

4.6 HAZARDS AND HAZARDOUS MATERIALS

4.6.1 INTRODUCTION

This section addresses the potential effects on human health and the environment due to hazards and hazardous materials in conjunction with the Proposed Project. **Subsection 4.6.2** describes the environmental setting, including hazards and hazardous materials in and around the project site. **Subsection 4.6.3** describes the relevant regulatory setting. Project-related impacts and recommended mitigation measures, if any, are presented in **Subsection 4.6.4**.

4.6.2 ENVIRONMENTAL SETTING

Definition of Hazardous Material

A material is considered hazardous if it appears on a list of hazardous materials prepared by a Federal, State, or local agency, or if it has characteristics defined as hazardous by such an agency. A hazardous material is defined in Title 22 of the California Code of Regulations (CCR) as:

“A substance or combination of substances which, because of its quantity, concentration, or physical, chemical or infectious characteristics, may either (1) cause, or significantly contribute to, an increase in mortality or an increase in serious irreversible, or incapacitating reversible, illness; or (2) pose a substantial present or potential hazard to human health or environment when improperly treated, stored, transported or disposed of or otherwise managed” (CCR, Title 22, Section 66260.10).

Existing EWWTP Hazardous Materials Usage

Operation of the existing Easterly Wastewater Treatment Plant (EWWTP) involves the delivery, use, and storage of hazardous materials and wastes. **Table 4.6-1** summarizes those hazardous materials currently in use at the EWWTP, including the estimated bulk quantity, their respective hazards/toxicity, and their respective use in the treatment process. Operation of the EWWTP also requires the minor use and storage of Stoddard solvent (mineral spirits), diesel fuel, liquid polymer, waste oil, editic acid (EDTA), trisodium phosphate (TSP), lubricants and oils, citric acid, latex paint, nitrogen gas, and argon gases which are not listed within the hazardous materials summarized in **Table 4.6-1** (City of Vacaville, 1998).

The EWWTP generates several hazardous wastes that require special handling or recycling. Approximately 300 gallons of waste oil is generated annually at the EWWTP, and then removed by a certified waste oil handler. Mineral spirits, used as paint thinner, are additionally collected and recycled by a certified contractor (City of Vacaville, 1998).

Biosolids (the solid waste removed from the wastewater during the treatment process) are considered a non-hazardous waste. Biosolids are treated and dried on-site, collected and then disposed of at the Recology Hay Road Landfill. The landfill is located approximately 4.5 southwest of the project site at 6426 Hay Road.

TABLE 4.6-1 DESCRIPTION OF HAZARDOUS MATERIALS STORAGE LOCATIONS, USAGE AMOUNTS, AND TOXICITY

Hazardous Material	Discussion
Sodium Hypochlorite CAS No.7681-52-9	Sodium Hypochlorite is a strong irritant to skin, eyes, when in concentrated form. Sodium Hypochlorite is a registered Acutely Hazardous Material.
Ferric/Ferrous Chloride CAS No. 7705-08-0 and 7758-94-3	Ferric/ferrous chloride used for the purification of sewage is stored in a 5,000-gallon above-ground storage tank adjacent to the dechlorination shed. Ferric/ferrous chloride is delivered by bulk tanker truck approximately once or twice per year depending on plant operations. The maximum daily amount stored is 5,000 gallons. Ferric/ferrous chloride is mildly irritating.
Sodium Bisulfite CAS No. 7631-90-5	Sodium bisulfite used for dechlorination and effluent dechlorination and is stored in a 5,000 gallon above-ground storage tank located in the at the western half of the disinfection building. Sodium bisulfate in a 20 percent solution is delivered by bulk tanker truck approximately 31 times per year depending on plant operation. The maximum daily amount stored is 5,000 gallons. Sodium bisulfate is a mild skin irritant.
Source: City of Vacaville, 1998.	

Emergency Response/Safety Plans and Procedures

The EWWTP employs a full-time City of Vacaville (City) Public Works Department safety officer to institute safety procedures to protect EWWTP employees and the public from wastewater treatment related hazardous. Safety-related products and emergency response plans are discussed below. The City Emergency Operations Plan (EOP) provides guidelines for notification of appropriate personnel in the event of a hazardous release. Additional procedures within the EOP include methods to mitigate a release, locations of emergency responders, spill containment, cleanup, and technical advice (City of Vacaville, 1998).

