3.20 Utilities and Service Systems

3.20.1 Introduction

This section describes the regulatory setting and affected environment for public utilities and service systems. This section addresses the utilities and service systems that are known to occur or have the potential to occur in the utilities and service systems RSA and describes potential impacts on those systems during construction and operation of the proposed Project. This section also identifies the cumulative impacts of the proposed Project on utilities and service systems.

Public utilities and service systems are defined as any subsurface, aboveground, or overhead facility used for transmission or storage, regardless of size, shape, or method of conveyance. This impact evaluation focuses on major public utilities and service systems, which include the following types of facilities listed below:

- Electrical Transmission Facilities, including substations, transmission lines (designed to operate at or above 200 kilovolts [kV]), and power lines (designed to operate between 60 and 115 kV);
- Petroleum product trunk pipelines that serve as critical components of the overall network and region. Including but not limited to; natural gas, petroleum (crude oil), and other petroleum products;
- Water lines, including potable, irrigation, and recycled water lines of outside diameter ≥ 18 inches;
- Desalination plant intake and brine disposal lines;
- Wastewater (sewer) lines of outside diameter ≥ 18 inches;
- Stormwater, conduits, pipes, and storm drains of outside diameter ≥ 42 inches;
- Solid and hazardous waste storage facilities; and
- Telecommunications and fiber optic lines that serve as critical components to the overall network.

The public utilities and service system impact analysis focuses on utility lines and service systems in the right-of-way (ROW) of the proposed Project that may need to be relocated, protected in place (PIP), or newly installed during construction, as well as indirect effects to offsite resources, such as solid and hazardous waste storage facilities.

This section focuses on the capacity of the existing electrical network and any impacts associated with expanding or relocating these facilities. Although electrical transmission facilities are included in this section, energy usage and efficiency are addressed in Section 3.7, Energy. This Utilities and Service Systems section also focuses on water-related utility infrastructure and water efficiency. Project effects on water quality, hydrology, drainage patterns, groundwater, and stormwater runoff are addressed in Section 3.11, Hydrology and Water Quality. Although this Utilities and Service Systems section focuses on hazardous waste disposal facilities, hazards and hazardous materials and compliance with associated regulations are discussed in Section 3.10, Hazards and Hazardous Materials.

3.20.2 Regulatory Setting

This section identifies the applicable federal, state, regional, and local laws, regulations, and orders that are relevant to the analysis of utilities and service systems. This section also addresses the proposed Project's consistency with the regulations described herein. The proposed Project would not result in production of food waste during operation; therefore, regulations relating to diversion of organic food waste have not been included.

3.20.2.1 Federal

Norman Y. Mineta Research and Special Programs Improvement Act

The Norman Y. Mineta Research and Special Programs Improvement Act (Public Law 108 426) established the United States Department of Transportation's Pipeline and Hazardous Materials Safety Administration, which regulates safe movement of hazardous materials to industry and consumers by all modes of transportation, including pipelines. This act requires pipeline owners and operators to participate in public safety programs that notify an operator of proposed demolition, excavation, tunneling, or construction near or affecting a pipeline. In California, the Office of the Fire Marshal administers pipeline safety.

Federal Energy Regulatory Commission Regulations

The Federal Energy Regulatory Commission (FERC) regulates the interstate transmission of natural gas, oil, and electricity. As part of that responsibility, FERC regulates the transmission and sale of natural gas for resale in interstate commerce, the transmission of oil by pipeline in interstate commerce, and the transmission and wholesale of electricity in interstate commerce. FERC also approves the siting and abandonment of interstate natural gas facilities, including pipelines, storage, and liquefied natural gas; and oversees environmental matters related to natural gas projects and major electricity policy initiatives. The Commission's regulations are found under Title 18 Chapter I of the Code of Federal Regulations.

3.20.2.2 State

California Green Building Standards Code

The California Green Building Standards Code (24 California Code of Regulations [CCR] Part 11) requires a minimum of 65 percent of the debris from certain construction and demolition (C&D) projects be recycled or salvaged for reuse. Section 5.408 is applicable to most non-residential new construction. This is tracked either by submitting a waste management plan or using a waste management company with verifiable documentation.

California Integrated Waste Management Act

The California Integrated Waste Management Act of 1989 was enacted by Assembly Bill (AB) 939 in response to the Resource Conservation and Recovery Act (RCRA). It requires cities and counties to prepare an integrated waste management plan, including a countywide siting element, for each jurisdiction. Per California Public Resources Code 41700–41721.5, the countywide siting element provides an estimate of the total permitted disposal capacity needed for a 15-year period, or whenever additional capacity is necessary. Countywide siting elements in California must be

updated by each operator and permitted by the California Department of Resources Recycling and Recovery (CalRecycle), which is within the Natural Resources Agency, every five years. AB 939 mandated that local jurisdictions meet solid waste diversion goals of 50 percent by 2000.

Assembly Bill 332

AB 332, signed on August 31, 2021, adopts new alternative management standards for treated wood waste (TWW) that are codified in Health and Safety Code 25230. AB 332 allows handling of non-RCRA hazardous TWW in accordance with alternative management standards in lieu of the requirements for hazardous waste (pursuant to Health and Safety Code Division 20, Chapter 6.5, Articles 6, 6.5, 9, and 22 of the CCR Division 4.5, Chapters 12–16, 18, and 20). Treated wood is wood that has been treated with a chemical preservative for purposes of protecting the wood against attacks from insects, microorganisms, fungi, and other environmental conditions that can lead to decay of the wood, and the chemical preservative is registered pursuant to the Federal Insecticide, Fungicide, and Rodenticide Act (7 United States Code 136 et seq.). The alternative management standards lessen storage requirements, extend accumulation periods, allow shipments without a hazardous waste manifest and a hazardous waste hauler, and allow disposal at specific non-hazardous waste landfills. Businesses that generate, handle, or accumulate more than 1,000 pounds of TWW in 30 days must meet specific handling, storage, security, shipping, training, and record-keeping requirements (Department of Toxic Substances Control [DTSC] 2021c).

Assembly Bill 341 – Mandatory Commercial Recycling Law

AB 341, codified in the 2012 Mandatory Commercial Recycling Law, requires businesses with four or more cubic yards of weekly garbage to arrange for recycling service. Jurisdictions are required to implement a commercial recycling program that includes education of, outreach to, and monitoring of businesses within their boundaries.

California Public Utilities Commission General Order 95

The California Public Utilities Commission (CPUC) regulates public electric utilities in California. The CPUC General Order 95, Rule for Overhead Electric Line Construction, formulates uniform requirements for overhead electrical line construction, the application of which provides for "adequate service and secure safety to persons engaged in the construction, maintenance, operation, or use of overhead electrical lines and to the public in general."

California Public Utilities Commission General Order 131-D

General Order 131-D establishes CPUC rules for implementing Public Utilities Code 1001–1013 relating to the planning and construction of electric generation, transmission/power/distribution line facilities, and substations in California. A permit to construct must be obtained from CPUC for powerlines or for new or upgraded substations with high scale voltage exceeding 50 kV. A certificate of public convenience and necessity must be obtained from the CPUC for transmission lines, with some exceptions including "replacement of existing power line facilities or supporting structures with equivalent facilities or structures, the minor relocation of existing power line facilities, the conversion of existing overhead lines to underground, or the placing of new or additional conductors, insulators, or their accessories on or replacement of supporting structures already built." Both the permit to construct and the certificate of public convenience and necessity are discretionary decisions by CPUC that are subject to the California Environmental Quality Act (CEQA)

and the CPUC's general proceedings, which is a formal review process that considers how projects could benefit or harm the public.

Designation of Transmission Corridor Zones

The regulation on Designation of Transmission Corridor Zones (20 CCR 2320–2340) specifies the scope and process required for identification, evaluation, and designation of new transmission corridor zones. This article includes upgrades to existing electrical transmission lines that are under the operational control of the California Independent System Operator or would result in an operating voltage of 200 kV or more.

Protection of Underground Infrastructure

The Protection of Underground Infrastructure code (California Government Code 4216) requires that an excavator must contact a regional notification center (i.e., Underground Service Alert) at least two days before excavation of any subsurface installations. The Underground Service Alert then notifies utilities that may have buried lines within 1,000 feet of the excavation. Representatives of the utilities must mark the specific location of their facilities within the work area prior to the start of excavation. The construction contractor must probe and expose the underground facilities by hand prior to using power equipment.

Urban Water Management Planning Act

The Urban Water Management Planning Act (California Water Code, Division 6, Part 2.6, 10610–10656) requires the preparation of an urban water management plan (UWMP) every five years by water suppliers that provide over 3,000 acre-feet of water annually or serve water for municipal purposes either directly or indirectly to 3,000 or more customers. California Water Code 10632 requires every urban water supplier that serves more than 3,000 acre-feet per year or has more than 3,000 connections to prepare and adopt a Water Shortage Contingency Plan (WSCP) as part of its UWMP. The WSCP is required to plan for a greater than 50 percent supply shortage. The proposed Project would be subject to the UWMPs and WSCPs prepared by the local water suppliers.

Water Conservation Act of 2009 (Senate Bill [SB] X7-7) – 20x2020 Water Conservation Plan

The Water Conservation Act of 2009 requires urban and agricultural water suppliers to increase water use efficiency. The urban water use goal within the state is to achieve a 20 percent reduction in per capita water use by December 31, 2020. The 20x2020 Water Conservation Plan set forth a statewide road map to maximize the state's urban water efficiency and conservation opportunities between 2009 and 2020, and beyond (California Department of Water Resources et al. 2010). It outlined a range of activities designed to achieve the 20 percent per capita reduction in urban water demand by 2020. The statewide target for 2020 was 154 gallons per capita per day, which was a 20 percent reduction from 192 gallons per capita per day (the 2005 baseline). The San Francisco Bay Area Region had a 2020 target of 131 gallons per capita per day, down from 157 in 2005. Alameda County Water District's (ACWD) SB X7-7 gallons per capita per day target was 137 gallons. ACWD has maintained gallons per capita per day under 137 since 2014 and therefore has met its SB X7-7 20x2020 target.

Assembly Bill 1668 and Senate Bill 606 – Making California Conservation a Way of Life

AB 1668 and SB 606 establish new water use targets beyond SB X7-7 to better prepare the state for droughts and climate change. New standards must be adopted by the State Water Resources Control Board by July 2022 and urban retail water suppliers must start reporting on compliance with the water use objective in November 2023. Bill provisions include establishing standards for the following:

- Outdoor irrigation (residential and dedicated landscape water meters)
- Performance measures for commercial, industrial, and institutional water use
- Water loss standards

California Model Water Efficient Landscape Ordinance

On December 1, 2015, the State of California's revision to the Model Water Efficient Landscape Ordinance (MWELO, 23 CCR Div. 2, Chapter 2.7) became effective. It requires cities and counties to ensure MWELO compliance for new construction projects with total landscape area equal to or greater than 500 square feet in size and rehabilitated landscape projects with total landscape area of 2,500 square feet or larger. The MWELO is in effect in every city and county unless a local or regional Water Efficient Landscape Ordinance has been adopted.

