

17. Utilities and Service Systems and Energy

This chapter describes existing utility, service, and energy systems associated with the proposed project and evaluates the potential impacts to utilities and service systems from implementing Plan Concept 1 and Plan Concept 2 of the *Renewable Placer: Waste Action Plan* (Waste Action Plan). This chapter also discusses the consumption and generation of energy resources from project implementation.

17.1 Environmental Setting

17.1.1 Water Supply

The Placer County Water Agency (PCWA) supplies potable water and fire suppression water to the site. Water for washing and drinking is available in the administration building breakroom and in restrooms. The water system provides water to emergency eyewash and shower stations located throughout the site. Of PCWA's over 300,000 acre-feet in annual entitlements, PCWA delivers approximately 116,500 acre-feet per year within its Western Water System, which extends from the community of Alta to the south and west along the Interstate (I)-80 corridor, excluding the City of Roseville, and to the northern county line along State Route (SR) 65. PCWA also provides irrigation water through an extensive canal system and approximately 23,600 acre-feet per year of untreated water to neighboring water providers, including the City of Roseville, for treatment and resale (PCWA 2016).

The proposed project is located in PCWA's Zone 5 retail service area, specifically within the Sunset Industrial Area subarea of the zone (PCWA 2016). Water supply in the subarea is provided through a single 18-inch pipeline in Athens Avenue that connects to the main line at the intersection of Sunset Boulevard and SR 65, where a 10-million-gallon treated water tank is also located (Placer County 2015). PCWA pumps water to the subarea from the Middle Fork American River, where the agency has existing water entitlements, to the Auburn Ravine via the Auburn Tunnel before the water is distributed. The subarea had an annual demand of 1,505 acre-feet in 2015 (PCWA 2016).

Regarding water entitlements, through existing contracts and water rights, the Sunset Area may be supplied with surface water through one or multiple of the following (PCWA 2017):

- Pacific Gas & Electric (PG&E) Company Contract – 100,400 acre-feet per year (afy)
- Middle Fork Project Water Rights – 120,000 afy
- Central Valley Project Contract – 35,000 afy
- Pre-1914 Water Rights – 3,400 afy

PCWA's 2015 Urban Water Management Plan (UWMP) (PCWA 2016) documents a detailed analysis of existing and projected water supply and demand and the PCWA's ability to meet demand during single and multiple dry years. This UWMP was used as the basis for the Water Supply Assessment (WSA) for the Sunset Area (PCWA 2017). The WSA and Sunset Area Plan (SAP) conclude that PCWA has sufficient entitlements to supply customers at full buildout of the Sunset Area, assumed to be "sometime soon after the 2045 planning horizon," during single and multiple dry year conditions, despite reductions in diversions from PG&E, Central Valley Project, and Pre-1914 Water Rights under such conditions (PCWA 2016).

The annual water consumption onsite, by operation, according to the most recent data available from the Western Placer Waste Management Authority (WPWMA) is presented in Table 17-1.

Table 17-1. Existing Water Demand by Operation

Operation	2013 Water Usage	
	mgy	mgd
MRF and landscaping	16.5	0.05
Module 5 excavation	9.6	0.03
Composting	7.8	0.02
Landfill	3.1	0.01
Energy 2001	0.1	0.00
Total	37.1	0.10

Source: WPWMA 2021.

Notes:

- mgd = million gallons per day
- mgy = million gallons per year
- MRF = Materials Recovery Facility

An onsite production well located adjacent to the facility entrance provides nonpotable water for composting operations, landscape irrigation, and dust control. It is assumed that this well was used for landscaping and composting operations in 2013. This production well was decommissioned in June 2021. Nonpotable water from the compost leachate ponds can also be reused in the composting process.

17.1.2 Wastewater

Wastewater treatment and conveyance services in the project area are provided by the South Placer Wastewater Authority (SPWA) joint powers authority (JPA), which includes the City of Roseville, South Placer Municipal Utility District (SPMUD), and Placer County. The service boundary for SPWA is bounded at Fiddymment Road and Athens Avenue in the middle of the project site. The City of Roseville manages the service area within the city limits, while SPMUD's service area is predominantly limited to the cities of Rocklin and Loomis, and Placer County covers parts of the service area that are unincorporated, including the project site, which falls under County Service Area 28, Zone 2A3 (Placer County 2015; RMC 2009).

Wastewater from processing operations (wash down) is conveyed from an onsite lift station through a 4-inch force main located within Athens Avenue, through two additional lift stations on Thunder Valley Court and Industrial Avenue, a gravity main, and a sewer trunk line before and reaching the Pleasant Grove Wastewater Treatment Plant (WWTP) located in the City of Roseville, approximately 3 miles southwest of Fiddymment Road and Sunset Boulevard. The Pleasant Grove WWTP was designed to treat 12 mgd, though it has an effective treatment capacity of 9.5 mgd as a result of high organic loading in the system (RMC 2009). Construction on an expansion of the plant to reach the current design capacity of 12 mgd was scheduled to begin construction in 2020 (City of Roseville 2020). Additionally, conveyance infrastructure within the Sunset Area has been determined to be inadequate for the full buildout of the SAP, and recommended improvements in the project area include increasing the diameter of the existing force main in Athens Avenue from 4-inch to 24-inch and installing a new 30-inch force main down Fiddymment Road from Athens Avenue to a connection point within Placer Ranch (Placer County 2017).

From 2009 to 2019, the WRSL averaged an annual discharge of less than 0.01 mgd to the sewer system, while the MRF was billed for an average annual discharge rate of 0.003 mgd, though actual MRF discharges are not known (WPWMA 2021).

17.1.3 Reclaimed Water

Although PCWA provides potable water supply to the project site, it is not anticipated to have the capability to provide the project area with reclaimed water until 2025. The City of Roseville, which is an entity within the SPWA JPA that provides wastewater service to the site, treats water at its Pleasant Grove and Dry Creek WWTPs. However, although the project site discharges wastewater to Pleasant Grove, existing infrastructure does not allow the reclaimed water from the WWTP to be conveyed to the site.

The City of Lincoln may have capacity to provide reclaimed water to the project site through a “purple pipe” from the City’s wastewater treatment and reclamation facility (WWTRF) located on Fiddymont Road, approximately 1.5 miles north of the project site. The purple pipe is located within Fiddymont Road and currently provides reclaimed water to the irrigation pivots on the WPWMA’s western property. More than 2.5 mgd of wastewater from Placer County is treated at the Lincoln WWTRF and used as reclaimed water supply, and, according to projections by the City of Lincoln, this amount is expected to increase to 3.5 mgd by 2045 (City of Lincoln 2021). This increase in treated reclaimed water at the WWTRF could allow for additional, affordable uses for reclaimed water at the project site, including in the composting process and as landscape irrigation and dust control in lieu of other onsite nonpotable water supplies, with appropriate infrastructure.

17.1.4 Solid Waste

As discussed in Chapter 1, Introduction, and presented in Figure 1-1, the WPWMA owns, operates, and maintains the MRF building, organics management operation, construction and demolition (C&D) materials processing area, public waste drop-off area, household hazardous waste (HHW) facilities, and Western Regional Sanitary Landfill (WRSL) at the project site and provides solid waste recycling, recovery, and disposal services to the Placer County and the cities of Lincoln, Rocklin, Roseville, Auburn, and Colfax and the Town of Loomis. Residential and commercial solid waste collection is performed by Recology Auburn Placer in western Placer County except in the cities of Lincoln and Roseville, where the cities provide their own waste collection services. Waste and recyclable materials are currently received at the WPWMA site from two of the four waste collection franchise areas (Districts 1 and 4) in unincorporated Placer County, the cities of Roseville, Rocklin, Lincoln, Colfax, and Auburn, and the Town of Loomis.

