

## 3.18 Utilities and Service Systems

### 3.18.1 Introduction

This section describes the regulatory setting and environmental setting for utilities and service systems in the vicinity of the Proposed Project [including all track variants, technology variants, and the Greenville and Mountain House initial operating segments (IOS)] and the alternatives analyzed at an equal level of analysis (i.e., the Southfront Road Station Alternative, Mountain House Station Alternative, Stone Cut Alignment Alternative, Downtown Tracy Station Parking Alternatives 1 and 2, and the West Tracy Operation and Maintenance Facility [OMF] Alternative). It also describes the impacts on utilities and service systems that would result and mitigation measures that would reduce significant impacts, where feasible.

There would be no differences in the physical impacts on utilities and service systems due to the diesel multiple unit (DMU), hybrid battery multiple unit (HBMU), battery-electric multiple unit (BEMU), or diesel locomotive haul (DLH) technology variants, so this section does not discuss these variants. Potential impacts associated with implementation of the Proposed Project and the alternatives analyzed at an equal level of detail assume the larger environmental footprint at proposed and alternative stations associated with a potential IOS (i.e., Greenville IOS, Mountain House IOS, Southfront Road Station Alternative IOS, and Mountain House Alternative IOS) and/or the expanded parking in 2040. As such, the analysis of the Proposed Project and the alternatives analyzed at an equal level of detail below considers the potential impacts associated with a potential IOS and/or the expanded parking in 2040.

Cumulative impacts from identified projects on utilities and service systems, in combination with planned, approved, and reasonably foreseeable projects, are discussed in Chapter 4, *Other CEQA-Required Analysis*.

### 3.18.2 Regulatory Setting

This section summarizes federal, state, regional, and local regulations related to utilities and service systems and applicable to the Proposed Project and alternatives analyzed at an equal level of detail.

#### 3.18.2.1 Federal

There are no federal regulations pertinent to utilities and service systems.

#### 3.18.2.2 State

##### California Government Code Section 4216

California law (i.e., Government Code Section 4216 et seq.) requires that persons planning to conduct any excavation contact the regional notification center. Section 4216 includes several related requirements, including requirements for excavations near high priority utilities, which include high-pressure natural gas pipelines and other pipelines that are potentially hazardous to workers or the public if damaged or ruptured. Underground Service Alert North (USA North) is the regional notification center for the Proposed Project area. USA North receives planned excavation

reports and transmits the information to all participating members that may have underground facilities at the location of excavation. USA North members will then mark or stake their facility, provide information about the location, or advise the excavator of clearance. These procedures would be implemented during construction of the Proposed Project.

### **Integrated Waste Management Act**

The Integrated Waste Management Act (Assembly Bill 939) mandates a reduction of waste and establishes a framework to implement source reduction, recycling, and composting. The California Department of Resources Recycling and Recovery (CalRecycle) is responsible for implementation of the Integrated Waste Management Act. The Tri-Valley–San Joaquin Valley Regional Rail Authority (Authority) would be required to comply with the State’s recycling policies; solid waste reduction would be implemented during construction of the Proposed Project.

### **California Code of Regulations, Title 24, Part 11, California Green Building Standards**

Title 24, Part 11 of the California Code of Regulations (Cal. Code Regs.), or CALGreen, sets standards for sustainable building design for residential and nonresidential buildings in California. The code sets forth sustainable construction practices applicable to planning and design, energy efficiency, water efficiency and conservation, material conservation and resource efficiency, and environmental quality. CALGreen mandates permitted new residential and nonresidential building construction, demolition, and certain additions and alteration projects to recycle and/or salvage for reuse a minimum 65 percent of the nonhazardous construction and demolition (C&D) debris generated during project construction (per CALGreen Sections 4.408, 5.408, 301.1.1, and 301.3). CALGreen’s sustainable building design standards and construction and demolition recycling and reuse policies would be implemented during construction and operation of the Proposed Project.

### **Water Efficient Landscape Ordinance**

Pursuant to the Water Conservation in Landscaping Act of 2006 (Government Code Section 65591 et seq.), cities and counties in California are required to adopt a water efficient landscape ordinance. Local ordinances are intended to reduce water use for landscaping and irrigation purposes and encourage the use of recycled and reclaimed water for these purposes. The California Department of Water Resources maintains a model water efficient landscape ordinance (MWELO) after which local jurisdictions can model their ordinances. The MWELO is contained in Title 23 of the Cal. Code Regs. in Section 490 et seq. Cities and counties in which the Proposed Project would be constructed have adopted water efficient landscape ordinances to require reduction of water usage at new and existing landscaped areas.

#### **3.18.2.3 Regional and Local**

Appendix I, *Regional Plans and Local General Plans*, lists applicable goals, policies, and objectives from regional and local plans of the jurisdictions in which the Proposed Project segments are located. Section 15125(d) of the CEQA Guidelines requires an EIR to discuss “any inconsistencies between the Proposed Project and applicable general plans, specific plans, and regional plans.” These plans were considered during the preparation of this analysis and were reviewed to assess

whether the Proposed Project would be consistent with the plans of relevant jurisdictions.<sup>1</sup> The Proposed Project would be generally consistent with the applicable goals, policies, and objectives related to public services identified in Appendix I.

### 3.18.3 Environmental Setting

This section describes the environmental setting related to utilities and service systems by geographic segment for the Proposed Project. Utilities and service systems within the environmental footprint could be affected by physical changes via structural development and/or infrastructure installation associated with the Proposed Project. This section provides a description of existing water, wastewater, stormwater, and solid waste facilities within each geographic segment. The entire environmental footprint is within Pacific Gas and Electric Company's (PG&E's) electric and gas service territories (Pacific Gas and Electric Company 2014a, 2014b). In addition to PG&E, residents and businesses in Alameda County can also select to receive energy from East Bay Community Energy (EBCE), which procures electricity from renewable sources. This electricity is then delivered to customers via PG&E powerlines and transmission facilities (East Bay Community Energy 2019a). Therefore, electric and natural gas utilities are not described for each geographic segment. A variety of companies provide telecommunication facilities within the environmental footprint (e.g., AT&T, Comcast, Sprint). Appendix D, *Utilities*, includes a list of utilities within the Proposed Project's environmental footprint, including the telecommunication facilities within each segment.