The MWELO was created by the California Department of Water Resources as a model for local agencies to enforce minimum standards in landscape design, construction, and management. It achieves this through specific requirements related to soil, plants, irrigation, stormwater, and non-potable water supplies. It sets an upper limit for the water budgets of landscape projects, thereby driving water-efficiency through the thoughtful selection of climate-appropriate plants, organic soil amendments, water-saving irrigation devices, and the use of alternative water supplies. MWELO encourages landscapes that require less water than the water budget's upper limit. It also encourages the innovation of landscaping equipment.

California Water Recycling Criteria

The California Water Recycling Criteria (22 CCR 60307) outline allowable uses for types of recycled water. The following uses would require that any recycled water be filtered and disinfected: industrial process water that may come into contact with workers and consolidation of backfill around potable water pipelines. The following uses would require that any recycled water be at least oxidized and disinfected: backfill consolidation around non-potable piping, soil compaction, mixing concrete, dust control on roads and streets, cleaning roads, sidewalks and outdoor work areas, and industrial process water that would not come into contact with workers. Recycled water used for flushing sanitary sewers shall be at least undisinfected recycled water.

3.20.2.3 Regional

Alameda County Measure D, the Alameda County Waste Reduction and Recycling Act

Measure D, approved in 1990, established the Alameda County Source Reduction and Recycling Board. It also established a countywide goal of diverting/recycling 75 percent of solid waste generated (StopWaste 2021).

Alameda County Integrated Waste Management Plan – Countywide Element

The Alameda County Countywide Integrated Waste Management Plan serves as a roadmap for Alameda County's solid waste management and recycling issues. The Countywide Siting Element and the Countywide Summary Plan describe the current and desired long-term state of waste and materials management in the County. It addresses core infrastructure needs – collection, transport, processing facilities, and landfills – and provides the context and rationale for a comprehensive approach to the current and future waste management issues. The Countywide Siting Element demonstrates the ability to provide 15 years of permitted disposal capacity for all jurisdictions within the County. The Countywide Summary Plan provides an overview of significant waste management issues in the County; steps to be taken with member agencies; goals, objectives, and policies; a summary of waste management issues identified in the incorporated and unincorporated areas of the County; a summary of waste management programs and infrastructure; and existing and proposed solid waste facilities. Alameda County's goal is to move in the direction of landfill obsolescence by reducing waste production and increasing waste diversion. The County is working towards achieving the statewide goals of 75 percent waste diversion from landfills compared to 1990 and a 75 percent reduction in organics from landfills compared to 2014.

The Alameda County Waste Management Authority (ACWMA) has adopted the goals, objectives, and policies included in the Alameda County Countywide Integrated Waste Management Plan. The ACWMA manages long-range development of solid waste facilities and projects related to source reduction and recycling (Alameda County 2020). The ACWMA, Source Reduction and Recycling Board, and Energy Council are three separate organizations that function as one integrated agency collectively known as StopWaste.

Alameda County Mandatory Recycling Ordinance (2012-01)

Alameda County Mandatory Recycling Ordinance requires businesses, institutions, and multifamily properties with five or more units to sort their recyclables separate from waste. The following jurisdictions have opted into Phase 2 requirements (effective 2014): cities of Fremont, Hayward, Newark, Oakland, and Union City as well as unincorporated areas within Alameda County. All businesses and institutions (regardless of garbage service volume) must provide and service sufficient containers, recycle all recyclable materials, and separate organics, recycling, and other waste.

Plant Debris Landfill Ban

The Plant Debris Landfill Ban (ACWMA Ordinance 2008-01) requires businesses and institutions in Alameda County generating four or more cubic yards of garbage per week to separate all plant debris from garbage and recyclable materials. Those with on-site service must place plant debris in a designated organics collection bin. Businesses can arrange for the removal of plant debris by their

landscaper. The landscaper must haul to an approved facility and must deposit plant debris in the facility's designated "clean green" area (ACWMA 2021).

3.20.2.4 Local

City of Oakland General Plan

The water resources section of the City of Oakland's General Plan, Open Space, Conservation and Recreation Element (1996) includes directives to conserve water and water recycling strategies. The following water conservation objectives and policies are included in the general plan:

- **Objective CO-4: Water Supply** – To maintain a water supply sufficient to meet local needs while minimizing the need to develop new water supply facilities.
    - **Policy CO-4.1: Water Conservation** – Emphasize water conservation and recycling strategies in efforts to meet future demand.
    - **Policy CO-4.2: Drought-Tolerant Landscaping** – Require use of drought-tolerant plants to the greatest extent possible and encourage the use of irrigation systems which minimize water consumption.
    - **Policy CO-4.3: Use of Reclaimed Water** – Promote the use of reclaimed wastewater for irrigating landscape medians, cemeteries, parks, golf courses, and other areas requiring large volumes of non-potable water.

City of Oakland Equitable Climate Action Plan

The City of Oakland's Equitable Climate Action Plan (City of Oakland 2020) includes a "deconstruction requirement to reduce demolition waste from construction and renovation and facilitate material reuse. Regulate hauling and processing of construction and demolition debris to ensure that salvageable materials are identified and removed for reuse instead of being recycled or disposed to landfill."

City of San Leandro General Plan

The City of San Leandro's General Plan (2016) includes the following goals and policies related to water conservation, waste reduction, community services, and facilities:

- **Goal OSC-7**: Promote recycling, water conservation, green building, and other programs which reduce greenhouse gas (GHG) emissions and create a more sustainable environment.
    - Policy OSC-7.1: Recycling - Actively promote recycling, composting, and other programs that reduce the amount of solid waste requiring disposal in landfills.
    - Policy OSC-7.2: Water Conservation - Promote the efficient use of existing water supplies through a variety of water conservation measures, including the use of recycled water for landscaping.
    - Policy OSC-7.3 Drought-Tolerant Landscaping - Encourage the use of native vegetation and Bay-friendly landscaping and enforce the California Department of Water Resources MWELO.

  - Policy OSC-7.4 Development Standards. Maintain local planning and building standards that require the efficient use of water through such measures as low-flow plumbing fixtures and water-saving appliances. Require water conservation measures as a condition of approval for major developments.

- **Goal CSF-6**: Ensure that local water, sewer, storm drainage, solid waste, energy, and telecommunications facilities are well maintained; improvements meet existing and future needs; and land use decisions are contingent on the adequacy and maintenance of such facilities.
  - Policy CSF-6.1: Development Impacts - Permit new development only when infrastructure and utilities can be provided to that development without diminishing the quality of service provided to the rest of the City.
  - Policy CSF-6.2: Fair Share Costs - Require future development to pay its fair share of the cost of improving the water, sewer, storm drainage, and other infrastructure systems needed to serve that development. Development impact fees, development agreements, and other appropriate forms of mitigation should be used to cover the costs of upgrading or expanding public infrastructure.
  - Policy CSF-6.3: Coordination - Coordinate local infrastructure planning with East Bay Municipal Utility District (EBMUD), the Oro Loma Sanitary District (OLSD), Alameda County, and other service providers to ensure that infrastructure remains adequate to serve existing and planned development.
  - Policy CSF-6.4: Wastewater Collection and Treatment - Maintain efficient, environmentally sound, and cost-effective wastewater collection and treatment services in San Leandro.
  - Policy CSF-6.5: Capacity - Maintain adequate capacity at the San Leandro wastewater treatment plant to accommodate projected levels of growth within the service area and encourage the OLSD to do the same. Support efforts to maintain and/or improve the high quality of treated effluent at both plants and increase the feasibility and cost-effectiveness of using recycled wastewater for non-potable purposes.
  - Policy CSF-6.7: Storm Drainage - Require storm drainage improvements for new development which ensure that stormwater runoff is adequately handled both on-site and off-site. Such regulations should fully implement state and federal clean water requirements. The city will also support legislation to increase funding for local storm drainage improvements, including improvements aimed at water quality.

City of San Leandro Zoning Code Chapter 4.16 Landscape Requirements

The City of San Leandro adopted a Water Efficient Landscape Ordinance in 2010, including provisions to reduce water use and water waste. The ordinance applies to any single-family or multi-family residential, public, institutional, or commercial project that requires a permit, plan check or design review from the local reviewing agency and meets one of the following size thresholds:

- New construction projects with a total landscape area greater than 500 square feet
- Rehabilitations of existing landscape with a total landscape area greater than 2,500 square feet

City of San Leandro Climate Action Plan

The City of San Leandro Climate Action Plan (City of San Leandro 2021a) includes a Waste Reduction and Reuse Strategy (WR-2) with respect to C&D waste. It directs the City to explore opportunities to exceed State requirements for C&D materials by encouraging deconstruction and material reuse. One of the actions in the plan is to evaluate, and implement if feasible, a deconstruction requirement to reduce demolition waste from construction and renovation and facilitate material reuse.

Eden Area Plan

The Eden Area consists of unincorporated land in western Alameda County between the cities of San Leandro and Hayward, and includes the communities of San Lorenzo, Ashland, and Cherryland. The Public Facilities and Services Element provides information and policy guidance to ensure provision of facilities and services in the Eden Area (Alameda County Community Development Agency 2010). Goals and policies related to utilities and services are provided below.

- **Goal PF-8:** Reduce the volume of solid waste generated in the Eden Area through reduction, recycling, and resource conservation.
    - Policy P1. The County should continue to work actively with the ACWMA to reduce the volume of solid waste generated in the Eden Area.
    - Policy P2. The County shall strive to meet or exceed the goals for reducing, recycling and safely storing waste stated in the Alameda County Countywide Integrated Waste Management Plan.
    - Policy P3. The County shall encourage local businesses to expand their recycling efforts and to reduce packaging of products manufactured in the Eden Area.
    - Policy P4. Public buildings shall be designed or improved with on-site storage facilities for solid waste and recyclable materials.
    - Policy P5. The salvage and reuse of C&D materials and debris shall be encouraged at all construction projects in the Eden Area.
    - Policy P7. The County should work with residents, businesses and other members of the community, including architects, builders and contractors, to implement the County's Green Building Ordinance for residential and non-residential projects.
- **Goal PF-9:** Ensure sufficient water supplies and facilities to serve the residents of the Eden Area in an efficient and financially-sound manner.
    - Policy P1. The County shall support the efficient use of water through such means as conservation and recycling, and shall encourage the development of water recycling facilities to help meet the needs in the Eden Area.