The WRSL (31-AA-0210) is permitted through 2058 with a maximum permitted capacity of 36.35 million cubic yards (cy); as of June 2020, it has an estimated remaining capacity of approximately 23.2 million cy (CalRecycle 2021).

17.1.5 Electricity and Natural Gas

Electricity at the project site is provided by Pioneer Community Energy (a community-owned provider of electricity and formed as part of the Community Choice Aggregation program) and transmitted through the electrical grid owned by PG&E. PG&E operates a number of overhead and underground electrical distribution lines and high-voltage transmission lines near the project site, including double-circuit, 230-kilovolt lines, for which an easement is maintained on the WPWMA’s central and western properties (see Figure 1-3). The project site is serviced by a joint overhead electric and communications line (Placer County 2015). There is no natural gas service at the project site; the nearest PG&E natural gas line

terminates at the Thunder Valley Resort, approximately 1 mile from the WPWMA's eastern property boundary.

A landfill gas (LFG)-to-energy facility owned and operated by Energy 2001 Inc. under a lease agreement with the WPWMA is located on the northern side of the site. Energy 2001 generates power from the combustion of LFG, which is sold through the grid; none is used on site. The Energy 2001 facility currently uses up to 1,800 standard cubic feet per minute (scfm) of LFG; the facility also includes a small flare capable of handling up to an additional 450 scfm of LFG. In the future, the WPWMA may explore opportunities to use electricity generated from LFG to offset electricity demand at the facility.

17.1.6 Telecommunications

Telecommunications services near the project site are provided by privately owned service providers. An evaluation of existing telecommunications facilities was conducted on behalf of the Placer Ranch Specific Plan (PRSP) in 2017 and published in 2018 (Capitol Utility Specialist, Inc. 2018). The final report identified several existing telecommunications networks near the project site, including the following:

- AT&T is the primary telecommunications provider in the project area and has fiber conduit installed on poles with joint overhead power and communication lines along Fiddymont Road through the project site and along Athens Avenue (Placer County 2015). The AT&T Stanford/Rocklin central office is also located on Industrial Avenue, north of West Sunset Boulevard, approximately 1.5 mile southeast of the eastern property boundary, and the provider owns a controlled environmental vault (CEV) on Woodcreek Oaks Boulevard, approximately 1 mile southeast of the eastern property boundary (Capitol Utility Specialist, Inc. 2018).
- Comcast has existing fiber lines ending at Fiddymont Road south of the project site in the same location as AT&T, and at Woodcreek Oaks Boulevard near the AT&T CEV (Capitol Utility Specialist, Inc. 2018).
- Consolidated Communications operates its Placer Corporate CO on Placer Corporate Drive north of West Sunset Boulevard, approximately 1.7 miles southeast of the eastern property boundary, and owns fiber lines that are stubbed on West Sunset Boulevard and North Foothills Boulevard, both less than a mile southeast of the project site (Capitol Utility Specialist, Inc. 2018).
- Sprint owns and operates an existing fiber-optic communications line running directly through the project site along Fiddymont Road (Capitol Utility Specialist, Inc. 2018).
- Wave Broadband owns a fiber conduit that currently ends west at Sunset Boulevard and Cincinnati Avenue, approximately 1.4 miles southeast of the eastern property boundary (Capitol Utility Specialist, Inc. 2018).

17.1.7 Sitewide Energy Use

Sitewide operations that require energy use primarily include the MRF building, organics management operation, C&D materials processing area, public waste drop-off area, HHW facilities, and the WRSL. Additionally, energy is used at support facilities, such as the administration building, scale house, maintenance area, and for support systems, such as lighting, site security, and firefighting equipment. More information on each facility's day-to-day operations is described in Chapter 1 – Introduction.

The MRF building employs both stationary and off-road equipment to receive and sort MSW. Stationary equipment at the MRF includes pit conveyors, rotating trommels, screens, and baler units, operated to process MSW from the receiving floor into material for additional processing, sale, or disposal. Exhaust fans are operated for ventilation. Stationary equipment is generally powered by electricity. Off-road

equipment includes front-end loaders, forklifts, sweepers, and roll-off trucks, using primarily diesel or gasoline fuels. Additionally, there is fuel use associated with daily on-road traffic entering and exiting the MRF to unload and pick up materials.

The organics management operation employs both stationary and off-road equipment to receive and process organics. Stationary equipment includes trommels, screens, and conveyors and is powered by either electricity or diesel. Off-road equipment includes grinders, front-end loaders, straddle turners, water trucks, and other transport trucks, using primarily diesel and gasoline fuels. Additionally, there is fuel use associated with daily on-road traffic unloading organic material or picking up material for sale.

The C&D materials processing area employs both stationary and off-road equipment to receive and process C&D material. Stationary equipment includes the process line, conveyors, grinders and screens that are generally powered by electricity. Off-road equipment includes loaders, forklifts, an excavator, a portable wood grinder, and transport trucks that primarily use diesel and gasoline fuels. Additionally, there is fuel use associated with daily on-road traffic unloading C&D material or picking up material for additional processing or sale.

The public waste drop-off area employs a few pieces of primarily diesel- and gasoline-powered off-road equipment and trucks to transport materials dropped off by the public for processing at other parts of the site. The primary energy use at the public waste drop-off area is attributed to public vehicles traveling to the site to unload material at the Z-wall.

The HHW facilities include the HHW receiving area (co-located with the buy-back center and one of several components of the existing public waste drop-off area) and at the HHW building. At both locations, primary energy use is attributed to public vehicles traveling to the site to unload HHW. Forklifts are used to transport materials between the two HHW facilities.

The WRS� disposal operations are conducted up to 7 days a week and employ several types of off-road equipment to manage incoming wastes, including excavators, dozers, compactors, graders, water trucks, and dump trucks. Gasoline-powered generators are also used at the landfill working face to power movable lighting seasonally or as necessary. During construction and final closure of landfill modules, there are additional pieces of off-road equipment similar to those used during daily fill operations. Additionally, there is fuel use associated with daily on-road traffic delivering material to the landfill working face.

Thus, energy use at the site primarily includes the following:

- Electricity for buildings, scale house, and stationary equipment attributed to site operations
- Diesel and gasoline fuels for stationary and off-road equipment attributed to site operations
- Diesel and gasoline fuels for vehicles delivering materials to, or hauling recyclable materials from, the facility

Sitewide energy use at the WPWMA's facility was quantified by using a combination of 2018 site electricity, diesel, and gasoline usage data, as well as off-road equipment lists and scale house data for onsite vehicles with assumed fuel economy estimates. The WPWMA provided site-specific data for electrical, diesel, and gasoline usage for the facility and onsite equipment in 2018. Additionally, the WPWMA provided 2018 scale house data for vehicles entering the facility. Estimated regional travel distances and assumed fuel economy rates were used in conjunction with scale house vehicle data to estimate 2018 diesel and gasoline fuel consumption associated with transportation. Sitewide energy use is detailed in Table 17-2.

Table 17-2. Sitewide Energy Use in 2018

Source	Energy Consumption	Units
Facility		
Electricity Use	3,531,870	kWh/year
Onsite Equipment (Diesel)	232,986	gallons/year
Onsite Equipment (Gasoline)	10,393	gallons/year
Onsite Equipment (Propane)	20,753	gallons/year
Transportation		
Diesel		
Public Vehicles (Diesel)	2,289	gallons/year
Commercial Vehicles (Diesel)	32,560	gallons/year
Internal Operations (Diesel)	645	gallons/year
Outbound Recyclables (Diesel)	2,141	gallons/year
Sitewide Employees (Diesel)	0 ^a	gallons/year
Gasoline		
Public Vehicles (Gasoline)	107,282	gallons/year
Commercial Vehicles (Gasoline)	19,932	gallons/year
Internal Operations (Gasoline)	0 ^b	gallons/year
Outbound Recyclables (Gasoline)	25	gallons/year
Sitewide Employees (Gasoline)	56,521	gallons/year

Source: WPWMA 2020a.

