# 3.15 Utilities and Service Systems

This section of the EIR evaluates potential impacts regarding utilities and service systems associated with implementation of the proposed Golden State Natural Resources Forest Resiliency Demonstration Project (proposed project). This section describes the existing water infrastructure, wastewater and storm infrastructure, solid waste, electrical power, natural gas, and telecommunications facilities at feedstock source locations (Sustainable Forest Management Projects), proposed pellet processing facility sites in Northern California (Lassen Facility) and the Central Sierra Nevada foothills (Tuolumne Facility), and the export terminal in Stockton, California (Port), and evaluates the potential for project-related utilities and service systems impacts, considering proposed project design features that could reduce or eliminate associated impacts. Several scoping comments were received regarding ground water supplies, electrical service provisions, and the production of solid waste or compost as a result of project operations, in response to the Notice of Preparation (NOP) (see Appendix A). These issues are addressed in the appropriate environmental chapters (e.g. Hydrology and Water Quality, Energy, Biology etc.).

# 3.15.1 Environmental Setting

# 3.15.1.1 Sustainable Forest Management Projects

Feedstock destined to the Lassen and Tuolumne facilities for manufacturing of wood pellets will be wood byproducts sourced from Sustainable Forest Management Projects such as hazardous fuel reduction projects, construction of shaded fuel breaks, and salvage harvests located within the Working Area (see Chapter 2, Project Description, for a full description). The feedstock would originate from private, state, tribal, and federal timberlands located within the Working Area of the two wood pellet production facilities.

# 3.15.1.2 Northern California (Lassen Facility) Site

**Table 3.15-1. Lassen Facility Utility Providers** 

Utility	Agency/Provider
Water Supply	Domestic water well
Wastewater Collection and Conveyance	On-site collection (septic system)
Wastewater Treatment	On-site treatment (septic system)
Stormwater Conveyance	On-site treatment
Solid Waste Collection	N/A (self-haul)
Electrical Service	Pacific Gas & Electric Company
Natural Gas	On-site propane storage

## Water Supply

The project site is located within the boundaries of the Upper Pit River watershed. This watershed covers 2,891,575 acres and runs through the northeast portion of Lassen County (County) as well as portions of Modoc, Shasta, and Siskiyou Counties. The Upper Pit River Watershed Integrated Regional Water Management Plan was adopted in 2018 to ensure better water quality, sustainable water uses and reliable water supplies, as well as enhanced environmental stewardship (Upper Pit River Watershed IRWMP 2017). Due to the rural nature of the project site, it

is not located within a public water supply system or district service area. Development within the project area relies upon groundwater wells for domestic water.

### Groundwater

Groundwater acts as a significant contributor to the County's water supplies, specifically for industrial and domestic uses in the unincorporated areas of the County. There are a total of 20 groundwater basins within the Upper Pit River Watershed (Upper Pit River Watershed IRWMP 2017). Lassen and Modoc Counties overlie the Big Valley Groundwater Basin (BVGB) which, according to the Department of Water Resources (DWR), is a medium priority basin. As such, a groundwater sustainability plan (GSP) under the Sustainable Groundwater Management Act (SGMA) was adopted for the BVGB in 2022, and revised in 2024, to ensure long-term sustainability. The GSP concludes that the BVGB encompasses an area of approximately 144 square miles, with 104 square miles located in Lassen County (Lassen County and County of Modoc 2022). The County's General Plan Energy Element suggests that the drilling of wells within the Big Valley Basin tend to have high yields (Lassen County 1993). However, the 2017 IRWMP states that according to the DWR semi-annual groundwater monitoring data of 13 domestic and agricultural wells within the Big Valley Groundwater Basin over the past 30 years determined that groundwater levels in the basin were at that time at or near historically low levels (Upper Pit River Watershed IRWMP 2017). According to the Water Supply Assessment (WSA) prepared for the Lassen site, groundwater levels within the BVGB have generally risen overall in recent years in response to significant recharge in water years 2022 and 2023 (Appendix G2, Lassen Water Supply Assessment; Appendix G3, Lassen Groundwater Well Assessment). Refer to Section 3.9, Hydrology and Water Quality, Appendix G2, Lassen Water Supply Assessment, and Appendix G3, Lassen Groundwater Well Assessment, for a discussion on groundwater at the Lassen site.

There is one existing well located in the central portion of the project site. The well is active and is currently used to fill water trucks for dust suppression. The existing well would be repurposed for any water utility requirements for the process and for use by personnel during operation of the project.

#### Stormwater

The IRWMP does not address stormwater or stormwater management in the due to the low development pressure and scarcity of resources in the region (Upper Pit River Watershed IRWMP 2017).

Stormwater on the project site is currently conveyed to five upland ditches located throughout the project site.

#### Wastewater

As of 2016 approximately 6,200 out of 8,500, or 73% of the properties in the unincorporated area of the County are served by onsite waste treatment systems (OWTS) (Lassen County Environmental Health Department 2016).

The project site does not contain any existing wastewater collection or conveyance facilities, nor does it contain onsite treatment such as a septic system.

#### Solid Waste

Solid waste generated by project construction and operation would be collected and transported to either Westwood Landfill or Bass Hill Landfill. Both Westwood Landfill and Bass Hill Landfill are located approximately 60 miles south of the project site, west and east of the City of Susanville, respectively. Existing landfill capacity and disposal

amounts of these two facilities are provided in Table 3.15-2, *Landfill Capacities* (*Lassen Facility*), with both facilities exemplifying available capacities (CalRecycle 2023a, 2023b).

**Table 3.15-2. Landfill Capacities (Lassen Facility)** 

Facility	Maximum Permitted Capacity (cubic yards)	Maximum Daily Permitted Throughput (tons)	Current Remaining Capacity (cubic yards)	Remaining Capacity Date	Cease Operation Date
Westwood Landfill	89,369	10	62,207	5/31/2006	1/1/2027
Bass Hill Landfill	2,150,000	300	603,404	7/1/2013	12/30/2019

Source: CalRecycle 2023a, 2023b.

Note: Although Bass Hill Landfill had a predicted Cease Operation Date of 12/30/2019, considerable capacity remains due to lower-than-expected use, and the landfill remains active.

#### **Electrical Power and Natural Gas**

Existing electrical infrastructure on the project site is minimal, serving the two existing structures (pump house and water tower). Pacific Gas & Electric Company (PG&E) is currently the electrical provider. PG&E provides electric services to 5.1 million customers, including 106,681 circuit miles of electric distribution lines and 18,466 circuit miles of interconnected transmission lines over a 70,000-square-mile service area in northern and central California (PG&E 2023).

Electrical service will be provided from the nearest substation located approximately four miles northeast of the project site. Construction of transmission lines from the substation along existing public rights-of-way to the facility is part of the proposed project. This substation is presently operated by Surprise Valley Electrification Corporation (SVEC), a rural electricity cooperative. Use of this substation for the proposed project will require either a wheeling or similar arrangement between PG&E and SVEC.

The project site is not served by natural gas.

# 3.15.1.3 Central Sierra Nevada (Tuolumne Facility) Site

**Table 3.15-3. Tuolumne Facility Utility Providers** 

Utility	Agency/Provider
Water Supply	Domestic water well
Wastewater Collection and Conveyance	On-site collection (Septic System)
Wastewater Treatment	On-site treatment (Septic System)
Stormwater Conveyance	On-site detention pond
Solid Waste Collection	N/A (self-haul)
Electrical Service	Pacific Gas & Electric
Natural Gas	Local supplier - On-site propane storage

# Water Supply

According to the Tuolumne Utilities District Urban Water Management Plan (UWMP), the project site is located within the service area of the Tuolumne Utilities District (TUD), which is the largest out of two water provider services in Tuolumne County (County). The TUD contains 17 retail municipal water systems (TUD 2021). However, the TUD's existing water systems do not reach the project area. The project site is currently served by an on-site groundwater well.

## Groundwater

The TUD supplies water to approximately 32,800 residents within the county (County of Tuolumne 2018). However, for rural areas of the County that rely on smaller water systems or are not connected to a municipal water system, including the project site, groundwater is the only water supply source available. The majority of small water systems in the County rely on individual small capacity wells, most of which are regulated by the State Water Quality Control Board. Due to the prevalence of fractured rock that underlies most areas served by private wells, groundwater conditions have been proven to be rather inconsistent. As a result of fractured rock formations as well as weather fluctuations, wells can be less reliable during periods of drought and difficult to establish in some areas of the County. The Tuolumne-Stanislaus Integrated Regional Water Management Plan concluded that the existing data relating to groundwater is insufficient to quantify an amount of total available sustainable groundwater supply (T-Stan 2017). The project site is not located within a groundwater basin subject to SGMA. The closest groundwater basin is the San Joaquin Valley - Modesto Groundwater Basin (DWR Basin No. 5-022.02) located approximately 6 miles west of the Project site (Appendix G5, Tuolumne Groundwater Well Assessment). According to the WSA prepared for the Tuolumne site (Appendix G4, Tuolumne Water Supply Assessment) and a review of well completion reports for wells drilled near the Project site, well yields are reported to range from 1 gallon per minute (gpm) to 60 gpm, with the exception of one well located at the Project site, Well 1, which had an estimated yield of 400 gpm. Refer to Section 3.9, Hydrology and Water Quality and Appendix G4, Tuolumne Water Supply Assessment, for a discussion on groundwater supply at the Tuolumne site.