- Policy P2. The approval of new development shall be conditional on the availability of sufficient water for the project. Existing conditions should be considered in determining water availability.
- Policy P3. Continue to support EBMUD's water conservation incentive and consumer outreach programs through partnerships and advocacy.
- Policy P4. The County shall encourage the efficient use of water for non-residential landscape irrigation by supporting the use of recycled water.
- Policy P5. The County shall require that new development meet the Landscape Water Conservation Guidelines adopted by the Alameda County Board of Supervisors as a condition of permit approval.
- Policy P6. The County shall work with EBMUD to ensure effective management and long-term allocation of water resources, to develop a contingency plan for potential short-term water shortages and to develop uniform water conservation programs.
- Policy P7. The County shall maintain regular communication with EBMUD and the HWS about upcoming street improvement projects and shall provide the Districts the opportunity to combine water service improvements with roadway improvements to minimize costs and reduce disruption to traffic.
- Policy P8. The County shall identify opportunities to conserve water in public buildings in the Eden Area.
- Policy P9. The County shall strive to balance water supplies for existing residences with demands of new development.

- **Goal PF-10:** Encourage the collection, treatment, and disposal of wastewater in a safe, sanitary, and environmentally acceptable manner.
  - Policy P1. The approval of new development shall be conditional on the availability of adequate, long-term capacity of wastewater treatment, conveyance and disposal sufficient to service the proposed development.
  - Policy P2. To the greatest extent feasible, upgrades to wastewater conveyance systems shall not disrupt the quality of life for Eden Area residents by significantly increasing noise, air pollution or traffic congestion.
  - Policy P3. All new development shall demonstrate to the County that the downstream sanitary sewer system is adequately sized and has sufficient capacity to accommodate anticipated sewage flows. If the downstream mains are found to be inadequate, the developer shall provide additional facilities to accept the additional sewage expected to be generated by the development.
  - Policy P4. The County shall ensure that OLSD maintains an up-to date, adequate plan and infrastructure for the delivery of wastewater collection, treatment and disposal in the Eden Area.
  - Policy P5. The County should encourage OLSD to find opportunities to expand the use of recycled water for industrial and irrigation purposes.

- **Goal PF-11:** Collect, store, and dispose of stormwater in ways that are safe, sanitary, and environmentally acceptable.
    - Policy P1. Stormwater infrastructure shall be maintained in good condition.
    - Policy P2. New development projects should be designed to preserve permeable surfaces, minimize the amount of impervious surface and reduce stormwater impacts. Specific strategies that should be considered include permeable paving materials, green roofs and swales.
    - Policy P3. Local storm drainage improvements should be designed to carry appropriate design-year flows resulting from build out of the General Plan.
    - Policy P4. The stormwater collection system for the Eden Area should be planned and managed in a logical, timely and appropriate manner.
    - Policy P5. Design of storm drainage facilities shall be consistent with the Stormwater Quality Management Plan (SQMP) and National Pollutant Discharge Elimination System requirements.
    - Policy P6. A watershed management approach should be used in addressing, planning and managing stormwater issues.
    - Policy P7. Natural or nonstructural stormwater drainage systems shall be encouraged to preserve and enhance the natural features of the Eden Area.
    - Policy P8. Installation or repair of stormwater collection systems should occur concurrently with the repair of roadways to maximize efficiency.
    - Policy P9. The County shall apply the Alameda County Clean Water Program's conditions of approval as development standards for new construction.
    - Policy P10. The County shall protect surface and groundwater resources by implementing the water quality policies in the County-wide Resource and Conservation , Open Space and Agricultural Element.
    - Policy P12. The County shall encourage new development to incorporate the measures contained in the Bay Friendly-Landscaping guidance document developed by StopWaste.org.

City of Hayward 2040 General Plan

The City of Hayward's General Plan (2014) includes the following goals and policies related to water conservation, solid waste reduction, utilities, and communications:

- **Goal NR-6**: Improve overall water quality by protecting surface and groundwater sources, restoring creeks and rivers to their natural state, and conserving water resources.
    - Policy NR-6.9: Water Conservation - The City shall require water customers to actively conserve water year-round, and especially during drought years.
    - Policy NR-6.10: Water Recycling - The City shall support efforts by the regional water provider to increase water recycling by residents, businesses, non-profits,

industries, and developers, including identifying methods for water recycling and rainwater catchment for indoor and landscape uses in new development.

- Policy NR-6.11: Reclaimed Water Usage - The City shall take an active role in increasing the use of reclaimed water and educating the community about the methods of safe collection and benefits of using reclaimed water.
- Policy NR-6.13: Water Recycling Program Advocacy - The City shall coordinate with EBMUD and the Hayward Area Recreation and Park District (HARD) to advance water recycling programs, including using treated wastewater to irrigate parks, golf courses, and roadway landscaping and encouraging rainwater catchment system-wide and greywater usage techniques in new buildings.
- Policy NR-6.14: Native and Drought-Tolerant Landscaping - The City shall use native or drought-tolerant vegetation in the landscaping of all public facilities.
- Policy NR-6.16: Landscape Ordinance Compliance - The City shall continue to implement the Bay-Friendly Water Efficient Landscape Ordinance.

- **Goal PFS-3**: Maintain a level of service in the City's water system that meets the needs of existing and future development while improving water system efficiency.
  - Policy PFS-3.2: UWMP - The City shall maintain and implement the UWMP, including water conservation strategies and programs, as required by the Water Management Planning Act.
  - Policy PFS-3.13: New Development - The City shall ensure that water supply capacity is in place prior to granting building permits for new development.
  - Policy PFS-3.14: Water Conservation Standards - The City shall comply with provisions of the State's 20x2020 Water Conservation Plan.
  - Policy PFS-3.15: Water Conservation Programs - The City shall implement cost effective conservation strategies and programs that increase water use efficiency, including providing incentives for adoption of water efficiency measures. Water conservation strategies may include a combination of financial incentives, legislative actions, and public education.
  - Policy PFS-3.16: Recycled Water - The City shall increase use of recycled water where appropriate, cost effective, safe, and environmentally sustainable. The City shall work with regional partners to encourage expansion of recycled water infrastructure.
  - Policy PFS-3.17: Bay-Friendly Landscaping - The City shall promote landscaping techniques that use native and climate appropriate plants, sustainable design and maintenance, water-efficient irrigation systems, and yard clipping reduction practices.
- **Goal PFS-7**: Minimize the generation of solid waste, increase recycling, and provide for the collection and disposal of solid waste.

  - Policy PFS-7.4 Solid Waste Diversion - The City shall comply with State goals regarding diversion from landfill, and strive to comply with the provisions approved by the ACWMA.
  - Policy PFS-7.12: C&D Waste Recycling - The City shall require demolition, remodeling and major new development projects to salvage or recycle asphalt and concrete and all other non-hazardous C&D materials to the maximum extent practicable.

- **Goal PFS-8**: Ensure the provision of adequate gas and electric services to Hayward residents and businesses and ensure energy facilities are constructed in a fashion that minimizes their impacts on surrounding development and maximizes efficiency.
  - Policy PFS-8.5: Undergrounding New Utility Lines - The City shall require that all new utility lines constructed as part of new development projects are installed underground or, in the case of transformers, pad-mounted.
  - Policy PFS-8.6: Undergrounding Existing Utility Lines: The City shall encourage the undergrounding of existing overhead facilities.
- **Goal PFS-9**: Encourage state-of-the-art technology and telecommunications services for households, businesses, institutions, and public agencies throughout the city to connect Hayward residents to the city, nation, and world.
  - Policy PFS-9.3: Co-Location - The City shall encourage compatible co-location of telecommunications facilities and shall work with service providers to site telecommunications facilities on City-owned property and public ROWs.

City of Hayward Recycled Water Ordinance

In December 2015, the City of Hayward adopted a Recycled Water Ordinance, which requires the use of recycled water for appropriate irrigation and industrial uses. The City reviews new developments for the potential to use recycled water and may require the use of recycled water as a condition of approval.

City of Hayward Municipal Code Section 11-2.47 Prohibition of Wasteful Water Practices

The City of Hayward Municipal Code Section 11-2.47 prohibits the use of potable water for non-essential purposes, including flooding or runoff into gutters and streets, excessive irrigation, washing of buildings, sidewalks, driveways, or vehicles without a positive shut-off nozzle on the hose.

City of Union City General Plan

The City of Union City's General Plan (2002a and 2002b) includes the following goals and policies related to provision of public facilities.

- **Goal PF-A.1:** To ensure the timely development of public facilities and the maintenance of adequate service levels for these facilities to meet the needs of existing and future city residents.

- Policy PF-A.1.1: The City shall ensure through the development review process that adequate public facilities and services are available to serve new development when required. The City shall not approve new development where existing facilities are inadequate to support the project unless the applicant can demonstrate that all necessary public facilities will be installed or adequately financed and maintained (through fees, special taxes, assessments, or other mean).
- Policy PF-A.1.2: The City shall require all new development and major modifications to existing development to construct necessary on-site infrastructure to serve the project in accordance with City standards.
- Policy PF-A.1.4: The City shall ensure that the provision of streets, sewer, water, drainage and other needed infrastructure is coordinated in a logical manner between adjacent developments so as to reduce design, construction and maintenance costs.
- Policy PF-A.1.5: The City shall ensure through the development review process that public facilities and infrastructure are designed and constructed to meet ultimate capacity needs, pursuant to a master plan, to avoid the need for costly retrofitting. This does not apply to any infrastructure requirements of the ACWD and the Union Sanitary District (USD).

- **Goal PF-B.1:** To ensure that adequate facility and service standards are achieved and maintained through the use of equitable funding methods.
  - Policy PF-B.1.3: The City shall require, to the extent legally possible, that new development pays the cost of providing new public facilities and services and/or the cost for upgrading all existing facilities that are used. Exceptions may be made when new development generates significant public benefits (e.g., low-income housing, significant primary wage earner employment) and/or when alternative sources of funding can be identified to offset foregone revenues.
  - Policy PF-B.1.5: The City shall require all new development or major modifications to existing development, to construct or provide a fair share contribution toward the construction of any off-site improvements necessary to off-set project impacts and/or support the project.
- **Goal PF-C.1:** To ensure that there will be a safe and reliable water supply sufficient to meet the future needs of the City.
  - Policy PF-C.1.1: The City shall coordinate its review of development proposals with the ACWD to ensure that new development can be adequately served by the District's water supply system.
  - Policy PF-C.1.3: The City shall only approve new development where an adequate public water supply and conveyance system exists or will be provided by the ACWD.
  - Policy PF-C.1.4: The City shall promote efficient water use and reduced water demand by:
    a. Requiring water-conserving design and equipment in new construction;

b. Encouraging water-conserving landscaping and other conservation measures;

c. Encouraging the retrofitting of existing development with water-conserving devices;

d. Providing public education programs;

e. Distributing outdoor lawn watering guidelines; and

f. Working with ACWD, promote water audit and leak detection programs.

