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Description:	This section discusses the potential effect on human health and the environment from existing site conditions as well as nonhazardous and hazardous waste generated during construction and operation at the Project.
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5.11 Waste Management

This section discusses the potential effect on human health and the environment from existing site conditions as well as nonhazardous and hazardous waste generated during construction and operation at the Vaca Dixon Power Center Project (Project). Section 5.11.1 describes the environmental setting, site investigations that have been completed at the Project Site, and waste that would be generated by the Project. Section 5.11.2 describes the Regulatory Setting of the Project in terms of waste management. Section 5.11.3 presents the impact analysis, and Section 5.11.4 presents the cumulative impacts of the Project with respect to waste management. Section 5.11.5 describes the Laws, Ordinances, Regulations, and Standards (LORS) applicable to waste management for the Project. Section 5.11.6 presents the agencies that have jurisdiction over the waste generated at the Project Site and specifies the contact at each agency. Section 5.11.7 describes the permits required for waste generated at the Project and a schedule for obtaining the permits. Section 5.11.8 provides the references used to prepare this section.

5.11.1 Environmental Setting

The following subsections provide an overview of the existing environmental setting for waste management in the Project vicinity. This includes summaries of the environmental condition of the Project Site and the potential need to remove or otherwise treat contaminated soil or groundwater at the Project Site and descriptions of nonhazardous and hazardous waste streams associated with construction and operation of the Project. The following existing conditions are described:

- Results of two Phase I Environmental Site Assessments (ESA), completed in January 2025 and August 2025, respectively, using methods prescribed by the American Society for Testing and Materials (ASTM) document entitled "Standard Practice for Environmental Site Assessments: Phase 1 Environmental Site Assessment Process" (Designation: E1527-21, December 2021)[1] (see Section 5.11.1.1).
- A description of each waste stream estimated to be generated during Project construction and operation, including origin, anticipated hazardous or nonhazardous classification pursuant to Title 22, California Code of Regulations, Section 66261.20 et seq., chemical composition, estimated annual weight or volume generated, and estimated frequency of generation (see Section 5.11.1.2).
- A description of waste disposal sites which may feasibly be used for disposal of Project wastes, including the name, location, classification under Title 23, California Code of Regulations, Section 2530 et seq., the daily or annual permitted capacity, daily or annual amounts of waste currently being accepted, the estimated closure date and remaining capacity, and a description of any enforcement action taken by local or state agencies due to waste disposal activities at the site (see Section 5.11.1.3).
- A description of management methods for each waste stream, including methods used to minimize waste generation, length of on- and off-site waste storage, re-use and recycling opportunities, waste treatment methods used, and use of contractors for treatment (see Section 5.11.3).

[1] ASTM Designation E 1527-93 was the first Phase I ESA standard issued. ASTM requires the standard to be reviewed, updated, and re-approved at least every eight years. ASTM Designation E-1527-21 represents the most recent iteration of the Phase I ESA standard and as such is appropriate for use as an equivalent method to ASTM Designation 1527-93.

5.11.1.1 Site Investigations

TRC Environmental Corporation conducted the January 2025 Phase I ESA that included evaluation of potential geologic hazards on the PG&E parcel where the gen-tie facilities are located (Appendix X). TRC Environmental Corporation also conducted the August 2025 Phase I ESA that focused on evaluating potential hazards associated with the BESS Project Area south of Interstate 80 (Appendix G). These Phase I ESAs were conducted in conformance with the requirements of ASTM International Designation E1527-21, Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process. The findings of the Phase I ESAs are summarized below.

January 2025 Phase I ESA

The general locations where the gen-tie facilities are located on the PG&E parcel were included in the investigation conducted for the January 2025 Phase I ESA. The January 2025 Phase I ESA included a site visit, interviews, regulatory research, historical review, and a review of an environmental database analysis of the PG&E parcel (Appendix X). The Phase I ESA concluded that no recognized environmental conditions[2], controlled recognized environmental conditions, historical recognized environmental conditions, or de minimis conditions are present on the PG&E parcel (Appendix X).

August 2025 Phase I ESA

The BESS Project Area was investigated for the August 2025 Phase I ESA, which identifies potential or existing environmental conditions through a site visit, interviews, regulatory research, historical review, and a review of an environmental database analysis of the Project Site (Appendix G). The Phase I ESA concluded that no recognized environmental conditions[3], controlled recognized environmental conditions, historical recognized environmental conditions, or de minimis conditions are present on the Project Site (Appendix G).

5.11.1.2 Project Waste Generation

This section identifies nonhazardous waste, hazardous waste, and wastewater that would be generated at the Project Site during construction and operation activities.