As previously stated, the project site is not served by the TUD and would rely on private wells for water supply. There are three existing wells located on the project site, hereafter referred to as Wells 1, 2, and 3 (see Figure 3.9-9, Tuolumne On-Site Wells). Well 1, located in the southeast portion of the project site, is currently active. Well 2, located in the southwest portion of the project site, is inactive and has been deemed non-potable. Well 3, is located on the southwestern portion of the site and is assumed to provide water to the residences located on the parcel west of the project site. Two water tanks on the property are no longer in use. There is an off-site water tank, located on the parcel to the east that provides fire protection water to the project site. This tank is supplied by Well 1.

#### Storm Water

The County contains several upper watershed reservoirs that collect stormwater. However, the County's General Plan states that localized flooding of creeks and tributaries, particularly in developed areas and along roadways has been a challenge to manage and contain throughout the County. Furthermore, it is noted that rural areas with low water fords tend to flood with stormwater and prevent access. The General Plan recognizes the need for improvement to existing stormwater conveyance systems to reduce the potential for catastrophic flooding in developed areas (County of Tuolumne 2018).

Existing stormwater infrastructure on site consists of four humanmade detention basins to collect and store run off. There is one in the southern portion of the site, one in the northeastern portion of the site, and two located near

the mid-west portion of the site. One ephemeral drainage is located near the southern portion of the project site, and one intermittent drainage occurs in the northeast corner of the project site.

#### Wastewater

There are a total of five wastewater collection and treatment systems in the County. They include: TUD, GCSD, Twain Harte CSD, Jamestown Sanitary District, and the Tuolumne Sanitary District (County of Tuolumne 2018).

The project site is not currently served by a wastewater provider and contains one existing septic tank located west of the existing bark separating structure.

#### Solid Waste

Tuolumne County no longer has any operating landfills. However, there are several recycling centers, transfer stations, as well as multiple waste services companies located throughout the County. Solid waste generated by project construction and operation would likely be collected and transported to Highway 59 Landfill located in Merced County, approximately 30 miles south of the project site (County of Tuolumne 2018). The existing landfill capacity and disposal amounts of the facility are provided in Table 3.15-4, *Landfill Capacity (Tuolumne Facility)*, showing available capacity.

**Table 3.15-4. Landfill Capacity (Tuolumne Facility)** 

Facility	Maximum Permitted Capacity (cubic yards)	Maximum Daily Permitted Throughput (tons)	Current Remaining Capacity (cubic yards)	Remaining Capacity Date	Cease Operation Date
Highway 59 Landfill	30,012,352	1,500	28,025,334	9/1/2005	1/1/2030

Source: CalRecycle 2023c.

#### **Electrical Power and Natural Gas**

PG&E provides electrical services to the majority of the County. As previously stated in Section 3.15.1.2, PG&E covers a 70,000 square mile service area in northern and central California. The project site is currently served by PG&E. The existing infrastructure consists of overhead powerlines on the eastern boundary which serve the existing on-site structures.

# 3.15.1.4 Port of Stockton

The project site is served by the following public utilities as identified in Table 3.15.1.4-1, *Port of Stockton Utility Providers* and discussed in detail below.

**Table 3.15-5. Port of Stockton Utility Providers** 

Utility	Agency/Provider
Water Supply	California Water Service Company
Wastewater Collection and Conveyance	City of Stockton
Wastewater Treatment	City of Stockton

Table 3.15-5. Port of Stockton Utility Providers

Utility	Agency/Provider
Stormwater Conveyance	Port of Stockton
Solid Waste Collection	Republic Services & Waste Management
Electrical Service	Pacific Gas & Electric
Natural Gas	Pacific Gas & Electric

# Water Supply

California Water Service Company (Cal Water) is one of five water purveyors in the City of Stockton (City) and provides water services to the project site. Cal Water, which is regulated by the California Public Utilities Commission, provides water supply services to approximately 1.8 million Californians in 25 districts. Cal Water's Stockton District (District) was first formed in 1927 when the existing water system at the time was purchased from PG&E. According to the District's Urban Water Management Plan (UWMP), released in 2021, the District serves a population of approximately 173,900, delivering water to residential, commercial, industrial, and governmental customers. 57 percent of the District's service connections are residential customers while non-residential customers account for 37 percent. The remaining 6 percent is characterized as system water losses (Cal Water 2021).

Water is currently supplied to the West Complex from a 12-inch water main that crosses the San Joaquin River at Navy Drive Bridge (connecting to the main Port area). Water is stored in a 300,000-gallon water tower and then distributed via pipelines ranging from 6 to 14 inches (Port of Stockton 2004).

# **Surface Water**

Purchased water is the primary water supply source in the District. Cal Water purchases all surface water from the Stockton East Water District (SEWD or District), which has fulfilled approximately 84 percent of the District's demands within the past decade (Cal Water 2021). SEWD sources their supplies from the New Hogan Reservoir on the Calaveras River and the New Melones Reservoir on the Stanislaus River. As a result of Water Supply Contracts with the United States Bureau of Reclamation (USBR), SEWD is guaranteed 56.5 percent of the yield from the New Hogan Reservoir and an entitlement of 75,000 acre-feet per year (AFY) from the New Melones Reservoir. These supplies serve both agricultural and urban demands within the SEWD service area. The SEWD treatment plant is located on the eastern edge of the City and treats raw water. Treated water is then pumped from the plant via transmission mains to the district and other urban water purveyors in the area.

As discussed in Section 3.13, Population and Housing, the City has experienced significant growth within the past ten years. As a result of the rapid growth in the City, the District's share of SEWD treatment plant output is expected to decline in the future. However, in 2012, the City's Delta Water Supply Project (DWSP) came on-line and increased the District's percentage of SEWD water supply to 58.1 percent of the total available water from the SEWD plant. The remaining amount of water supply owned by SEWD is used for groundwater recharge or for surface irrigation of agricultural crops in the SWD service area. Table 3.15-6, *Actual and Forecasted Water Supplies* displays the District's current and projected water supplies, including surface water. To meet year-round demands, the District intends to maximize the use of treated surface water purchased from SEWD (Cal Water 2021). Table 3.15-7 further examines the District's projected water supply and demand during normal, single dry, and multiple dry years.

**Table 3.15-6. Actual and Forecasted Water Supplies** 

	Projected Water Supplies (AF)					
Sources	2020¹	2025	2030	2035	2040	2045
Purchased or Imported Water (Stockton East Water District; Calaveras and Stanislaus Rivers)	22,622	22,393	22,248	22,208	22,140	22,177
Groundwater (not desalinated) <sup>2</sup>	1,484	1,340	1,340	1,340	1,340	1,340
Total	24,106	23,733	23,588	23,548	23,480	23,517

Source: UWMP Table 6-8 (Cal Water 2021).

#### Notes:

All totals are based on reasonably available volume.

Table 3.15-7. Projected Water Supply and Demand during Normal, Single Dry, and Multiple Dry Years (AF)

	2025	2030	2035	2040	2045
Normal Years					
Supply	22,393	22,248	22,208	22,140	22,177
Demand	22,393	22,248	22,208	22,140	22,177
Difference	0	0	0	0	0
Single Dry Year					
Supply	24,377	24,230	24,191	24,123	24,164
Demand	24,377	24,230	24,191	24,123	24,164
Difference	0	0	0	0	0
Multiple Dry Yea	ars				
First Year					
Supply	24,776	24,627	24,589	24,521	24,564
Demand	24,776	24,627	24,589	24,521	24,564
Difference	0	0	0	0	0
Second Year					
Supply	24,776	24,627	24,589	24,521	24,564
Demand	24,776	24,627	24,589	24,521	24,564
Difference	0	0	0	0	0
Third Year					
Supply	24,776	24,627	24,589	24,521	24,564
Demand	24,776	24,627	24,589	24,521	24,564
Difference	0	0	0	0	0
Fourth Year					
Supply	24,776	24,627	24,589	24,521	24,564
Demand	24,776	24,627	24,589	24,521	24,564
Difference	0	0	0	0	0

Actual for Calendar year 2020

<sup>2</sup> Groundwater is sourced from the Eastern San Joaquin Subbasin. Groundwater supply values are based on general rate case filings for 2021.

Table 3.15-7. Projected Water Supply and Demand during Normal, Single Dry, and Multiple Dry Years (AF)

	2025	2030	2035	2040	2045
Fifth Year					
Supply	24,776	24,627	24,589	24,521	24,564
Demand	24,776	24,627	24,589	24,521	24,564
Difference	0	0	0	0	0

Source: UWMP Tables 7-2b, 7-3, and 7-4 (Cal Water 2021).

Notes: Volumes are in units of acre-feet (AF).

The Eastern San Joaquin Subbasin is not adjudicated, and this projected supply volumes, which include groundwater, do not comprise a determination of water rights or maximum allowable pumping.

#### Groundwater

Groundwater accounts for 16 percent of the District's total water supply over the past decade, but even greater in earlier years. The District overlies the Eastern San Joaquin Subbasin (Basin). The Basin spans approximately 764,800 acres and is bounded by the San Joaquin-Sacramento, San Joaquin-Amador, and Calaveras-Amador county lines. The Basin is drained by the San Joaquin River and several of its tributaries. Although the Basin is not adjudicated, Department of Water Resources' (DWR) most recent evaluation determined that Basin is considered to be critically over-drafted; annual overdraft is estimated at 70,000 acre-feet per year (AFY).