- **Goal PF-D.1:** To ensure adequate wastewater collection, treatment, and disposal.
    - Policy PF-D.1.1 The City will coordinate its review of development proposals with the USD to ensure that new development can be adequately served by the sewage collection and treatment system.
    - Policy PF-D.1.2 The City shall only approve new development where it will be served by a public sewer system.
- **Goal PF-E.1:** To collect and dispose of stormwater in a manner that minimizes inconvenience to the public, minimizes potential water-related damage, and enhances the environment.
    - Policy PF-E.1.5 New development shall have surface drainage disposal accommodated in one of the following ways:
        a. Positive drainage to a City-approved storm drain, stream, creek, or other natural water course.
        b. On-site drainage that is retained within the development.
- **Goal PF-F.1:** To ensure the safe and efficient disposal or recycling of solid waste generated in Union City in an effort to protect the public health and safety and reduce impacts on landfills.
    - Policy PF-F.1.2 The City shall promote maximum use of solid waste reduction, recycling, composting, and environmentally-safe transformation of wastes and strive for an annual reduction in commercial and industrial waste disposal.
    - Policy PF-F.1.6 The City shall strive to maintain the diversion of 50 percent of all waste generated citywide for recycling and strive to increase the diversion of waste for recycling to 75 percent by 2010.
    - Policy PF-F.1.8 The City shall encourage the recycling of construction debris.

Union City Climate Action Plan

The Union City Climate Action Plan was adopted in 2010 and identifies emission reduction strategies in the waste and water sectors. Strategies include supporting reducing water

consumption and increasing waste diversion. The plan includes a series of waste reduction policies designed to increase waste diversion, strengthen C&D recycling standards, expand outreach programs, and increase waste reduction in municipal facilities.

Union City Green Building and Landscaping Practices, Municipal Code Chapter 15.76

The City of Union City adopted the Green Building and Landscaping Practices ordinance as part of the City's municipal code in March 2006. The ordinance provides requirements for green building and landscaping practices to be used in City-sponsored and public partnership projects through all aspects of a project, including design, construction, demolition, renovation, operation, and maintenance of buildings and landscaping in the city. The requirements are designed to reduce landfill waste, conserve natural resources, increase energy efficiency, lower costs associated with operation and maintenance, improve indoor air quality, and minimize impacts on the natural environment.

City of Fremont General Plan

The City of Fremont's General Plan (2011) includes requirements for water efficiency and waste reduction. General Plan policies related to waste reduction and recycling include public facilities policies regarding increasing waste diversion and recycling and moving towards zero waste. This plan commits to meeting the 75 percent diversion/recycling commitment from Alameda County Measure D.

Goals and policies relevant to public utilities, waste reduction, and water efficiency are provided below.

- **Goal 7-4: Water Conservation** – A water conservation program with measurable results consistent with ACWD's UWMP and with the City's GHG reduction goals
    - Policy 7-4.1: Water Conservation - Maximize community water conservation.
    - Policy 7-4.2: Reclaimed Water - Encourage the use of reclaimed water for irrigation, industrial purposes and in City operations.
    - Policy 7-4.3: Water Conservation in City Operations - Maximize water conservation in City operations.
- **Goal 9-3: Water, Sewer and Flood Control** – Water, sewer and flood control systems that meet community needs and are efficient and environmentally friendly.
    - Policy 9-3.1: Long Range Planning - Work with the ACWD, USD, and ACFCD to encourage their long-range plans are consistent with the Fremont General Plan.
- **Goal 9-4: Gas and Electricity** – Natural gas and electric infrastructure that meet the needs of new development.
    - Policy 9-4.1: Planning Consistency - Work with PG&E to ensure that their long range plans are consistent with the Fremont General Plan and that infrastructure is sufficient to support new development.
    - Policy 9-4.2: Encourage PG&E to Upgrade Infrastructure

- **Goal 9-5: Communications Infrastructure** – High quality, inexpensive communications networks available to the community.
    - Policy 9-5-1: Free Wireless Internet (Wi-Fi) - Encourage provision of free wireless internet services.
    - Policy 9-5-2: Enhanced Fiber Optic Network - Encourage upgrades to local fiber optic networks.
    - Policy 9-5-3: Pre-Wiring for Communications- Encourage developers to pre-wire new and remodeled residential and non-residential structures to accommodate emerging technologies (fiber optic, wireless, Ethernet, digital subscriber line, voice over internet protocol, and many others) to allow seamless communications citywide.
- **Goal 9-6: Solid Waste Diversion** – Waste diversion maximized with the long-term objective of eliminating landfill waste.
    - Policy 9-6.1: Increase Waste Diversion - Divert more of the City's solid waste stream to beneficial reuse, with a long-term objective of eliminating landfill waste.
    - Policy 9-6.2: Protect Public Health and Safety - Implement waste diversion programs that protect public health and safety and the environment.
    - Policy 9-6.3: Prioritize Waste Diversion Strategies - Implement waste diversion strategies in the following order, to promote the highest and best use of all materials: source reduction including redesign, reuse, recycling, organics processing, energy recovery and disposal in the landfill as the last option.
- **Goal 9-7: Waste-Handling Infrastructure** – Infrastructure that manages the City's waste in a cost-effective manner.
    - Policy 9-7.2: Require Development Projects to Provide for Waste Handling - Ensure all development projects provide adequate space, design and labeling for indoor and outdoor waste management supplies and equipment, such as trash enclosures.

City of Fremont Climate Action Plan

The City of Fremont Climate Action Plan (2012) includes the following goals and policies related to solid waste and water efficiency.

- **Solid Waste Goal:** Reductions in GHG emissions achieved by decreasing the amount of solid waste sent to landfills through increased voluntary and mandatory recycling, composting, and other materials management strategies, and from methane gas capture and recovery.
    - Policy SW-A5: Increase the amount of C&D debris recycled from private-sector projects.
    - Policy SW-R1: Implement mandatory commercial recycling effective July 1, 2012, as required by the State of California and Alameda County Policy SW-A8: Increase recovery of organic materials from the commercial and residential sectors to 75 percent.

  - SW-A9: Increase recovery of recyclable materials from the commercial and residential sectors to 75 percent.
  - SW-A10: Increase recovery of organic materials from the commercial and residential sectors to 90 percent.
  - SW-A11: Increase recovery of recyclable materials from the commercial and residential sectors to 90 percent.

- **Municipal Services and Operations Goal:** Increased diversion of solid waste from landfills and increased use of recycled-content products.
  - Policy M11: Increase C&D debris recycled from public-sector projects.
  - M18: Continue implementing the BFL requirements for civic improvement projects which include landscaped areas larger than 10,000 square feet.
- **Water Goal:** Reduce GHG emissions through water conservation and efficient use of water resources, collaborative efforts with other public agencies, outreach, and educational efforts to promote behavior change, and creating the conditions that support people's ability to make choices which support this goal.
  - Policy W-C1: Continue to 9implement the WELO for private development.
  - W-P1: Encourage use of on-site recycled water systems, (also known as 'greywater systems' or "laundry to landscape') consistent with all environmental and health and safety regulations and ACWD policies and requirements.
  - W-C4: Collaborate with ACWD and USD to support the use of recycled water.

City of Newark General Plan

The City of Newark's General Plan (2013) includes provisions for water conservation, waste management, and infrastructure. The following goals and policies are specified in the plan.

- **Water Resources Goal CS-3:** Conserve and enhance Newark's water resources.
  - Policy CS-3.1: Protection of Water Resources. Ensure that land use decisions consider the availability of water for domestic and non-domestic uses, potential impacts on groundwater quality and groundwater recharge capacity, and potential off-site impacts on water quality.
  - Policy CS-3.2: Water Conservation Standards. Promote water conservation through development standards, building requirements, irrigation requirements, landscape design guidelines, and other applicable City policies and programs
  - Policy CS-3.9: Reclaimed or Non-Potable Water. Plan for the expanded use of non-potable groundwater and the eventual use of reclaimed water to supplement the local water supply and reduce the necessity of using potable water for landscaping, irrigation, and non-domestic purposes.
- **Solid Waste Management Goal CS-8:** Reduce landfilled waste through recycling, composting, and source reduction.

  - Policy CS- 8.1: Recycling Program. Actively promote recycling, composting, and waste reduction in order to minimize the amount of waste requiring disposal in landfills.
  - Policy CS- 8.3: Maximizing Reuse. Manage solid waste in a way that maximizes the reclamation and reuse of resources. The City encourages the use of salvaged and recycled materials, rather than the disposal of such materials in landfills.
  - Policy CS- 8.4: Increasing Commercial, Industrial, and Multi-Family Recycling. Increase recycling rates by the commercial, industrial, and multi-family residential sectors, including apartment buildings, offices, restaurants, hotels, retail stores, and other businesses. Retail centers and multifamily residential development should be required to provide onsite shared collection bins for recyclable waste.

- **Infrastructure Goal CSF-5:** Provide safe, reliable, and efficiently operated infrastructure which meets Newark's long-term water, sewer, and stormwater management needs.
  - Policy CSF-5.1: Water Supply. Work with the ACWD to ensure a stable supply of clean, safe drinking water for existing and future development in Newark. The City of Newark will support the ACWD in its efforts to develop water management plans, acquire water for future development, ensure that the potable water supply meets all state and federal quality standards, and develop water infrastructure to serve new development areas.
  - Policy CSF-5.3: Reclaimed and/or Non-Potable Water. Continue to work with the ACWD and the USD in the development of a reclaimed water program. The use of reclaimed or non-potable water sources should be encouraged in order to reduce the use of domestic water for landscaping and other non-potable uses.
  - Policy CSF-5.4: Flood Control. Coordinate with Alameda County Flood Control and Water Conservation District (ACFCWCD) and Alameda County Public Works to ensure that stormwater runoff is managed in a way that reduces flood hazards.
  - Policy CSF-5.5: Drainage within New Development. Ensure that new development provides drainage and flood protection improvements which reduce on-site and downstream hazards such as ponding, flooding, and erosion. New development areas should be designed to minimize impervious surfaces in order to reduce associated site runoff and maximize groundwater recharge.
    - Green Infrastructure. Encourage sustainable, environmentally friendly practices by water, sewer, drainage, and energy utility service providers. The City supports “greener” approaches to infrastructure design. Storm drain catch basins should be designed to capture sediment and debris and should reduce the transport of pollutants to the Bay. Stormwater management strategies should direct water away from buildings and foundations and maintain natural hydrological functions to the greatest extent possible.
  - Policy CSF-5.6: Involving Utility Agencies in Development Review. Engage local water, sewer, and stormwater service providers in the review of new development projects to ensure that infrastructure, including water supply and wastewater

treatment capacity, is available or will be made available to meet development-related needs.