^a Assumes site employee personal vehicles use gasoline.

^b Assumes internal site operations vehicles use diesel.

Note:

kWh = kilowatt hour(s)

17.2 Regulatory Setting

17.2.1 Federal

Resource Conservation and Recovery Act

The Resource Conservation and Recovery Act (RCRA) was enacted in 1976, codified under Title 42 of the *United States Code* Section (§) 6901 *et seq.* RCRA is overseen by the United States Environmental Protection Agency (EPA) and serves as the primary regulation governing disposal of solid and hazardous waste in the United States. Subtitle D of the RCRA regulates nonhazardous solid waste and establishes the minimum federal criteria for the design and operation of municipal and industrial waste landfills

(EPA 2020). In accordance with RCRA Subtitle D, Title 40 of the *Code of Federal Regulations*, Part 258 establishes criteria for MSW landfills, including criteria for location, operation, design, groundwater monitoring, and closure of landfills, and Part 239 establishes requirements for state permitting programs to uphold the federal criteria.

17.2.2 State

Senate Bill 610

Senate Bill (SB) 610, enacted in 2001, requires urban water suppliers to identify existing and expected future sources of water available to the supplier and disclose those sources in their UWMP. It further requires that additional information be included in the UWMP if groundwater is identified as a source of water to be used. According to the Bill, failure to submit a UWMP disqualifies the supplier from receiving drought and other bond assistance programs from the state until the plan is submitted. Further, the legislation requires projects that are both subject to California Environmental Quality Act (CEQA) and considered a “water demand project,” as defined under CEQA Guideline Section 15155, to identify all applicable water supply systems that may provide water for the project and conduct a WSA to evaluate existing water rights, entitlements, and contracts compared with projected water demands.

Title 22

California Code of Regulations (CCR) Title 22 Division 4.3 establishes criteria level of treatment, monitoring and reporting, and acceptable uses for reclaimed water. These guidelines are overseen and enforced by the Division of Drinking Water.

Title 22 Division 4.5 establishes standards for universal waste, which are enforced by the California Department of Toxic Substances Control. Universal wastes are defined in § 66261 to include batteries, fluorescent lights, electronics, some appliance components, mercury thermostats and other mercury-containing equipment, and aerosol cans that have not been emptied. These universal wastes must be handled, transported, manufactured, and recycled in compliance with the standards established in Chapters 12 through 17 of the code.

Title 24

CCR Title 24, Part 11 (*California Green Building Standards Code*, or CALGreen) establishes green building measures for newly constructed buildings and additions and alterations to existing buildings. The purpose of the code is to improve health, safety, and general welfare by enhancing the design and construction of buildings to incur a reduced negative impact or positive environmental impact and to encourage sustainable construction practices in the following areas: planning and design, energy efficiency, water efficiency and conservation, material conservation and resource efficiency, and environmental quality.

17.2.3 Local

The WPWMA is a JPA composed of Placer County and the cities of Lincoln, Rocklin, and Roseville to own and operate a regional recycling facility and sanitary landfill. As a JPA, the WPWMA considers local regulations and consults with local agencies, but the County and city regulations are not applicable, as the County and cities do not have jurisdiction over the proposed project. Accordingly, the following discussion of local goals and policies associated with utilities and energy resources is provided for informational purposes only.

Placer County General Plan

The Placer County General Plan provides countywide goals that serve as the basis for evaluating proposed projects and actions within the County. The 2013 General Plan update includes policies and implementation measures that support those goals. Some of the relevant goals and policies that reflect Placer County's approach to managing public services and utilities are summarized in the following sections (Placer County 2013). Although the WPWMA is an independent government agency that is not required to comply with the County's policies, the WPWMA intends to implement a proposed project that is generally consistent with these policies.

Water Supply and Delivery.

Goal 4.C: To ensure the availability of an adequate and safe water supply and the maintenance of high-quality water in water bodies and aquifers used as sources of domestic supply.

- Policy 4.C.6: The County shall promote efficient water use and reduced water demand by:
 - a) Requiring water-conserving design and equipment in new construction
 - b) Encouraging water-conserving landscaping and other conservation measures
 - c) Encouraging retrofitting existing development with water-conserving devices
 - d) Encouraging water-conserving agricultural irrigation practices

Policy 4.C.7: The County shall promote the use of reclaimed wastewater to offset the demand for new water supplies.

Landfills, Transfer Stations, and Solid Waste Recycling.

Goal 4.G: To ensure the safe and efficient disposal or recycling of solid waste generated in Placer County.

- Policy 4.G.1: The County shall require all new urban/suburban development, excluding rural development, to include provisions for solid waste collection.
- Policy 4.G.2. The County shall promote maximum use of solid waste source reduction, recycling, composting, and environmentally-safe transformation of wastes.
- Policy 4.G.3. The County shall require discretionary permit approval for all new waste disposal facilities.
- Policy 4.G.4. The County shall ensure that solid waste disposal facilities do not contaminate surface or groundwater in violation of state standards.
- Policy 4.G.5. The County shall promote the siting of new solid waste collection and transfer facilities in locations as close as practical to the areas they serve.
- Policy 4.G.6. The County shall ensure that landfills and transfer stations are buffered from incompatible development.
- Policy 4.G.7. The County shall require that all new development complies with applicable provisions of the Placer County Integrated Waste Management Plan.
- Policy 4.G.8. The County shall encourage the development of regional and community-based recycling facilities in heavy commercial and industrial areas.
- Policy 4.G.9. The County shall encourage businesses to use recycled products in their manufacturing processes and consumers to buy recycled products.

- Policy 4.G.10. The County shall encourage the establishment and implementation of a recycling market development zone in Placer County.
- Policy 4.G.11. When considering land use changes in the vicinity of a landfill operation, the County shall consider the landfill as the dominant land use in the area. In order to protect these facilities from incompatible encroachment, new residential land uses shall be separated from the property lines of active and future landfill sites by a buffer of one mile. Such buffers do not apply to closed landfills or solid waste transfer stations. Other uses will be required to provide buffers as described in Table 1-5 (of the 2013 General Plan). The intent of this policy is to prohibit the creation of new parcels for residential use within one mile of the landfill; not to prohibit construction of a residence on an existing legal building site within this area.
- Policy 4.G.12. The County shall ensure that solid waste collection service is available to all residential, commercial, and industrial areas within the current boundaries of Franchise Areas.

Sunset Area Plan

In addition to the Placer County General Plan, the project area is located within a part of Placer County where development is guided by the goals and policies established in a specific plan (the SAP) (Placer County 2019a). As stated previously in relation to Placer County General Plan policies, the WPWMA is an independent government agency that is not required to comply with SAP policies established by the County. However, the WPWMA intends to implement a proposed project that is generally consistent with these policies. The following SAP policies and implementation programs are described because of their relevance to public services and utilities:

Wastewater Collection, Treatment, and Disposal.

Goal PFS-4: To ensure adequate wastewater collection and treatment and the safe disposal of liquid waste.

- Policy PFS-4.3: Pretreatment of Commercial and Industrial Wastes. The County shall require to the extent possible pretreatment of commercial and industrial wastes prior to their entering community collection and treatment systems.
- Policy PFS-4.4: Recycled Water Irrigation Uses. The County shall require the use of recycled water, wherever feasible, for irrigation, including commercial, and industrial landscaping, landscaping within public rights-of-way (e.g., medians), parks, open space, and agricultural lands.

Solid Waste Disposal and Recycling.

Goal PFS-6: To ensure the safe and efficient disposal or recycling of solid waste generated in the Sunset Area.