The District owns and operates wells that extract from the Victor Formation and Laguna Formation aquifers that underly the eastern valley floor. Although there are four major aquifer formations within the basin, all wells in the District only extract from the two previously mentioned formations. The District has a total of 41 wells within their service area, however, only 25 wells were active while the remaining amount are either inactive or on standby. In addition to the wells, the District has eight surface storage structures that allow the wells to pump to storage during non-peak demand periods and provide peak day demand. Table 3.15-8 lists the amount of groundwater pumped by the District from 2016-2020. The UWMP concludes that the groundwater production along with the purchased water supply has been sufficient to meet annual average day and maximum day demands in current and all prior operation years. Furthermore, as presented in Table 3.15-7, projected future demands of the District in normal and multiple dry year periods through the year of 2045 are expected to be fulfilled (Cal Water 2021).

The UWMP notes that Cal Water has also established interconnections with neighboring water agencies in the event of an isolated interruption of water supply. Cal Water has a total of seven emergency interties. Five of these interties are with the City and two (2) are with SEWD (Cal Water 2021). Cal Water's 2020 Urban Water Management Plan (UWMP) and SEWD's 2020 UWMP both address water reliability, drought and climate change, and future use of recycled water. Cal Water state's it will meet the project's future water demands from existing supply sources through Year 2045 (Cal Water 2021).

Table 3.15-8. Historical Groundwater Supply (AF) from 2016 - 2020

Groundwater Basin	2016	2017	2018	2019	2020
Eastern San Joaquin Subbasin	4,681	2,920	1,521	924	1,484

**Notes:** All or part of the groundwater described below is desalinated. Volumes are in units of acre-feet (AF)

#### Storm Water

The West Complex is served by its own stormwater system. The developed areas on the Island are served by a combination of underground pipes and open drainage ditches, while the undeveloped areas of the Island are served exclusively by ditches. Stormwater is directed to a collection and pumping area near the southwest corner of the Island. This facility includes three pumps with a capacity of 37,400 gallons per minute. An approximate 5-acre stormwater overflow area just north of the pumphouse collects any overflow runoff until it can be pumped into Burns Cutoff.

#### Wastewater

Sanitary sewer service at the Port is provided by the City of Stockton. Wastewater from the Project Area is conveyed by gravity to a lift station, where it is pumped across the San Joaquin River to the City of Stockton's Regional Wastewater Control Facility (RWCF) through a 12-inch force main. The City's sewer system includes approximately 1,000 miles of gravity sewers and force mains (pressure pipelines) ranging from less than 6-inches to 72-inches in diameter and 35 sewer pump stations (City of Stockton 2022a). The sewer system generally flows from the north, east, and south to the Stockton Regional Wastewater Control Facility (RWCF), which provides secondary and tertiary treatment before discharging to the San Joaquin River. The facility currently collects and treats an average of 33 mgd of wastewater daily from approximately 116,000 sewer connections throughout the City and nearby San Joaquin County areas (City of Stockton 2022b).

#### Solid Waste

Solid waste collection services in the City are provided by Republic Services and Waste Management. The collected solid waste is transported and disposed of primarily at either the Forward Landfill on South Austin Road in Manteca, or the North County Landfill on East Harney Lane in Lodi. The City generated approximately 372,729 tons of solid waste in 2019 (CalRecycle 2019). Existing landfill capacity and disposal amounts of these two facilities are provided in Table 3.15-9, *Landfill Capacities (Port of Stockton Site)* with both facilities currently showing available capacities.

**Table 3.15-9. Landfill Capacities (Port of Stockton Site)** 

Facility	Maximum Permitted Capacity (cubic yards)	Maximum Daily Permitted Throughput (tons)	Current Remaining Capacity (cubic yards)	Remaining Capacity Date	Cease Operation Date
Forward Landfill, Manteca	59,160,000	8,668	24,720,669	1/31/2020	1/1/2036
North County Landfill & Recycling Center, Lodi	41,200,000	825	35,400,000	12/31/2009	12/31/2048

Source: CalRecycle 2023d, 2023e.

#### **Electrical Power and Natural Gas**

PG&E provides electricity to the majority of the city, including the Port of Stockton. The Port owns and maintains the electrical utility system in the West Complex, which receives wholesale electricity from PG&E (Port of Stockton 2022).

PG&E also supplies the City with natural gas. In 2020, natural gas consumption for San Joaquin County totaled approximately 183,949,868 therms of which just 95,147,580 therms were consumed by non-residential uses and the remainder by residential uses (CEC 2022).

# 3.15.2 Regulatory Setting

# 3.15.2.1 Federal

#### Clean Water Act

The federal Clean Water Act (CWA) established the basic structure for regulating discharges of pollutants into the waters of the U.S. The CWA made it unlawful for any person to discharge any pollutant from a point source into navigable waters unless a permit was obtained under its provisions. The CWA assists in the development and implementation of waste treatment management plans and practices by requiring provisions for treatment of waste using best management practices (BMPs) technology before there is any discharge of pollutants into receiving waters, as well as the confined disposal of pollution, so that it will not migrate to cause water or other environmental pollution. Additionally, CWA funds the construction of sewage treatment plants under the construction grants program.

#### National Pollutant Discharge Elimination system

The Water Permits Division within the U.S. EPA Office of Wastewater Management leads and manages the National Pollutant Discharge Elimination System (NPDES) permit program. As authorized by the federal CWA, the NPDES permit program controls water pollution by regulating point sources that discharge pollutants into waters of the U.S. The NPDES permit program oversees stormwater management and sewer and sanitary sewer overflows.

### Resource Conservation and Recovery Act

The Resource Conservation and Recovery Act (40 CFR 268, Subpart D), contains regulations for municipal solid waste landfills and requires states to implement their own permitting programs that include federal landfill criteria. The federal regulations address the location, operation, design, and closure of landfills, as well as groundwater monitoring requirements.

# 3.15.2.2 State

## **Urban Water Management Planning Act**

The Urban Water Management Planning Act was established in Division 6, Part 2.6 of the California Water Code. The act was developed due to concerns for potential water supply shortages throughout the state. It requires information on water supply reliability and water use efficiency measures. Urban water suppliers are required as part of the act to develop and implement Urban Water Management Plans (UWMPs) to describe their efforts to

promote efficient use and management of water resources. UWMPs are required to be updated every five years. Cal Water has complied with the Urban Water Management Planning Act through the adoption of its 2020 UWMP.

#### Senate Bill X7-7

In November 2009, the Legislature enacted, and the Governor signed, Senate Bill X7-7, which created a statewide goal of achieving a 20% reduction in urban per capita water use in California by 2020. Under this statute, urban water suppliers are required to establish water conservation targets for the years 2015 and 2020. The City of Stockton's current Urban Water Management Plan (discussed in Local Regulations, below) includes these targets.

# General Waste Discharge Requirements for Sanitary Sewer System

The General Waste Discharge Requirements (WDRs) for Sanitary Sewer Systems were adopted by the State Water Resources Control Board (SWRCB) in May 2006. These WDRs require local jurisdictions to develop a sewer system management plan (SSMP) that addresses the necessary operation and emergency response plans to reduce sanitary sewer overflows. The WDRs require that the local jurisdiction approve the SSMP. The most recent SSMP for the City of Stockton is for the period of 2016 to 2020 which was adopted on March 26, 2016.

# Solid Waste Regulations

The California Integrated Waste Management Act (AB 939), enacted in 1989 and subsequently amended, required local jurisdictions to divert at least 50% of their solid waste from landfills by 2000. The 50% recycling of solid waste placed the City of Stockton in compliance with AB 939. More recent legislation, AB 341, increased the recycling requirement to 75% of solid waste by 2020. Beginning April 1, 2016, the state's Mandatory Organic Waste Recycling law (AB 1826) phased in requirements for including multifamily properties of five (5) or more units, based on the amount and type of waste the business produces weekly, with full implementation in 2019.

# 3.15.2.3 Local

## **Lassen County**

## Lassen County General Plan

- Goal N-3. Water supplies of sufficient quality and quantity to serve the needs of Lassen County, now and in the future.
  - Policy NR13. The County recognizes the critical importance and future value of its water resources and shall support the conservation of water supplies and protection of water quality.
  - Policy NR14. The County supports efforts by state and Federal agencies, including the California Department of Water Resources, to monitor the quantity and quality of the County's water supplies and to protect the water resources of the County when such efforts are demonstrated to be based on sound, scientific assessment of potentially adverse impacts to those resources.
  - Policy NR15. The County advocates the cooperation of state and Federal agencies, including the State Water Resources Control Board and its regional boards, in considering programs and actions to protect the quality of ground water and surface water resources.

Policy NR17. The County supports measures to protect and insure the integrity of water supplies and is opposed to proposals for the exportation of ground water and surface waters from ground water basins and aquifers located in Lassen County (in whole or part) to areas outside those basins.