#### 3.18.3.1 Tri-Valley

##### Water

The Dublin San Ramon Services District (DSRSD) provides potable water, reclaimed water for irrigation, and non-potable water to the City of Dublin. Water distributed to Dublin by DSRSD is purchased from Zone 7 Water Agency, also known as the Alameda County Flood Control and Water Conservation District. Zone 7 relies on a combination of supplies to meet treated and untreated demands, including imported surface water and local runoff (City of Dublin 2016). According to the *2015 Urban Water Management Plan*, the DSRSD's water supply is expected to serve demand under all water year types (i.e., normal, single dry year, and multiple dry years) (Dublin San Ramon Services District 2016).

The City of Pleasanton Operations Services Department is a water retailer, providing water primarily to Pleasanton homes and businesses. The City of Pleasanton receives the majority of its potable water supply from the Zone 7 Water Agency through seven permanent turnouts from the Zone 7 system. The potable water from Zone 7 consists of imported and local surface and groundwater. The City of Pleasanton's water supply also includes local groundwater from three Pleasanton-owned and operated wells, and recycled water from the DSRSD's Recycled Water Treatment Facility and the Livermore Water Reclamation Plant (City of Pleasanton 2016). According to the *2015 Urban Water Management Plan*, the City of Pleasanton's water supply is expected to serve demand under all water year types (normal, single dry year, multiple dry years) (City of Pleasanton 2016).

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<sup>1</sup> An inconsistency with regional or local plans is not necessarily considered a significant impact under CEQA, unless it is related to a physical impact on the environment that is significant in its own right.

The portion of Livermore that would be affected by the Proposed Project is within the Livermore service district of the California Water Service Company (Cal Water). Water used by Cal Water comes from local groundwater and water purchased from the Zone 7 Water Agency. Cal Water delivers up to 20 million gallons of water per day to more than 18,000 service connections (California Water Service 2016). According to the *2015 Urban Water Management Plan*, Cal Water’s purchased water and groundwater supply is expected to serve demand under all water year types (i.e., normal, single dry year, and multiple dry years), and the 30-year contract with Zone 7 ensures adequate supply through 2024 (California Water Service 2016).

Table 3.18-1 summarizes water supply and demand for the cities of Dublin, Pleasanton, and Livermore.

**Table 3.18-1. Tri-Valley—Projected Water Supply and Demand (in acre-feet/year)**

Jurisdiction	2015		2020		2025	
	Supply	Demand	Supply	Demand	Supply	Demand
City of Dublin	10,024	10,024	17,583	17,583	18,671	18,671
City of Pleasanton	11,459	11,459	17,742	17,742	18,500	18,500
City of Livermore	6,824	7,255	11,946	11,946	12,457	12,457

Sources: Dublin San Ramon Services District 2016, City of Pleasanton 2016, California Water Service 2016.

## Wastewater

The City of Livermore operates wastewater infrastructure consisting of pipelines, lift stations, and pump stations that convey municipal wastewater to the Livermore Water Reclamation Plant operated and maintained by the City of Livermore’s Water Resources Division. Treated wastewater that is not recycled is sent through the Livermore Amador Valley Water Management Agency (LAVWMA) pipeline for disposal in the San Francisco Bay (City of Livermore 2014). LAVWMA, a joint powers agency between Pleasanton, Livermore and DSRSD, provides export/treated sewage disposal services for treated sewage effluent. LAVWMA is responsible for maintaining the pipeline that transports treated wastewater from two treatment plants to an outfall in the San Leandro marsh (Livermore Amador Valley Water Management Agency 2019). The City of Livermore has completed several plans and studies to ensure there is adequate capacity within the collection system, treatment plant, and effluent disposal system. The results of these efforts indicate that the City of Livermore has adequate capacity in its collection system. The City of Livermore also developed a *Capital Improvement Plan* based on the findings in the *Sewer Master Plan* and the *Asset Management Plan* to replace deteriorated sewers as needed (City of Livermore 2014).

The City of Pleasanton operates a sewer system in the city that contains 255 miles of gravity sewers, 10 pump stations, and more than 25,000 feet of sewer lines. The average daily dry weather flow is 7 million gallons per day (mgd) (City of Pleasanton 2018). The City of Pleasanton’s sewer system discharges to the City of Livermore and DSRSD’s Wastewater Pollution Control Plant (City of Pleasanton 2018). According to the City of Pleasanton’s *Sewer Master Plan*, the collection system has adequate capacity to convey dry weather flows, and capacity deficiencies under wet weather flow conditions represent less than 10 percent of the modeled collection system (City of Pleasanton 2018). DSRSD treats 10.19 mgd annual daily average and 10.58 mgd wet weather daily average of wastewater. DSRSD has a total capacity of 17.0 mgd for average dry weather flows (Dublin San Ramon Services District 2019).

DSRSD provides wastewater collection and treatment services to the City of Dublin. The City of Dublin's wastewater collection system includes over 170 miles of sanitary sewers and discharges to the DSRSD wastewater treatment plant in the City of Pleasanton, under the jurisdiction of LAVWMA. LAVWMA facilities export a maximum of 41.2 mgd during wet weather. DSRSD's wastewater treatment plant has a rated dry-weather capacity of 17.0 mgd (City of Dublin 2016).

## Stormwater

Stormwater facilities must be sufficient to convey runoff in a safe, cost-effective manner, and prevent flooding on adjacent properties. The cities of Dublin, Livermore, and Pleasanton are permittees under the National Pollutant Discharge Elimination System (NPDES) Phase I San Francisco Bay Regional Water Quality Control Board (RWQCB) Municipal Regional Stormwater permit. Regulation of water quality through the NPDES program is discussed in more detail in Section 3.10, *Hydrology and Water Quality*.

The cities of Dublin, Livermore, and Pleasanton operate their own municipal storm drain systems. Facilities typically consist of storm drain inlets and catchment facilities in developed areas that drain to pipeline systems, pump stations, and detention basins. Stormwater that is not stored in detention basins is discharged into a local water body. Stormwater from Pleasanton eventually drains to the San Francisco Bay.

## Solid Waste

The City of Dublin has an agreement with Amador Valley Industries (AVI) for solid waste collection (City of Dublin 2019). Waste generated in the City of Dublin is taken to the Altamont Landfill, which has an estimated capacity of 62 million cubic yards. As of 2016, the landfill was approximately 26 percent full. The estimated closure month and year for this landfill is January 2029 (City of Dublin 2016). The City of Pleasanton has an agreement with Pleasanton Garbage Service (PGS) for waste disposal (Alameda County 2017). Waste is taken to the Pleasanton Transfer Station, a 7-acre site that is permitted for 720 tons of waste per day (California Department of Resources Recycling and Recovery 2019d). Waste is transferred to the Vasco Road Landfill (Alameda County 2017). Livermore Sanitation, Inc. transports solid waste from the City of Livermore to the Vasco Road Landfill for disposal, and compostable materials are taken to the Livermore Sanitation, Inc. Recyclable Material Transload Facility in the City of Livermore (Alameda County 2017).