Routine Maintenance Program

Operation staff at the EWWTP routinely service the existing machines, pumps, devices, and instruments required for the proper operation and functioning of the EWWTP. A computerized maintenance database system tracks maintenance efforts and maintenance schedules, assuring that each EWWTP system is provided the appropriate and timely preventative and predictive maintenance. Maintenance includes routine replacement of parts, routine re-calibration of alarms and measurement devices, and routine visual inspections of the EWWTP systems (City of Vacaville, 1998).

Water Agency Response Network

The City of Vacaville Public Works Department and EWWTP are members of the Water Agency Response Network (WARN). WARN is a statewide network of water and wastewater agencies actively participating in a mutual aid/support network that allows individual member agencies to assist each other in emergency situations. As a member of WARN, the EWWTP has access to emergency support from neighboring water agencies, including personnel and equipment. Additionally through WARN, the EWWTP can draw upon the resources of the 28-member agencies in the surrounding region should an emergency arise (City of Vacaville, 1998)

Project Area Database Report

Database searches were conducted for records of known storage tank sites and known sites of hazardous materials generation, storage, and/or contamination within the vicinity of the project site. Databases were searched for sites and listings up to 1.0 mile from a point roughly equivalent to the center of project site. The environmental database review was accomplished by using the services of the computerized search firm *Environmental Data Resources, Inc.* (EDR). EDR uses a geographical information system to plot locations of past and/or current hazardous materials involvement. The analysis determines if hazards/hazardous materials on adjacent sites will impact surface and/or subsurface conditions on the project site. The following paragraphs summarize the findings of the EDR report. The complete list of reviewed databases is provided in **Appendix J** and is summarized in **Table 4.6-2**.

- The Antonovich S J and Bernice site is located at 6088 “B” Street, approximately 0.33 miles northwest of the project site. The Antonovich SJ and Bernice site is listed on the Leaking Underground Storage Tanks (LUST) database as a site with a leaking underground storage tank.
- Kinder Morgan Energy Partners (KMEP) site is located at 6079 “A” Street, approximately 0.36 miles northwest of the project site. Kinder Morgan Energy Partners is listed on the Spill, Leaks, Investigation and Cleanup (SLIC) database as having remediation in progress. The remediation is due to a spill of total petroleum hydrocarbons as gasoline (TPH-g), gasoline, benzene (Ph-H) and methyl-tert-butyl ether (MTBE).
- KMEP “A” Street Petroleum Pipeline site is located at 6079 “A” Street, approximately 0.36 miles from the project site. The site is on the State Spills Leaks Incidences and Clean-ups (SLIC) database as having an open remediation. Automotive gasoline, diesel fuels, and fuel oxygenates were released into the local aquifer used for drinking water supply and a well used for drinking water supply. The lead agency on the cleanup site is the Central Valley Regional Water Quality Control Board (CVRWQCB).
- Vacaville Fire District Elmira Fire Station site is located at 6084 “A” Street, approximately 0.37 miles from the project site. The site is listed on the SLIC, and Hazardous Substance Storage Container (HIST) Cortese databases due to leaking underground storage tanks. The site is listed as a LUST cleanup site; however, the site was closed in January of 2001.
- Wickes Forest Industries site is located at Edwards and “A” Streets, approximately 0.43 miles northwest of the project site. The site is listed on the Comprehensive Environmental Response Compensation and Liability Information System (CERCLIS), Resource Conservation and Recovery Act Small Generators of Hazardous Waste (RCRA-SQG), and Haznet databases. The site is listed on the CERCLIS database due to cleanup activities that took place at the Wickes Forest Industries site from 8/15/2000 to 6/13/2001. The site is listed on the RCRA-SQG as being a small quality generator of less than 100 kilograms (kg) of hazardous waste during any calendar month and accumulates less than 6000kg of hazardous waste at any time. The site is listed on the Haznet database due to the waste currently stored on the site. Wickes Forest Industries generates alkaline solution without metals via transfer station, and metal sludge via recycler and land fill.