#### Implementation Measure

- NR-H. The County will maintain ground water ordinances and other forms of regulatory authority
  to protect the integrity of water supplies in Lassen County and regulate the exportation of water
  from ground water basins and aquifers in the county to areas outside those basins.
- Policy NR19. The County supports control of water resources at the local level, including the formation of local ground water management districts to appropriately manage and protect the long-term viability of ground water resources in the interest of County residents and the County's resources.
- Goal N-6. Eliminate the threat of flood events which may result in the loss of lives and major damage to property and resources.
  - Policy NR24. The County encourages feasibility studies, planning projects and, when appropriate, the development of new, well-planned reservoirs, flood channels and other facilities and programs which can serve to control flooding and help reduce flood-related damage.

# **Energy Element**

#### 4.3.2.1. Biomass

Policy 6. Biomass plants shall be sited near primary fuel sources to minimize the costs and environmental impacts associated with hauling fuel from long distances. The County encourages the Forest Service and timber management agencies to prioritize and expedite the harvest of salvage timber (e.g., bug-and-fire-damaged trees) for biomass fuel.

# Implementation Measures

- Biomass harvest activity shall be subject to U.S. Forest Service, Bureau of Land Management, and/or California Department of Forestry review and permitting where applicable.
- Updated reports on the regional availability and sustainability of biomass fuels shall be required and considered by the County prior to the approval of additional biomass plants.
- E. All biomass harvest operations and biomass plants shall have the necessary permits and adhere to mitigation measures outlined by the Regional Water Quality Control Board.
  - Specific development and operating conditions of approval shall be set forth in any approved Use Permit for a biomass facility.
  - The County will communicate its policies regarding biomass harvest practices to applicable Federal and State resource management agencies.

Lassen County Environmental Health Division Local Area Management Plan – Onsite Wastewater Treatment Systems

In accordance with California Assembly Bill AB 885, the State Water Control Board adopted the Water Quality Control Policy for Siting, Design, Operation, and Maintenance of Onsite Wastewater Treatment Systems. Tier 2 of this Policy allows for local agencies to develop management programs that address conditions specific to that jurisdiction. These Local Agency Management Programs (LAMPS) require approval by the regional quality control board. The Lassen County LAMP was adopted in 2013 and is intended to support the continued use of onsite wastewater treatment systems (OWTS) and to expand the local program with the permitting and regulation of alternative OWTS while protecting public health and water quality. The proposed project would be required to comply with applicable regulations and policies presented in the LAMP.

Lassen County Code

Section 7.28.030

Section 7.28.030 of the Lassen County Code states that no person, firm, corporation, governmental agency or any other legal entity shall, within the unincorporated area of Lassen County, construct, repair, modify or destroy any well unless a written permit has first been obtained from the health officer of the county, as provided in this chapter.

Section 18.102.050

Section 18.102.050 of the Lassen County Code states that a minimum of one acre is required for property utilizing individual septic system and individual well; minimum lot width one hundred fifty feet.

#### **Tuolumne County**

Tuolumne County General Plan

#### **Utilities Element**

- Policy 3.B.1. Require that development is consistent with the applicable water purveyor standards and specifications, including as applicable, the proper design and sizing of water distribution lines, storage tanks, and other aspects of the water infrastructure system both on and off the site of development.
- Policy 3.E.4. Require development to connect to a public sewer system if it is reasonably available. ["Reasonably available" is defined in County Code Section 12.08.150(A) as within 300 feet.]
- Policy 3.F.1. Require proposed solid waste facilities and all other new development to comply with the Tuolumne County Integrated Waste Management Plan and all adopted elements thereof.

# Water Supply Element

Policy 14.A.5. Manage groundwater resources consistent with the requirements of the Sustainable Groundwater Management Act, in response to the probability that the State will extend regulations to the County of Tuolumne.

- Policy 14.A.7. Encourage the beneficial capture and utilization of stormwater to promote healthy watersheds, fire-safe landscapes, and groundwater recharge.
- Policy 14.C.8. Encourage water resources to be protected from pollution, conserved, and recycled whenever possible to provide for continued economic, community, and social growth.

# Tuolumne County Code

### Title 7, Integrated Waste Management

Title 7 of the Tuolumne County Code establishes an integrated solid waste management system intended to preserve the public health, safety, welfare, convenience and necessity and provide for a stable revenue source with which the county and authorized service providers may furnish adequate management of solid waste. The Title also provides for a combination of franchise agreements and permits which replace the existing permit system for the collection of refuse as was provided for in Chapter 8.04. The project is required to comply with all applicable code requirements described therein.

## Chapter 8.05

Chapter 8.05 of the Tuolumne County Code establish minimum standards for the storage of generally nontoxic/nonhazardous wastes and removal of wastes within the unincorporated areas of Tuolumne County. The project is required to comply with all applicable code requirements.

Chapter 13.04, Onsite Wastewater Treatment Systems and Chapter 13.08, On-Site Sewage Treatment and Disposal

Chapter 13.04 and 13.08 of the Tuolumne County Municipal Code introduces code requirements for onsite sewage treatment and disposal systems, including septic systems and leach fields. The code describes sizing and design standards, permits, required inspections and maintenance. Relevant minimum criteria are summarized below. However, Chapter 13.04 and 13.08 include more items than listed below. The project is required to comply with all applicable code requirements.

- All onsite treatment and disposal systems must be permitted with and inspected by the Tuolumne County Environmental Health Division (EHD).
- All onsite treatment and disposal systems must be designed and constructed by a registered environmental health specialist (REHS) and a qualified engineering consultant.
- Septic tanks must be at least 50 feet from private water wells, lakes, reservoirs, perennial streams, and surface water supplies used for public water supply; and at least 150 feet from public water wells.

### Chapter 13.16, Water Wells

Chapter 13.16 of the Tuolumne County Municipal Code introduces regulations for the construction, reconstruction, modification, abandonment and destruction of domestic and agricultural wells, cathodic protection wells, industrial wells, geothermal heat exchange wells, monitoring and observation wells, test wells and test holes and exploration holes in such a manner that the groundwater of the county will not be contaminated or polluted and that water obtained from wells will be suitable for beneficial use and will not jeopardize the health, safety or welfare of the people of the County. The project is required to comply with all applicable code requirements listed therein.

# City of Stockton

# Wastewater Master Plan Update

The City adopted its Wastewater Master Plan Update in October 2022 (Master Plan Update) based on completion of the City's Envision Stockton 2040 General Plan. The plan describes the major elements of the wastewater collection system and treatment facilities needed to serve development anticipated according to the 2040 General Plan. The Master Plan Update also evaluates existing wastewater collection system infrastructure, to address potential impacts of near-term and long-term planned growth, and to develop a comprehensive road map for the City's wastewater system Capital Improvement Program. The wastewater system was divided into ten (10) existing sub-collection systems and four (4) future sub-collection systems. According to the Master Plan Update, modeled system deficiencies for 2040 conditions are only slightly more severe than those shown above for existing conditions (City of Stockton 2022a).

# Storm Drain Master Plan and Supplement

The City adopted its Storm Drain Master Plan in 2008 and has recently completed an update to the Storm Drain Master Plan that was adopted in March 2023. The plan defines a process and criteria for future detailed subwatershed storm drain planning in growth areas within the City's 2035 General Plan boundary. A supplement to the Storm Drain Master Plan was prepared in 2017 based on anticipated development in the Stockton General Plan 2040. The supplement evaluated the future needs of the City's storm drainage system overall, including detention basins and pump stations (West Yost Associates 2017). The supplement did not compare storm drainage system requirements for buildout under the General Plan 2040 as compared to buildout under the 2035 General Plan.

# City of Stockton General Plan

The City's 2040 General Plan goals and policies and implementing actions from Land Use, Safety, and Community Health Elements are relevant to this project (City of Stockton 2018).

Goal LU-5. Protected Resources. Protect, maintain, and restore natural and cultural resources.

Policy LU-5.4. Require water and energy conservation and efficiency in both new construction and retrofits.

- Action LU-5.4.A. Require all new development, including major rehabilitation, renovation, and redevelopment, to adopt best management practices for water use efficiency and demonstrate specific water conservation measures.
- Action LU-5.4.B. Require all new development, including major rehabilitation, renovation, and redevelopment, to incorporate feasible and appropriate energy conservation and green building practices, such as building orientation and shading, landscaping, and the use of active and passive solar heating and water systems.

Goal LU-6. Effective Planning. Provide for orderly, well-planned, and balanced development.

Policy LU-6.3. Ensure that all neighborhoods have access to well-maintained public facilities and utilities that meet community service needs.

Action LU-6.3.A. Require development to mitigate any impacts to existing sewer, water, stormwater, street, fire station, park, or library infrastructure that would reduce service levels. [See also Chapter 15.0, Public Services.]

Action LU-6.3.B. Ensure that public facilities, infrastructure, and related land area and other elements are designed and right-of-way is acquired to meet 2040 planned development requirements to avoid the need for future upsizing or expansion, unless planned as phased construction.

Goal LU-4. Clean Air. Improve local air quality.

Policy SAF-4.1. Reduce air impacts from mobile and stationary sources of air pollution.

Action SAF-4.1.A. Require the construction and operation of new development to implement best practices that reduce air pollutant emissions, including through installation of Energy Starcertified appliances.

Goal CH-5. Sustainability Leadership. Exhibit leadership in sustainability for the Central Valley and beyond.

Policy CH-5.2. Expand opportunities for recycling, re-use of materials, and waste reduction.

Action CH-5.2.B. Continue to require recycling in private and public operations, including construction/demolition debris.