The Vasco Road Landfill is privately operated by Republic Services and is a 323-acre site (California Department of Resources Recycling and Recovery 2019e). The maximum permitted incoming quantity at the landfill is 2,518 tons per day of waste. As of October 31, 2016, the landfill had 7,379,000 cubic yards of capacity remaining (California Department of Resources Recycling and Recovery 2019e). The estimated closure year for this landfill is 2022 (California Department of Resources Recycling and Recovery 2019e).

### 3.18.3.2 Altamont Segment

Track alignments, at-grade crossings, and road reconfigurations within the Altamont Segment would be outside urban service areas and would not require utility service. Except for the Interim OMF, the proposed stations and maintenance facilities within the Altamont Segment would be served by utilities providers that serve unincorporated southwestern San Joaquin County. Water at these facilities would be provided by the City of Tracy, with wastewater and stormwater infrastructure overseen by San Joaquin County. Solid waste services would be provided by Delta Disposal, a

division of Tracy Delta Solid Waste Management Inc., which provides solid waste services for the City of Tracy as described below. Delta Disposal provides solid waste services for southwestern San Joaquin County (Tracy Delta Solid Waste Management Inc. 2019).

A newly constructed water well, with required water treatment, would be developed at the Interim OMF to provide potable water to the site. Wastewater would be collected via a newly constructed holding tank on site. Stormwater infrastructure for the Interim OMF would be overseen by Alameda County. Solid waste from the Interim OMF would be collected and disposed of by Livermore Sanitation Inc., which is described above (Livermore Sanitation 2019).

### 3.18.3.3 Tracy to Lathrop Segment

#### Water

The City of Tracy's water is supplied by a combination of surface and groundwater sources. The City of Tracy purchases surface water from the South San Joaquin Irrigation District and the U.S. Department of the Interior's Bureau of Reclamation. According to the *2015 Urban Water Management Plan*, water demand is not anticipated to exceed the City of Tracy's water supplies between 2020 and 2040 in all water year types (i.e., normal, single dry year, and multiple dry years) (City of Tracy 2016). The City of Tracy also projects a water surplus in all water year types (City of Tracy 2016).

The City of Lathrop's water supply is obtained from both imported surface water from the Stanislaus River via the South San Joaquin Irrigation District, and local groundwater sources, which are obtained via the six groundwater wells owned and operated by the City of Lathrop (City of Lathrop 2017). According to the *2015 Urban Water Management Plan*, the City of Lathrop is expected to have sufficient water supplies to meet demand through 2030 in all water year types (i.e., normal, single dry year, and multiple dry years) (City of Lathrop 2017). Table 3.18-2 summarizes water supply and demand for the cities of Tracy and Lathrop.

**Table 3.18-2. Tracy to Lathrop—Water Supply and Demand (in acre-feet)**

Jurisdiction	2015		2020		2025		2040	
	Supply	Demand	Supply	Demand	Supply	Demand	Supply	Demand
City of Tracy <sup>a</sup>	14,051	14,051	27,820	20,185	29,520	22,023	34,830	27,537
City of Lathrop	3,445	3,445	13,140	7,454	13,947	9,714	17,731	15,188

Sources: City of Tracy 2016; City of Lathrop 2017.

<sup>a</sup> The supply figures listed are in normal years. In dry years only 11,000-acre feet is expected to be available.

#### Wastewater

The City of Tracy's wastewater collection system consists of gravity sewer lines, pump stations, force mains, and the Tracy Wastewater Treatment Plant. Wastewater flows toward the northern part of the City of Tracy where it is treated at the treatment plant and then discharged into the Old River in the southern Sacramento-San Joaquin Delta. As of 2012, the City of Tracy's population of approximately 81,000 people generated an average dry weather flow (ADWF) of 7.6 mgd, while the facility has an ADWF design capacity of 10.8 mgd (City of Tracy 2012). The *2012 Wastewater Master Plan* notes that the ADWF is expected to increase to 21.1 mgd with proposed development. In response, the *2012 Wastewater Master Plan* recommends expansion of the existing Tracy

Wastewater Treatment Plant and improving sanitary sewer facilities to convey wastewater to the treatment plant (City of Tracy 2012).

The City of Lathrop's wastewater collection system consists of approximately 72 miles of gravity mains, 21 miles of force mains, and 12 lift and pump stations. The City of Lathrop's wastewater is conveyed by two separate collection systems to two publicly owned wastewater treatment plants. Wastewater from the Crossroads industrial area and the areas west of Interstate 5 (I-5), including the Mossdale, River Islands, and Central Lathrop areas, is conveyed to the Lathrop Consolidated Treatment Facility (City of Lathrop 2018). Wastewater from the areas east of I-5 that are not part of the Crossroads industrial area are conveyed to the Manteca Water Quality Control Facility (City of Lathrop 2018). The City of Lathrop has an agreement with the City of Manteca that allows Lathrop to utilize up to 14.7 percent of the wastewater treatment capacity of the Manteca Water Quality Control Facility. The Manteca Water Quality Control Facility has a design capacity of 9.87 mgd and is permitted for future expansion up to 26.97 mgd (City of Manteca 2007, City of Lathrop 2017).

### **Stormwater**

The cities of Tracy and Lathrop operate their own municipal storm drain systems. Facilities typically consist of storm drain inlets and catchment facilities in developed areas, which drain to pipeline systems, pump stations, and detention basins. Stormwater that is not stored in detention basins can be treated at the local wastewater treatment facility or discharged into a local waterbody. Tracy and Lathrop discharge stormwater to the San Joaquin River.

### **Solid Waste**

The City of Tracy contracts with Tracy Delta Solid Waste Management, Inc. (Tracy Disposal), a private company, for solid waste collection and disposal (City of Tracy 2019). Solid waste is taken to the Tracy Material Recovery Facility and Transfer Station before being sent to the Foothill Sanitary Landfill. The Foothill Sanitary Landfill is 800 acres in size and is permitted for 1,500 tons per day of waste. As of June 10, 2010, the landfill had 125,000,000 cubic yards of capacity left. Based on the current permit, Foothill Sanitary Landfill is projected to be in operation until 2082 (California Department of Resources Recycling and Recovery 2019a).