A majority of the waste that is anticipated to be generated during construction and operational activities associated with the Project would be classified as nonhazardous waste; however, it is anticipated that some hazardous waste would be generated. Hazardous waste is discussed in more detail in Section 5.9, *Hazardous Materials Handling*. The types of construction waste and their estimated quantities are presented below in Table 5.11-1. The types of operational waste and their estimated quantities are presented below in Table 5.11-2.

[2] Pursuant to ASTM E1527-21, the term recognized environmental condition means (1) the presence of hazardous substances or petroleum products in, on, or at the subject property due to a release to the environment; (2) the likely presence of hazardous substances or petroleum products in, on, or at the subject property due to a release or likely release to the environment; or (3) the presence of hazardous substances or petroleum products in, on, or at the subject property under conditions that pose a material threat of a future release to the environment.

[3] Pursuant to ASTM E1527-21, the term recognized environmental condition means (1) the presence of hazardous substances or petroleum products in, on, or at the subject property due to a release to the environment; (2) the likely presence of hazardous substances or petroleum products in, on, or at the subject property due to a release or likely release to the environment; or (3) the presence of hazardous substances or petroleum products in, on, or at the subject property under conditions that pose a material threat of a future release to the environment.

5.11.1.3 Waste Disposal

This section describes the waste disposal facilities that may feasibly be used for disposal and recycling of waste generated by the Project.

Solid Waste Disposal

Nonhazardous solid waste would generally be recycled or disposed of at a Class II/III landfill. The Project would employ third parties to manage appropriate handling and disposal of nonhazardous solid waste. Waste disposal sites which may be feasibly used for disposal of Project wastes are summarized in Table 5.11-3.

Hazardous Waste Disposal

Hazardous waste generated at the Project Site would be stored on-site in accordance with the accumulation limits detailed in Title 22, California Code of Regulations (CCR), section 66262.34 and would be transported to a treatment, storage, and disposal facility by a licensed hazardous waste transporter. According to the California Department of Toxic Substances Control (DTSC), 94 facilities in California accept wastes such as batteries, used oil, solvents, and other hazardous wastes, for treatment, recycling, or disposal (DTSC 2024a). California has two active hazardous waste (Class I) landfills for permanent disposal: Chemical Waste Management, Inc. Kettleman Hills Facility and Clean Harbors Buttonwillow Landfill (DTSC 2024b; DTSC 2024c). These landfills are described below:

- **Chemical Waste Management, Inc. Kettleman Hills Facility** is an approximately 1,600-acre hazardous waste facility that accepts Class I and II waste, with the exception of radioactive materials, medical waste, compressed gas cylinders, and explosives. Currently, 700 acres of land are available and permitted for waste management activities (CalRecycle 2024b). The B-18 hazardous waste landfill is planned for expansion. A new hazardous waste landfill (B-20) is planned to open after B-18 reaches capacity and will operate for approximately 24 years (Waste Management, Inc. 2023). As of November 2024, B-18 (Class I/II) has a permitted capacity of 10.7 million cubic yards and a total remaining capacity of 15.6 million cubic yards[4]. It is anticipated that hazardous waste generated at the Project Site would be accepted at the Kettleman facility.
- **Clean Harbors Buttonwillow** is a 320-acre facility with an operating area of 160 acres and is permitted to accept waste until 2040. The Buttonwillow facility has a permitted capacity of 13.25 million cubic yards and can accept up to 10,500 tons per day (CalRecycle 2024f). Details of the remaining capacity at the Buttonwillow facility are not publicly available. Buttonwillow is permitted to manage Resource Conservation and Recovery Act (RCRA) hazardous waste, California hazardous waste, and nonhazardous waste for stabilization treatment, solidification, and landfill. The landfill accepts waste in bulk (solids and liquids) and in containers. Typical waste streams include nonhazardous soil, California hazardous soil, hazardous soil for direct landfill, hazardous waste for treatment of metals, plating waste, hazardous and nonhazardous liquid, and debris for microencapsulation (DTSC 2024c). It is anticipated that hazardous waste generated at the Project Site would be accepted at the Buttonwillow facility.

[4] Facility registration permit issued on March 12, 2020, indicates that the site capacity is 15,600,000 cubic yards with an annual loading of 2,340,000 cubic yards. As of the date of this application, the Solid Waste Information System Facility/Site Activity Details lists Remaining Capacity as 15,600,000 cubic yards (https://www2.calrecycle.ca.gov/SolidWaste/SiteActivity/Details/3771?siteID=914) (CalRecycle 2024e).