City of Stockton Municipal Code

Title 8 - Chapter 8.28

Chapter 8.28 of Title 8 Health and Safety provides the City's requirements for construction and demolition debris waste reduction measures. This chapter sets a requirement that 50% or more (by weight) of the amount of construction and demolition debris generated at project sites be reused, recycled or otherwise processed to divert such materials from disposal in landfills. Any party that undertakes a construction, demolition, or renovation project by applying for City permits is responsible for meeting the construction and demolition debris waste diversion requirement (Ord. 010-08 C.S. Section 2, prior code Section 7-081).

# 3.15.3 Thresholds of Significance

The significance criteria used to evaluate the project impacts to Utilities and Service Systems are based on Appendix G of the CEQA Guidelines. According to Appendix G of the CEQA Guidelines, a significant impact related to Utilities and Service Systems would occur if the project would:

- 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 relocation 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 waste water treatment provider, which 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?

# 3.15.4 Impact Analysis

# 3.15.4.1 Methodology

The proposed project would consist of three primary phases: feedstock acquisition, wood pellet production, and transport to market. The impact analyses below evaluate each of these primary phases as related to utilities and service systems. Potential impacts to public utilities are determined by comparing project demand to available utilities and service systems capacity. In determining the level of significance, this analysis assumes that the proposed project would comply with relevant State and local ordinances and regulations, as well as the General Plan policies presented above.

# 3.15.4.2 Project Impacts

#### Impact UTIL-1

The project would require the relocation or construction of new or expanded water, wastewater treatment, storm water drainage, electric power, natural gas, or telecommunications facilities resulting in environmental effects.

# **Feedstock Acquisition**

## Sustainable Forest Management Projects

Due to their nature and location, feedstock acquisition projects would not connect to any existing utility systems. Water for dust control would be provided by truck. The project would not require the relocation or construction of new or expanded facilities and therefore would have **no impact**.

### **Wood Pellet Production**

## Lassen Facility

For the proposed Lassen facility, pellet processing would require approximately 260 gallons per minute (gpm) and all other operational aspects would require a total of 360 gpm (and a 32 gpm average). A central water system is not available at the site. Production water would be provided by the existing groundwater well. The project is anticipated to require approximately 20 AF for construction over a one-year period and approximately 47 AFY for operation. The operational water demand of 47 AFY is anticipated to remain constant over the life of the project. This estimate is based on the volume of water required to produce 700,000 metric tons of pellets per year (15,159,017 gallons per year), plus the sanitary and drinking water demands of 60 employees at 10 gallons per employee per shift (156,000 gallons per year). This equates to an amortized pumping rate of approximately 29 gpm, assuming the well is pumped 24 hours per day seven days per week, or approximately 123 gpm, assuming

the well is pumped eight hours per day five days per week. Based on these estimates, the total project water demand is estimated to be approximately 913 AF over a 20-year period, or 47 AFY (Appendix G2). The existing onsite well would be used to meet the project demand for water used in the pellet production process. An additional well of typical domestic size, with an appropriate seal, will be drilled to fulfill the employees' sanitary and drinking water demands. (Water usage from this well is included in the operational water demand figure noted above). Project impacts relating to groundwater supply are discussed in Section 3.9, Hydrology and Water Quality.

A wastewater system is not available at the project site. Wastewater demand for the site is limited to employee demand, as the pellet process does not result in wastewater discharge. The process water for pellet production is converted to steam and then captured and recycled into the pellet making process. The site would require construction of a septic system to meet demand of 0.26 gpm. The impacts of the septic system are discussed in Section 3.6, Geology and Soils.

A stormwater drainage system would be installed to direct run off to an on-site detention basin. The construction of the detention basin has the potential to result in significant environmental effects. The basin is included in the project description (see Figure 2-5, Project Site (Lassen)), and the impacts are addressed in the construction impact analysis for the Lassen site throughout this EIR, including but not limited to air quality, biological resources, cultural resources, greenhouse gas emissions, hydrology, noise, and wildfire.

#### **Electrical Power**

The site is currently served by electrical power via overhead utility lines. To support project operations, an electrical load of 12 kV would be required. The existing infrastructure will require upgrades to accommodate the required electrical load. The project will require electrical transmission upgrades to serve the project site. Electrical power will be supplied from an existing substation located on Susanville Road between Highway 299 and Valley Cutoff Road, approximately 4 miles northeast of the project site. (As noted above, this substation is presently operated by SVEC, and use of this substation for the proposed project will require either a wheeling or similar arrangement between PG&E and SVEC). Existing electrical transmission lines running along the public roads between the substation and the project site would be upgraded to meet the demands of the proposed facility. The proposed transmission upgrades would be approximately 4.5 miles in length and would utilize existing utility poles that run parallel to State Route (SR) 299 and Susanville Road (see Figure 3.15-1, Proposed Transmission Upgrades – Lassen Facility). Some utility poles may be replaced if they are in disrepair and not suitable for repowering.

Annual electricity demand for the facility is estimated at 142,677,840 kWh/yr, further discussed in Section 3.5 Energy.

The construction of a new upgraded transmission line would not result in significant impacts to the resource areas of aesthetics, geology and soils, land use and planning, noise, population and housing, public services, and transportation. Impacts to these resources would be considered less than significant for the reasons discussed hereafter.

Construction of the transmission upgrades would not create a significant impact to aesthetic resources because the transmission upgrades would utilize the existing transmission line adjacent to SR 299 and Susanville Road. As stated in Section 3.1, Aesthetics, SR 299 is classified as a County Scenic Corridor by Lassen County. However, upgrading the electricals line on existing poles would not substantially damage the scenic nature of SR 299, nor would it degrade the existing visual character or quality of public views. Furthermore, the transmission upgrades would not include any elements that could create a new source of light or glare.

Geology and soil conditions would not be impacted by transmission upgrades. Installation of a new or replacement electrical line on existing poles would require limited ground disturbing activities (limited to locations where individual pole replacement may be necessary). The corridor along SR 299 where the transmission line would be installed are not on or near any known active earthquake faults. The limited ground disturbance would not result in significant geotechnical-related impacts, such as expansive soils, landslides, soil erosion, liquefaction, lateral spreading, subsidence, or collapse. Similar to the project site, the electrical upgrades would not result in potentially significant impacts relating to destruction of a unique paleontological or geological resource.

Hazards and hazardous material impacts related to installation and maintenance of the transmission line would be less than significant. While installation or maintenance of the transmission line may require hazardous materials commonly used for construction activities, all such materials would be transported, used, and disposed of in accordance with all federal, state, and local laws regulating the management and use of hazardous materials. With implementation of applicable construction BMPs and adherence to applicable hazardous materials and waste regulations, impacts involving the release of hazardous materials into the environment due to upset and accident conditions during installation and maintenance of the transmission lines would be less than significant. Although the transmission line would be located within a quarter mile of Big Valley Joint Unified School, given the nature of this element of the project and low number of hazardous emissions and materials that would be used for implementation, the potential impact would be less than significant. There is one LUST site, adjacent to SR 299, that is in open remediation, according to the State Water Resources Control Board. However, the proposed project would not construct new electrical poles and ground disturbance would be minimal. As such, the potential impact of being included on a list of hazardous materials sites is considered less than significant. Additionally, construction activities associated with installation would be temporary and would not require road closures or cause any other physical interference with an emergency response plan or evacuation plan.

The electrical upgrades would not violate any water quality standards or waste discharge requirements, decrease or interfere with groundwater recharge, alter the existing drainage pattern of the area, release pollutants in the event of a flood hazards, nor would it conflict with a water quality control plan.

The transmission upgrades would have no impact on land use. As the electrical upgrades would use an existing utility corridor adjacent to SR 299 and Susanville Road, they would not divide an existing community, nor conflict with any applicable land use plan, policy, or regulation.

Construction noise would be temporary in nature and would not occur in one location for any extended period. In addition, sensitive receptors are few in number and set back from SR 299 and Susanville Road. Noise impacts would be less than significant.

The number of construction workers required to would be minimal and would be drawn from existing utility contractors in the region. Therefore, the construction of transmission upgrades would not have a significant effect on population and housing or public services.

Transportation related impacts associated with the transmission upgrades would be less than significant. The number of trips generated by construction crews would be small and temporary in nature. Installation of the new transmission line would not involve any changes or alterations to existing roadways, including SR 299 and Susanville Road, that could create a hazard or result in inadequate emergency access.

The transmission upgrades may contribute to potentially significant construction impacts to air quality, biological resources, greenhouse gas emissions, cultural resources, and wildfire.

While criteria air pollutant and greenhouse gas emissions, as well as energy use, are relatively small for this project component, it would contribute to overall construction impacts at the Lassen site. The activities associated with the transmission upgrades have been included in the construction emissions analysis for site. Air quality and GHG mitigation measures associated with construction, such as MM-AQ-2, MM-AQ-3, MM-AQ-4, MM-AQ-5, and MM-AQ-7 would be implemented where applicable.

Due to the small and temporary nature of ground disturbance, biological resources impacts related to this element of the project would primarily be related to disturbance of nesting special status or migratory birds. If installation occurs during the bird nesting season, project activities could impact nesting birds by potentially crushing eggs or killing nestlings in active nests. However, implementation of **PDF-BIO-8** would avoid these impacts by scheduling work outside the nesting season or conducting pre-activity nesting bird surveys and avoiding active nests, when feasible.