The City of Lathrop contracts with Republic Services for solid waste collection and disposal (City of Lathrop 2019). Waste is transferred to stations owned and managed by San Joaquin County, including Foothill Sanitary Landfill, North County Landfill and Recycling Center, and Lovelace Materials Recovery Facility and Transfer Station. Foothill Sanitary Landfill is described above. North County Landfill and Recycling Center encompasses 320 acres and is permitted for 825 tons per day of waste. As of December 31, 2009, the landfill had 35,400,000 cubic yards of capacity left. Based on the current permit, the landfill is projected to be in operation until 2048 (California Department of Resources Recycling and Recovery 2019c). Lovelace Materials Recovery Facility and Transfer Station encompasses 15 acres and is permitted for 1,959 tons per day (California Department of Resources Recycling and Recovery 2019b).

## **3.18.4 Impact Analysis**

This section describes the environmental impacts of the Proposed Project and alternatives analyzed at an equal level of detail on utilities and service systems (including water supply, wastewater, stormwater, electric power, natural gas, telecommunications, and solid waste), including the station

alternatives (i.e., Southfront Road Station Alternative, Mountain House Station Alternative, Downtown Tracy Station Parking Alternative 1, and Downtown Station Tracy Parking Alternative 2), the West Tracy OMF Alternative, and the Stone Cut Alignment Alternative. It describes the methods used to evaluate the impacts and the thresholds used to determine whether an impact would be significant.

### 3.18.4.1 Methods for Analysis

Direct impacts on utilities and service systems could occur if the Proposed Project resulted in disruption or damage to utilities infrastructure during ground-disturbing activities. To determine the potential for direct impacts on utilities and service systems to occur, all underground and aboveground utilities would be properly identified with utility providers before construction activities commence.

Indirect impacts on utilities and service systems would occur if the Proposed Project induced unplanned growth that in turn resulted in demand for utilities that exceeded the planned supply of the appropriate service provider, resulting in the need for new entitlements, or the construction of new utilities infrastructure. Construction demand is assumed to conform to industry standards. While construction of the Proposed Project would require water and would generate solid waste, contractors would be responsible for transporting water and solid waste on and off the construction sites.

Operational demand is dependent upon station use, passenger use, landscaping, and activities at the OMF. This demand is compared to the planned supply (i.e., capacity) of the utility providers that serve the geographic area in which construction or operation would occur. New or altered connections to utilities—and the resulting increase in demand for service—would occur primarily at new stations and the OMF. All new stations would include storm drain facilities and receive solid waste collection service.

### 3.18.4.2 Thresholds of Significance

CEQA Guidelines Appendix G (Cal. Code Regs. Title 14, Section 15000 et seq.) identifies significance criteria to be considered when determining whether a project could have significant impacts on utilities and service systems (listed below).

An impact would be considered significant if construction or operation of the project would have any of the following consequences.

- Require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunication facilities, the construction or relocation of which could cause significant environmental effects.
- Would not 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 does not have 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.

- Violate federal, state, and local management and reduction statutes and regulations related to solid waste.

### 3.18.4.3 Impacts and Mitigation Measures

**Impact USS-1: Construction or operation of the Proposed Project could result in relocation or construction of new or expanded electric power, natural gas, or telecommunication facilities, the construction of which could cause significant environmental effects.**

<b>Level of Impact Prior to Mitigation</b>	<p><b>Potentially Significant (mitigation required)</b></p> <p><u>Proposed Project</u></p> <p>Tri-Valley Alignment Dublin/Pleasanton Station Isabel Station Greenville Station Altamont Alignment Owens-Illinois Industrial Lead Variant 1, Single Track Owens-Illinois Industrial Lead Variant 2, Double Track Interim OMF Mountain House Station Tracy OMF Tracy to Lathrop Alignment Variant 1, Single Track Tracy to Lathrop Alignment Variant 2, Double Track Downtown Tracy Station River Islands Station North Lathrop Station</p> <p><u>Alternatives Analyzed at an Equal Level of Detail</u></p> <p>Southfront Road Station Alternative Stone Cut Alignment Alternative West Tracy OMF Alternative Mountain House Station Alternative Downtown Tracy Station Parking Alternative 1 Downtown Tracy Station Parking Alternative 2</p>
<b>Mitigation Measure</b>	USS-1.1: Implement a utility relocation plan.
<b>Level of Impact After Mitigation</b>	<b>Less than Significant</b>

### Impact Characterization

#### Construction

While it is not anticipated that the Proposed Project would interfere with utilities provision during construction, there is the potential that ground-disturbing activities could damage utilities infrastructure or result in a temporary interruption of service. Appendix D, *Utilities*, includes a list of utilities within the Proposed Project’s environmental footprint. There are also utilities that have not been identified by service providers.

## Operation and Maintenance

Operation and maintenance of the Proposed Project would require electric power, telecommunications facilities, and potentially natural gas. Electric power would be necessary to power facilities at the various stations and provide power for the OMF. It is presumed that electricity would be used to heat the OMF, though natural gas could be used. New telecommunications facilities owned and operated by the designated operator would be required for safety and communication with trains, operation, and the OMF.

## Impact Detail and Conclusion

### Proposed Project

#### **Construction**

Construction and widening of local roadways, freeways, and the realignment of freeway ramps, as well as station and OMF construction may affect existing overhead and underground utilities. Construction of new tracks or upgrades to existing track would involve grading for the track subgrade with graders and excavators, and the placement of subballast and ballast. Track construction could conflict with existing utility lines. Construction activities associated with station platforms and parking lots would involve rough grading. The electric power required for construction would be minimal and would not be expected to require the construction of new or expanded electric power facilities. Natural gas is not expected to be used in construction, and no new telecommunications facilities would be required for construction activities related to the Proposed Project.

Construction of the Proposed Project would conflict with existing utilities infrastructure, requiring the relocation of some existing utilities. It is possible that relocation or accidental disruption during construction could disrupt utility service or damage utilities, resulting in a potentially significant impact on utilities infrastructure.

#### **Operation and Maintenance**

As described in Section 3.13, *Population and Housing*, there is potential for population increases surrounding the Greenville Station and Mountain House Station areas. However, any new housing or commercial development would be subject to CEQA analysis regarding its potential to impact utilities. In addition, these hypothetical developments would conflict with existing local land use policies and would require decision-making jurisdictions to change their policies for such development to occur. At that point, if development in these areas were to take place, CEQA analysis would determine the level of potential impacts, and whether an increase in demand would require relocation or construction of new or expanded electric power, natural gas, or telecommunication facilities.