Table 5.11-1 Potential Waste Streams Generated During Construction

Waste Stream	Origin	Classification	Composition	Disposal	Estimated Total Quantity
Excavated soil	Excavation or trenching activities	Nonhazardous	Soils	On-site re-use onsite or disposed at Class II/III landfill	7,520 cubic yards
Excess concrete	Construction of concrete pads, foundations, and supports	Nonhazardous	Concrete	Recycled or disposed at Class II/III landfill	100 to 200 tons
Fuels	Generators or other heavy equipment	Hazardous	Hydrocarbons	Recycled	Approximately 1-2 55-gallon drums
Incidental office and shipping waste	General administrative activities	Nonhazardous	Paper, plastic, cardboard, solid waste	Recycled or disposed at Class II/III landfill	10 tons
Oil filters	Vehicles, generators, heavy equipment	Hazardous	Hydrocarbon or solvent impacted solids	Recycled or disposed by certified oil handler/recycler	1 Ton
Oily rags/ sorbents	Cleanup of spills	Hazardous	Hydrocarbon or solvent impacted solids	Recycled or disposed by certified oil handler/recycler	1 Ton or less
Potable water	General construction activities and dust suppression activities	Nonhazardous	Water	Percolation	Approx. 40,000 gallons
Sanitary waste	Sanitary waste generated during construction activities	Nonhazardous	Liquid	Porta Potty, cleaned by septic trucks.	Approximately 12,000 gallons
Scrap metal	Construction of supports, racks, and other structural components	Nonhazardous	Metal	Recycled or disposed at Class II/III landfill	Approximately 40 tons
Scrap wood	Use of Wood pallets used to transport materials to site	Nonhazardous	Wood	Recycled or disposed at Class II/III landfill	Approximately 5 tons
Solvents, detergents, glycols, refrigerants, paint, adhesives	Equipment maintenance	Hazardous	Solvents	Recycled or disposed at Class II/III landfill	1 55-gallon drum
Spent alkaline batteries	Battery operated equipment	Hazardous	Metals	Recycled, disposed off-site at Universal Waste Destination Facility	Less than 100 pounds
Spent lead acid batteries	Battery operated equipment	Hazardous	Heavy metals	Returned to manufacturer for recycling	Approximately 7 to 17 tons
Waste oil (lubricating, insulating)	Heavy machinery or other heavy equipment maintenance	Hazardous	Hydrocarbons	Recycled or disposed by certified oil handler/recycler	55-gallon drum
Welding materials	Construction of supports, racks, and other structural components	Hazardous	Solids, metals	Recycled or disposed at Class I landfill	1 to 3 tons

TBD = To Be Determined

Table 5.11-2 Potential Waste Streams Generated During Operation

Waste Stream	Origin	Classification	Composition	Disposal	Estimated Quantity
Concrete	Maintenance of structural elements	Nonhazardous	Concrete	Recycle or Class II/III Landfill	50–100 tons (from pad and structural repairs over operational life)
Controlled substances	Inerts/explosives packaging, refrigerant (gas), smoke detectors, fire extinguishers	Hazardous	Controlled substance	Dispose by certified hauler	5–20 units annually
Empty hazardous material containers	Transport of hazardous materials to the Project Site	Hazardous	Drums, totes, containers	Recycle	1 ton or less
Fuels (generators, other equipment)	Equipment, potential spills	Hazardous	Hydrocarbons	Recycle or Class I Landfill	500–1,000 gal/year
Oil filters	Equipment, vehicles	Hazardous	Hydrocarbon or solvent impacted solids	Recycle or dispose by certified oil handler/recycler	5–10 filters/year
Oily rags/sorbents	Cleanup of spills	Hazardous	Hydrocarbon or solvent impacted solids	Recycle or dispose by certified oil handler/recycler	200–500 lb/year (~90–230 kg)
Potable water	On-site personnel use	Nonhazardous	Water	Recycle or treat and discharge	5,000–10,000 gal/year
Sanitary waste	On-site personnel use	Nonhazardous	Liquid	Contracted sanitary service	1,000–2,000 gal/year (~3.8–7.6 m^3)
Scrap metal	Maintenance of structural elements	Nonhazardous	Metal	Recycle or Class II/III Landfill	20–60 tons during Project life
Solvents, detergents, glycols, refrigerants, paint, adhesives	Maintenance of heavy equipment	Hazardous	Solvents	Class I landfill	1 55-gallon drum per year
Spent alkaline batteries	Battery operated equipment	Hazardous	Metals	Recycle, dispose off-site at Universal Waste Destination Facility	Less than 50 pounds per year
Spent battery and transformer components	Operation and maintenance of the BESS facility	Nonhazardous	Metals, solids	Recycle or Class II/III Landfill	1-2 tons/year (mainly transformer scrap, connectors)
Spent Lead acid batteries	Battery operated equipment	Hazardous	Heavy metals	Returned to manufacturer for recycling	1 to 2 tons/year
Typical worker refuse	General administrative activities	Nonhazardous	Paper, plastic, solid waste	Recycle or Class II/III Landfill	1–3 tons/year