- Policy PFS-6.1: Maximize Waste Reduction. The County shall promote maximum use of solid waste source reduction, recycling, composting, and environmentally-safe transformation of wastes.
- Policy PFS-6.2: Solid Waste Facility Buffers. The County shall support efforts of the Western Placer Waste Management Authority to ensure that landfills and other solid waste facilities (e.g., material recovery, composting) are buffered from incompatible development.
- Policy PFS-6.3: Solid Waste Facility Compliance. The County shall require that all new solid waste facilities and operations comply with applicable provisions of the Placer County Integrated Waste Management Plan.
- Policy PFS-6.4: Encourage Use of Recycled Products. The County shall encourage businesses to use recycled products in their manufacturing processes and consumers to buy recycled products.

- Policy PFS-6.5: Recycling Market Development Zone. The County should promote the recycling market development zone (RMDZ) in the Sunset Area in the area around the Western Placer Waste Management Authority's Material Recovery Facility.
- Policy PFS-6.6: Placer County Franchise Area 1. The County shall require new developments in the Sunset Area to participate in County Franchise Area 1 for collection and disposal of solid waste.

Telecommunications.

Goal PFS-9: To promote state-of-the-art telecommunication services to support economic development and to meet the needs of employers and residents of the Sunset Area.

- Policy PFS-9.3: Telecommunications Technology in New Development. The County shall require the installation of state-of-the-art internal telecommunication technologies in new large-scaled residential, office, and commercial developments.

Placer County Sustainability Plan

Energy.

- Strategy E-12: Support increases in renewable energy generation and storage systems for existing nonresidential structures.
- Strategy E-17: Promote onsite renewable energy generation and energy storage for new small- and medium-sized nonresidential structures.

Placer County Code

Placer County Code Chapter 8, Article 8.16 addresses solid waste collection and disposal. The code is enforced by Placer County Environmental Health Services, which is certified by CalRecycle to serve as the Local Enforcement Agency (LEA). LEAs are responsible for confirming that solid waste facilities are operated and closed in accordance with all applicable regulations. These responsibilities may include inspections, permitting, and other forms of enforcement (CalRecycle 2020).

Sections within the article that may be applicable to the proposed project include the following:

8.16.050 Solid waste management practices, general provisions

- A. All solid wastes shall be stored, collected, utilized, treated, processed and disposed of in such a manner that a health hazard, public nuisance or impairment of the environment shall be kept within state and local standards. All solid wastes shall be disposed of at approved disposal sites.
- B. All solid wastes shall be handled in such a manner so as not to be conducive to the breeding, sheltering or harboring of insects and rodents or to the support of any disease vector.
- C. All solid waste systems shall be operated in such a manner so as not to substantially contribute to pollution or degradation of the atmosphere or surrounding lands or constitute a fire hazard.
- D. Extremely hazardous wastes shall not be disposed of in any area without proper licensing.
- E. Liquid wastes, sludges, and nonsewerable wastes shall not be accepted or disposed at a land disposal site without written approval of the department.

- F. Solid wastes other than inert materials used for flood and erosion control shall not be placed on or within the one hundred (100) year floodplain of any watercourse.
- G. No system for solid waste handling, processing, storage, recovery, salvage, or disposal shall be placed in operation until proper licenses and/or permits are obtained.
- H. All solid waste management systems or operations involved in storage, processing, recovery, salvage, or disposal are required to be properly licensed.
- I. All solid waste management systems or operations involved in collection, storage, hauling, processing, recovery, salvage, or disposal shall place an approved operational plan on file with the Placer County health and human services and facility services departments.
- J. No infectious, chemical or hazardous waste will be accepted in any landfill in Placer County without the written approval of the director.
- K. It is unlawful, in Placer County, for any person, public or private, to place, deposit or dump or cause to be placed, deposited, or dumped, or allow to accumulate, any solid or liquid waste in, or upon, any public or private highway, street, alley or road, waterway, lake, stream, or any lot or parcel of land, whether public or private other than in approved disposal sites.

8.16.260 Disposal

Disposal must not create a hazard to public health. Each disposal site will be so situated to have sufficient facilities and be operated in a manner so as not to create a hazard or nuisance to the public's health, safety, or welfare. (Prior code § 9.28)

17.3 Impact Analysis and Mitigation Measures

17.3.1 Thresholds of Significance

The thresholds of significance for assessing impacts come from the CEQA Environmental Checklist. For utilities and service systems, the CEQA Checklist asks if the project would do the following:

- Require or result in the relocation or construction of new or expanded water, wastewater treatment, or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or location of which could cause significant environmental effects?
- Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry, and multiple dry years?
- Result in a determination by the wastewater treatment provider that serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?
- 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?
- Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?

For energy, the CEQA Checklist asks if the project would:

- Result in potentially significant environmental impact caused by wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?
- Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?

17.3.2 Methodology

The methodology to assess energy consumption associated with the proposed project focuses on the primary energy sources of electricity, diesel, and gasoline usage. Changes in energy types are expected to be representative for the analysis of proposed project impacts. Further, the changes in energy have been evaluated with respect to energy use from the perspectives of facility, transportation, and construction uses.

Facility Energy

The proposed project generally includes the same type of Waste Recovery and Waste Disposal operations as the current operation. The changes from the 2018 baseline are described in the Project Description but generally include expanded operations, a different composting method, and complementary and programmatic elements (pilot study area, compatible manufacturing, university research area, LFG-to-compressed natural gas, hydrogen, or other renewable fuels area). The organics management operation (currently composting) will be changing from a primarily windrow composting operation to include aerated static pile (ASP) composting with the potential for other organics management processing types in the future.

Electricity use for the solid waste elements of the proposed project was estimated by increasing 2018 electricity use in a manner consistent with the assumed 2 percent annual population and tonnage increase, as well as incorporating an estimate of projected electrical demand of a possible organic management operation in 2050. It is anticipated that increasing the 2018 electricity use in a manner consistent with annual population and tonnage increase is a reasonable estimate, given that electrical demand is not likely to uniformly increase in each solid waste project element. For example, some solid waste project elements may require a higher electrical demand associated with expanded hours of operations, whereas other elements may require less of an increased demand as hours of operation may not change.

The Project Description includes expanded operation of up to 24 hours at the MRF building, which can be accounted for in the 2 percent growth in energy demand, whereas electrical demand is not expected to increase at the same rate at the C&D area or public waste drop-off area. Bringing additional material to the MRF building may result in the potential for up to 24 hours of operations; however, throughput and capacity would not lead to the same increase in some other solid waste project elements. With respect to the electrical demand for the 2050 organic management operation, the energy estimate includes changes associated with the implementation of ASP composting. It is estimated that there may be notable changes in equipment. In particular, ASP composting may include the installation of electric blowers and other electric processing equipment, introducing a new electrical demand in the proposed project not present during 2018 baseline conditions; however, it will also result in a reduction in the use of diesel or gasoline fuels as a consequence of reducing or eliminating the need to turn material with a compost turner or other piece of heavy equipment.

In addition to the solid waste project elements (the Waste Recovery and Waste Disposal project elements) of the proposed project, a separate project-level analysis was performed for 300,000 square feet of

complementary elements (as described in Chapter 4 – Approach). The project-level analysis for 300,000 square feet of complementary elements used CalEEMod software and default assumptions to estimate electricity use for 300,000 square feet of manufacturing land use. Quantitative analysis for the full buildout of programmatic elements (approximately 1.9 million square feet) is not included in this project-level analysis.

