in the Planning Area	
Address	**Site**
6352 Beardsley Road	Rancho Del Tio
Del Norte Boulevard & Sturgis Road	Oxnard MRF Joint Powers
111 South Del Norte Boulevard	Del Norte Regional Recycling
4105 Gonzales Road	Bailard Landfill (closed facility)
6200 Perkins	Halaco Engineering Company

Table 3.8-3 **Solid Waste and Landfill Sites in the Planning Area**	
Address	**Site**
1234 South Rice Road	Earth Care Compost
800 South Victoria Avenue	Oxnard Dump/Mandalay Bay Development
2401 West Vineyard Avenue	Santa Clara and Coastal Landfill (closed facility)
Source: Environmental Data Resources, Inc. 2016	

3.8-4 **Recycling Facilities in the Planning Area**	
Address	**Site**
111 South Del Norte Boulevard	Del Norte Regional Recycling
1111 E. Channel Islands Boulevard	Oxnard Recycling
1905 Lirio Avenue	Standard Industries Metal Recycling
1441 Mountain View	Oxnard Metals Inc.
11032 Nardo Street	Walker Brothers Recycling
1610 Pine Street	Eddies Recycling
521 N. Rice Avenue	California Public Recycling
2101 N. Rose Avenue	Vons Companies #436
2401 Saviers Road	Sav On Drug #3709
4220 Saviers Road	California Recycling Services
872 N. Ventura Road	California Recycling Services
920 N. Ventura Road	Tomra Pacific Inc./Albertsons
440 S. Ventura Road	California Recycling Services
3380 E. Vineyard Avenue	California Recycling Services
818 W. Wooley Road	California Recycling Services
Source: Environmental Data Resources, Inc. 2016	

3.8.4 Impact Analyses

This section includes a discussion of the relevant significance criteria, the approach and methodology to the analyses, and any identified impacts and mitigation measures.

3.8.4.1 Significance Criteria

Significance thresholds below are based on Appendix G (Environmental Checklist Form) of the *CEQA Guidelines* and modified from the City's *May 2017 CEQA Guidelines*, which indicates that a potentially significant impact on cultural and tribal resources would occur if the PWIMP would:

- Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials;
- Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment;
- Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school;
- Be located on a site, which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, create a significant hazard to the public or the environment;
- Be located within an area covered by an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, and would result in a safety hazard for people residing or working in the project area;

- Be located within the vicinity of a private airstrip and would result in a safety hazard for people residing or working in the project area;
- Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan; or
- Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands.

3.8.4.2 Approach and Methodology

As described in Chapter 2, Project Description, the City's PWIMP is comprised of improvements to the City's Water Supply System, Recycled Water System, Wastewater System, and Stormwater System through build-out of the City's 2030 General Plan. However, the design details, final options, and the timing of construction phases are not precisely known, despite the best estimates provided in the schedules in Chapter 2. Further, it is not practical or prudent to try to provide project-level or detailed quantitative analysis at this time as many of the details are not known and the timing will likely change and/or the requirements for project-level analysis could change and be different in the future. As such, the environmental impact analysis for this section has been prepared at a programmatic level of detail and it addresses the full range of potential environmental effects associated with implementation of the PWIMP, but the analysis is more qualitative and general. Specifically, the analysis focuses on providing a discussion on potential significant impacts and provides broad mitigation measures that can and should be implemented at the project-level. This approach is consistent with the State CEQA Guidelines provisions for a Program EIR, as described in Section 15168, which suggests that the level of detail is dictated by "ripeness"; detailed analysis should be reserved for issues that are ripe for consideration.

According to the City's CEQA Guidelines, a "Substantial" hazard related to chronic health risks (e.g., exposure to ongoing emissions of toxic air contaminants) will normally include, but not necessarily be limited to, the exceedance of VCAPCD health risk public notification thresholds (Ten excess cancer cases in one million for cancer risk and a Hazard Index of more than 1.0 for non-cancer risk). In addition, a "Substantial" risk of upset hazards (e.g., a chemical spill) is defined by the criteria described in Tables 3.8-5 through 3.8-7. Tables 3.8-5 and 3.8-6 describe the criticality and frequency of potential upsets, while Table 3.8-7 uses these factors to determine whether a particular upset risk is significant. As indicated in Table 3.8-7, a substantial risk would depend upon both the criticality and frequency of a potential event. The potential for minor events may not pose a substantial risk even if the potential frequency is relatively high, while the potential for more severe events may pose a substantial risk even if the potential for such events is rare.