- Policy CSF-5.7: Infrastructure Cost. Ensure that the cost of infrastructure improvements required for new development is the financial responsibility of that development and is allocated based on each project's expected impacts.
- Policy CSF-5.8: Visual Impact of Utilities. Minimize the visual impact of public utilities such as transmission lines and wireless communication facilities. Utility lines along new and redeveloped rights-of-way should be placed underground wherever feasible.
- Policy CSF-5.9: Design of Utility Facilities. Coordinate with utilities in the design of utility facilities such as traffic control cabinets, utility boxes, substations, pump facilities, and switching buildings.

City of Newark Climate Action Plan Initial Framework

The City of Newark's Climate Action Plan Initial Framework (2010) includes the following actions for the business community:

- **Business Community Action Item 5.2: Increase Commercial and Business Recycling, Composting and Waste Reduction**. Action Item 5.2.1 is to share City's goal of 75 percent waste reduction by 2015 with business community; request their support.
- **Business Community Action Item 5.7: Water conservation**. Action Item 5.7.2 is to Introduce Bay Friendly Landscaping and other successful programs to businesses.

Water Efficient Landscaping

The cities of Oakland (Ordinance 1295), Hayward (Municipal Code Article 12), Union City (Municipal Code Chapter 18.112), and Fremont (City Council Resolution 2012-34) have enacted measures to require use of water efficient and Bay Friendly Landscaping. These measures would apply to landscaping within the City ROW, including at at-grade crossings. These measures are similar to California's MWELO and include the following general practices:

- Use of low-water, native plants;
- Restrictions on the use of turf and invasive species;
- Adopting the Bay-Friendly Landscape Guidelines, Bay-Friendly Landscape Scorecards and Bay-Friendly Gardening Guide as guidelines;
- Water conservation; and
- Utilizing the whole systems/watershed approach to design and maintenance of landscaping to support the integrity of the San Francisco Bay watershed through best practices.

Construction and Demolition Recycling Ordinances

The cities of Oakland, San Leandro, Hayward, Union City, Fremont, as well as the State of California have enacted measures to require recycling of C&D debris, which would apply to the proposed Project. These cities generally require recycling 100 percent of all asphalt and concrete materials,

100 percent of landscaping debris, and 50–65 percent of all other materials. A waste reduction and recycling plan that shows how the project would salvage and/or recycle materials is generally required (City of Oakland 2021b; City of San Leandro 2021b; City of Hayward 2021b; City of Union City 2021a; City of Fremont 2018c, 2018d).

3.20.2.5 Consistency with Plans, Policies, and Regulations

CEQA requires a discussion of inconsistencies or conflicts between a proposed undertaking and federal, state, regional, or local plans and laws. Accordingly, this section describes the consistency of the proposed Project with federal, state, regional, and local plans, policies, and regulations to provide planning context. Consistency with solid waste laws is addressed in Section 3.20.6.5.

Federal Plans, Policies, and Regulations

The proposed Project would be consistent with federal plans, policies, and regulations. Pipelines crossed by the Project would be treated in a manner consistent with the Norman Y. Mineta Act. This Project would notify an operator of proposed demolition, excavation, tunneling, or construction near or affecting a pipeline (**BMP Utility UT-1: Utility Verification and Coordination with Utility Providers and CPUC**). This includes identifying pipelines that may be affected by such activities and identifying any hazards that may affect a pipeline. The Project would comply with all FERC regulations.

State Plans, Policies, and Regulations

The proposed Project would be consistent with state plans, policies, and regulations with respect to utilities. In compliance with the Protection of Underground Infrastructure code, CCJPA or the construction contractor would notify the regional notification center, and pothole for utilities prior to excavation (BMP UT-1). The proposed Project may involve the relocation and protection of existing electrical and underground utilities. Overhead line construction would comply with CPUC General Order 95. The proposed Project does not involve modifying or altering existing (or installing new) major power or transmission lines (as defined above); they are to be protected in place. CCJPA would coordinate relocations and reinstallation of utilities in cooperation with utilities, so as to minimize utility service impacts to customers, and comply with General Order 131-D as needed during final design (BMP UT-1). The modification, alteration, or addition of distribution lines (i.e., electrical lines less than 60 kV) is not anticipated to require a certificate of public convenience and necessity or permit to construct.

The proposed Project would be consistent with state plans, policies, and regulations with respect to water efficiency and service systems. ACWD has met its 2015 and 2020 SB X7-7 targets. With operational water use limited to Ardenwood Station and implementation of **BMP UT-2: Minimize Potable Water Use** during construction, the proposed Project would maintain ACWD consistency with SB X7-7. Operation of the proposed Project, with the closure of Hayward Station and opening of Ardenwood Station, would not affect per capita water usage and would therefore comply with the water use standards required by AB 1668 and SB 606. Implementation of **BMP UT-3: Water Efficient Landscaping** would ensure Project consistency with the California MWELO. Project use of recycled water, acquired from local water districts, would comply with the California Water Recycling Criteria. The proposed Project is not expected to affect per capita water use, and therefore is consistent with the 20x2020 Water Conservation Plan.

Local Plans, Policies, and Regulations

The proposed Project would comply with local plans, policies, and regulations with respect to water conservation, use of recycled water, and water efficient and Bay Friendly Landscaping with implementation of BMP UT-3 as part of Project operation and BMP UT-2 during construction. The only operational requirements for water use would be within the City of Fremont for the proposed Ardenwood Station. Although currently recycled water is only available from East Bay Municipal Utilities District (EBMUD, not from the Hayward Water System [HWS] or ACWD), the Project would coordinate with ACWD and HWS if recycled water becomes available for construction in the future.

The proposed Project design includes new utilities required to support the proposed Project, including stormwater treatment, water, sewer, electrical, and flood control. No sewer or wastewater treatment is required by the proposed Project as Ardenwood Station does not include restroom facilities. BMP UT-1 would ensure that existing utilities are protected or relocated in kind. Undergrounding of new or existing overhead utilities would be considered and coordinated with the utility providers, and within public roadway ROW, with municipalities. **BMP UT-4: Public Notification** would notify the public of any service disruptions and would avoid service disruptions to critical facilities. The proposed Project would include storm drainage improvements such that stormwater runoff is managed both on-site and off-site. The proposed Project would not conflict with telecommunications or purple pipe (for recycle water distribution) policies. No natural gas infrastructure is needed for the proposed Project.

CCJPA, as the lead agency sponsoring the rail improvements, must comply with federal, state, and local laws and regulations, and secure applicable federal and state permits prior to initiating construction on the proposed Project. Therefore, there would be no inconsistencies between the proposed Project and these federal, state, and local laws and regulations.

3.20.3 Methods for Evaluating Environmental Impacts

This section defines the RSA for utilities and service systems and describes the methods used to analyze the impacts on utilities and service systems within the RSA.

3.20.3.1 Resource Study Area

As defined in Section 3.1, Introduction, RSAs are the geographic boundaries within which the environmental investigations specific to each resource topic were conducted.

For utilities and service systems, the RSA is the areal extent where the proposed Project could directly or indirectly impact utilities and service systems. To account for differences in the geographies of different types of utilities, impacts to utilities and service systems is broken into three RSAs: utility RSA, solid waste RSA, and hazardous waste RSA. **Table 3.20-1** describes the RSA boundaries. Utility and solid waste RSAs are shown in Figure 3.20-1. The hazardous waste RSA is shown in Figure 3.20-2.

The utility RSA includes the area where the proposed Project could directly impact all non-waste related utilities, i.e., the Project Footprint. The RSA also includes areas where the proposed Project could indirectly impact utility infrastructure (beyond the Project Footprint), including areas where utility relocations, use of utility facilities necessary for proposed Project construction and operation, and construction of electrical interconnections with local utilities would occur. To capture the

indirect impacts of the proposed Project, the utility RSA includes the cities and flood control district zones crossed by the proposed Project as well as water district service areas.

The solid waste RSA is the extent of Alameda County. Solid waste is disposed of at the county facilities and therefore indirect impacts should be considered at a county-level. There are no licensed hazardous waste disposal facilities in Alameda County. There are two licensed hazardous waste disposal facilities in California, Buttonwillow in Kern County and Kettleman Hills in Kings County. Therefore, the RSA for hazardous waste extends to Kern and Kings Counties, where the proposed Project would dispose of hazardous waste.

Table 3.20-1. Definition of Public Utilities RSA

RSA Name	Type	RSA Definition
Utility RSA	Utility-owned properties and facilities including major public utility infrastructure and facilities required for connecting to the proposed Project. Facilities could include substations; easements; overhead utility lines (e.g., telephone, cable television); and buried utility lines (e.g., electricity, water, wastewater, stormwater, petroleum product lines).	Cities of Oakland, San Leandro, Hayward, Fremont, Newark, and Union City, unincorporated San Lorenzo, as well as the service area for utility providers.
Solid Waste RSA	Solid waste management facilities	Alameda County
Hazardous Waste RSA	Hazardous waste management facilities	Alameda, Kings, and Kern counties