Electric power for most of the Proposed Project is assumed to be provided by PG&E as the Project area is within PG&E's electric service area or potentially by EBCE in Alameda County, using PG&E's transmission facilities. Power at the Tracy OMF would be provided by the onsite solar farm. Electricity for the overhead catenary system and at traction power substation sites under the battery-electric multiple unit technology variant would also be expected to be provided by PG&E. It is assumed that PG&E's existing electric power facilities would be able to accommodate the slight increase in electricity demand from the new stations and OMF (if needed) as PG&E generates power

from various sources and provides connections to the larger power grid, which will include additional generation from EBCE projects in the near future (East Bay Community Energy 2019b). PG&E is also anticipated to have enough power to supply the traction power substation sites and overhead catenary system, and no substation modifications would be required. Though local connections to electric transmission facilities may be necessary, the amount of electricity needed for the Proposed Project, including the battery-electric multiple unit technology variant, is not anticipated to result in the need for new or expanded electric power facilities, particularly with some onsite generation via the solar farm at the OMF. Thus, impacts from operation of the Proposed Project would be less than significant.

The Proposed Project area is within PG&E's natural gas service area. The amount of natural gas needed to potentially heat the Interim OMF or Tracy OMF is anticipated to be minor as the onsite buildings (i.e., maintenance and operation buildings) are not anticipated to be large. It is assumed that the small amount of natural gas needed for these buildings would be within the capacity of the existing PG&E natural gas system. Though local connections to natural gas facilities would be needed if natural gas was used for heating, due to the minimal natural gas required for the Interim OMF or Tracy OMF, new or expanded natural gas facilities would not be required, and thus impacts from operation of the Proposed Project would be less than significant.

New telecommunications facilities owned and operated by the Authority or operator would be required for safety and communication with trains, operation, and the OMFs, and are included as part of the Proposed Project. These facilities would generally be located within the right-of-way) and away from known sensitive areas to avoid impacts on cultural and biological resources and known hazardous materials. Because the new telecommunications facilities would be owned and operated by the Authority or operator for train usage only, operation of the Proposed Project would not require construction or expansion of other private or public telecommunications facilities. There could be limited use of private or public telecommunications facilities as backup systems to the Authority's telecommunications systems. However, backup systems would be expected to use existing public or private telecommunication systems/facilities and would not require the construction or expansion of these facilities. Therefore, impacts from operation of the Proposed Project would be less than significant.

### **Alternatives Analyzed at an Equal Level of Detail**

Construction of the alternatives analyzed at an equal level of detail (Southfront Road Station Alternative, Stone Cut Alignment Alternative, West Tracy OMF Alternative, Mountain House Station Alternative, Downtown Tracy Station Parking Alternative 1, and Downtown Tracy Station Parking Alternative 2) would result in similar power, natural gas, and telecommunications requirements as the Proposed Project that would be conveyed by the same providers as the Proposed Project. Thus, construction of these alternatives would have the same potentially significant impact as the Proposed Project.

### **Mitigation Measure**

The following mitigation measure would be implemented during construction of the Proposed Project and the alternatives analyzed at an equal level of detail.

**Mitigation Measure USS-1.1: Implement a utility relocation plan.**

The Authority will coordinate with all utility providers during final design and construction stages to identify utilities potentially impacted by the Proposed Project, including existing and planned utilities. A utility relocation plan will be developed and implemented to minimize service interruption and safely relocate, repair, or replace affected utilities. The Authority will assist utility owners in developing a communications plan to inform end users of potential planned service interruptions.

**Significance with Application of Mitigation**

Construction of the Proposed Project could result in significant impacts on utilities infrastructure if construction activities resulted in the interruption of service or damage to the infrastructure. Mitigation Measure USS-1.1, *Implement a utility relocation plan*, would require the Authority to coordinate with utilities providers to address the potential for utility disruption and to minimize service interruptions. The Authority would work with utility owners during final engineering design and construction to relocate utilities or protect them in place. The Authority would assist utility owners in preparing communications materials to inform end users of planned service interruptions. With implementation of Mitigation Measure USS-1.1, impacts from the Proposed Project would be less than significant.

For the same reasons listed above, implementation of Mitigation Measure USS-1.1 would reduce potential impacts on utilities infrastructure to a less- than- significant level due to the construction of the alternatives analyzed at an equal level of detail.

**Comparison of Alternatives**

Construction of the alternatives analyzed at an equal level of detail (Southfront Road Station Alternative, Stone Cut Alignment Alternative, West Tracy OMF Alternative, Mountain House Station Alternative, Downtown Tracy Station Parking Alternative 1, and Downtown Tracy Station Parking Alternative 2) would have a similar potential to impact utilities as the Proposed Project. Thus, these alternatives would have the same less than significant impact after mitigation as the Proposed Project.

**Impact USS-2a: Construction of the Proposed Project could result in relocation or construction of new or expanded water or wastewater treatment facilities, the construction of which could cause significant environmental effects; would not have sufficient water supplies available to serve the Proposed Project and reasonably foreseeable future development during normal, dry, and multiple dry years; or would result in a determination by the wastewater treatment provider that serves or may serve the Proposed Project that it does not have adequate capacity to serve the Proposed Project’s projected demand in addition to the providers existing commitments.**

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<b>Level of Impact</b>	<b>Less than Significant</b>
	<u>Proposed Project</u>
	Tri-Valley Alignment
	Dublin/Pleasanton Station
	Isabel Station
	Greenville Station

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Altamont Alignment  
 Owens-Illinois Industrial Lead Variant 1, Single Track  
 Owens-Illinois Industrial Lead Variant 2, Double Track  
 Interim OMF  
 Mountain House Station  
 Tracy OMF  
 Tracy to Lathrop Alignment Variant 1, Single Track  
 Tracy to Lathrop Alignment Variant 2, Double Track  
 Downtown Tracy Station  
 River Islands Station  
 North Lathrop Station

Alternatives Analyzed at an Equal Level of Detail

Southfront Road Station Alternative  
 Stone Cut Alignment Alternative  
 West Tracy OMF Alternative  
 Mountain House Station Alternative  
 Downtown Tracy Station Parking Alternative 1  
 Downtown Tracy Station Parking Alternative 2

**Mitigation Measures**    **None Required**

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## Impact Characterization

Potential construction-related impacts on utilities and service systems would occur if construction of the Proposed Project interfered with existing water or wastewater facilities or used substantial water resources during construction such that water resources are no longer adequately available to serve continued construction activities or provider demand.