Table 3.8-5
Criticality Classifications of Upset Hazards

Classification	Description of Public Safety Hazard
Negligible	No significant risk to the public, with no minor injuries
Minor	At most a few minor injuries
Major	Up to 10 severe injuries
Serious	Up to 100 severe injuries or up to 10 fatalities
Disastrous	More than 100 severe injuries or more than 10 fatalities

Table 3.8-5
Criticality Classifications of Upset Hazards

Classification	Description of Public Safety Hazard
Source: City of Oxnard, *CEQA Guidelines*, May 2017	

Table 3.8-6
Frequency Classifications of Upset Hazards

Classification	Frequency	Description of Event
Extraordinary	Greater than once in 1,000,000 years	Has never occurred but could occur
Rare	Between once in 10,000 and once in 1,000,000 years	Occurred on a worldwide basis, but only a few times
Unlikely	Between once in 100 and once in 10,000 years	Is not expected to occur during the project lifetime
Likely	Between once per year and once in 100 years	Would probably occur during the project lifetime
Frequent	Greater than once in a year	Would occur once in a year on average
Source: City of Oxnard, *CEQA Guidelines*, May 2017		

Table 3.8-7
Significance Risk of Upset Hazards

	Probability (Frequency Per Year)				
Consequences	**Extraordinary (>1,000,000 years)**	**Extraordinary (>1,000,000 Years and < 1,000,000 years)**	**Unlikely (< 100 and > 10,000 years)**	**Likely (> 1 and < 100 years**	**Frequent (> 1 per year**
Disastrous (> 100 severe injuries or 10 fatalities)					
Severe (Up to 100 severe injuries or 10 fatalities)					
Major (up to 10 severe injuries)					
Minor (A few minor injuries)					
Negligible (No Minor Injuries)					

Source: City of Oxnard, *CEQA Guidelines*, May 2017
Note: Incidents that fall in the shaded area of the risk matrix would be classified as significant

This section reviews the description of the PWIMP as described in Section 2 – Project Description and then determines whether operation or construction would involve the use, generation, disposal, transport, or management of potentially hazardous or explosive substances (including, but not limited to, oil, pesticides, chemicals, or radiation) in sufficient quantities to cause a potential hazard. If so, determine whether a quantified health risk assessment (HRA) or risk of upset evaluation is warranted. Emergency response and evacuation plans are required for businesses that

use hazardous materials or involve a potential threatened release of acutely hazardous materials during operation or construction.

The following factors should be considered in developing a determination of significance:

- The probable frequency and severity of consequences to people or property as a result of a potential accidental release or explosion of a hazardous substance
- The degree to which the project may require a new, or interfere with an existing, emergency response or evacuation plan, and the severity of the consequences
- The degree to which project design would reduce the frequency or severity of a potential accidental release or explosion of a hazardous substance
- The probable frequency and severity of consequences to people from exposure to the health hazard

This impact analysis focuses on potential effects of hazards and hazardous materials associated with the PWIMP. The evaluation was made in light of current conditions at the various PWIMP project site(s), the environmental database searches, applicable regulations and guidelines, and Proposed PWIMP Project operations.

The following impacts were considered in this section, but were found to be absent from or not applicable to the proposed project; therefore, no further discussion of these impacts is provided.

- Although operation of the PWIMP faculties would require truck trips to deliver water and/or wastewater treatment chemicals and dispose of waste, and indirectly result in an incremental increase in the potential for accidents during the routine transport of hazardous materials, the transportation of hazardous materials and wastes is regulated by the California Department of Transportation and the California Highway Patrol. These agencies regulate container types and packaging requirements as well as licensing and training for truck operators, chemical handlers, and hazardous waste haulers. Because all service providers would be required to comply with existing and future hazardous materials laws and regulations for the transport of hazardous materials, the risk of accidental releases of hazardous materials during normal transport operations does not constitute a significant hazard.