Onsite equipment fuel use at each of the major proposed project elements was estimated by multiplying 2018 equipment quantities by a calculated tonnage factor increase tied to the estimated tons a specific facility would process, not to exceed a factor increase of 2.0. For example, the 2050 throughput of the organic management operation (157,900 tons) compared with 2018 throughput (60,606 tons) results in a calculated tonnage factor increase of 2.6 from 2018 conditions. For facilities with tonnage factor increases of 2.0 or less, 2018 equipment quantities were multiplied by the specific facility's tonnage factor increase to estimate 2050 diesel and gasoline equipment quantities (for example, one dozer in 2018 multiplied by a tonnage factor increase of 2.0 results in two dozers estimated for operations in 2050). For facilities with tonnage factor increases greater than 2.0 (such as the organics management operation and C&D area), the tonnage factor increase was capped at 2.0 because it is unlikely that equipment quantities would more than double as a result of operational and logistical space constraints, as well as opportunities to replace existing equipment with equipment of greater operational capacity. The tonnage factor increases in range from 1.55 to 2.0, depending on the facility. An average fuel consumption rate based on specific site or industry data (industry data were used when specific site data were not available) was applied to the estimated 2050 equipment quantities to estimate onsite equipment fuel consumption.

Transportation Energy

Transportation energy estimates for the solid waste project elements of the proposed project include fuel consumption from customers, including public and commercial vehicles, internal operations, vehicles transporting recyclables offsite, and employees. Transportation energy consumption was estimated by scaling up 2018 scale house and employee vehicle data in a manner consistent with the assumed 2 percent annual population and tonnage increase, assuming average onsite miles traveled based on Plan Concept 1 and 2 site layouts and average offsite miles traveled based on CalEEMod assumptions, and applying vehicle fuel economy factors from the U.S. Department of Energy, Office of Energy Efficiency and Renewable Energy (2021).

A separate project-level analysis was performed for 300,000 square feet of complementary elements (as described in Chapter 4 – Approach). The project-level analysis for 300,000 square feet of complementary area used CalEEMod software and default assumptions to estimate vehicle quantities for 300,000 square feet of manufacturing land use. Transportation energy consumption for 300,000 square feet of complementary elements was then calculated by using average onsite and offsite miles traveled, which were based on Plan Concept 1 and 2 site layouts and CalEEMod assumptions, and applying vehicle fuel economy factors from the U.S. Department of Energy, Office of Energy Efficiency and Renewable Energy (2021).

Construction Energy

Construction of the proposed project is anticipated to occur over multiple years throughout the project period, correlating with the priority and necessity of each project element. Proposed project construction is likely to be prioritized and planned based on several factors, including immediate needs for increased processing capacity, impacts to existing operations, availability of funding or financing, and staffing constraints. Because it is not known when each project element will be constructed, a maximum construction year was estimated to portray the highest reasonable amount of construction that may occur

within a given year. Construction is not expected to be constant throughout the project period, and there may be temporary increases in energy consumption while proposed project elements are being constructed. CalEEMod assumptions were used as a reference for construction-phase equipment-hours, construction worker commutes, and vendor and haul-truck routes. Vehicle fuel economy factors were derived from the U.S. Department of Energy, Office of Energy Efficiency and Renewable Energy (2021).

17.3.3 Impact Analysis

Elements of the proposed project that may result in an increased demand for utilities, service systems, and energy include continued and expanded operation of the various solid waste management activities at the WPWMA facility, commensurate with the projected population growth within the WPWMA's service area, plus supporting elements. In addition to solid waste management activities, complementary and programmatic elements may be developed on the WPWMA's properties. Complementary and programmatic elements may include the development of compatible technologies, pilot study areas, university research areas, and an LFG-to-compressed natural gas, hydrogen, or other renewable fuels area. The potential for these activities to result in increased demand for utilities, service systems, and energy and the corresponding environmental impact is described for the various sections that follow.

IMPACT 17-1	Require the construction or relocation of utility facilities. Project implementation would require a new fire protection water line and wastewater line extending to the western property. However, these new lines would be located within existing roadways and previously disturbed onsite areas that would be repaved or otherwise buried and returned to existing conditions after installation. No relocation of infrastructure for telecommunications or electricity would be required. Project implementation would also require the relocation of composting and public waste drop-off operations; however, the facilities would be relocated within the WPWMA property boundary. As such, overall, implementation of the proposed project would result in a less-than-significant impact.
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Plan Concept 1

Water Supply.

Solid waste management activities at the WPWMA facility would continue and expand under Plan Concept 1, resulting in the ongoing need for potable and nonpotable water and associated infrastructure. As noted in Section 17.2.1, existing infrastructure is in place to provide potable water to the project site; however, the existing water supply line does not extend to the western property. Plan Concept 1 includes the extension of a new fire protection water supply line to the western property to supply new fire hydrants. The new water supply line would extend approximately 1 mile south along Fiddymment Road from the roadway's intersection with Athens Avenue to the intersection with Sunset Boulevard. A new wastewater conveyance line, as described in more detail as follows, would also be installed within Fiddymment Road, parallel to the new water supply line.

The installation of the new pipeline would require a trench to be excavated within Fiddymment Road. This excavation may require the closure of one lane during the construction period, which would result in minor vehicle delays. The excavation would expose soils to erosion during the construction period, though the trench would be refilled following pipeline installation, and construction would be limited to a single construction season. Further, best management practices (BMPs) intended to address the potential for violating water quality standards or waste discharge requirements, or otherwise substantially degrading surface or ground water quality similar to the BMPs identified in Chapter 12, Hydrology and Water Quality,

would be implemented for excavation activities associated with expanding existing water infrastructure. Therefore, expansion of the existing water supply infrastructure as a result of the solid waste management activities associated with implementation of Plan Concept 1 would result in a less-than-significant impact.

In addition to solid waste management activities, complementary and programmatic elements may be developed on the WPWMA's properties. Under the project level, for Plan Concept 1, up to 300,000 square feet of building plus exterior infrastructure are reserved in the northern part of the western property for the complementary solid waste management elements. Under the programmatic level, for Plan Concept 1, up to 1.6 million square feet have been reserved for these elements primarily within the northern and southern extents of the western property, and on the center property. However, opportunities may arise that would support locating some of these complementary and programmatic elements nearer to the solid waste project elements or within areas not yet developed with solid waste project elements.

The potable water demand associated with the complementary and programmatic elements is expected to increase as a result of the proposed project when compared with current demand. According to Appendix B to the SAP, *Water, Wastewater, and Recycled Water Technical Report* (Placer County 2017a), potable water demand within the Eco-Industrial land use designation, wherein the project would be located and would constitute the entirety of, is expected to increase to approximately 80.3 mgd at full buildout of the SAP. However, Appendix B assumes over 7.9 million square feet of building space Eco-Industrial land use designation. To estimate increases that may result from the proposed project, the 0.124 mgd difference between current demand (0.1 mgd as discussed in Section 17.1.1) and projected demand at full buildout (0.224 mgd as presented in Appendix B to the SAP, *Water, Wastewater, and Recycled Water Technical Report* [Placer County 2017a]) was divided across the 7.9 million square feet assumed in Appendix B (Placer County 2017a). Using this increase per square foot, the project-level complementary elements would be expected to increase potable water demand to 0.02 mgd, and the programmatic elements would increase demand to 0.12 mgd. While these would be increases compared with existing conditions, as described in Impact 7-2, there are sufficient water supplies to provide for this demand, and the Foothill and Sunset water treatment plants have capacity to treat 2.5 mgd of additional water to support buildout of the SAP and PRSP (Placer County 2018). Therefore, additional supplies and treatment capacity would not be required for the complementary and programmatic elements, resulting in a less-than-significant impact.

Wastewater.

As described in this chapter and in Section 3.5.5, relocation of the composting and public waste drop-off operations to the western property, as proposed under Plan Concept 1, would require installation of a new wastewater line extending from Athens Avenue to Sunset Boulevard within Fiddymont Road. This new pipeline was documented in the SAP Environmental Impact Report (EIR) and Appendix B to the SAP (Placer County 2017; 2019a). Because of the additional development proposed in the area, to minimize the need for future expansions, this pipeline has been proposed to be a 30-inch forcemain. Additionally, the SAP EIR also proposed to upgrade the existing 6-inch forcemain in Athens Avenue immediately north of the project site to a 24-inch forcemain.