Waste Stream	Origin	Classification	Composition	Disposal	Estimated Quantity
Waste oil (lubricating, insulating)	Equipment, transformers	Hazardous	Hydrocarbons	Cleaned w/ rags/sorbents/disposed by certified oil recycler	Less than 1 ton per year
Wastewater	Landscaping and fire water testing	Nonhazardous	Water	Evaporation or treat and discharge	1,000–3,000 gal/year (~3.8–11.4 m^3)
Welding materials	Maintenance of structural elements	Hazardous	Metals	Recycle or Class I Landfill	1–3 tons/year

TBD = To Be Determined

Table 5.11-3 Solid Waste Disposal Facilities in the Vicinity of the Project

Landfill	Location	Class	Permitted Capacity (cubic yards)	Remaining Capacity (cubic yards)	Permitted Throughput (tons/day)	Estimated Closure Date	Violation of Minimum State Standards Noted
Recology Hay Road	6426 Hay Road Vacaville, CA 95687	II, III	37,000,000	30,433,000	2,400	1/1/2077	Yes. Gas exceedance at probe LFG 26D. Remediation plan implemented October 2024 (Case ID 801732)
Potrero Hills Landfill	3675 Potrero Hills Lane Suisun City, CA 94585	III	83,100,000	13,872,000	4,330	2/14/2048	Yes. Gas exceedance at wells LFG-7, LFG-12, and LFG-15. Operator indicated excess gas due to irregular shutdown. As of August 2024, LFG-7 is in compliance as documented by operator.
Yolo County Central Landfill[1]	County Road 28h & County Road 104 Davis, CA 95616	II, III	49,035,200	33,140,373	3,000	2/1/2124	No
Devlin Road Transfer Station	889 Devlin Road American Canyon, CA 94558	Transfer/ Processing	1,440	Not Applicable	1,440	Not Applicable	No

[1] Yolo County Central Landfill also provides compositing facilities and construction and demolition debris processing services.

Source: California Department of Resources, Recycling, and Recovery (CalRecycle) 2024a; CalRecycle 2024b; CalRecycle 2024c; CalRecycle 2024d

5.11.2 Regulatory Setting

A review of existing relevant LORS was conducted to understand the regulatory context regarding waste management for the Project. This review of applicable federal, state, and local policies and regulations includes the RCRA, California Environmental Quality Act (CEQA), the City of Vacaville's General Plan, the City of Vacaville Municipal Code, Solano County Code of Ordinances, and the Solano County Multi-Jurisdictional Hazard Mitigation Plan. These are detailed in Section 5.11.5.

5.11.3 Impact Analysis

The following subsections discuss the potential direct and indirect impacts related to waste management from construction and operation (including maintenance) of the Project.

5.11.3.1 Methodology

To identify and assess potential on-site hazardous waste streams, Rincon Consultants, Inc. reviewed the January 2025 and August 2025 Phase I ESAs as well as publicly available information, including the:

- State Water Resources Control Board (2024) GeoTracker database
- California Department of Toxic Substances Control (DTSC) Envirostor database
- List of active Cease and Desist Orders and Cleanup and Abatement Orders from the State Water Resources Control Board

To identify and assess potential impacts related to waste generation, Rincon Consultants, Inc. reviewed the existing capacities of surrounding landfills as well as applicable regulatory requirements related to waste diversion.

5.11.3.2 Impact Evaluation Criteria

The potential for impacts to waste management was evaluated using the criteria described in Appendix G of the CEQA Guidelines (sections 15000-15387, Title 14, California Code of Regulations, Chapter 3). A project would have a significant environmental impact in terms of waste management if it would do the following:

- 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, would it create a significant hazard to the public or the environment; and/or
- Generate solid waste in excess of state or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals.

IMPACT WM-1

Threshold:	Would the Project 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, would it create a significant hazard to the public or the environment?

Government Code Section 65962.5, enacted in 1985, established a list of sites that may impact local permitting processes and compliance with CEQA (Cortese List). The Project is not located on a Cortese List site. Refer to Impact HAZ-3 in Section 5.9, *Hazardous Materials Handling*, for additional details and a discussion of potential impacts related to this impact evaluation criteria.

IMPACT WM-2

Threshold:	Would the Project generate solid waste in excess of state or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?