Source: CCJPA 2022

Figure 3.20-1: Utility and Solid Waste RSA

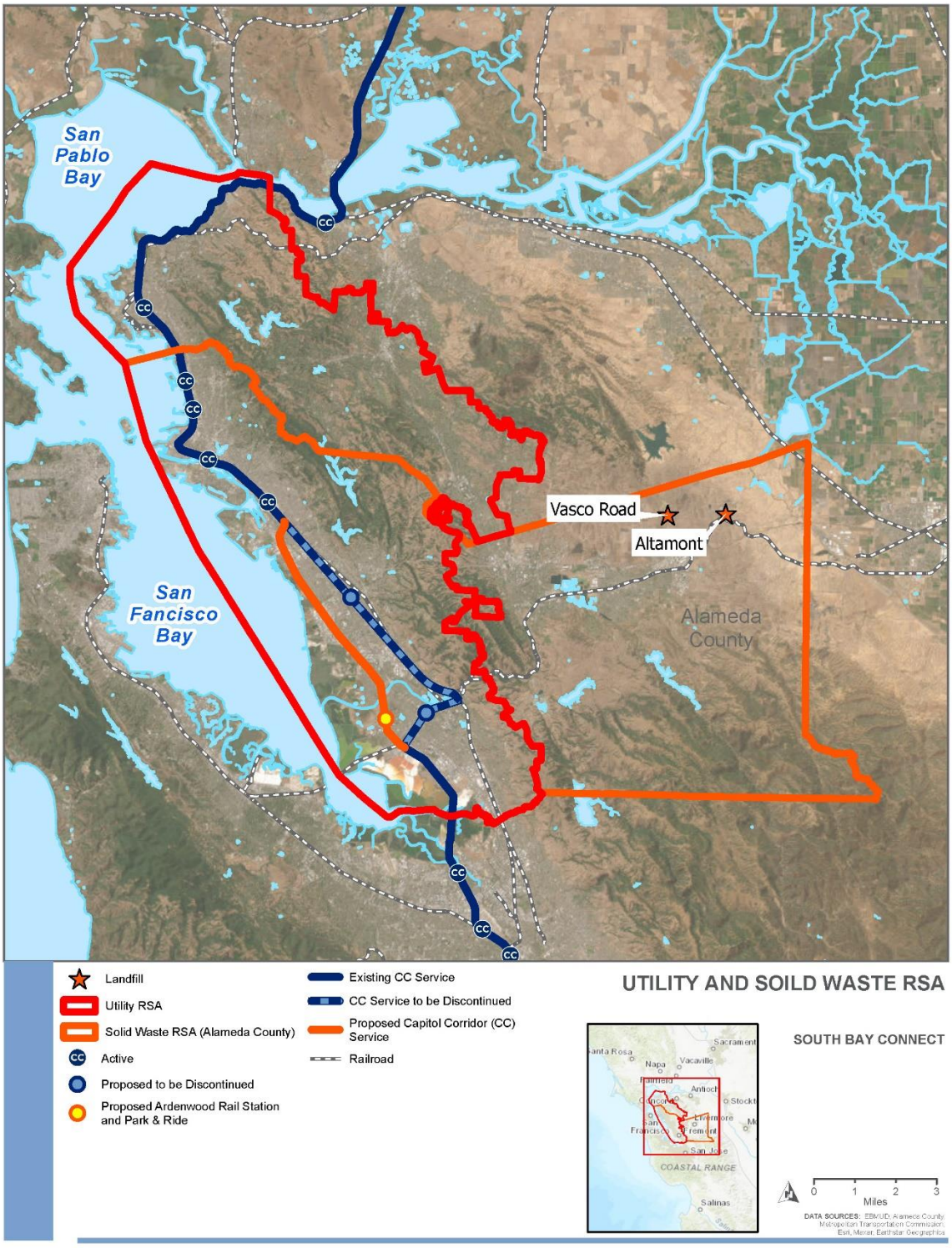
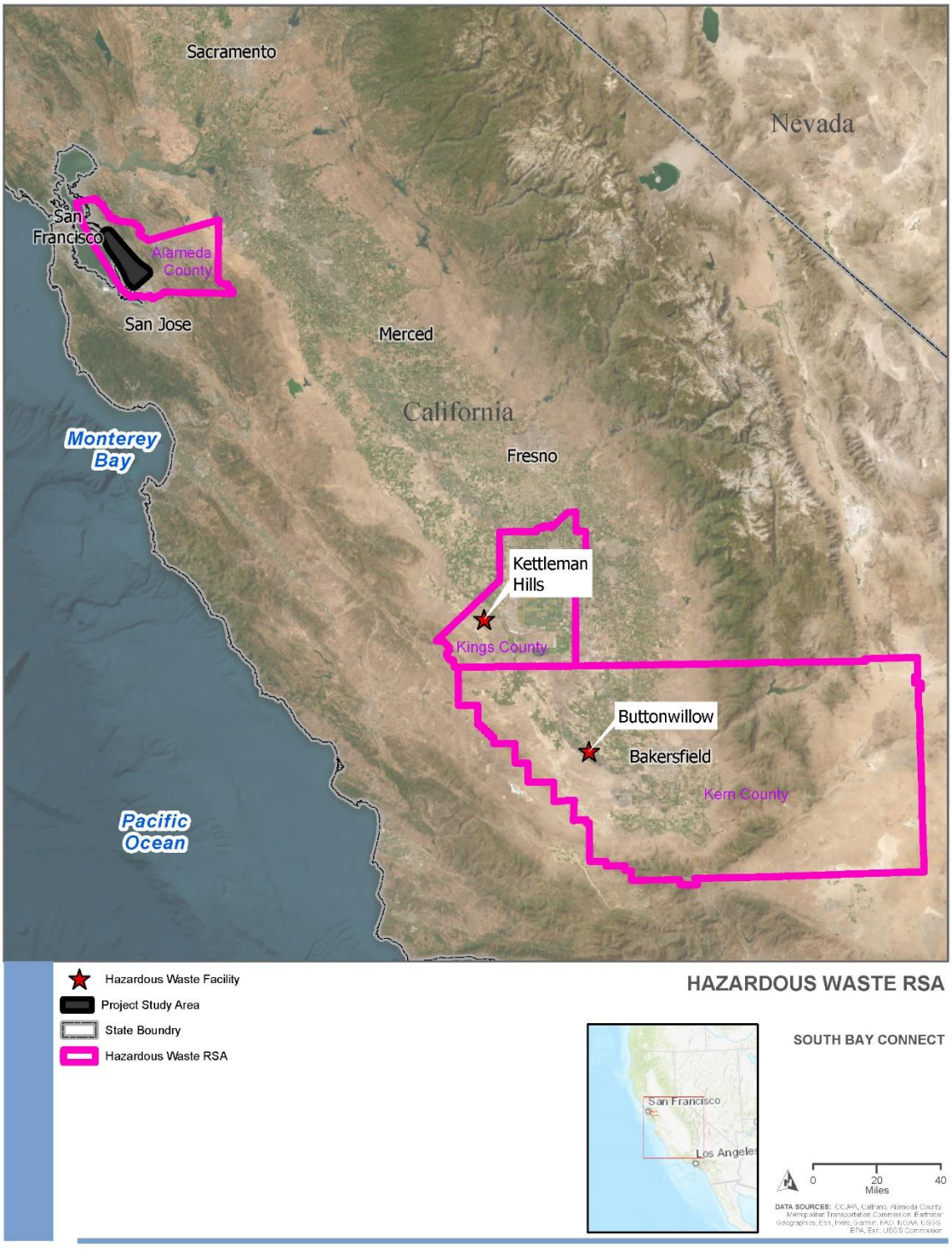


Figure 3.20-2: Hazardous Waste RSA



3.20.3.2 Data Sources

Construction

Construction water use was estimated based off the types of equipment that would be needed. Project engineers provided the number of days that water trucks and street sweepers are estimated to be used for proposed Project construction, by phase of construction. Construction is currently expected to occur over three years. Water trucks would provide all of the on-site water use during construction, except for street sweepers. Water trucks would be used for stormwater BMPs (such as erosion and dust control), compaction during grading and earthwork, as well as supplying water for other construction uses. Major concrete production would be produced off site at existing, permitted, batch plants and is not included in water use estimates. Water trucks were assumed to have 4,000-gallon tanks, which may be refilled up to four times per day. Street sweepers were assumed to have 500-gallon tanks, which would be refilled twice per day.

For solid waste production, Project engineers provided estimates for soil export and demolition quantities based on the type of work and volume of excavated material. The design of the proposed Project was also reviewed to qualitatively assesses what construction activities could produce hazardous waste and the types of hazardous waste that could be produced.

Project engineers analyzed the potential for the proposed Project to conflict with major existing utilities based on information provided by utility companies regarding the types and locations of the existing utilities. For the purposes of this analysis, minor utility impacts were not included as impacts to those facilities would be minimal and would not cause significant environmental effects. In addition, it is assumed that major utility lines crossing railroad tracks perpendicularly were designed to meet the railroad loads and would not require any additional protection measures. No field surveys were conducted to verify the locations of existing utilities. Utilities would be either protected in place (PIP) or relocated, based on geometric, structural, operational, and other considerations. Relocation would be performed on specific utilities if they cannot be sufficiently protected during construction and/or operation.

Operations

Types and amounts of utility usage at the proposed Ardenwood Station was estimated based on other comparable facilities. Average electrical utility usage was based on estimates from CCJPA's Hayward Station. The proposed Ardenwood Station would have surface parking (200 spaces), two pedestrian overcrossings, bike storage and ticket vending machines, passenger display information system, and would also be unstaffed. Electrical usage at the proposed Ardenwood Station is anticipated to be comparable to that of Hayward Station for the purposes of this analysis. . Water usage was based off facilities proposed at Ardenwood Station. Gas and wastewater treatment would not be required at the proposed Ardenwood Station.

3.20.3.3 Related Resources

3.20.3.4 CEQA Thresholds

To satisfy CEQA requirements, utilities and service systems impacts were analyzed in accordance with Appendix G of the CEQA Guidelines. According to the CEQA Guidelines, CCR, Title 14, Section 15002(g), "a significant effect on the environment is defined as a substantial adverse change in the

physical conditions which exist in the area affected by the proposed project." As stated in CEQA Guidelines Section 15064(b)(1), the significance of an activity may vary with the setting. The impact analysis identifies and analyzes construction (short-term) and operation (long-term) impacts, as well as direct and indirect impacts (see PRC Section 21065). The proposed Project would have significant utilities and service systems impacts under CEQA if it would:

a. Require or result in the relocation or construction of new or expanded water, wastewater treatment or stormwater drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects;

b. Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry, and multiple dry years;

c. Result in a determination by the wastewater 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;

d. 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; or

e. Comply with federal, state, and local management and reduction statutes and regulations related to solid waste.

3.20.4 Affected Environment

3.20.4.1 Environmental Setting

Regional and Local Setting

The following section describes existing utility and service systems and their providers within the utility, solid waste, and hazardous waste RSAs.

Electrical, Natural Gas, Petroleum, and Fuel

Multiple utilities provide electric, gas, petroleum, oil, and fuel service within the RSA (**Table 3.20-2**). The Pacific Gas and Electric Company (PG&E) provides electrical and natural gas service to the utility RSA (PG&E 2023). PG&E provides electricity to much of Northern California, from approximately Bakersfield to the California-Oregon border. The company generates electricity in facilities within several hundred miles of the points of use, and their generation portfolio includes hydroelectric facilities, a nuclear power plant, and a natural gas-fired power plant (California Energy Commission 2015). PG&E operates and maintains their own distribution system, including three major transmission lines running west to east across Alameda County to substations in Hayward and Fremont (City of Hayward 2014).

Multiple Kinder Morgan oil and natural gas pipelines cross the Coast Subdivision. Kinder Morgan is a large energy infrastructure company that owns or operates approximately 83,000 miles of pipelines and 147 terminals (Kinder Morgan 2023). Bay Area lines within the northern region of Kinder Morgan operations originate at the Richmond, Concord, and Amorco stations, with destinations in Bradshaw, Brisbane, Chico, Fresno, Richmond, Sacramento, San Jose, Stockton, the Oakland Airport, and the San Francisco Airport (Kinder Morgan 2019).

Ava Community Energy (formerly East Bay Community Energy) is a not-for-profit public agency started in 2018 that governs this Community Choice Energy service within Alameda County. Ava purchases wind, solar, and hydropower, which is distributed to customers by PG&E. Ava currently serves the following cities of within the RSA: Fremont, Hayward, Newark, Oakland, San Leandro, Union City, as well as unincorporated areas of Alameda County (Ava 2021).