Minimal ground disturbance would occur during installation and maintenance activities associated with the new transmission line. As such, the likelihood of significant impacts to cultural, tribal cultural resources, or human remains would be low. Nonetheless, mitigation measures **MM-CUL-1** and **MM-CUL-2** would be implemented during installation of the transmission line. These mitigation measures would require that in the event of an unanticipated discovery, work in that vicinity would halt while the resources were evaluated.

While the risk of increased wildfire is low, due to the nature of the work (i.e. upgrading transmission lines), the use of vehicles and equipment in a moderate wildfire risk zone does warrant precautionary measures and best practices (CAL FIRE 2022a). This project component would be subject to the mitigation measures presented in Section 3.16, Wildfire. Installation of the transmission line would not require road closures that could impair and adopted emergency response or evacuation plan. Given that installation activities would not involve altering any slopes or creating any new wind patterns, the Project would not exacerbate wildfire spread due to slopes. As presented in Section 3.16, the stringing of a new transmission line could involve activities associated with the use of heavy machinery, vehicles, trenching, hot work etc., which would result in a potentially significant impact. Therefore, mitigation measure MM-WIL-2, which requires best practices and requirements for fire safety during construction would be implemented prior to and throughout construction activities associated with installation of the new transmission line.

## Tuolumne Facility

The existing onsite well would be used to meet the project's needs for water used in the pellet production process. An additional well of typical domestic size, with an appropriate seal, will be drilled to fulfill the employees' sanitary and drinking water demands. (Water usage from this well is included in the operational water demand figure noted below). Project demand for pellet processing would require approximately 110 gpm. All other project operations would require a maximum of 216 gpm. The project is anticipated to require approximately 10 AF of water for construction, over a 1-year period, and approximately 25 AFY for operations. The operational water demand of 25 AFY is anticipated to remain constant over the life of the project. This estimate is based on the volume of water required to produce 300,000 metric tons of pellets per year (8,033,731 gallons per year), plus the sanitary and drinking water demands of 51 employees at 10 gallons per employee per shift (132,600 gallons per year), as well as filling a 180,000-gallon water storage tank for fire supply. This equates to an amortized pumping rate of approximately 16 gpm, assuming the well is pumped 24 hours per day seven days per week, or approximately 65 gpm, assuming the well is pumped eight hours per day five days per week. Based on these estimates, the total project water demand is estimated to be 485 AF over a 20-year period, or 24.25 AFY. Effects on groundwater are discussed in Section 3.9, Hydrology and Water Quality.

The project is served by an existing septic system. Wastewater demand for the site is limited to employee demand, as the pellet process does not result in wastewater discharge. The facility does require process water, which is converted to steam and then captured and recycled into the pellet making process. The system may require refurbishment or expansion to meet demand of 0.18 gpm. The impacts of the septic system are discussed in Section 3.6, Geology and Soils.

A stormwater drainage system would be installed to direct run off to an existing on-site detention pond located in the southwest corner of the property or existed permitted discharge point on the west side of the property. The drainage modifications may have a potentially significant impact on biological resources as, discussed in Section 3.3, Biological Resources.

#### **Electrical Power**

The site is currently served by electrical power via overhead utility lines. To support project operations, an electrical load of 12 kV would be required. The existing infrastructure will require upgrades to accommodate the required electrical load. The project will require electrical transmission upgrades to serve the project site. The existing transmission lines that run along the public roads between the project site and an existing electrical substation, located west of the project site, would be upgraded. The proposed transmission upgrades would be approximately 4.54 miles in length and would utilize existing utility poles adjacent to SR 108 (see Figure 3.15-2, Proposed Transmission Upgrades – Tuolumne Facility). Some utility poles may be replaced if they are in disrepair and not suitable for repowering.

Annual electricity demand for the facility is estimated at 94,807,680 kWH/yr, further discussed in Section 3.5 Energy.

The construction of a new transmission line would not result in significant impacts to the resource areas of aesthetics, geology and soils, land use and planning, noise, population and housing, public services, and transportation. Impacts to these resources would be considered less than significant for the reasons discussed hereafter.

Construction of the transmission upgrades would not create a significant impact to aesthetic resources because the transmission upgrades would utilize the existing transmission line adjacent to SR 108. As stated in Section 3.1, Aesthetics, there are no officially designated scenic highways in the project area. Upgrading the electrical lines on existing poles would not substantially damage the scenic nature of the area, nor would it degrade the existing visual character or quality of public views. Furthermore, the transmission upgrades would not include any elements that could create a new source of light or glare.

Geology and soil conditions would not be impacted by the transmission upgrades. Installation of a new or replacement electrical line on existing poles would require limited ground disturbing activities (limited to locations where individual pole replacement may be necessary). The corridor along SR 108 where the transmission line would be installed are not on or near any known active earthquake faults. The limited ground disturbance would not result in significant geotechnical-related impacts, such as expansive soils, landslides, soil erosion, liquefaction, lateral spreading, subsidence, or collapse. Similar to the project site, the electrical upgrades would not result in potentially significant impacts relating to destruction of a unique paleontological or geological resource.

Hazards and hazardous material impacts related to installation of the transmission line would be less than significant. While installation or maintenance of the transmission line may require hazardous materials commonly

used for construction activities, all such materials would be transported, used, and disposed of in accordance with all federal, state, and local laws regulating the management and use of hazardous materials. With implementation of applicable construction BMPs and adherence to applicable hazardous materials and waste regulations, impacts involving the release of hazardous materials into the environment due to upset and accident conditions during installation and maintenance of the transmission lines would be less than significant. There are no schools located within a quarter mile of the proposed transmission line. In addition, the existing transmission line is not included on a list of hazardous materials sites. Moreover, construction activities associated with installation would be temporary and would not require road closures or cause any other physical interference with an emergency response plan or evacuation plan.

The electrical upgrades would not violate any water quality standards or waste discharge requirements, decrease or interfere with groundwater recharge, alter the existing drainage pattern of the area, release pollutants in the event of a flood hazards, nor would it conflict with a water quality control plan.

The transmission upgrades would have no impact on land use. As the electrical upgrades would use an existing utility corridor adjacent to SR 108, they would not divide an existing community, nor conflict with any applicable land use plan, policy, or regulation.

Construction noise would be temporary in nature and would not occur in one location for any extended period. In addition, sensitive receptors are few in number and set back from SR 108. Noise impacts would be less than significant.

The number of construction workers required would be minimal, and be drawn from existing utility contractors in the region. Therefore, the construction of transmission upgrades would not have a significant effect on population and housing or public services.

Transportation related impacts associated with the transmission upgrades would be less than significant. The number of trips generated by construction crews would be small and temporary in nature. Installation of the new transmission line would not involve any changes or alterations to existing roadways, including SR 108, that could create a hazard or result in inadequate emergency access.

The transmission upgrades may contribute to potentially significant construction impacts to air quality, biological resources, greenhouse gas emissions, cultural and tribal cultural resources, and wildfire.

While criteria air pollutant and greenhouse gas emissions, as well as energy use, are relatively small for this project component, it would contribute to overall construction impacts at the Tuolumne site. The activities associated with the transmission upgrades have been included in the construction emissions analysis for site. Air quality and GHG mitigation measures associated with construction such as MM-AQ-2, MM-AQ-3, MM-AQ-4, MM-AQ-10, and MM-AQ-13 would be implemented where applicable.

Due to the small and temporary nature of ground disturbance, biological resources impacts related to this element of the project would primarily be related to disturbance of nesting special status or migratory birds. If installation occurs during the bird nesting season, project activities could impact nesting birds by potentially crushing eggs or killing nestlings in active nests. However, implementation of **PDF-BIO-8** would avoid these impacts by scheduling work outside the nesting season or conducting pre-activity nesting bird surveys and avoiding active nests when feasible.

Minimal ground disturbance would occur during installation and maintenance activities associated with the new transmission line. As such, the likelihood of significant impacts to cultural resources, tribal cultural resources, and human remains would be low. Nonetheless, mitigation measures **MM-CUL-1** and **MM-CUL-2** would be implemented during installation of the transmission line. These mitigation measures would require that in the event of an unanticipated discovery, work in that vicinity would halt while the resources were evaluated.

While the risk of increased wildfire is low, due to the nature of the work (i.e. upgrading transmission lines), the use of vehicles and equipment in a high or very high wildfire risk zone does warrant precautionary measures and best practices (CAL FIRE 2022b). This project component would be subject to the mitigation measures presented in Section 3.16, Wildfire. Installation of the transmission line would not require road closures that could impair and adopted emergency response or evacuation plan. Given that installation activities would not involve altering any slopes or creating any new wind patterns, the Project would not exacerbate wildfire spread due to slopes. As presented in Section 3.16, the stringing of a new transmission line could involve activities associated with the use of heavy machinery, vehicles, trenching, hot work etc., which would result in a potentially significant impact. Therefore, mitigation measure MM-WIL-2, which requires best practices and requirements for fire safety during construction would be implemented prior to and throughout construction activities associated with installation of the new transmission line.

Construction of new or expanded electric power facilities at the Tuolumne and Lassen wood pellet production facilities could result in a **potentially significant** impact. However, with implementation of the project design features and mitigation measures noted above, impacts would be reduced to **less than significant**.

# **Transport to Market**

## Port of Stockton

The project is consistent with the buildout of the West Complex Development Plan EIR, which considered impacts to the water distribution, wastewater, and stormwater conveyance systems (Port of Stockton 2004).