The Project would implement the following measures related to hazardous waste storage, collection, and disposal during both construction and operation of the Project:

- Qualified haulers would be retained to transport hazardous waste from the Project. The selected haulers would be fully licensed and insured to transport hazardous waste. Haulers would follow all applicable requirements in the Code of Federal Regulations with regard to loading, unloading, and general handling, based on transport mode.
- Trucks would be loaded at designated staging areas for transportation to the designated receiving facility. Stray material on vehicles, tires, or the lip of the container, etc., would be removed manually with a brush. The container of the truck would be covered to prevent release of materials from the truck during transport.
- Hazardous waste haulers would have a valid DTSC registration and would satisfy the following requirements:
  - Vehicles would have passed an annual inspection;
  - Vehicle operators would be trained in the safe handling of the material;
  - Haulers would maintain the ability to pay damages caused by their operations through proper insurance coverage;
  - Haulers would have licenses issued by the California Highway Patrol for transportation of hazardous waste;
  - Haulers would have a California Environmental Protection Agency identification number;
  - Haulers would comply with the Uniform Hazardous Waste Manifest System; and,
  - Haulers would take certain actions in response to hazardous waste discharges during transport (e.g., covering the load to prevent the discharge of dust/particulates into the atmosphere during hauling).
- In accordance with all applicable laws, hazardous waste transportation routes would be limited to arterial streets and freeways approved for truck traffic to minimize potential impacts in the local neighborhoods and sensitive receptors. Transportation, as feasible, would be conducted in accordance with the National Hazardous Material Route Registry – United States Department of Transportation – Federal Motor Carrier Safety Administration Hazardous Materials designated, preferred, or prescribed routes for transportation of hazardous waste in California. Truck routes would be determined in advance of any hauling activity once a receiving facility is selected, as necessary. If off-hauling is required, an appropriate off-site facility would be identified, and a haul route would be determined such that impacts to sensitive receptors are minimized.
- Hazardous waste to off-site receiving facilities would be transported in trucks from the designated staging areas. Prior to loading, trucks would be staged in a controlled and orderly manner to avoid impacts on the local streets. For example, traffic would be coordinated in such a manner that, at any given time, a limited number of trucks would be at the Project Site to reduce truck traffic on surrounding surface streets. While at the Project Site, vehicles would be required to maintain slow speeds (e.g., less than five miles per hour) for safety purposes.

- Waste characterization sampling results would be provided to the receiving facility to profile the waste.
- Hazardous waste transportation would comply with all applicable federal, State, and local laws, including, but not limited to the United States Department of Transportation regulations, California Vehicle Code, California Highway Patrol Regulations, California State Fire Marshall Regulations, and the California Health and Safety Code, to the extent applicable. These requirements include keeping appropriate records during transportation activities. An authorized representative would be responsible for maintaining a record book of soil management and trucking activities during on-site work. The record book would serve to document observations, on-site personnel, and truck arrival and departure times. The appropriate Uniform Hazardous Waste Manifest would be used to track the movement of hazardous waste, if any, from the point of generation to the receiving facility. Prior to transporting the hazardous waste, if any, off-site, an authorized representative would sign each manifest. Copies of each manifest for each truckload would be maintained in each truck during transport to the receiving facility, as well as on-site.
- The hauler would be required to have a contingency plan prepared for emergency situations (vehicle breakdown, accident, diesel spill, fire, explosion, etc.) during transportation of hazardous waste, if any, off-site. Once the hauler is selected, a contingency plan would be reviewed and available on-site.

The following subsections describe the Project's impacts regarding construction and operational hazardous and nonhazardous waste generation.

Construction

Less than Significant Impact. As indicated in Table 5.11-1, construction of the Project would generate both hazardous and nonhazardous construction waste. Hazardous construction waste would be transported to a hazardous waste facility by a licensed hazardous waste transporter. Hazardous construction waste is anticipated to be accepted by Chemical Waste Management, Inc. Kettleman Hills Facility and/or Clean Harbors Buttonwillow Landfill. Nonhazardous construction waste would be recycled or disposed of at a Class II/III landfill identified in Table 5.11-3. The Project would employ third parties to manage appropriate handling and disposal of nonhazardous solid waste. The contractor and waste hauler would comply with the California Green Building Standards Code, which requires a minimum of 65 percent of construction debris to be diverted from landfills, which would further minimize the amount of construction-generated solid waste entering surrounding landfills. Considering there are multiple locations that would accept anticipated construction waste streams, and the solid waste landfills listed in Table 5.11-3 have a collective remaining capacity of over 77 million cubic yards, waste generated from construction of the Project would not exceed the capacity of surrounding accepting facilities. Therefore, Project construction would have a less than significant impact involving solid waste recycling, disposal capacity, and impaired attainment of solid waste reduction goals.

Operation

Less than Significant Impact. As indicated in Table 5.11-2, operation of the Project would generate both hazardous and nonhazardous waste. Hazardous operational waste would be transported to a facility by a licensed hazardous waste transporter. Hazardous operational waste is anticipated to be accepted by Chemical Waste Management, Inc. Kettleman Hills Facility and/or Clean Harbors Buttonwillow Landfill. Nonhazardous operational waste would be recycled or disposed of at a

Class II/III landfill identified in Table 5.11-3. The Project would employ third parties to manage appropriate handling and disposal of nonhazardous solid waste. The Applicant would comply with Assembly Bill 341 which mandates recycling for businesses producing greater than four cubic yards of solid waste per week. Considering there are multiple locations that would accept anticipated operational waste streams, and the solid waste landfills listed in Table 5.11-3 have a collective remaining capacity of over 77 million cubic yards, waste generated from operation of the Project would not exceed the capacity of surrounding accepting facilities. Therefore, Project operation would have a less than significant impact involving solid waste recycling, disposal capacity, and impaired attainment of solid waste reduction goals.