Table 3.20-2. Summary of Electrical and Natural Gas Providers in the Utility RSA

County/City Location	Provider
Electrical and Natural Gas	
Cities of Fremont, Hayward, Oakland, Newark, San Leandro, and Union City.	PG&E, Kinder Morgan, Ava
San Lorenzo (Unincorporated Alameda County)	PG&E, Kinder Morgan, Ava
Petroleum and Fuel Pipelines	
Cities of Oakland and Fremont	Kinder Morgan

Source: Ava (2021), Kinder Morgan (2019), and PG&E (2022).

Water (Potable and Recycled)

Multiple utilities provide potable and recycled water within the RSA (**Table 3.20-3**). Potable water is water that is safe to drink or for use in food preparation. Non-potable recycled water is produced from treated wastewater and can be used for landscape irrigation and industrial uses. Advanced water treatment facilities can recycle water that is clean enough to be used for potable purposes (potable reuse, ACWD 2021). The use of recycled water, rather than potable water, is important for reducing the need for potable water supplies. A summary of the recycled water infrastructure is included in the following sections.

Table 3.20-3. Summary of Water Providers in the Utility RSA

County/City Location	Provider
Water Supply (Potable and Recycled)	
Oakland	EBMUD
San Leandro	EBMUD
San Lorenzo (Unincorporated Alameda County)	EBMUD
Hayward	HWS, EBMUD, ACWD

Table 3.20-3. Summary of Water Providers in the Utility RSA

County/City Location	Provider
Union City	ACWD
Fremont	ACWD
Newark	ACWD

Source: ACWD (2021), City of Hayward (2020a), EBMUD (2023a).
Notes: EBMUD = East Bay Municipal Utility District, HWS = Haward Water system, ACWD = Alameda County Water District.

East Bay Municipal Utility District

EBMUD's service area covers some 332 square miles in Alameda and Contra Costa counties (EBMUD 2023c). EBMUD provides drinking water to the northern cities in the utility RSA, Oakland, San Leandro, the unincorporated community of San Lorenzo, and part of Hayward. The primary water sources for EBMUD are the Mokelumne River and local runoff. Water is imported primarily from the EBMUD's Pardee Reservoir on the Mokelumne River in the Sierra Nevada mountain range, 90 miles east of the Bay Area. EBMUD has water rights for up to 325 million gallons daily (MGD) from the Mokelumne River watershed. Pardee Reservoir has a capacity of 64,502 million gallons (MG), which is equivalent to a 10-month supply for EBMUD's 1.4 million water customers. Ten miles downstream from Pardee Reservoir, Camanche Reservoir stores water to meet the needs of fisheries, riparian habitat, and downstream water-rights holders. Local runoff is stored in several East Bay reservoirs to assure emergency supplies are available locally. In a year of normal precipitation, EBMUD uses an average of 21 MGD of water from local watershed runoff. EBMUD can store up to 49,421 MG of water in the East Bay reservoirs. In dry years (where water availability is comparable to the most severe single-year drought), enough water can be lost through evaporation to completely offset any water gained from local runoff. Typically, EBMUD stores a six-month emergency supply in local reservoirs.

EBMUD now also has a contract with the U.S. Bureau of Reclamation for a dry year water transfers from the Sacramento River. When needed in dry years, up to 100 MGD can be conveyed through the Freeport Regional Water Facility jointly owned by EBMUD and Sacramento County (EBMUD 2023c). In 2014 and 2015, EBMUD purchased short-term water transfers to meet customer demand (EBMUD 2023a).

EBMUD infrastructure has the capability to provide over nine MGD of recycled water (EBMUD 2019a). To help save drinking water, EBMUD provides recycled water at no charge for construction and other non-potable purposes. Recycled water for trucks is available at EBMUD's main wastewater treatment plant in west Oakland (2020 Wake Avenue) and may only be used within EBMUD's service area. The Recycled Water Truck Program supplies clean, safe, disinfected recycled water for allowed uses such as dust control, soil compaction, power washing, decorative fountains, landscape irrigation, street washing and sewer flushing (EBMUD 2023b). EBMUD has a goal of increasing recycled water production to 20 MGD by 2040 (EBMUD 2019a). EBMUDs UWMP identified 8.3 MGD of recycled water demand. EBMUDs Recycled Water Truck Program requires that the recycled water must be used immediately and hand-applied (not stored in a tank, or distributed

via pipes or irrigation lines, EBMUD 2023b). A Recycled Water Use Permit is also required (EBMUD 2019a).

EBMUD conducts a water service reliability assessment as part of its UWMP. This assessment looks at three types of water supply years:

- A normal hydrologic year represents the water supplies available under normal conditions,
- A single-dry year represents the lowest available water supply (the most severe single-year drought), and
- A five-consecutive year drought represents the driest five-year period in the historical record.

EBMUD's reliability assessments for potable water supply and demand in the years of proposed Project construction and operation are included in **Table 3.20-4**.

Table 3.20-4. EBMUD Projected Water Supply and Demand Comparison

Supply/ Demand	Normal 2025 (MG)	Single Dry Year 2025 (MG)	Second Dry Year 2025 (MG)	Third Dry Year 2025 (MG)	Normal 2030 (MG)	Single Dry Year 2030 (MG)	Second Dry Year 2030 (MG)	Second Dry Year 2030 (MG)
Supply	>186	186	161	158	>190	189	164	158
Demand	186	186	186	186	190	190	190	190
Difference	0	0	-25	-28	0	-1	-26	-32
% of Demand	100	100	-13	-15	100	-1	-13	-15
Mandatory Rationing % of Demand	0	0	13	15	0	1	13	15

Source: EBMUD (2020).
Notes: MG = million gallons

In their UWMP, EBMUD projects that they would have sufficient water supplies in normal years given normal demand for water (EBMUD 2020). In dry years, EBMUD would acquire additional water supplies from the U.S. Bureau of Reclamation to supplement its regular supply from the Mokelumne River watershed. Additionally, EBMUD would institute mandatory water rationing, which would reduce demand to match supply levels.

The UWMP identifies temporary dry year supplemental water supply options, including trucking recycled water for approved uses; drawing from reserve supplies (terminal reservoir standby storage); and pursuing emergency transfers or exchanges.

Hayward Water System

HWS serves approximately 95 percent of the City of Hayward, including nearly all commercial and institutional development. All of HWS's water supplies come from the San Francisco Public Utilities Commission (SFPUC) Regional Water System. The water is delivered through the Hetch Hetchy aqueducts, but also includes treated water produced by the SFPUC from its local watershed and facilities in Alameda County. The City receives water through two aqueducts along Mission Boulevard and Hesperian Boulevard. In addition, five water wells, for short duration emergency use only, are located within the city limits.

City of Hayward has recently constructed Phase 1 of a recycled water system that includes a one-million-gallon storage tank and pump station at the City's Water Pollution Control Facility and approximately eight miles of distribution pipelines and customer connections. Starting in 2021, the recycled water system would deliver an estimated 260,000 gallons per day of recycled water to 31 customers for irrigation and industrial uses at parks, schools, businesses, and industrial parks within a three-mile radius of the Water Pollution Control Facility (City of Hayward 2021c). The City's Water Pollution Control Facility is located on Enterprise Avenue, approximately 0.5 mile from the Project Footprint (City of Hayward 2019). The Phase 1 recycled water system pipelines cross the proposed Project alignment on the Coast subdivision at Depot Road.

The City of Hayward would be evaluating the feasibility of expanding the use of recycled water to serve additional users in the within the next few years. While this potential use has not yet been quantified, Hayward is estimating that the next phase may add 100,000 gallons per day of recycled water use. Although HWS currently does not offer recycled water for use by construction, the City is planning on developing a Recycled Water Master Plan, which would evaluate the possibility of supplying recycled water to construction (City of Hayward 2021d). Potential constraints on expansion include distribution and storage, water quality, and cost (City of Hayward 2020). It is therefore unknown whether recycled water would be available from HWS during proposed Project construction (between 2027 and 2029).

Based on information provided by SFPUC and Bay Area Water Supply and Conservation Agency, the adoption of the 2018 Bay-Delta Plan Amendment is anticipated to impact the future reliability of water supplies from the SFPUC Regional Water System to the City of Hayward. In December 2018, the State Water Resources Control Board (SWRCB) adopted amendments to the Water Quality Control Plan for the San Francisco Bay/Sacramento-San Joaquin Delta Estuary (Bay-Delta Plan Amendment) to establish water quality objectives to maintain the health of the Bay-Delta ecosystem. The Amendment was subsequently approved by the Office of Administrative Law in 2019. The SWRCB has stated that it intends to implement the Bay-Delta Plan Amendment on the Tuolumne River by the year 2022, assuming all required approvals are obtained by that time. However, implementation of the Bay-Delta Plan Amendment is not self-implementing, and it is pending lawsuits, additional regulatory approvals, permits, and processes, as well as negotiations for a voluntary agreement with the SWRCB.

The adoption of the Bay-Delta Plan Amendment may significantly impact the water supply available to the City of Hayward, however, SFPUC does not know at this time when the Bay-Delta Plan Amendment is likely to go into effect. Without a Bay-Delta Plan Amendment, the SFPUC would be able to meet 100 percent of supply through 2040. If the Bay-Delta Plan Amendment is implemented, the SFPUC would be able to meet the projected water demands presented in normal years but would experience supply shortages in single or multiple dry years. Implementation of the Bay-Delta Plan Amendment would require rationing in all single and multiple dry years. The SFPUC is currently

pursuing a voluntary agreement as well as addressing lawsuit which would limit implementation of the Plan. The SFPUC has initiated an Alternative Water Supply Planning Program to ensure that it can meet the water needs of its customers, address projected dry years shortages, and limit rationing to a maximum 20 percent system-wide in accordance with adopted SFPUC policies. This program is in early planning stages and is intended to meet future water supply challenges through 2045.

To plan conservatively, Hayward's 2020 UWMP water service reliability assessment assumes full implementation of the Bay Delta Plan Amendment in 2023. Water supply estimates in **Table 3.20-5** assume the worst-case scenario – with implementation of the Bay-Delta Plan Amendment in 2023 but without SFPUC and the SWRCB reaching a voluntary agreement, and it does not account for implementation of SFPUC's Alternative Water Supply Planning Program. Under this supply scenario, SFPUC would not be able to meet its contractual obligations and Hayward's forecasted demands during drought years (City of Hayward 2020).