The proposed project would tie into existing water service lines which serve the existing port berth. Operation of the proposed project would require approximately 675,360 gpy (2.07 AFY) for service water (non-potable) and 50,966 gpy (0.16 AFY) for potable water. All service (non-potable) water uses would have an average demand of 84 gallons per hour, or 1.4 gpm. Maximum flow demand for non-potable water would by 66 gpm (excluding fire flow). For purposes of fire flow, the maximum non-potable flow would be between 1,500 and 3,940 gpm. Potable water demand would be an average 9f 6.3 gallons per hour, or 0.1 gpm. Maximum potable flow would be 11 gpm.

Non-potable water is supplied from the San Joaquin River, while potable water is supplied via pipeline from the Port. The project facilities would tie into existing water conveyance infrastructure in the West Complex. While the West Complex Development Plan EIR notes that construction of a future loop system to improve water service is planned, this project represents a very low percentage of the anticipated demand, and well below the historic demand of the West Complex (aka Rough and Ready Island).

Sanitary sewer flow would be a maximum of 11 gpm, with an estimated annual discharge of 50,966 gpy (0.16 AFY), based on the potable water demand. The project facilities would connect to the existing sewer system. While the West Complex Development Plan has identified the need for future wastewater conveyance improvements, the project demand is quite low, and can be accommodated by the existing system.

The project would increase the amount of impermeable area. The project would tie into the existing stormwater drainage system on the Rough and Ready Island that is available to West Complex tenants. The developed areas on the island are served by a combination of underground pipes and open drainage ditches, while the undeveloped areas of the island are served exclusively by ditches. Stormwater on the island is directed to a collection and pumping area near the southwest corner of the island. An approximate 5-acre stormwater overflow area just north of the pumphouse collects any overflow runoff until it can be pumped into Burns Cutoff. The project will be required to implement low impact development features and provide adequate on-site stormwater detention, consistent with the West Complex Development Plan EIR. These requirements have been incorporated into MM-HYD-11 and HYD-12, as discussed in section 3.9, Hydrology and Water Quality. On-site measures would minimize the need to expand off-site stormwater facilities.

The project would require 12,060,000 kWh per year of electricity, with an average running load of 0.7 MW (over 8,040 hours per year of operation). The proposed facility would connect to existing electrical infrastructure available to Port tenants. The existing electrical infrastructure at the Port has adequate existing capacity and will not require new or expanded facilities to serve the project's needs

The project would not require the relocation or construction of new or expanded facilities and therefore the project would have a **less than significant** impact.

Impact UTIL-2

The project would have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years.

# **Feedstock Acquisition**

Non-potable water would be required for dust control and potentially for fire suppression. Potable water would be required for employees. As the feedstock project locations will typically be in remote areas without water infrastructure, water would be trucked in from a suitable source. Impacts to water supply would be **less** than significant.

#### **Wood Pellet Production**

# Lassen Facility

As described in the WSA prepared for the Lassen facility (Appendix G2), the water supply for the Lassen facility would be provided by on-site groundwater supply well. The Project site overlies the Big Valley Groundwater Basin. As an overlying landowner, the Project has the right to extract percolating groundwater for reasonable and beneficial use without limitation. Based on the results of a 24-hour pumping test conducted at existing on-site Well 1, the well has sufficient capacity to satisfy the estimated Project demand of 46.85 AFY. Additionally, based on the results of the Basin water budget analysis, the Basin is projected to be nearly in balance through 2068. Groundwater levels in Well 38N07E32A002M located near the Project site have remained stable since the beginning of the measurement record in 1959 indicating a stable groundwater supply. Implementation of the GSP will ensure that the groundwater Basin is managed sustainably for existing and future beneficial uses of the groundwater supply. The WSA concluded that local groundwater supplies are available during normal, single dry, and multiple dry years during a 20-year projection and will meet the projected water demand associated with the proposed Project, in addition to existing and planned future uses of the groundwater supply. As such, impacts to water supply would be less than significant. For a discussion on groundwater supply impacts, see Section 3.9, Hydrology and Water Quality of this EIR.

# **Tuolumne Facility**

According to the WSA prepared for the Tuolumne facility (Appendix G4), water supply for the Tuolumne facility would be provided by the existing on-site groundwater supply well. As an overlying landowner, the Project has the right to extract percolating groundwater for reasonable and beneficial use without limitation. The Project site is not located within a DWR Bulletin 118 alluvial groundwater basin. The surficial geology at the Project site consists of metavolcanic rocks. Groundwater is found within the fractures of this bedrock formation. Based on the results of a 24-hour pumping test conducted at existing on-site Well 1, the well has sufficient capacity to satisfy the estimated Project demand of 25 AFY. Additionally, based on the results of the groundwater budget analysis for the Project site contributing watershed, there is sufficient groundwater recharge and groundwater in storage to satisfy the Project water demand and the demands of all other groundwater users in the watershed during normal, single dry, and multiple dry years over a 20-year projection and will meet the projected water demand associated with the proposed Project, in addition to existing and planned future uses of the groundwater supply. Therefore, impacts to water supply would be less than significant. For a discussion on groundwater supply impacts, see Section 3.9, Hydrology and Water Quality of this EIR.

## Transport to Market

## Port of Stockton

The project would require both non-potable and potable water. Operation of the proposed project would require approximately 2.04 AFY for service water (non-potable) and 0.16 AFY for potable water. The

The project is consistent with the buildout of the West Complex Development Plan EIR, which considered water demand for cargo operations and estimated an increased demand of 679 AFY (Port of Stockton 2004). The proposed project would represent less than 1% of the estimated use.

Non-potable at the West Complex comes from the San Joaquin River. The project would also require potable water for personnel. According to the City's 2020 UWMP, which includes the Port of Stockton, the total potable and non-potable water supplies for Cal Water over the previous 5 years prior to the 2020 UWMP averaged approximately 23,260 AFY (see Table 4-1 of the 2020 UWMP [Cal Water 2021]). Based on the 2020 UWMP, in 2020 Cal Water produced a total of 24,106 acre-feet, of which 1,484 acre-feet was produced from local groundwater sources, and 22,622 acre-feet was purchased from the SEWD. Over the past several years, Cal Water's local groundwater has accounted for approximately 16% of the overall demand, with purchased water accounting for the remaining 84% of the overall demand. Future demand projections assume approximately the same percentage distribution between groundwater and purchased water supplies. The anticipated drinking water quantities are projected to remain relatively consistent as future demands increase slightly through the planning horizon of year 2045. The analysis of existing and projected water supplies versus demands determined that there is sufficient water supply for Cal Water to meet the proposed project's demand in addition to the existing demands for the next 20+ years (Cal Water 2021).

The UWMP also evaluated the reliability of Cal Water's water supplies in normal (average), single-dry, and multiple-dry year scenarios. Cal Water purchases treated water from the Stockton East Water District and pumps groundwater from wells located within its service area in the Eastern San Joaquin Subbasin. As indicated in Tables 3.15-3 above, Cal Water is projected to meet its projected demand for normal, single-dry, and multiple-dry years (Cal Water 2021). In addition, the 2020 UWMP includes a Water Shortage Contingency Plan in the event of a water shortage event or supply disruption, specific policies and actions would be implemented at various shortage level

scenarios to ensure necessary water resources to protect human health and safety. The project would also be constructed in compliance with the California Green Building Standards also known as CalGreen and include water conservation measures to reduce water consumption 25% by 2030. The CalGreen standards include regulations for water efficiency and conservation that are continually updated and adapted based on new legislation and changing conditions.

Impacts to water supply from the Port operations would be less than significant.

# Summary

Impacts to water supplies during normal, dry and multiple dry years would be less than significant.

Impact UTIL-3

The project would not result in a determination by the wastewater treatment provider, that it does not have adequate capacity to serve the project's projected demand in addition to existing commitments.

# **Feedstock Acquisition**

Sustainable Forest Management Projects

The feedstock acquisition portion of the proposed project would take place in a variety of rural forested areas, likely with no access to facilities connected to a wastewater treatment system. Therefore, there would be no connections made to a wastewater treatment plant or provider by the proposed project. As such, there could not be a determination by a wastewater treatment provider determining insufficient capacity to serve the project. There would be **no impact**.

#### **Wood Pellet Production**

#### Lassen and Tuolumne Facilities

The proposed Lassen and Tuolumne facilities would not connect to any public wastewater conveyance or collection system. Both facilities would rely upon septic systems, discussed in Section 3.6, Geology and Soils. The facilities would have **no impact** on wastewater treatment providers.

# Transport to Market

### Port of Stockton

As discussed above, the Stockton RWCF has a capacity of 48 mgd. The facility currently collects and treats an average of 33 mgd. The proposed facility may generate up to 50,966 gpy of wastewater. Distributed over 336 operating days per year would yield average demand of 152 gallons per day. This represents 0.001% of the RWCF's remaining capacity. Therefore, the RWCF would have sufficient capacity to accommodate the sewer demand of the project in addition to existing commitment and impacts would be **less than significant.** 

## Summary

Overall, impacts to wastewater treatment providers would be less than significant.

## Impact UTIL-4

The project would not 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 comply with all federal, state, and local management and reduction statutes and regulations related to solid waste.

# **Feedstock Acquisition**

# Sustainable Forest Management Projects

Feedstock projects would generate minimal solid waste. Material from feedstock projects would be transported to the wood pellet facilities.