As described previously, the new wastewater pipeline would be installed parallel to the required fire protection water line. The installation of the new pipeline would require a trench to be excavated within Fiddymont Road. This excavation would likely require the closure of one lane during the construction period, which would result in minor vehicle delays. The excavation would also expose soils to erosion during the construction period, though the trench would be refilled following pipeline installation, and construction would be limited to a single construction season. Further, BMPs intended to address the potential for violating water quality standards or waste discharge requirements, or otherwise substantially degrading surface or ground water quality similar to the BMPs identified in Chapter 12, Hydrology and

Water Quality, would be implemented for excavation activities associated with expanding existing water infrastructure. Therefore, expansion of the existing wastewater infrastructure as a result of the solid waste management activities associated with implementation of Plan Concept 1 would result in a less-than-significant impact.

In addition to solid waste management activities, complementary and programmatic elements may be developed on the WPWMA's properties. Under the project level, for Plan Concept 1, up to 300,000 square feet of building plus exterior infrastructure are reserved in the northern portion of the western property for the complementary solid waste management elements. Under the programmatic level, for Plan Concept 1, up to 1.6 million square feet have been reserved for these elements primarily within the northern and southern extents of the western property, and on the center property. However, opportunities may arise that would support locating some of these complementary and programmatic elements nearer to the solid waste project elements or within areas not yet developed with solid waste project elements.

The wastewater generated by the complementary and programmatic elements is expected to increase as a result of the proposed project when compared with current generation. According to Appendix B to the *SAP, Water, Wastewater, and Recycled Water Technical Report* (Placer County 2017a), wastewater disposal needs within the Eco-Industrial land use designation, wherein the project would be located and would constitute the entirety of, is expected to increase to approximately 0.21 mgd average dry weather flow at full buildout of the SAP. However, Appendix B assumes over 7.9 million square feet of building space within the Eco-Industrial land use designation. To estimate increases that may result from the proposed project, wastewater generation for the Eco-Industrial designation assumed in Appendix B to the *SAP, Water, Wastewater, and Recycled Water Technical Report* [Placer County 2017a]), not including the 200 equivalent dwelling units for the landfill, was divided across the 7.9 million square feet to estimate an average wastewater generation per square foot. Using this increase per square foot, the wastewater generated onsite would be expected to increase by approximately 0.008 mgd and 0.04 mgd for project-level complementary elements and programmatic elements, respectively.

Increases in wastewater generated as a result of the increase in permitted and processing capacities of the landfill and MRF were calculated by using the 2009–2019 average annual generation divided by existing capacity to determine a generation rate per cubic yard or ton for the landfill and MRF, respectively. In total, when combining expanded operations with the project-level and programmatic building space, the proposed project would be expected to result in a total generation of nearly 0.08 mgd. While these would be increases compared with existing conditions, as described in Impact 17-3, there is sufficient treatment capacity to accommodate this increase at Pleasant Grove WWTP, and new treatment infrastructure would not be required (Placer County 2018). However, the increase in wastewater generated is expected to require an increase in conveyance capacity to the Pleasant Grove WWTP to overcome existing capacity constraints within the forcemain. As such, as discussed in the SAP EIR, it is proposed that the existing 6-inch forcemain in Athens Avenue also be upgraded to a 24-inch line. Although this would be a new utility facility, this line would be along the same alignment as the existing line, which is located within a roadway that is disturbed under existing conditions and would be restored to existing conditions following construction. Therefore, this would also be considered a less-than-significant impact.

Reclaimed Water.

As discussed under Section 17.1.3, there is an existing recycled water line, or purple pipe, from the City of Lincoln's WWTP that currently conveys recycled water from the WWTP to the agricultural operations on the WPWMA's western property. This line does not currently provide recycled water to the central property or any onsite solid waste management facilities. However, under the proposed project, it is anticipated that reclaimed water may be periodically used in the composting process and as landscape irrigation and dust

control in lieu of other onsite nonpotable water supplies, as needed and permitted. This is expected to require the installation of a new connection to the existing purple pipe, as well as an elevated secondary tank on the central property near the existing southern compost pond. The excavation for the trench would likely require the closure of one lane during the construction period, which would result in minor vehicle delays. The excavation for the trench and any grading required for the elevated tank would also expose soils to erosion during the construction period, though the trench would be refilled following pipeline installation, and construction for both facilities would be limited to a single construction season. Further, BMPs intended to address the potential for violating water quality standards or waste discharge requirements, or otherwise substantially degrading surface or ground water quality similar to the BMPs identified in Chapter 12, Hydrology and Water Quality, would be implemented for excavation activities associated with expanding existing water infrastructure. Therefore, expansion of the existing reclaimed water infrastructure as a result of the solid waste management activities associated with implementation of Plan Concept 1 would result in a less-than-significant impact.

In addition to solid waste management activities, complementary and programmatic elements may be developed on the WPWMA's properties. Under the project level, for Plan Concept 1, up to 300,000 square feet of building plus exterior infrastructure are reserved in the northern portion of the western property for the complementary solid waste management elements. Under the programmatic level, for Plan Concept 1, up to 1.9 million square feet have been reserved for these elements primarily within the northern and southern extents of the western property, and on the center property. However, opportunities may arise that would support locating some of these complementary and programmatic elements nearer to the solid waste project elements or within areas not yet developed with solid waste project elements.

The recycled water demand associated with the complementary and programmatic elements is expected to increase as a result of the proposed project when compared with current demand. According to Appendix B to the SAP, *Water, Wastewater, and Recycled Water Technical Report* (Placer County 2017a), reclaimed water demand within the Eco-Industrial land use designation, wherein the project would be located and would constitute the entirety of, is expected to increase to approximately 0.088 mgd at full buildout of the SAP. However, Appendix B assumes over 7.9 million square feet of building space Eco-Industrial land use designation. The current daily volume of reclaimed water applied to the western property is not known. Therefore, conservatively, to estimate increases that may result from the proposed project, the entire 0.088 mgd was divided across the 7.9 million square feet assumed in Appendix B (Placer County 2017a). Using this increase per square foot, the project-level complementary elements would be expected to increase reclaimed water demand by less than 0.003 mgd, while the programmatic elements would increase demand by approximately 0.02 mgd. While these would be increases compared with existing conditions, the expected supply of reclaimed water from the City of Lincoln's WWTP is expected to exceed demand through 2045 (City of Lincoln 2016), so only the new infrastructure also required for solid waste management operations would be required to convey the reclaimed water to its point of use. Therefore, additional supplies and treatment capacity would not be required for the complementary and programmatic elements, resulting in a less-than-significant impact.

Electricity and Natural Gas.

The proposed project will increase the demand for electricity and possibly establish a need for natural gas; there are existing and planned facilities nearby, such as the Athens substation and Placer Ranch substation. Natural gas needs, if any, are expected to be met with existing infrastructure. Wiring and tie-ins to existing and future lines may be warranted; however, because the project location has access to electricity, ground disturbance is not expected to be significant. Additionally, the SAP EIR concludes that there is sufficient capacity in existing and future infrastructure to meet the demands of the SAP (Placer County 2019b). As such, impacts associated with implementation of Plan Concept 1 related to the construction or relocation of electricity infrastructure would result in a less-than-significant impact.

Telecommunications.