## Impact Detail and Conclusions

### Proposed Project

During construction activities, construction contractors would provide portable toilets at construction sites. The wastewater from these facilities would be hauled offsite and dumped at a wastewater treatment facility. The small amount of wastewater created during construction (from portable restroom facilities) could be accommodated by wastewater treatment facilities within the Proposed Project area and would not necessitate relocation or construction of new wastewater treatment facilities, and would not be expected to result in a determination by the wastewater treatment providers within the Proposed Project area that they do not have adequate capacity. Therefore, impacts from construction of the Proposed Project would be less than significant.

Construction of piles within Paradise Cut would use slurry displacement, thereby eliminating the need for dewatering. Use of a temporary work trestle for the bridge across the San Joaquin River would not require dewatering. Construction of the Proposed Project would require water use for concrete work, earthwork compaction, dust control, and irrigation for reseeded areas. The construction contractor would truck in water to construction sites. In urban areas, contractors could fill their water trucks from local hydrants.

The source of water to be used during construction is unknown at this phase of design. Proposed improvements, including sidings, stations, and parking lots, are typically small and would not require substantial amounts of water for construction purposes.

Local water providers have available capacity to serve the temporary, incremental demands associated with construction of the Proposed Project. Therefore, construction of the Proposed Project would not result in relocation or construction of new or expanded water facilities. As stated above, it is expected that local water providers would have sufficient water supplies available to serve construction in normal, dry, and multiple dry years. During water shortages, including droughts, local water providers would meet shortfalls through implementation of *Water Shortage Contingency Plans* that are part of their respective *Urban Water Management Plans*. Thus, impacts from construction of the Proposed Project would be less than significant.

**Alternatives Analyzed at an Equal Level of Detail**

Construction of the alternatives analyzed at an equal level of detail (Southfront Road Station Alternative, Stone Cut Alignment Alternative, West Tracy OMF Alternative, Mountain House Station Alternative, Downtown Tracy Station Parking Alternative 1, and Downtown Tracy Station Parking Alternative 2) would result in similar amounts of wastewater from portable toilets and would require the use of similar amount of water as the Proposed Project. Thus, these alternatives would have the same less than significant impact as the Proposed Project.

**Impact USS-2b: Operation of the Proposed Project would result in relocation or construction of new or expanded water or wastewater treatment facilities, the construction of which could cause significant environmental effects; would not have sufficient water supplies available to serve the Proposed Project and reasonably foreseeable future development during normal, dry and multiple dry years; or would result in a determination by the wastewater treatment provider that serves or may serve the Proposed Project that it does not have adequate capacity to serve the Proposed Project’s projected demand in addition to the providers existing commitments.**

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<b>Level of Impact</b>	<p><b>Less than Significant</b></p> <p><u>Proposed Project</u></p> <p>Tri-Valley Alignment</p> <p>Dublin/Pleasanton Station</p> <p>Isabel Station</p> <p>Greenville Station</p> <p>Altamont Alignment</p> <p>Owens-Illinois Industrial Lead Variant 1, Single Track</p> <p>Owens-Illinois Industrial Lead Variant 2, Double Track</p> <p>Interim OMF</p> <p>Mountain House Station</p> <p>Tracy OMF</p> <p>Tracy to Lathrop Alignment Variant 1, Single Track</p> <p>Tracy to Lathrop Alignment Variant 2, Double Track</p> <p>Downtown Tracy Station</p> <p>River Islands Station</p> <p>North Lathrop Station</p> <p><u>Alternatives Analyzed at an Equal Level of Detail</u></p>
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Southfront Road Station Alternative  
 Stone Cut Alignment Alternative  
 West Tracy OMF Alternative Mountain House Station Alternative  
 Downtown Tracy Station Parking Alternative 1  
 Downtown Tracy Station Parking Alternative 2

**Mitigation Required**      **None Required**

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## Impact Characterization

Potential operational impacts on utilities and service systems would occur if existing water facilities had to be relocated for successful operation, or if new such facilities had to be installed to serve Project operation needs, interfered with existing water or wastewater facilities, or used substantial water resources during operation of the Proposed Project such that water resources would no longer be adequately available to serve continued operation and maintenance activities.

## Impact Detail and Conclusions

### Proposed Project

Operation of the Proposed Project would result in increased use of water and generation of wastewater on trains, increased landscaping water use at stations, and use of water at the OMF for train washing, restrooms, toilet sewage disposal, and similar. Water use and wastewater generation would occur only at stations and the OMF. Proposed stations would not include restrooms.

As described in Section 3.13, *Population and Housing*, there is potential for population increases surrounding the Greenville Station and Mountain House Station areas. However, any new housing or commercial development would be subject to CEQA analysis regarding its potential to impact utilities. In addition, these hypothetical developments would conflict with existing local land use policies and would require decision-making jurisdictions to change their policies for such development to occur. At that point, if development in these areas were to take place, CEQA analysis would determine the level of potential impacts, and whether an increase in demand would require relocation or construction of new or expanded electric power, natural gas, or telecommunication facilities.

Water and wastewater treatment facilities are sized to serve municipal connections throughout their service areas. Water providers consider residents and employees within a given service area when determining supply and demand needs. Because the Proposed Project is expected to serve regional commuters, boarding or exiting passengers on the Proposed Project would be either residents or employees within a given service area. Therefore, each passenger's per capita water use and wastewater generation would be considered in water and wastewater facility planning efforts in both the service area in which the passenger resides as well as the service area in which the passenger works. Because per capita water use and wastewater generation at stations or on trains would be accounted for at a passenger's residence or workplace, there would be no net increase in the demand for water or wastewater treatment within a given service area. Increases that would not already be accounted for would result from a small number of passengers.

Increased water use for landscaping and maintenance at proposed stations would be served by recycled water systems as required by the municipalities pursuant to statewide Green Building Standards and water-efficient landscape ordinances. Thus, landscaping and maintenance would not substantially increase water demand at new stations.

Train washing and other maintenance activities would use water and generate wastewater at the OMF. Select OMFs, as identified below, would require the development of water wells and septic systems/holder tanks to generate potable water and convey wastewater, respectively.

Water at the Interim OMF would be provided to the site by a newly constructed water well. Development of the water well would include a 1,500-gallon per day) storage tank.

Water at the West Tracy OMF Alternative would also be supplied by a newly constructed water well. Development of the water wells would include a 5,000-gallon per day storage tank.

Wastewater and sewage disposal at the Interim OMF would likely be disposed of at an onsite holding tank. Wastewater and sewage disposal at the West Tracy OMF would be conveyed to a newly developed onsite septic system.

Water and wastewater at the Tracy OMF would require the extension of utility infrastructure to existing utility lines at West Schulte Road in Tracy. Water at the Tracy OMF would be supplied by the City of Tracy. Wastewater generated at the Tracy OMF would be conveyed and treated via City of Tracy wastewater infrastructure.