4.6 Hazards and Hazardous Materials

TABLE 4.6-2. ENVIRONMENTAL DATA RESOURCES (EDR) SUMMARY OF AGENCY DATABASES

Agency Database	Survey Distance (miles)	Number of Sites Identified
United States Environmental Protection Agency (USEPA) National Priorities List (NPL) for Superfund Sites	1.0	0
USEPA Delisted NPL Site List	1.0	0
Comprehensive Environmental Response Compensation and Liability Information System (CERCLIS)	0.5	1
USEPA CERCLIS-No Further Remedial Action Planned (CERC-NFRAP)	0.5	0
Corrective Action Report (CORRACTS)	1.0	0
USEPA RCRA Treatment, Storage, and Disposal (TSD) Facilities	0.5	0
USEPA RCRA Large and Small Generators of Hazardous Waste (RCRA-LQG and RCRA-SQG)	0.25	0
Federal Institutional Control/Engineering Control Registries	0.5	0
USEPA Emergency Response Notification System (ERNS) List	Project Site Only	0
State and Tribal-Equivalent CERCLIS Hazardous Waste Sites (SHWS)	1.0	0
State and Tribal-Equivalent SWF/LF, State Landfill	0.5	0
State and Tribal Leaking Underground Storage Tank Database (LUST)	0.5	4
State and Tribal Registered Underground Storage Tank	0.250	0
State Hazardous Wastes and Substances Sites (Cortese)	0.50	0
Waste Management Unit Database (WMUDS/SWAT)	0.50	0
State Hazardous Material Incidents, Including Accidental Releases and Spills (CHMIRS)	Project Site Only	0
State Hazardous Substance Storage Container Database (HIST UST)	0.250	0
State Facilities Inventory System (CA FID UST)	0.250	0
State Spills Leaks Incidences and Clean-ups (CA SLIC)	1.0	5
California DTSC Drycleaners (CLEANERS)	0.250	0
Hazardous Waste Information System (HAZNET)	Project Site Only	0
EDR Historical Auto Station	0.250	0

Source: EDR, 2009 (Appendix J).

Sensitive Receptors

Sensitive receptors are primarily those that have the potential to come in contact with hazardous material in its concentrated form. Therefore, EWWTP personnel that are on-site are considered the primary receptors followed by possible impacts to the surrounding environment.

The community of Elmira abuts the project site on the northwest corner, with the remainder of the project site is surrounded by agricultural fields. The Sierra School of Solano County is located approximately 1,250 feet to the north of the EWWTP, across Alamo Creek. The closest resident is located along Vaca Station Road approximately 250 ft from the northwestern corner of the EWWTP.

Air Strips and Airports

The Travis Air Force Base (AFB) is located approximately 4 miles south of the project site. According to the 2002 Travis AFB Land Use Compatibility Plan (LUCP), discussed in **Section 4.6.3** below, the project site is located within Compatibility Zones C and D. The Nut Tree Airport is located approximately 4 miles northwest of the project site. The project site is not located within the Nut Tree Airport's area of influence.

Wildland Fires

Agricultural land surrounds the EWWTP, with only a minimal forested area in proximity to the project site area that would pose a threat for wildland fires.

4.6.3 REGULATORY CONTEXT

Federal

United States Environmental Protection Agency

The United States Environmental Protection Agency (USEPA) administers numerous statutes pertaining to human health and the environment. The EPA regulates toxic air contaminants through its implementation of the Clean Air Act (CAA). Although the CAA covers a range of air pollutants, Section 112(r) specifically covers "extremely hazardous materials" which include acutely toxic, extremely flammable, and highly explosive substances. Section 112(r) (referred to as the EPA's Risk Management Program) requires facilities involved in the use or storage of extremely hazardous materials to implement a Risk Management Plan (RMP). A RMP requires a detailed analysis of potential accident factors present at a facility and requires the implementation of mitigation measures designed to reduce the identified accident potential.

The EPA also regulates the land disposal of hazardous materials through the Resource Conservation and Recovery Act (RCRA). Under RCRA, the EPA regulates the activities of waste generators, transporters, and handlers (any individual who treats, stores, and/or disposes of a designated hazardous waste). RCRA further requires the tracking of hazardous waste from its generation to its final disposal through a process often referred to as the "cradle-to-grave" regulation. The "cradle-to-grave" regulation requires detailed documentation and record keeping for hazardous materials generators, transporters, and/or handlers in order to ensure proper accountability for violations.

Federal Occupational Safety and Health Administration

The Occupational Safety and Health Act (OSHA) regulates the preparation and enforcement of 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 regulations governing work place procedures and equipment.

U.S. Department of Transportation (U.S. DOT)

The United States Department of Transportation (USDOT) 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.