As described in Section 17.2.6, there are numerous existing fiber-optic telecommunications lines in the project area, including Sprint and AT&T lines, which run directly through the project site along Fiddyment Road. Plan Concept 1 does not include any proposed uses that would conflict with these existing telecommunication lines. Therefore, the relocation of telecommunication lines would not be required or expected with implementation of Plan Concept 1. The extension of these lines may be necessary to accommodate specific uses on the project site, such as the proposed complementary and programmatic elements. However, these extensions would be expected to occur alongside construction of those new uses and would not in and of themselves be expected to cause significant physical disturbance or unique environmental impacts. As such, impacts associated with implementation of Plan Concept 1 related to the construction or relocation of telecommunications infrastructure would result in a less-than-significant impact.

Plan Concept 2

As described in Chapter 3, Project Description, the primary differences between Plan Concept 1 and Plan Concept 2 are related to where various facilities would be located on the WPWMA's property and when various facilities would be developed. Impacts related to the construction or relocation of utilities as a result of implementing Plan Concept 2 would be the same as described for Plan Concept 1.

IMPACT 17-2	Have sufficient water supplies. The proposed project would result in increased potable and nonpotable water demand during both construction and operations. However, these increases were evaluated under the SAP WSA and the PCWA UWMP, and both analyses concluded that PCWA has sufficient water rights, contracts, and entitlements to supply the service area during normal, single dry, and multiple dry water years at full SAP buildout. As a result, this would be considered a less-than-significant impact.
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Plan Concept 1

In compliance with SB 610, as discussed under Section 17.2.2, PCWA conducted a WSA of available surface water supplies and expected demand of the full buildout of the SAP, which includes the proposed project. As presented under Section 17.1.1, the PCWA WSA for the SAP, which reflects the conclusion of the 2015 PCWA UWMP and is consistent with the analysis and conclusions of the subsequent 2020 UWMP, concluded that PCWA has sufficient existing water supply to meet existing and planned future demand of development at buildout of the Sunset Area during normal, single dry, and multiple dry water years (PCWA 2017; PCWA 2021). Therefore, although increases in potable and reclaimed water demand would be expected as result of implementation of the proposed project, including solid waste management operations and the complementary and programmatic elements, no additional water rights, contracts, or entitlements would be required for the proposed project, resulting in a less-than-significant impact.

Plan Concept 2

As described in Chapter 3, Project Description, the primary differences between Plan Concept 1 and Plan Concept 2 are related to where various facilities would be located on the WPWMA's property and when various facilities would be developed. Impacts related to demands on water supply as a result of implementing Plan Concept 2 would be the same as described for Plan Concept 1.

IMPACT 17-3	Have adequate wastewater treatment capacity. Wastewater generated by the proposed project would be treated at Pleasant Grove WWTP where an expansion in treatment capacity from 9.5 mgd to 12 mgd is currently underway. The WWTP would have adequate capacity to treat the increase in wastewater, resulting in a less-than-significant impact .
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Plan Concept 1

As discussed under Impact 17-1, operation of the proposed project is expected to result in the generation of approximately 0.08 mgd of wastewater per day by 2050, including solid waste management operations and the complementary and programmatic elements. This wastewater would be treated at Pleasant Grove WWTP in the City of Roseville. The Pleasant Grove WWTP currently has the capacity to treat 9.5 mgd but is permitted to treat up to 12 mgd. An expansion of the existing facilities to reach the permitted limit is currently underway (City of Roseville 2020). These improvements are being implemented largely in anticipation of buildout of both the SAP and PRSP, which are expected to generate a combined total of nearly 5.8 mgd of wastewater at full buildout, which would exceed the plant's current capacity (Placer County 2019b). This expansion is intended to accommodate full buildout, including the proposed project, which accounts for 0.08 percent and 0.5 percent of the anticipated increases in wastewater generation for the solid waste management operations and complementary and programmatic elements, respectively. As a result, Plan Concept 1 would have a less-than-significant impact.

Plan Concept 2

As described in Chapter 3, Project Description, the primary differences between Plan Concept 1 and Plan Concept 2 are related to where various facilities would be located on the WPWMA's property and when various facilities would be developed. Impacts related to increased demands on wastewater treatment facilities as a result of implementing Plan Concept 2 would be the same as described for Plan Concept 1.

IMPACT 17-4	Generate solid waste in excess of standards or infrastructure capacity or impair the attainment of solid waste reduction goals. Waste generated during both construction and operations of the proposed project would be minimal and disposed of in compliance with state and local standards. Implementation of the proposed project would increase local infrastructure and support the attainment of solid waste reduction goals, resulting in a less-than-significant impact .
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Plan Concept 1

Construction-related wastes would be expected during project construction; however, construction contractors would be required to dispose of construction waste in accordance with federal, state, and local regulations as a requirement of the project construction contract specifications. Solid waste generated at the project location during project operations would be consistent with current generation patterns, which are primarily limited to food and sanitary waste from employees onsite. These activities would not generate solid waste in excess of standards or infrastructure capacity. The impacts would therefore be less than significant.

The proposed project is expected to extend the operational life of the current WPWMA facility; expand the site's capacity to divert materials from landfill disposal and contribute to greenhouse gas emission reductions; and increase the WRS's permitted capacity to accommodate anticipated long-term growth before the permitted landfill capacity is exhausted in 2058 (CalRecycle 2021). Further, the project is

intended to support the attainment of solid waste-related goals and standards described in Sections 17.2.2 and 17.2.3. As a result, implementation of Plan Concept 1 would not impair the attainment of solid waste reduction goals and this impact would be less than significant.

Plan Concept 2

As described in Chapter 3, Project Description, the primary differences between Plan Concept 1 and Plan Concept 2 are related to where various facilities would be located on the WPWMA's property and when various facilities would be developed. Impacts related to solid waste generation, capacity, and reduction as a result of implementing Plan Concept 2 would be the same as described for Plan Concept 1.

IMPACT 17-5	Comply with solid waste reduction statutes and regulations. Implementation of the proposed project would both comply with and support solid waste reduction measures. Therefore, there would be no impact .
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Plan Concept 1

As discussed under Impact 17-4, the project is intended to both comply with and support the attainment of solid waste-related goals and standards described in Sections 17.2.2 and 17.2.3, including solid waste reduction measures. As a result, implementation of Plan Concept 1 would result in no impact.

Plan Concept 2

As described in Chapter 3, Project Description, the primary differences between Plan Concept 1 and Plan Concept 2 are related to where various facilities would be located on the WPWMA's property and when various facilities would be developed. Impacts related to solid waste reduction as a result of implementing Plan Concept 2 would be the same as described for Plan Concept 1.

IMPACT 17-6	Result in wasteful, inefficient, or unnecessary consumption of energy resources. The proposed project will result in increased consumption of energy resources. Because increased energy use is necessary to provide expanded solid waste services to accommodate regional growth and changing regulatory climate, implementation of the project will result in a less-than-significant impact .
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Plan Concept 1

The proposed project will result in increased consumption of energy resources as detailed in Table 17-3. Although an increase in energy consumption is anticipated, use of energy is necessary to provide expanded solid waste services to the region as population rises. Additionally, the proposed project is expected to implement efficient energy technologies and building concepts as the project is designed and constructed. Estimate basis and assumptions are detailed in the Methodology section of this chapter.