- Some PWIMP Project components are situated within two-miles of the Oxnard Airport as well as near private agricultural airstrips on the outskirts of the City. However, these components mainly consist of water, wastewater, recycled water, and stormwater pipelines/conveyance facilities that once constructed would be situated below the ground surface, and therefore and would not pose a safety hazard with respect to airport operations. The proposed water and recycled water storage tanks would not be tall enough to interfere with any airport take-off or landing operations. Similarly, construction activities would not affect airport operations. The proposed TMDL storage pond is an open water storage facility that could attract birds and waterfowl, which could be dangerous to airport operations. However, the location would be would be located outside of the two-mile radius that could affect airport operations. In addition, the TMDL Storage facility would not pose a significant increase in potential bird strikes than what currently exists due to other open water features in the area as the

Santa Clara River, agricultural storage ponds, and the Pacific Ocean that can attract birds and waterfowl.

- Although construction activities could impede access for emergency response vehicles and therefore interfere with an emergency response plan or emergency evacuation plan, measures to avoid interference with emergency access are addressed in Section 3.15, Traffic and Circulation.

3.8.4.3 Impacts and Mitigation Measures

Based on the significance criteria and approach and methodology described above, the potential impacts are discussed below.

Impact 3.8-1: Excavation and grading for the project could expose construction workers, the public, or the environment to hazardous materials that may be present in excavated soil or groundwater.

The PWIMP involves excavation, trenching, tunneling and grading for the construction of water, wastewater, recycled water and stormwater conveyance pipelines, building footings and utilities. A number of properties with soil and/or groundwater contamination are located within ¼-mile of project facilities and may have impacted subsurface conditions at project locations. The typical contaminants anticipated to be encountered during project construction activities are related to releases from gasoline service stations, dry cleaners, and agricultural uses such as petroleum hydrocarbons, VOCs, metals, and pesticides. Of particular concern, construction could result in exposure to various organic substances, metals, and petroleum products.

Soil disturbance during construction could further disperse existing contamination into the environment and expose construction workers or the public to contaminants. If significant levels of hazardous materials are present in excavated soils, health and safety risks to workers and the public could occur. The dewatering of contaminated groundwater could also present risks to public health and safety, and the environment, if the contaminated groundwater is not handled properly. The potential for contaminated soil and groundwater to be released into the environment during Project construction is a potentially significant impact.

Because regulatory agency lists are continually updated as new environmental concerns are identified or existing environmental release sites are cleaned up, the agency list and file review would need to be updated to evaluate these concerns closer to the time of excavation for the PWIMP project facilities. Implementation of **Mitigation Measure 3.8-1a through 3.8-1d**, as well as compliance with hazardous materials laws and regulations, would reduce the potential for exposure to hazardous materials during construction to a less-than-significant level.

Temporary Construction Mitigation Measures

Mitigation Measure 3.8-1a: Conduct Phase I Environmental Site Assessment(s). Within one year prior to construction of facilities requiring excavation of more than 50-cubic yards of soil, the contractor shall retain a qualified environmental professional to conduct a Phase I Environmental Site Assessment in conformance with ASTM Standard 1527-13 to evaluate subsurface conditions that could be expected during construction. For all pipeline/conveyance facility alignments, the contractor shall retain a qualified environmental professional to update the environmental database review to identify environmental cases, permitted hazardous materials uses, and spill sites within one- quarter mile of the pipeline/conveyance facility alignment. Regulatory agency files shall be

reviewed for those sites that could potentially affect soil and groundwater quality within the project alignment.

If these preliminary environmental reviews indicate that a release of hazardous materials could have affected soil or groundwater quality at a project site, the contractor shall retain a qualified environmental professional to conduct a Phase II environmental site assessment to evaluate the presence and extent of contamination at the site, in conformance with state and local guidelines and regulations. If the results of the subsurface investigation(s) indicate the presence of hazardous materials, additional site remediation may be required by the applicable state or local regulatory agencies, and the contractors shall be required to comply with all regulatory requirements for facility design or site remediation.