Travis Air Force Base Land Use Compatibility Plan

The Travis LUCP “sets forth land use compatibility policies applicable to future development in the vicinity of the base”. The geographic scope of the Travis LUCP is broken up into six zones, Zones A-D and the Height Review Overlay Zone; Zone A being the closest to and most affected by the Travis AFB. The majority of the project site is located in Zone C while the northwest corner of the site is within Zone D. EWWTP facilities located in Zone D include the majority of the North Plant, the maintenance building, and approximately half of the existing “west pond” area. The delineation of Zones C and D are described below:

Compatibility Zone C – Zone C encompasses locations exposed to potential noise in excess of approximately 60 dB CNEL together with additional areas occasionally affected by concentrated numbers of low-altitude aircraft overflights, the boundaries are delineated so as to follow section lines, other geographic features, and fixed offset distances from the extended runway centerlines. Developed residential areas within existing city limits are excluded.

Compatibility Zone D - Zone D includes all other locations beneath any of the Travis AFB airspace protection surfaces delineated in accordance with Federal Aviation Regulations Part 77. Limitations on the height of structures are the only compatibility factors within this zone.

The Travis LUCP assigns basic compatibility criteria applicable to the review of proposed land use actions in each of the zones. The general criteria for nonresidential development within any of the zones requires that the “total number of people permitted on a project site at any time, except for rare special events, must not exceed indicated usage intensity times the gross acreage of the site.” The usage intensity, prohibited uses, and other development conditions for Zones C and D are listed in **Table 4.6-3**. The LUCP characterizes public utility uses as being “clearly acceptable.” This characterization means that the activities associated with a public utility land use, such as the EWWTP, can be carried out with essentially no interference from the exposure to noise from the Travis AFB.

TABLE 4.6-3 BASIC COMPATIBILITY CRITERIA FOR ZONES C AND D

Zone	Maximum Usage Intensity (persons)			Additional Criteria	
	Ave. Indoor Uses	Ave. Outdoor Uses	Single Acre	Prohibited Uses	Other Development Conditions
C	75	100	300	<ul style="list-style-type: none"> ▪ Children’s schools, daycare centers, libraries ▪ Hospitals, nursing homes ▪ Hazards to flight ^a 	<ul style="list-style-type: none"> ▪ Minimum NLR of 35 dB in residences and other noise sensitive uses ▪ Deed notice required ^b ▪ Airspace review required for objects > 100 ft. tall
D	No Limit	No Limit	No Limit	<ul style="list-style-type: none"> ▪ Hazards to flight ^a 	<ul style="list-style-type: none"> ▪ Airspace review required for objects > 200 ft. tall.

Notes: a – Hazards to flight include physical, visual, and electronic forms of interference with the safety of aircraft operations. Land use development that may cause the attraction of birds to increase is also prohibited.

b - A notice regarding aircraft operational impacts on the property shall be attached to the property deed.

Source: SCALUC, 2002

State

Department of Toxic Substances Control

The California Department of Toxic Substances Control (DTSC) regulates the generation, transportation, treatment, storage, and disposal of hazardous waste under RCRA and the State Hazardous Waste Control Law. Both laws impose “cradle-to-grave” regulatory systems for handling hazardous waste in a manner that protects human health and the environment.

California Occupational Safety and Health Administration

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.

California Hazardous Materials Release Response Plans and Inventory Law of 1985

The California Hazardous Materials Release Response Plans and Inventory Law of 1985, often referred to as the Business Plan Act, requires facility operators to prepare Hazardous Materials Business Plans (HMBP). HMBPs are required to inventory hazardous materials stored and used on site, disclose the location of storage and use on site, maintain an emergency response plan, and contain provisions specifying employee training in safety and emergency response procedures. Local regulatory authorities such as local Environmental Health Departments collect hazardous Materials Business Plans.

Regional Water Quality Control Board

The State Water Resources Control Board, and the Regional Water Quality Control Boards, also regulate hazardous substances, materials and wastes through a variety of state statutes including, for example, the Porter Cologne Water Quality Control Act, Cal. Water Code §13000 et seq., and the underground storage tank cleanup laws. Cal. Health and Safety Code §§25280-25299.8. Regional Boards regulate all pollutant or nuisance discharges that may affect either surface water or groundwater. Any person proposing to discharge waste within any region must file a report of waste discharge with the appropriate regional board. The project is located within the jurisdiction of the CVRWQCB.