Table 17-3. Sitewide Energy Use for Plan Concept 1 in 2050

Source	Energy Consumption	Units
Facility		
Electricity Use ^a	10,692,900	kWh/year
Onsite Equipment (Diesel)	421,100	gallons/year

Table 17-3. Sitewide Energy Use for Plan Concept 1 in 2050

Source	Energy Consumption	Units
Onsite Equipment (Gasoline)	16,100	gallons/year
Onsite Equipment (Propane)	36,800	gallons/year
Transportation		
Public Vehicles (Diesel)	4,500	gallons/year
Commercial Vehicles (Diesel)	64,500	gallons/year
Internal Operations (Diesel)	2,500	gallons/year
Outbound Recyclables (Diesel)	4,200	gallons/year
Sitewide Employees (Diesel)	0 ^b	gallons/year
Public Vehicles (Gasoline)	212,200	gallons/year
Commercial Vehicles (Gasoline)	39,500	gallons/year
Internal Operations (Gasoline)	0 ^c	gallons/year
Outbound Recyclables (Gasoline)	50	gallons/year
Sitewide Employees (Gasoline)	109,700	gallons/year
Compatible Manufacturing (project-level analysis)		
Electricity Use	2,535,000	kWh/year
Employees/Vendor Trips (Diesel)	47,300	gallons/year
Employees/Vendor Trips (Gasoline)	253,200	gallons/year
Construction (maximum year)		
Onsite Equipment (Diesel)	213,000	gallons/year
Construction Worker Trips (Gasoline)	11,300	gallons/year
Vendor/Haul Trips (Diesel)	1,300	gallons/year

Notes:

^a Does not include electricity use for compatible manufacturing areas. See separate line item for compatible manufacturing electricity use.

^b Assumes site employee personal vehicles use gasoline.

^c Assumes internal site operations vehicles use diesel.

With respect to the electrical demand for the 2050 organic management operation, the energy estimate includes changes associated with the implementation of ASP composting. It is estimated that there may be notable changes in equipment. In particular, ASP composting may include the installation of electric blowers and other electric processing equipment, introducing a new electrical demand in the proposed project not present during 2018 baseline conditions. This composting technology is planned to be implemented to improve processing efficiency, operational logistics, compost quality, and environmental

impacts. As noted previously, implementation of ASP composting would also result in a reduction in the amount of required material turning currently performed by diesel powered equipment.

In addition to the energy estimates provided in Table 17-1, the proposed project anticipates an increase in LFG generation as the landfill expands. The LFG management system, which currently diverts up to 1,800 scfm of LFG from the flare station, would be expanded with the expansion of the WRSL. The WPWMA can continue using the LFG to produce electricity as a beneficial reuse of the LFG. In addition, a component of Plan Concept 1 includes the possible construction of an LFG-to-compressed natural gas, hydrogen, or other renewable fuels gas facility. With the installation of this facility, the WPWMA could produce and sell vehicle-grade or pipeline-grade compressed fuels developed from LFG or other biogas produced through management of organics. Furthermore, other renewable energy technologies could be developed as part of the complementary and programmatic element that could result in additional renewable energy production from LFG.

Referencing the SAP EIR (Placer County 2019b), with the exception of construction energy consumption and considering the project-level analysis of complementary and programmatic elements, the energy usage estimates for equivalent energy types (electricity, diesel, and gasoline) for the proposed project are on the order of 3 to 5 percent of the energy use calculated for the net SAP area, which includes the WPWMA project location. The proposed project includes an analysis of a representative maximum construction year energy consumption, which if multiplied by 30 years, is on the order of 1 percent of the diesel and gasoline gallons estimated for construction of the net SAP area in the SAP EIR. As mentioned in the Methodology section of this chapter, construction of the proposed project is not expected to be constant across the project period. Thus, comparatively, energy estimates for the proposed project location are less than that calculated in the SAP EIR (Placer County 2019b).

Because the increased energy use is necessary to accommodate solid waste services for regional growth and the changing regulatory climate, and the proposed project provides opportunities for renewable energy production from LFG, implementation of Plan Concept 1 would have a less-than-significant impact.

Plan Concept 2

As described in Chapter 3, Project Description, the primary differences between Plan Concept 1 and Plan Concept 2 are related to where various facilities would be located on the WPWMA's property and when various facilities would be developed. Impacts related to energy consumption as a result of implementing Plan Concept 2 would be the same as described for Plan Concept 1. Table 17-4 presents the primary energy consumption estimate associated with Plan Concept 2. Differences in energy consumption between Plan Concepts 1 and 2 are attributed to facility layouts and anticipated onsite traffic routes.

Table 17-4. Sitewide Energy Use for Plan Concept 2 in 2050

Source	Energy Consumption	Units
Facility		
Electricity Use ^a	10,692,900	kWh/year
Onsite Equipment (Diesel)	421,100	gallons/year
Onsite Equipment (Gasoline)	16,100	gallons/year
Onsite Equipment (Propane)	36,800	gallons/year

Table 17-4. Sitewide Energy Use for Plan Concept 2 in 2050

Source	Energy Consumption	Units
Transportation		
Public Vehicles (Diesel)	4,400	gallons/year
Commercial Vehicles (Diesel)	62,500	gallons/year
Internal Operations (Diesel)	1,700	gallons/year
Outbound Recyclables (Diesel)	4,100	gallons/year
Sitewide Employees (Diesel)	0 ^b	gallons/year
Public Vehicles (Gasoline)	205,800	gallons/year
Commercial Vehicles (Gasoline)	38,200	gallons/year
Internal Operations (Gasoline)	0 ^c	gallons/year
Outbound Recyclables (Gasoline)	50	gallons/year
Sitewide Employees (Gasoline)	107,400	gallons/year
Compatible Manufacturing (project-level analysis)		
Electricity Use	2,535,000	kWh/year
Employees/Vendor Trips (Diesel)	45,600	gallons/year
Employees/Vendor Trips (Gasoline)	244,500	gallons/year
Construction (maximum year)		
Onsite Equipment (Diesel)	213,000	gallons/year
Construction Worker Trips (Gasoline)	11,300	gallons/year
Vendor/Haul Trips (Diesel)	1,300	gallons/year

Notes:

^a Does not include electricity use for compatible manufacturing areas. See separate line item for compatible manufacturing electricity use.

^b Assumes site employee personal vehicles use gasoline.

^c Assumes internal site operations vehicles use diesel.

**IMPACT
17-7**

Conflict with a state or local plan for renewable energy or energy efficiency.
Implementation of the proposed project would support state and local plans regarding renewable energy and energy efficiency and would thus result in **no impact**.

Plan Concept 1

As described under Impact 17-6, implementation of Plan Concept 1 would result in an increase in energy consumption because of the need for expanded solid waste services to accommodate regional growth and regulatory climate change. The proposed project would include use of energy-efficient and renewable

energy technology within the planned solid waste project elements as well as the planned complementary and programmatic elements. The WPWMA facility currently includes an LFG-to-energy plant on the premises; the proposed project would result in increased LFG generation, providing additional opportunities to produce more electricity from LFG or to implement new renewable energy technologies to convert LFG to compressed natural gas or other renewable energy products. Furthermore, there is the potential for the WPWMA to use the renewable energy produced at the facility to power site operations.

Thus, the proposed project would support the Strategies E-12 and E-17 of the Placer County Sustainability Plan, which are to support increases in renewable energy generation and storage systems for existing nonresidential structures (Strategy E-12) and to promote onsite renewable energy generation and energy storage for new small- and medium-sized nonresidential structures (Strategy E-17).

The proposed project will also comply with CALGreen building standards for nonresidential buildings, with plans to manage environmental impacts of site development and implement energy-efficient building concepts. It should be noted that the existing facility and proposed project comply with many green building standards, such as material conservation and resource efficiency with the collocation of the MRF building, C&D area, and other Waste Recovery facilities onsite.

The proposed project is being implemented to further the objectives of the Waste Action Plan (WPWMA 2020b). Compliance with plans for renewable energy and energy efficiency is expected; therefore, implementation of Plan Concept 1 would result in no impact.

Plan Concept 2

As described in Chapter 3, Project Description, the primary differences between Plan Concept 1 and Plan Concept 2 are related to where various facilities would be located on the WPWMA's property and when various facilities would be developed. Impacts related to renewable energy and energy efficiency as a result of implementing Plan Concept 2 would be the same as described for Plan Concept 1.

17.4 References

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