5.11.4 Cumulative Impacts

Impacts of the Project would be considered cumulatively considerable if they would have the potential to combine with other past, present, or reasonably foreseeable projects to become significant. A list of closely related past, present, and reasonably foreseeable projects are provided in Table 5-1 of Section 5, *Environmental Analysis*.

As described in Table 5.11-3, solid waste disposal facilities report substantial remaining available capacity to serve cumulative development, including the projects listed in Table 5-1 of Section 5, *Environmental Analysis*. Cumulative projects would be subject to applicable construction and operational solid waste diversion regulations, such as the California Green Building Standards Code, which requires a minimum of 65 percent of construction debris to be diverted from landfills, and Assembly Bill 341 which mandates recycling for businesses producing greater than four cubic yards of solid waste per week. Given that sufficient available landfill capacity exists to support cumulative development and that cumulative development would minimize solid waste generation in accordance with applicable state regulations, cumulative impacts related to waste management would be less than significant.

5.11.5 Laws, Ordinances, Regulations, and Standards

Nonhazardous and hazardous waste handling for the Project would be governed by federal, state, and local laws. Applicable laws and regulations address proper waste handling, storage, and disposal practices to protect the environment from contamination and to protect facility workers and the surrounding community from exposure to nonhazardous and hazardous waste. Table 5.11-4 presents a summary of the LORS applicable to waste handling for the Project.

5.11.5.1 Federal LORS

Resource Conservation and Recovery Act

Nonhazardous Solid Waste

The State hazardous waste regulatory agency or the United States Environmental Protection Agency (USEPA) enforces hazardous waste laws. RCRA 42 United States Code 6901 Subtitle D assigns responsibility for the regulation of nonhazardous waste to the states (USEPA 2024).

Table 5.11-4 LORS Applicable to Waste Management

Jurisdiction	LORS	Applicability	Opt-In Application Reference	Project Conformity
Federal	RCRA 42 United States Code 6901, Subtitle D	Regulates design and operation of nonhazardous solid waste landfills.	5.11.5	Solid waste generated by the Project would be collected and disposed in accordance with Subtitle D.
Federal	RCRA 42 United States Code 6901, Subtitle C	Controls storage, treatment, and disposal of hazardous waste.	5.11.5	Hazardous waste generated by the Project would be handled and disposed in conformance with Subtitle C.
State	CEQA	Requires state and local government agencies to inform decision makers and the public about the potential environmental impacts of the Project and to reduce environmental impacts to the extent feasible	Throughout this Opt-In Application	The Project would conform with CEQA, as required by the California Energy Commission's Opt-In Application process.
State	California Green Building Standards Code	Provides mandatory recycling requirements.	Impact WM-2; 5.11.4; 5.11.5	Project-generated solid waste would be recycled in accordance with CALGreen requirements for recycling percentages.
State	Assembly Bill 341	Requires commercial businesses that generate 4 cubic yards or greater of solid waste to recycle	Impact WM-2; 5.11.4; 5.11.5	The Project would recycle solid waste, in accordance with Assembly Bill 341
State	CCR Title 22, Division 4.5	Regulations regarding environmental health standards for the management of hazardous waste and universal waste	5.11.5	Hazardous waste generated by the Project would be managed in conformance with CCR Title 22, Division 4.5.
State	Hazardous Waste Control Act, Health and Safety Code, Division 20, Chapter 6.5, Article 2, Section 25100, et seq.	Authorizes the DTSC and local Certified Unified Program Agencies to regulate facilities that generate hazardous waste	5.11.5	Hazardous waste generated by the Project would be managed in conformance with the Hazardous Waste Control Act.
State	California Health and Safety Code Section 6.95, Article 1, Sections 25500 to 25519	The law mandating businesses to establish a HBMP when handling hazardous materials above the quantities of 55 gallons of liquid, 500 pounds of solids or 200 cubic feet of a compressed gas at any time.	5.11.5	The Project would conform with California Health and Safety Code Section 6.95, Article 1, Sections 25500 to 25519 by implementing a HBMP.
Local	Solano County Multi-Jurisdictional Hazard Mitigation Plan	Outlines mitigation actions for all hazards to reduce or eliminate losses, such the development of a Multi-hazard Community Outreach Plan	5.11.5	The Project would conform to policies described in the City of Vacaville 2023 Safety Element, which incorporates the Solano County Multi-Jurisdictional Hazard Mitigation Plan.