California Accidental Release Program

The California Accidental Release Program (CalARP), governed by regulations set forth in the California Health and Safety Code (Section 25531 through 25543.3), requires that a facility that stores, generates, treats, or manufactures a regulated hazardous material to develop and submit Risk Management Plans (RMPs). The RMPs must document all regulated hazardous materials, method of storage, location of storage areas, amounts present at a facility, and safety features for containing a potential release. The purpose of the CalARP is to prevent the accidental release of hazardous materials from a stationary source. The Solano Environmental Health Services Department administers the CalARP Programs within the City and Solano County (County).

Emergency Response to Hazardous Materials Incidents

California has developed an Emergency Response Plan to coordinate emergency services provided by Federal, State, and local government and private agencies. Response to hazardous materials incidents is one part of this plan. The plan is administered by the state OES, which coordinates the responses of other agencies including CalEPA, the California Highway Patrol (CHP), California Department of Fish and Game (CDFG), the CVRWQCB, the Solano County Office of Emergency Services, and the City.

Municipal Solid Waste

The California Integrated Waste Management Board (CIWMB) is the State-level agency within the CalEPA that oversees solid waste disposal and recycling and implements the Integrated Waste Management Act of 1989. The CIWMB issues, and in some cases enforces, regulations, policies and guidance on waste prevention and reduction, and closure. The CIWMB has promulgated detailed regulations for the closure and post closure monitoring and maintenance of municipal solid waste landfill. Additionally, because a municipal solid waste landfill may impact groundwater, a Regional Water Quality Control Board (RWQCB) may assert jurisdiction over an operating or closed landfill that is discharging or has discharged effluent and/or require corrective actions.

Solano County

County of Solano Hazardous Waste Management Plans

The County Department of Environmental Management maintains hazardous materials management plans to address emergency response to incidents involving hazardous materials over 55-gallons, 500 pounds or 200 cubic feet of gas. These plans include an inventory of hazardous materials located within the County, which is updated annually.

The County also maintains a Hazardous Waste Management Plan (Tanner Plan) for the management of all hazardous wastes generated and disposed of within the County. Information in the plan can also be used to help guide and coordinate mitigation activities and local policy decisions for future land use decisions.

Solano County Department of Resource Management

The Solano County Department of Resource Management has been designated by the CalEPA as the Certified Unified Program Agency (CUPA) for the County. As the CUPA, the Department of Resource Management is responsible for the implementation of five environmental programs for the County. These include:

- Permitting and inspection of businesses that handle certain quantities of hazardous materials/waste.
- Hazardous Materials Business Plan (HMP) requirements
- Hazardous Waste Control Act
- California Accidental Release Prevention (Cal-ARP) program
- Emergency response to incidents involving hazardous materials through the hazardous management plan

The implementation of these programs involves:

- Permitting and inspection of regulated facilities.
- Providing educational guidance and notice of changing requirements stipulated in State or Federal laws and regulations.
- Investigations of complaints regarding spills or unauthorized releases.
- Administrative enforcement actions levied against facilities that have violated applicable laws and regulations

The County Department of Resource Management, also continues the implementation of the provisions of the Tanner Plan and siting locations for new hazardous waste storage and transfer facilities through the Association of Bay Area Governments' (ABAG) Hazardous Waste Allocation Committee.

City of Vacaville

City of Vacaville General Plan (1990)

The Safety Element of the City General Plan contains the following goals and policies that relating to hazards and hazardous materials that are applicable to the proposed project.

Guiding Policies:

9.4-G 2 Cooperate with Solano County on implementation of the Hazardous Waste Management Plan and review proposals for hazardous waste facilities for consistency with that Plan.

Implementing Policies:

9.4-I 1 Do not encourage industries which rely extensively on use of hazardous materials unless an acceptable use, storage and disposal program is approved by the appropriate agencies.

9.4-I 2 Ensure that development proposals involving hazardous waste facilities are consistent with the Solano County Hazardous Waste Management Plan.

9.4-I 3 Continue to implement a hazardous materials information disclosure program.

4.6.4 IMPACTS AND MITIGATION MEASURES

Method of Analysis

Potential hazardous materials and public health impacts were analyzed through a review of the existing project site setting, project description, and risks inherent to the proposed treatment process and construction methods and materials. As discussed above, methods used to characterize the existing hazardous material setting in the project site and vicinity include, but are not limited to, regulatory agency database searches conducted for records of known storage tank sites and known sites of hazardous materials generation, storage, and/or contamination within the project area.