#### **Wood Pellet Production**

# Lassen Facility

The proposed project would generate minimal waste during construction, due to the lack existing structures. Solid waste from project operation would be generated by maintenance activities. The primary waste product of the pellet operation is ash from the dryer, estimated at 3,103 tons per year. The ash may be used for agricultural purposes, but excess material may be landfilled. The conversion factor of wood ash tons to cubic yards is 1.54 (EPA 2006), resulting in a maximum of 4,669 cubic yards. Due to the rural location of the project site, solid waste would not be collected by a service provider. The waste would likely be transported and disposed of at Westwood or Bass Hill landfill. As noted in the Existing Conditions discussion above, the area landfills are currently processing waste at levels below their original capacity designs. Active permits for the landfills further indicate that they have existing capacity. The Westwood landfill has an estimated remaining capacity of approximately 62,207 cubic yards. The Bass Landfill has an estimated remaining capacity of 603,404 cubic yards. The proposed project would not exceed available capacity. In addition, the proposed project would adhere to all required State and County waste management ordinances and requirements, including the development of a Construction Waste Management Plan.

## Tuolumne Facility

The proposed project would generate minimal waste during construction. Some demolition of structures would be required, which would be recycled as appropriate and properly disposed of (most likely at the Highway 59 Landfill, discussed below). Solid waste from project operation would be generated by maintenance activities. The primary waste product of the pellet operation is ash from the dryer, estimated at 1,525 tons per year. The ash may be used for agricultural purposes, but excess material may be landfilled. The conversion factor of wood ash tons to cubic yards is 1.54, resulting in a maximum of 2,348 cubic yards per year.

Solid waste generated from project operations and construction would likely be transported to the Highway 59 Landfill in Merced County. The Highway 59 Landfill has an estimated remaining capacity of approximately 28,025,334 cubic yards and is expected to remain in operation until 2030. The proposed project would not exceed available capacity. In addition, the proposed project would adhere to all required State and County waste management requirements (Chapter 8.05 and Title 7 of the Tuolumne County Ordinance) and requirements, including the development of a Construction Waste Management Plan.

# Transport to Market

#### Port of Stockton

Solid waste in the City is collected by Republic Services and Waste Management. The collected solid waste is transported and disposed of primarily at either the Forward Landfill on South Austin Road in Manteca, or the North County Landfill on East Harney Lane in Lodi. In 2019, the City generated approximately 372,729 tons of solid waste (CalRecycle 2019). As shown in Table 4.10-2, capacities of both of these facilities are currently showing ample capacity (over 24 million tons at Forward Landfill and over 35 million tons of capacity at North County) to accommodate additional solid waste.

The proposed project would generate minimal solid waste associated with construction activities, as no structures would be demolished. Furthermore, the City's Construction and Demolition Debris Waste Reduction Ordinance, Municipal Code Sections 8.28.020 through 8.28.070, requires that all permit applicants identify the debris the project would generate and recycle accordingly.

Minimal solid waste would be generated by project activities at the Port, as the pellets are transferred from rail to storage, and then to bulk cargo ships. No packaging or other materials are involved in this project phase.

As noted above, there is adequate capacity at both facilities to accommodate solid waste generated by the proposed project and the project would not generate solid waste in excess of state or local standards or impair the attainment of solid waste reduction goals. The impact would be **less than significant.** 

# 3.15.4.3 Cumulative Impacts

### **Feedstock Acquisition**

# Sustainable Forest Management Projects

Other vegetation management projects, as described in Section 3.0, would occur within Northern California. As discussed above, such operations would not rely on existing utility systems. Furthermore, feedstock operations are temporary in nature, and occur only during working hours. Such projects would not require new or expanded utilities. The proposed project would not have a considerable contribution to a cumulative service impact.

### **Wood Pellet Production**

# Lassen Facility

As described in Section 3.0, no other cumulative projects have been identified in Big Valley that would result in substantial utilities demands. The proposed project would not result in a considerable contribution to a cumulative service impact.

## **Tuolumne Facility**

As described in Section 3.0, cumulative projects in the project vicinity may require additional services. The environmental documents prepared for the cumulative projects do not identify significant impacts to utilities, either direct or cumulative. The two planned biomass plants would rely upon on-site water, wastewater, and stormwater systems, similar to the proposed project. The Chicken Ranch Rancheria New Hotel and Casino Project Solid project

would rely on expansion of existing water, wastewater, and stormwater infrastructure that serves the existing rancheria. The proposed project would not result in a considerable contribution to a cumulative service impact.

# **Transport to Market**

#### Port of Stockton

As described in Section 3.0, other cargo projects are planned within the Port of Stockton. The Port has planned for such expansion in its West Complex Development Plan (WCDP), and accompanying EIR. The WCDP EIR concluded that buildout of the West Complex could result in significant impacts to the non-potable and potable water system. The Port implements mitigation analyzing the cumulative water demand of major development projects and development of improvements to the utility system as needed. As discussed above, the project is not expected to have a significant impact on water utilities. The project would have minimal demand for wastewater and stormwater systems, and would not contribute to a cumulative impact. The proposed project would not result in a considerable contribution to a cumulative utilities impact.

# 3.15.4.4 Mitigation Measures

# **Feedstock Acquisition**

Sustainable Forest Management Projects

No mitigation measures are required.

## **Wood Pellet Production**

# Lassen Facility

Ground disturbing activities associated with construction of new or expanded electrical facilities would be subject to the mitigation measures identified under Impact UTIL-1, which include the following: MM-AQ-2, MM-AQ-3, MM-AQ-4, MM-AQ-5, MM-AQ-7, PDF-BIO-8, CUL-1, CUL-2, and WIL-2.

#### **Tuolumne Facility**

Ground disturbing activities associated with construction of new or expanded electrical facilities would be subject to the mitigation measures identified under Impact UTIL-1, which include the following: MM-AQ-2, MM-AQ-3, MM-AQ-4, MM-AQ-10, MM-AQ-13, PDF-BIO-8, CUL-1, CUL-2, and WIL-2.

## Transport to Market

#### Port of Stockton

No mitigation measures are required.

# 3.15.4.5 Significance After Mitigation

Impact UTIL-1

The project would require the relocation or construction of new or expanded water, wastewater treatment, storm water drainage, electric power, natural gas, or telecommunications facilities resulting in environmental effects.

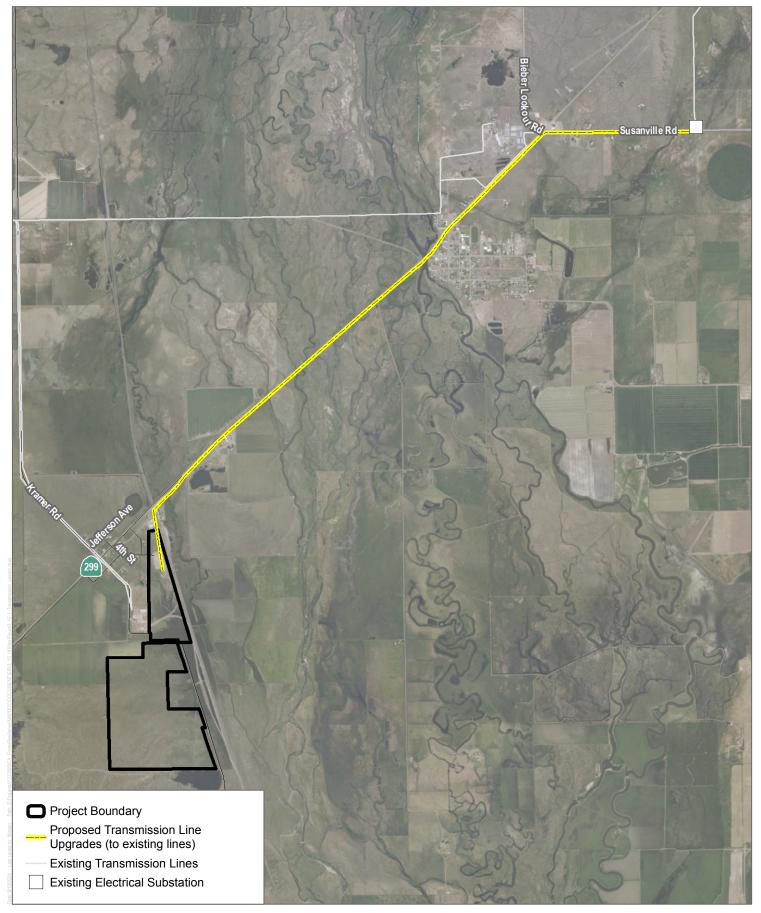
Impacts for feedstock acquisition activities and transfer to market (Port of Stockton) would be less than significant without mitigation. Construction of new or expanded electric power facilities need for wood pellet production could result in a potentially significant impact. However, with implementation of the project design features and mitigation measures noted above, impacts would be reduced to less than significant.

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SOURCE: Bing Maps 2022, Lassen County 2015

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FIGURE 3.15-1

3.15 - UTILITIES AND SERVICE SYSTEMS

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SOURCE: Bing Maps 2021, Tuolumne County 2020, Nexus PMG 2021

FIGURE 3.15-2
Proposed Transmission Upgrades - Tuolumne Facility

3.15 - UTILITIES AND SERVICE SYSTEMS

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