Jurisdiction	LORS	Applicability	Opt-In Application Reference	Project Conformity
Local	Solano County Public Health Services – Environmental Health Division, Local Enforcement Agency (LEA)	Responsible for managing the sanitary disposal of solid waste by issuing permits, performing inspections, ensuring compliance, and enforcing regulations.	5.11.5 and 5.11.6	The Project handle hazardous waste in conformance to the requirements of the Solano County Solid Waste LEA, which are applicable to the City of Vacaville.
Local	Solano County Code of Ordinances: Chapter 23.5	Requirements for solid waste management, disposal, transportation, and permits including but not limited to new construction solid waste removal.	5.11.5	Solid waste generated at, and transported from, the Project would be managed in accordance with the Solano County Code of Ordinances.
Local	Solano County Department of Resource Management Construction and Demolition Debris Recycling Requirements	Outlines recycling requirements for construction activities within Solano County.	5.11.5 and 5.11.7	The Project would follow the recycling requirements for construction activities enforced by the Solano County Department of Resource Management.
Local	City of Vacaville 2023 Safety Element; Policy SAF-P6.4 Policy SAF-P6.6	Outlines goals and policies for the safe movement of hazardous materials within Vacaville.	5.11.5	The Project would conform to policies described in the City of Vacaville 2023 Safety Element.
Local	City of Vacaville Public Facilities and Services Element Policy PUB-P9.7 Policy PUB-P9.9	Identifies goals and policies intended to reduce the volume of solid waste generated within Vacaville.	5.11.5	The Project would conform to policies described in the City of Vacaville Public Facilities Element and Services Element.
Local	City of Vacaville Municipal Code Chapter 8.08	Identifies the requirements for handling solid waste, recyclable materials, organic waste, and household hazardous wastes.	5.11.5	The Project would adhere to applicable regulations within Chapter 8.08 of the City's Municipal Code.

Sources: CalRecycle 2024g and 2024h; City of Vacaville; Solano County 2024, 2022; SWRCB 2024; USEPA 2024

Hazardous Waste

RCRA 42 United States Code 6901 Subtitle C establishes a "cradle to grave" system hazardous waste management by instituting controls for generation, transportation, treatment, storage, and disposal of hazardous waste. Above certain levels of hazardous waste generated, Subtitle C applies to all states and hazardous waste generators. RCRA also establishes regulations for the generation of energetic waste (explosives) in 40 CFR Part 266, Subpart M (USEPA 2024).

5.11.5.2 State LORS

California Environmental Quality Act

The California Environmental Quality Act (CEQA) requires state and local government agencies to inform decision makers and the public about the potential environmental impacts of the Project and to reduce environmental impacts to the extent feasible. Appendix G of the CEQA Guidelines includes criteria for evaluating potential impacts related to waste management.

California Green Building Standards Code

The California Green Building Standards Code, also known as CALGreen, includes mandatory recycling. Code Section 5.408 requires that 65 percent of the nonhazardous waste be recycled or salvaged for reuse. Code Section 5.408.3 (Excavated soil and land clearing debris) requires that 100 percent of trees, stumps, rocks, and associated vegetation and soils resulting from land clearing shall be reused or recycled.

Assembly Bill 341

Mandatory Commercial Recycling was one of the measures adopted in the AB 32 Scoping Plan by the California Air Resources Board (CARB) pursuant to the California Global Warming Solutions Act (Chapter 488, Statutes of 2006). This regulation requires that businesses that generate four or more cubic yards per week are required to implement recycling programs, including subscribing to a certified waste hauler that handles recyclable materials.

California Code of Regulations Title 22 Division 4.5

The DTSC is responsible for implementation of CCR Title 22 Social Security, Division 4.5 Environmental Health Standards for the Management of Hazardous Waste. The regulations are applicable to generators, transporters, and operation of hazardous waste transfer, treatment, storage, and disposal facilities.

Hazardous Waste Control Act

The Hazardous Waste Control Act grants authority to the DTSC and local Certified Unified Program Agencies to implement and enforce the provisions of the California Health and Safety Code, Division 20, Chapter 6.5, which includes those provisions included in CCR Title 22.

California Health and Safety Code Section 6.95

California Health and Safety Code Section 6.95, Article 1, Sections 25500 to 25519 establish the framework for the creation and implementation of HBMPs. Pursuant to California Health and Safety Code Section 6.95, a business must implement a HMBP when handling hazardous materials above the quantities of 55 gallons of liquid, 500 pounds of solids or 200 cubic feet of compressed gas at any time.