The impact analysis focused on potential effects of hazardous materials or waste associated with current and past conditions at the project site, as well as properties in close proximity that might have an adverse impact on the site. The evaluation was made in light of project plans, and applicable regulations and guidelines. If it was determined that implementation of the Proposed Project has the potential to meet or exceed the significance criteria listed below, mitigation measures have been recommended to increase the compatibility and safety of the project site and to reduce impacts to less-than-significant levels.

Thresholds of Significance

Criteria for determining the significance of impacts to hazardous materials have been developed based on Appendix G of the CEQA *Guidelines* and any relevant agency thresholds. For the purposes of this EIR, a project would generally be considered to have a significant adverse impact to the public or the environment if it would:

- Create a significant hazard through the routine transport, use or disposal of hazardous materials.
- Create a significant hazard through reasonably foreseeable upset and accident conditions involving the release hazardous materials into the environment.

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- Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter miles of an existing or proposed school.
- Be listed 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 airport land use plan or within an area where such a plan has not been adopted, that would result in a safety hazard to people residing or working in the project area.
- Result in a safety hazard for people residing or working in the project area for a project located within the vicinity of a private airstrip.
- Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan.
- 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.

Effects Found Not to be Significant

The project site is not included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5. The Proposed Project would not emit hazardous materials nor result in a safety hazard for people residing or working in the vicinity of a private airstrip; therefore, as determined within the Initial Study (**Appendix B**), further analysis of these issues within this EIR is not warranted.

Project Specific Impacts and Mitigation Measures

Construction

Impact

4.6-1 Construction of the Proposed Project would include the storage and handling of hazardous materials, which could result in a public health or safety hazard from the accidental release of hazardous materials into the environment.

During grading and construction activities it is anticipated that limited quantities of miscellaneous hazardous substances, such as gasoline, diesel fuel, hydraulic fluid, solvents, oils, paints, etc. would be brought onto the site. Temporary storage units (bulk above-ground storage tanks, 55-gallon drums, sheds/trailers, etc.) would likely be used by various contractors for fueling and maintenance purposes. As with any liquid and solid, the handling and transfer between one container to another has the potential for an accidental release. Construction contractors will be required to comply with applicable federal and state environmental and workplace safety laws. Adherence to these regulatory requirements would ensure that this impact is less than significant.

Mitigation Measures 4.6-1 is provided to further decrease the potential for impacts from accidental release of hazardous materials during construction of the Proposed Project. **Less than Significant**

Mitigation Measure 4.6-1. The City of Vacaville shall ensure through the enforcement of contractual obligations that all contractors transport, store, and handle construction-

required hazardous materials in a manner consistent with relevant regulations and guidelines, including those recommended and enforced by the City of Vacaville Fire Department and the Solano County Fire Protection District. Recommendations may include, but are not limited to, transporting and storing materials in appropriate and approved containers, maintaining required clearances, and handling materials using approved protocols.

Impact

4.6-2 Construction activities conducted during the dry season in and around dry grasses pose a fire hazard. This would be a potentially significant impact.

Equipment used during grading and construction activities may create sparks, which could ignite dry grass on the project site. During construction, the use of power tools and acetylene torches may also increase the risk of fire hazard. This risk, similar to that found at other construction sites, is considered potentially significant. Implementation of recommended **Mitigation Measure 4.6-2** would reduce potential impacts to less than significant. **Less than Significant after Mitigation.**

Mitigation Measure 4.6-2a. During construction, staging areas, welding areas, or areas slated for development using spark-producing equipment shall be cleared of dried vegetation or other materials that could serve as fire fuel. To the extent feasible, the contractor shall keep these areas clear of combustible materials in order to maintain a fire break.

Mitigation Measure 4.6-2b. Any construction equipment that normally includes a spark arrester shall be equipped with an arrester in good working order. This includes, but is not limited to, vehicles, heavy equipment, and chainsaws.

Operation

Impact

4.6-3 Operation of the Proposed Project would involve the use and bulk storage of hazardous materials.