Mitigation Measure 3.8-1b: Prepare Project-Specific Health and Safety Plan(s). Based on the findings of the environmental review required by Mitigation Measure 3.8-1a, the City or its contractor shall prepare a project-specific Health and Safety Plan (HSP) in accordance with 29 CFR 1910 to protect construction workers and the public during all excavation, grading and construction services. The HSP shall identify the following, but not be limited to:

- A summary of all potential risks to construction workers and maximum exposure limits for all known and reasonably foreseeable site chemicals;
- Specified personal protective equipment and decontamination procedures, if needed Safety procedures to be followed in the event suspected hazardous materials are encountered;
- Emergency procedures, including route to the nearest hospital;
- The identification of a site health and safety officer and responsibilities of the site health and safety officer

Mitigation Measure 3.8-1c: Environmental Construction Monitor(s). Based on the findings of the environmental review required by Mitigation Measure 3.8-1a, the City or its contractor shall have a site health and safety supervisor fully trained pursuant to the HAZWOPER standard (29 CFR 1910.120) be present during excavation, grading, trenching, or cut and fill operations to monitor for evidence of potential soil contamination, including soil staining, noxious odors, debris or buried storage containers. The site health and safety supervisor must be capable of evaluating whether hazardous materials encountered constitute an incidental release [1] of a hazardous substance or an emergency spill. The site health and safety supervisor shall direct procedures to be followed in the event that a hazardous materials release with the potential to impact worker health and safety is encountered. These procedures shall be in accordance with hazardous waste operations regulations and specifically include, but are not limited to, the following:

- Immediately stopping work in the vicinity of the unknown hazardous materials release, and notifying MCDEH, and
- Retaining a qualified environmental firm to perform sampling and remediation.

Mitigation Measure 3.8-1d: Develop a Materials Disposal Plan(s). For each individual PWIMP project (as applicable), the City or its contractor shall develop a materials disposal plan specifying how the applicant or its contractor would remove, handle, transport, and dispose of all excavated

[1] An incidental release is a release of a hazardous substance, which does not pose a significant safety or health hazard to employees in the immediate vicinity or to the employee cleaning it up, nor does it have the potential to become an emergency within a short time frame. Incidental releases are limited in quantity, exposure potential, or toxicity and present minor safety and health hazards to employees in the immediate work area or those assigned to clean them up.

material in a safe, appropriate, and lawful manner. The plan must identify the disposal method for soil and the approved disposal site, and include written documentation that the disposal site would accept the waste.

The applicant or its contractor shall develop a groundwater dewatering control and disposal plan specifying how the applicant or its contractor would remove, handle, and dispose of groundwater impacted by hazardous substances in a safe, appropriate and lawful manner. The plan must identify the locations at which potential groundwater impacts are likely to be encountered (based on the results of Mitigation Measure 3.8-1a), the method to analyze groundwater for hazardous materials, and the appropriate treatment and/or disposal methods.

Significance after Mitigation: Less than Significant.

Impact 3.8-2: Potential for accidental release of hazardous materials from construction activities.

Petroleum products, such as gasoline, diesel fuel, lubricants and cleaning solvents would be utilized to fuel and maintain construction vehicles and equipment. Inadvertent release of large quantities of these materials into the environment could adversely impact soil, surface waters, or groundwater quality. As a result the following mitigation measures are proposed:

Mitigation Measure 3.8-2a: Store, Handle, Use Hazardous Materials in Accordance with Applicable Laws. The City shall ensure that all construction-related and operational hazardous materials and hazardous wastes shall be stored, handled, and used in a manner consistent with relevant and applicable federal, state, and local laws. In addition, construction-related and operational hazardous materials and hazardous wastes shall be staged and stored away from stream channels and steep banks to keep these materials a safe distance from near-by residents and prevent them from entering surface waters in the event of an accidental release.

Mitigation Measure 3.8-2b: Properly Dispose of Contaminated Soil and/or Groundwater. If contaminated soil and/or groundwater is encountered or if suspected contamination is encountered during project construction, work shall be halted in the area, and the type and extent of the contamination shall be identified. A contingency plan to dispose of any contaminated soil or groundwater will be developed through consultation with appropriate regulatory agencies.

Mitigation Measure 3.8-2c: Properly Dispose of Hydrostatic Test Water. Dewatering of the pipeline during hydrostatic testing during construction, as well as any dewatering as a result of operations and maintenance activities, shall be discharged to land or the sanitary sewer system and not into any creeks, drainages, or waterways and shall require prior approval from the Los Angeles Regional Water Quality Control Board.

Significance After Mitigation: Less-than-Significant Impact.