5.11.5.3 Local LORS

Solano Multi-Jurisdictional Hazard Mitigation Plan

Solano County's Multi-Jurisdictional Hazard Mitigation Plan (MJHMP) is designed to protect residents and property from natural disasters by guiding local officials in risk reduction efforts. The City of Vacaville incorporated the MJHMP into its 2023 Safety Element. The plan secures ongoing access to FEMA grants for hazard mitigation and offers resources for residents to address high-risk areas. It aligns with the Disaster Mitigation Act of 2000, promoting proactive pre-disaster planning and collaboration among local authorities. Covering all municipalities within the county, the MJHMP requires each to meet FEMA's planning standards. A committee of stakeholders developed the plan's goals, strategies, and implementation methods. The 2021 update is the first comprehensive, multi-jurisdictional effort, featuring a new risk assessment, updated goals, new mitigation actions, and a dedicated website for public engagement (Solano County 2022).

Solano County Public Health Services

The Solano County Public Health Services Environmental Health Division is the Local Enforcement Agency (LEA) in Solano County and is tasked with enforcing solid waste laws and regulations within the county and incorporated cities which have delegated LEA responsibilities to the Environmental Health Division, including the City of Vacaville. The LEA ensures compliance at solid waste facilities and manages enforcement actions, which can be reviewed by the Solid Waste Independent Hearing Panel. The LEA's role is crucial in maintaining adherence to state and local regulations to safeguard public health and the environment (Solano County 2024).

Solano County Department of Resource Management Construction and Demolition Debris Recycling Requirements

The County's Construction and Demolition Debris Recycling Requirements enforces the recycling requirements established by CALGreen. The requirements ensure construction contractors divert at least 65 percent of construction and demolition debris from landfills and repurpose or recycling 100 percent of trees, stumps, rocks and associated vegetation and soils disturbed during construction.

City of Vacaville 2023 Safety Element

The City of Vacaville's 2023 Safety Element, in part, to ensure the proper handling of hazardous materials. The City of Vacaville's 2023 Safety Element contains policies that are applicable to the Project, including, but not limited to (City of Vacaville 2023):

- **Policy SAF-P6.4:** Require adequate separation between areas where hazardous materials are present and sensitive uses such as schools, residences, and public facilities.
- **Policy SAF-P6.6:** Promote the safe transport of hazardous materials through Vacaville by implementing the following measures:
  - Maintain formally-designated hazardous material carrier routes to direct hazardous materials away from populated and other sensitive areas.
  - Prohibit vehicles transporting hazardous materials from parking on City streets.
  - Require that new pipelines and other channels carrying hazardous materials avoid residential areas and other immobile populations to the extent possible.

City of Vacaville Public Facilities and Services Element

The City of Vacaville's Public Facilities and Services Element provides policies aimed at reducing the volume of solid waste generated in Vacaville through recycling and resource conservation. Policies applicable to the Project include (City of Vacaville 2010):

- **Policy PUB-P9.7:** Encourage local businesses to expand their recycling efforts and to reduce packaging of products manufactured in the city.
- **Policy PUB-P9.9:** Require that construction sites provide for the salvage, reuse, or recycling of construction and demolition materials and debris.

City of Vacaville Municipal Code Chapter 8.08

Chapter 8.08 of the Vacaville Municipal Code Identifies the requirements for handling solid waste, recyclable materials, organic waste, and household hazardous waste. Chapter 8.08 requires businesses to participate in mandatory solid waste collection services, separate recyclables and organic waste from solid waste, and divert construction and demolition waste in accordance with CALGreen requirements.

5.11.6 Agencies and Agency Contact

The USEPA, DTSC, and local agencies regulate and oversee the management of waste. In general, regulations are administered by Solano County. A summary of Agency Contacts for waste management related to the Project are provided in Table 5.11-5.

Table 5.11-5 Agency Contacts for Waste Management

Issue	Agency	Contact
Solid waste management and recycling	Solano County Local Enforcement Agency, Department of Resource Management, Environmental Health Services Division	James Bezek Director 675 Texas St Suite 5500 Fairfield, California, 94533 (707) 784-6765 RMHelp@solanocounty.com
HBMP/hazardous and nonhazardous waste	Environmental Health Services Division, Hazardous Materials Section (Certified Unified Program Agency)	675 Texas St Suite 5500 Fairfield, California 94533 707-784-6765 HazMat@SolanoCounty.gov
Water impacts, discharges, stormwater	RWQCB/SWRCB	Bill Johnson, Environmental Program Manager 510-622-2354 Bill.Johnson@waterboards.ca.gov

Sources: Solano County 2024, SWRCB 2024

5.11.7 Permits and Permit Schedule

Permits would be obtained after Project approval for temporary storage and disposal of hazardous wastes. Permits pertaining to waste management during Project construction and operations phases are summarized in Table 5.11-6.

Table 5.11-6 Permits and Permit Schedule for Waste Management

Permit	Schedule	Status
Hazardous Materials Business Plan	After Project approval and prior to beginning construction. Updated/new HBMP submittal annually for operations phase	Completion upon Project approval

Sources: Solano County 2024

5.11.8 References

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