Hazardous materials currently used on site include chemicals for wastewater treatment, EWWTP maintenance, laboratory tests, fuel, and solvents. The use of hazardous materials that would occur with operation of the Proposed Project would be similar to the materials used for the existing EWWTP processes. Operation of the proposed granular-media filtration system would require the occasional use of Polymer and Sodium Hypochlorite. These additional chemicals will be stored and used according to regulatory requirements and existing procedures for handling hazardous materials at the EWWTP. Further, all training, safety, and emergency response provisions would remain in effect and apply to all phases of the Proposed Project. Neither EWWTP employees, the general public, nor the surrounding

environment is anticipated to encounter a serious risk through project implementation. Therefore, this impact is less than significant. **Less than Significant.**

Impact

4.6-4 **Operation of the Proposed Project would require hazardous materials deliveries, similar in schedule to the existing EWWTP.**

Under the Proposed Project, hazardous materials would continue to be delivered in bulk by licensed transporters. Deliveries of hazardous materials would continue to be routed around existing residential areas. All deliveries of bulk hazardous materials will enter EWWTP via Leisure Town Road, Fry Road, and Vaca Station Road, avoiding residential areas located with the City and the Town on Elmira. Because delivery routes for bulk hazardous materials would continue to avoid existing residential areas, the potential for accidents involving the release of hazardous materials in transport as a result of the Proposed Project is minimal and considered less than significant. **Less than Significant.**

Impact

4.6-5 **The Project site is located within boundaries of the Travis LUCP. Operation of the Proposed Project could result in a safety hazard to people residing or working in the project area.**

Operation of the Proposed Project would not exceed the maximum usage intensities assigned to the project site nor would it result in the construction of any object over 100 feet tall. The Proposed Project would modify the existing emergency storage basin on the project site through the installation of a concrete liner. The addition of the concrete liner would not result in the attraction of wildlife and waterfowl beyond existing conditions as it would not increase the size of the basin or the frequency and amount of standing water on the project site. Additionally, the project would result in the construction of a concrete lined equalization storage basin in the area of the existing "west pond," which is currently utilized for storm water detention. The equalization basin would be used to store primary and secondary effluent during storm events when there is a high volume of influent. High volume events requiring use of the equalization basin are expected to occur approximately five times per year, and any stored effluent would be removed as soon as possible. Due to the infrequent and short periods of time that water would be stored in the equalization basin, this proposed facility is not expected to result in the attraction of wildlife and waterfowl beyond existing conditions. Thus, the Proposed Project would not result in the development of facilities that would increase hazardous wildlife attractants on the project site. A discussion of the Proposed Project's consistency with Travis LUCP policies on lighting and noise is included within **Sections 4.1 and 4.9**, respectfully. It was determined that the Proposed Project would not result in conflicts with adopted policies in the Travis LUCP. Therefore, the Proposed Project is not expected to result in a safety hazard to people residing or working in the project area. This impact is considered less than significant. **Less than Significant.**

Cumulative Impacts and Mitigation Measures

Impact

4.6-6 The Proposed Project in combination with future growth and development in the project vicinity could result in cumulative effects associated with hazards and hazardous materials.

If unmitigated, construction and operation of the Proposed Project in combination with potential cumulative development in the project vicinity could lead to impacts related to hazards and hazardous materials. The Proposed Project and related projects in the cumulative year, would all involve the storage, use, disposal, and transport of hazardous materials to varying degrees during construction. Impacts related to these activities are extensively regulated by various federal, state, and local agencies and it is assumed that related projects would also comply with these hazardous materials regulations.

Hazard related impacts are site specific (e.g., have the potential to affect only a limited area). These hazards require implementation of project specific mitigation measures to reduce the potential for adverse impacts to a less than significant level. Reduction of on-site hazardous related impacts, as discussed above, would ensure that construction activities would not result in impacts that would be cumulatively considerable.

Operation of the Proposed Project and cumulative development projects could result in impacts if development were to result in potential exposure of hazardous materials to sensitive individuals or the general public-at-large, or if additional projects in the vicinity were to include the use or storage of hazardous materials. The proposed power plant that may be located in the southeast portion of the City's property would include industrial components that could result in the use and storage of relatively large quantities of hazardous materials. However, operation of the power plant would be subject to stringent regulation and monitoring, resulting in a low risk for adverse effects (California Energy Commission, 2008a). Because hazardous materials impacts are site specific and the Proposed Project would not include land uses that utilize or require substantial volumes of hazardous materials, the project would not contribute to cumulatively considerable hazardous impacts. Recommended mitigation measures would ensure that cumulatively considerable impacts would not occur. Therefore, this impact is considered less than significant.

Less than Significant with Mitigation.

Mitigation Measure 4.6-6: Implement **Mitigation Measures 4.6-1** and **4.6-2**.