The City of Tracy is projecting a surplus of water supply in all water year types and therefore would be expected to be able to provide the small amount of water needed annually at the OMF. The City of Tracy currently has capacity for additional wastewater, though future modifications of the wastewater treatment facilities may be needed to handle all future development predicted within the City's sphere of influence. The projected water wells and septic systems/holding tanks at the Interim OMF and West Tracy OMF Alternative are anticipated to have capacity for future demand at these locations.

Therefore, as the wastewater and water providers within the Proposed Project area that may serve the Proposed Project stations and the Tracy OMF—as opposed to the Interim OMF or West Tracy OMF Alternative—currently have capacity for existing and future demand, water and wastewater generation from operation of the Proposed Project would not result in relocation or construction of new or expanded water or wastewater treatment facilities, and would not result in a determination by the wastewater treatment provider that serves or may serve the Proposed Project that it does not have adequate capacity to serve the Proposed Project's projected demand in addition to the providers existing commitments. As stated above, local water providers would have sufficient water supplies available to serve the Proposed Project and reasonably foreseeable future development during normal, dry, and multiple dry years. During water shortages, including droughts, local water providers would meet shortfalls through implementation of *Water Shortage Contingency Plans*.

As described above under Impact USS-2a, installation of new water and wastewater facilities, or the expansion of existing facilities required to serve operation of the Interim OMF, Tracy OMF, or West Tracy OMF Alternative would be limited to utility connections adjacent to the specific site or within the Proposed Project footprint. Where installation of these facilities would result in potentially significant environmental impacts within the Proposed Project footprint, as identified in relevant sections throughout this EIR, mitigation measures are identified to ensure those impacts are reduced to less-than-significant levels where possible. Physical effects associated with operation of the proposed water and wastewater facilities would be less than significant with incorporation of mitigation identified in this EIR.

**Alternatives Analyzed at an Equal Level of Detail**

Operation of the alternatives analyzed at an equal level of detail (Southfront Road Station Alternative, Stone Cut Alignment Alternative, West Tracy OMF Alternative, Mountain House Station Alternative, Downtown Tracy Station Parking Alternative 1, and Downtown Tracy Station Parking Alternative 2) would use a similar amount of water and would generate a similar amount of wastewater as the Proposed Project. Thus, these alternatives would have the same less than significant impact as the Proposed Project.

**Impact USS-3: Construction and operation of the Proposed Project could result in relocation or construction of new or expanded stormwater drainage facilities, the construction of which could cause significant environmental effects.**

<b>Level of Impact</b>	<p><b>Less than Significant</b></p> <p><u>Proposed Project</u>                  Tri-Valley Alignment                  Dublin/Pleasanton Station                  Isabel Station                  Greenville Station                  Altamont Alignment                  Owens-Illinois Industrial Lead Variant 1, Single Track                  Owens-Illinois Industrial Lead Variant 2, Double Track                  Interim OMF                  Mountain House Station                  Tracy OMF                  Tracy to Lathrop Alignment Variant 1, Single Track                  Tracy to Lathrop Alignment Variant 2, Double Track                  Downtown Tracy Station                  River Islands Station                  North Lathrop Station</p> <p><u>Alternatives Analyzed at an Equal Level of Detail</u>                  Southfront Road Station Alternative                  Stone Cut Alignment Alternative                  West Tracy OMF Alternative                  Mountain House Station Alternative                  Downtown Tracy Station Parking Alternative 1                  Downtown Tracy Station Parking Alternative 2</p>
<b>Mitigation Measures</b>	<b>None Required</b>

**Impact Characterization**

Impacts would occur if construction or operation of the Proposed Project would require that new stormwater drainage facilities be built, or that existing stormwater drainage facilities be relocated. Such impacts could occur as a result of facility installation, impervious surfaces being introduced in a manner that could alter drainage patterns, or construction activities that may interfere with existing facilities, such as drilling and trenching.

## Impact Detail and Conclusions

### Proposed Project

#### **Construction**

Construction of the Proposed Project would result in grading, trenching, vegetation removal, and other ground disturbance that could temporarily change drainage patterns in the vicinity of Proposed Project facilities. Construction staging could temporarily increase the impervious surface area in staging areas, resulting in increased stormwater runoff. Nonetheless, the Authority would implement a stormwater pollution prevention plan (SWPPP) as required by the NPDES program administered by the RWQCBs. SWPPP implementation would prevent ponding and ensure that stormwater runoff that occurred during construction would be controlled; thus, impacts from construction of the Proposed Project would be less than significant.

#### **Operation and Maintenance**

Typically, railroad track permits water to percolate through to the ground. As such, improvements to existing track and addition of new track would not result in the creation of substantial new areas of impervious surface, and increases in stormwater runoff would be minimal. Installation of stormwater drainage or retention infrastructure would not be required along the track.

Freeway and other roadway modifications, stations, parking lots, pedestrian walkways, and the OMF could potentially change drainage patterns and result in increased stormwater runoff due to the addition of impervious surfaces. Stormwater infrastructure would be installed or reconfigured as necessary to serve these new and/or modified impervious surfaces. Such infrastructure would connect to the local storm drain system.

Where construction of stormwater facilities or expansion of existing storm drains would be required, the design of these facilities would comply with the local jurisdiction's stormwater design standards and post-construction stormwater control requirements. Design of stormwater facilities consistent with municipal requirements would ensure that stormwater generated by the Proposed Project is managed to meet the performance requirements; thus, impacts from operation of the Proposed Project would be less than significant. See Section 3.10, *Hydrology and Water Quality* for more information regarding stormwater impacts and facilities.

#### **Alternatives Analyzed at an Equal Level of Detail**

Construction of the alternatives analyzed at an equal level of detail (Southfront Road Station Alternative, Stone Cut Alignment Alternative, West Tracy OMF Alternative, Mountain House Station Alternative, Downtown Tracy Station Parking Alternative 1, and Downtown Tracy Station Parking Alternative 2) would follow the same SWPPP as the Proposed Project. Operation and maintenance of these alternatives would include similar stormwater facilities and would follow the same municipal requirements as the Proposed Project. Thus, these alternatives would have the same less than significant impact as the Proposed Project.