Impact 3.8-3: Handling and Use of Hazardous Materials within ¼-mile of a school during construction.

The potential impact from the handling and use of hazardous materials within ¼-mile of a school during construction could be a significant impact. As discussed above, construction activities may result in the inadvertent release of small quantities of fuels, solvents, or lubricants. Construction would occur within ¼-mile of schools. However, with the implementation of

Mitigation Measures 3.8-1a through 3.8-1d and 3.8-2a through 3.8-2c, the potential for a hazardous materials release during construction to result in exposures at the nearby schools is remote, therefore, this impact is less than significant.

Significance After Mitigation: Less than Significant.

Impact 3.8-4: Increased risk of wildland fires during construction in high fire hazard areas.

Construction of the PWIMP would be located within an urban setting and is not generally located in an area where there is the risk of wildland fire. Specifically, a records search of the California Department of Forestry and Fire Protection Fire Severity mapping system does not regard the Proposed Project/Action Area to be in an area of moderate or high risk to wildfires. As a result, there is little potential to expose people or structures to a significant risk of loss, injury or death involving wildland fires. However, the potential exists that construction activities could cause a fire, especially in a drought situation or in the dry season. With the incorporation of the following mitigation measure, any potential impacts are considered to be less than significant.

Mitigation Measure 3.8-4a: Fire Prevention and Control. The City shall comply with all federal, state, county and local fire regulations pertaining to burning permits and the prevention of uncontrolled fires. The following measures shall be implemented to prevent fire hazards and control of fires:

- A list of relevant fire authorities and their designated representative to contact shall be maintained on site by construction personnel.
- Adequate firefighting equipment shall be available on site in accordance with the applicable regulatory requirements.
- The level of fire hazard shall be posted at the construction office (where visible for workers) and workers shall be made aware of the hazard level and related implications.
- The City or its contractor shall provide equipment to handle any possible fire emergency. This shall include, although not be limited to, water trucks; portable water pumps; chemical fire extinguishers; hand tools such as shovels, axes, and chain saws; and heavy equipment adequate for the construction of fire breaks when needed. Specifically, the City or its contractor shall supply and maintain in working order an adequate supply of fire extinguishers for each crew engaged in potentially combustible work such as welding, cutting, and grinding.
- All equipment shall be equipped with spark arrestors.
- In the event of a fire, the City or its contractor shall immediately use resources necessary to contain the fire. The City or contractor shall then notify local emergency response personnel.
- Any and all tree-clearing activities (if any) are to be carried out in accordance with local rules and regulations for the prevention of forest fires.

- Burning shall be prohibited.
- Flammable wastes shall be removed from the construction site on a regular basis.
- Flammable materials kept on the construction site must be stored in approved containers away from ignition sources.

Significance After Mitigation: Less-than-Significant Impact

3.8.5 Cumulative Effects

The PWIMP involves excavation, trenching, tunneling and grading for the construction of water, wastewater, recycled water and stormwater conveyance pipelines, building footings and utilities. A number of properties with soil and/or groundwater contamination are located within ¼-mile of project facilities and may have impacted subsurface conditions at project locations. The typical contaminants anticipated to be encountered during project construction activities are related to releases from gasoline service stations, dry cleaners, and agricultural uses such as petroleum hydrocarbons, VOCs, metals, and pesticides. Of particular concern, construction could result in exposure to various organic substances, metals, and petroleum products.

Soil disturbance during construction could further disperse existing contamination into the environment and expose construction workers or the public to contaminants. If significant levels of hazardous materials are present in excavated soils, health and safety risks to workers and the public could occur. The dewatering of contaminated groundwater could also present risks to public health and safety, and the environment, if the contaminated groundwater is not handled properly. The potential for contaminated soil and groundwater to be released into the environment during Project construction is a potentially significant impact.

Because regulatory agency lists are updated as new environmental concerns are identified or existing environmental release sites are cleaned up, the agency list and file review would need to be updated to evaluate these concerns closer to the time of excavation for the PWIMP project facilities. Implementation of **Mitigation Measures 3.8.1a through 3.8-1d**, as well as compliance with hazardous materials laws and regulations, would reduce the potential for exposure to hazardous materials during construction to a less-than-significant level. As a result, the PWIMP would not result in any significant cumulative hazardous materials impacts.