**Impact USS-4a: Project construction could 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; and/or violate federal, state, and local management and reduction statutes and regulations related to solid waste.**

<b>Level of Impact</b>	<b>Less than Significant</b>
	<u>Proposed Project</u>
	Tri-Valley Alignment
	Dublin/Pleasanton Station
	Isabel Station
	Greenville Station
	Altamont Alignment
	Owens-Illinois Industrial Lead Variant 1, Single Track
	Owens-Illinois Industrial Lead Variant 2, Double Track
	Interim OMF
	Mountain House Station
	Tracy OMF
	Tracy to Lathrop Alignment Variant 1, Single Track
	Tracy to Lathrop Alignment Variant 2, Double Track
	Downtown Tracy Station
	River Islands Station
	North Lathrop Station
	<u>Alternatives Analyzed at an Equal Level of Detail:</u>
	Southfront Road Station Alternative
	Stone Cut Alignment Alternative
	West Tracy OMF Alternative
	Mountain House Station Alternative
	Downtown Tracy Station Parking Alternative 1
	Downtown Tracy Station Parking Alternative 2
<b>Mitigation Measures</b>	<b>None Required</b>

## Impact Characterization and Significance Conclusions

Impacts would occur if waste generated during construction of the Proposed Project or alternatives analyzed at an equal level of detail exceeded local or state standards, or capacity at landfills to which construction waste would be brought.

### Proposed Project

During construction activities, typical C&D waste would be generated. Activities such as ground clearing, right-of-way work, and station construction would generate gravel, concrete, rubble, fill, and different types of building materials. State and local standards, including CALGreen standards, require that contractors divert C&D waste from landfills by reusing or recycling C&D materials. Those materials that cannot be reused on site would be conveyed to a solid waste facility that is permitted to accept C&D waste. C&D waste from each segment would likely be hauled to the nearest facility. There are solid waste facilities in each segment of the Proposed Project that have capacity remaining (or a throughput) that would accommodate the temporary demand for waste disposal generated by construction of the Proposed Project. These facilities include the Vasco Road Landfill,

Foothill Sanitary Landfill, and North County Landfill and Recycling Center. Compliance with CALGreen requirements would assist in the attainment of solid waste reduction goals. Therefore, solid waste generated by construction of the Proposed Project would not be in excess of state or local standards, or the capacity of local infrastructure, and would not violate statutes and regulations related to solid waste. Thus, construction of the Proposed Project would have a less-than-significant impact related to solid waste.

**Alternatives Analyzed at an Equal Level of Detail**

Construction of the alternatives analyzed at an equal level of detail (Southfront Road Station Alternative, Stone Cut Alignment Alternative, West Tracy OMF Alternative, Mountain House Station Alternative, Downtown Tracy Station Parking Alternative 1, and Downtown Tracy Station Parking Alternative 2) is expected to generate the same amount of solid waste as construction of the Proposed Project, though construction of the I-580 crossing for the Stone Cut Alignment Alternative could create slightly more waste. Therefore, it is expected that the alternatives would have the same less-than-significant impact as the Proposed Project.

**Impact USS-4b: Project operation could 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; and/or violate federal, state, and local management and reduction statutes and regulations related to solid waste.**

<b>Level of Impact</b>	<p><b>Less than Significant</b></p> <p><u>Proposed Project</u></p> <p>Tri-Valley Alignment</p> <p>Dublin/Pleasanton Station</p> <p>Isabel Station</p> <p>Greenville Station</p> <p>Altamont Alignment</p> <p>Owens-Illinois Industrial Lead Variant 1, Single Track</p> <p>Owens-Illinois Industrial Lead Variant 2, Double Track</p> <p>Interim OMF</p> <p>Mountain House Station</p> <p>Tracy OMF</p> <p>Tracy to Lathrop Alignment Variant 1, Single Track</p> <p>Tracy to Lathrop Alignment Variant 2, Double Track</p> <p>Downtown Tracy Station</p> <p>River Islands Station</p> <p>North Lathrop Station</p> <p><u>Alternatives Analyzed at an Equal Level of Detail</u></p> <p>Southfront Road Station Alternative</p> <p>Stone Cut Alignment Alternative</p> <p>West Tracy OMF Alternative</p> <p>Mountain House Station Alternative</p> <p>Downtown Tracy Station Parking Alternative 1</p> <p>Downtown Tracy Station Parking Alternative 2</p>
<b>Mitigation Measures</b>	<b>None Required</b>

## Impact Characterization and Significance Conclusions

Impacts would occur if waste generated during operation of the Proposed Project or alternatives analyzed at an equal level of detail exceeded local or state standards, or capacity at landfills to which operational waste would be brought.

### Proposed Project

The Proposed Project would result in new facilities, including stations and the OMF, that would produce solid waste. In addition to the stations and OMF, solid waste could occasionally be generated as part of routine track maintenance and would be diverted as required by the appropriate federal, state, and local regulatory guidance.

Solid waste generated by operation of the Proposed Project could be accommodated within the existing capacity of the local Vasco Road Landfill and Foothill Sanitary Landfill, both of which have available capacity as described above. The amount of solid waste that the Proposed Project would generate would be a small percentage of the remaining capacity of local landfill facilities. Altamont Corridor Express trains, a heavy rail passenger commute service currently operating between Stockton and San Jose, generated approximately 0.5 ton of waste per station per month in 2015 (San Joaquin Regional Rail Commission 2018). Altamont Corridor Express ridership is approximately one-quarter that projected for the Proposed Project. Therefore, a conservative estimate of passenger waste generated by the Proposed Project would be approximately 2 tons of waste per station per month, or 14 tons of waste per month. As for the OMF, a typical OMF of the size needed for the Proposed Project would generate 12 to 20 tons per month of landfill waste (Hall pers. comm.). Combining station and OMF waste estimates, the Proposed Project would generate 26 to 34 tons of waste per month. This is the equivalent to a maximum daily rate of 0.9 to 1 ton, which is below the maximum permitted quantity at the landfills described above.

Recycling and reuse would be implemented at both stations and the OMF in compliance with the Integrated Waste Management Act, thereby reducing waste being transferred to landfills. Therefore, solid waste generated by operation of the Proposed Project would not be in excess of State or local standards or the capacity of local infrastructure and would not violate statutes and regulations related to solid waste. Thus, operation of the Proposed Project would have a less-than-significant impact related to solid waste.

### Alternatives Analyzed at an Equal Level of Detail

Operation of the alternatives analyzed at an equal level of detail (Southfront Road Station Alternative, Stone Cut Alignment Alternative, West Tracy OMF Alternative, Mountain House Station Alternative, Downtown Tracy Station Parking Alternative 1, and Downtown Tracy Station Parking Alternative 2) is expected to generate the same amount of solid waste as operation of the Proposed Project); thus, it is expected that the alternatives would have the same less-than-significant impact as the Proposed Project.