Table 3.20-5. City of Hayward Projected Water Supply and Demand Comparison

Supply/ Demand	Normal 2025 (MG)	Single Dry Year 2025 (MG)	Second Dry Year 2025 (MG)	Third Dry Year 2025 (MG)	Normal 2030 (MG)	Single Dry Year 2030 (MG)	Second Dry Year 2030 (MG)	Second Dry Year 2030 (MG)	Third Dry Year (MG)
Supply	6,563	4,220	3,629	3,629	6,862	4,397	3,782	3,782	6,563
Demand	6,563	6,563	6,563	6,563	6,862	6,862	6,862	6,862	6,563
Difference	0	-2,342	-2,934	-2,934	0	-2,465	-3,080	-3,080	0
% of Demand	0	-35	-44	-44	0	-36	-45	-45	0

Source: City of Hayward 2020.
Notes: MG = million gallons

As shown in **Table 3.20-5**, substantial water supply shortfalls are projected for future single- and multiple-dry year scenarios due to implementation of the Bay-Delta Plan Amendment. Based on Hayward's WSCP, a single dry year 2025 and 2030 would represent a Level 4 water supply shortage. With a Level 4 shortage, the City of Hayward would declare a Water Supply Shortage Emergency pursuant to California Water Code section 350. A Level 4 shortage would trigger a requirement for a 40 percent reduction in consumer water demand to ensure sufficient supplies for human consumption, sanitation, and fire protection. A second or third dry year in 2025 and 2030 would represent a Level 5 water supply shortage. A Water Supply Shortage Emergency would also be declared and require a 50 percent consumer demand reduction. Under a Level 5 shortage, the City of Hayward would look to augment supply with other water purchases, such as from EBMUD and ACWD. Hayward also has five emergency groundwater supply wells with 14 MGD, however wells are only permitted for short-term emergency (five day) use (City of Hayward 2020). Groundwater was previously used as the public water supply in Hayward until 1963.

Alameda County Water District

ACWD supplies and distributes water to the cities of Fremont, Newark, Union City, and a very small part of southern Hayward. ACWD is supplied by the State Water Project (SWP, via the South Bay Aqueduct), the SFPUC's Regional Water System (via the Hetch Hetchy Aqueduct), as well as local sources such as the Niles Cone Groundwater Basin, desalinated brackish groundwater, and surface water from Del Valle Reservoir. Approximately 60 percent of the ACWD's water supplies that are used for distribution are imported from the SWP and SFPUC. ACWD operates two surface water treatment plants that treat SWP and local surface water from Del Valle Reservoir. The Newark Desalination Facility treats brackish groundwater to remove salts and other impurities.

ACWD has installed 4.29 miles of "purple pipe" (for recycled water distribution) over the past 20 years, however there is no use of recycled water in ACWD's service area. The use of recycled water to offset the demand for potable water is included as part of the District's long-term water supply strategy. However, the focus has shifted to potable reuse by supplemental recharge of potable groundwater supplies (ACWD 2021).

As with HWS, both sources of the ACWD imported supplies (SWP and SFPUC Regional Water System) are potentially subject to the Bay-Delta Plan Amendment. For SWP supplies, ACWD has assumed more conservative water supply projections (which includes climate change effects) in the 2020 UWMP (2020-2045) as it better reflects the potential full stress on the SWP. Currently, SWP water that is not used by ACWD for treatment and delivery to customers is 'banked' in groundwater storage, either locally in the Niles Cone Groundwater Basin or off-site at the Semitropic Groundwater Bank for later use in dry years. ACWD has secured 48,878 MG of groundwater storage capacity at Semitropic under this program. As of February 2021, ACWD has approximately 43,990 MG of water stored in the Semitropic Groundwater Banking Program (ACWD 2021).

Table 3.20-6 provides ACWD's assessment of water supply and demand under normal, single dry year, and multiple dry year scenarios. Under normal year water supply conditions, the ACWD would have sufficient supplies to meet projected future water demands and to bank water into groundwater storage. Under single dry year scenario, the ACWD's SWP supplies would be cut back by approximately 90 percent, and ACWD would need to rely on local and off-site groundwater storage to help make up for this shortfall in supply. If there is insufficient local groundwater storage or if ACWD is unable to recover its full contractual amount from the Semitropic Groundwater Banking Program, ACWD would look to secure additional supplies through a California Department of Water Resources drought water bank or similar water purchase/transfer program. ACWD is projected to be able to withstand the most severe 5-year dry period, using local and off-site groundwater storage to offset shortfalls.

Table 3.20-6. ACWD Projected Water Supply and Demand Comparisons (2020 through 2030)

Supply/ Demand	Normal 2025 (MG)	Single Dry Year 2025 (MG)	Second Dry Year 2025 (MG)	Third Dry Year 2025 (MG)	Normal 2030 (MG)	Single Dry Year 2030 (MG)	Second Dry Year 2030 (MG)	Second Dry Year 2030 (MG)	Third Dry Year (MG)
Imported supplies	11,828	11,828	3,193	4,464	4,041	4,855	2,888	11,828	3,225
Local supplies	10,362	10,395	9,547	9,091	9,906	10,264	1,880	10,395	9,547
Banking/ Transfers	-	-	4,399	4,725	4,529	4,399	2,293	-	4,399
Total Supply	22,190	22,223	17,140	18,280	18,476	18,541	21,669	22,223	17,172
Total Demand	19,094	19,844	18,965	18,248	18,280	19,160	19,323	19,681	18,802
Difference	3,0956	2,379	-1,825	32	196	-619	2,346	2,542	-1,630
% of supply	14	11	-11	0	1	-2	11	11	-9%
% of demand	16	12	-10	0	1	-2	12	13	-9%

Source: ACWD 2021.

In dry years, ACWD would implement its WSCP. An 11 percent shortage in water supply represents a Stage 2 water shortage (ACWD 2021). Under a Stage 2 water shortage, ACWD would adopt a Water Shortage Emergency Ordinance banning wasteful uses of water and limiting other uses, which would include the following restrictions:

- Prohibiting excessive run-off from irrigation and other activities,
- Prohibiting the use of a hose without a shut-off nozzle,
- Requiring that leaks be fixed as soon as practicable, and
- Additional prohibitions and restrictions such as prohibiting hosing down paved surfaces.

Stormwater

Stormwater facilities, including storm drains and flood control channels, are owned and managed by the cities within the RSA as well as Alameda County Flood Control and Water Conservation District (ACFCWCD), which are listed in **Table 3.20-7**.

Table 3.20-7. Summary of Stormwater Management Providers in the Utility RSA

County/City Location	Provider
Oakland	ACFCWCD
San Leandro	ACFCWCD, City of San Leandro
San Lorenzo (Unincorporated Alameda County)	ACFCWCD
Hayward	ACFCWCD, City of Hayward
Union City	ACFCWCD, Union City
Fremont	ACFCWCD, City of Fremont
Newark	ACFCWCD, City of Newark

Source: Alameda County Planning Department (2004), ACFCWCD 2022, City of Fremont (2011), City of Hayward (2014), City of Newark (2013), City of San Leandro (2016), and City of Union City (2002a).
Notes: ACFCWD = Alameda County Flood Control and Water Conservation District

Alameda County Flood Control and Water Conservation District

Much of western Alameda County lies in a floodplain protected by the ACFCWCD (ACFCWCD 2022). ACFCWCD was formed in 1949 to respond to the rapid development taking place in potentially flood-prone areas. The ACFCWCD's primary focus is to plan, design and inspect construction of flood control projects. Additionally, the ACFCWCD maintains flood control infrastructure and preserves the natural environment through pollution control regulations (City of Fremont 2011). Section 3.11,

Hydrology and Water Quality provides additional information and detail regarding major flood control infrastructure near the proposed Project.

City of Oakland

The storm drainage system in the city of Oakland consists of more than 300 miles of storm drainpipes, over 100 miles of open creeks, and 15,000 structures (mostly inlets, manholes, and catch basins). These facilities are both publicly and privately owned. City-owned storm drainage facilities are typically located within easements and ROWs. The ACFCWCD owns and maintains most of the major and primary facilities (waterways with tributary areas of at least 50 acres), including creeks such as San Leandro. The City owns and maintains the secondary facilities (waterways or drainage facilities with tributary areas equal or less than 50 acres). This includes most of the City's drainage facilities, including pipes, conduits, and drainage structures (City of Oakland 2014a).

City of San Leandro

The City of San Leandro Department of Public Works owns and maintains 175 miles of storm drainage conduits. The City's storm drain system feeds into a larger system owned and operated by the ACFCWCD (City of San Leandro 2016).

City of Hayward

Major storm drainage facilities within the city of Hayward are owned and maintained by the ACFCWCD and include gravity pipelines predominantly made of reinforced concrete, which discharge to underground storm drain lines or manmade open channels. Storm drainpipes smaller than 30 inches are generally owned by the City of Hayward. The City has five pump stations that pump stormwater into stormwater collection systems and/or dry creeks, flowing into Mt. Eden and Old Alameda creeks and ultimately to San Francisco Bay (City of Hayward 2014).

Union City

The City of Union City provides stormwater service in Union City. In general, streets in Union City include storm drainage facilities, with the exception of a few steeply sloped streets in the hills east of Mission Boulevard (Union City 2002b).

City of Fremont

The City of Fremont is responsible for maintaining the majority of the storm drainage system within the City and ensuring that adequate storm drainage facilities are built to support new development. ACFCWCD also reviews development proposals and advises the City of Fremont on appropriate measures. Drainage improvements are constructed as new development occurs. The City maintains local storm drains, replacing pipes and other facilities as needed (City of Fremont 2011).

City of Newark

Storm drainage in the city of Newark is jointly managed by the Newark Public Works Department and the ACFCWCD. ACFCWCD is responsible for planning, constructing, and maintaining flood control channels and culverts, while the Newark Public Works Department is responsible for monitoring and maintaining street gutters and storm drain inlets. Stormwater is carried through City pipes to five ACFCWCD flood control channels. The Public Works Department is responsible for carrying out the City's stormwater quality initiatives. This includes stormwater control

requirements for businesses and new development, enforcement of illicit discharge regulations, street sweeping, cleanouts of storm drain inlets, and a variety of public education and outreach events. The City manages and maintains the storm drainage system to avoid flooding and reduce the negative effects of stormwater runoff. The City works with ACFCWCD to make improvements to storm drains and flood control channels. ACFCWCD maintains flood control systems, with channels following historic sloughs and former agricultural drainage channels. Major drainage courses in the City include Plummer Creek, Newark Slough, and Mowry Slough. Stormwater flows to these drainage courses through gutters, drains, channels, and culverts (City of Newark 2013).

Wastewater

Wastewater providers within the utility RSA are listed in **Table 3.20-8**.

Table 3.20-8. Summary of Wastewater Management Providers in the Utility RSA

County/City Location	Provider
Oakland	EBMUD, City of Oakland
San Leandro	OLSD, City of San Leandro
San Lorenzo (Unincorporated Alameda County)	OLSD
Hayward	OLSD, City of Hayward
Union City	USD, Union City
Fremont	USD
Newark	USD

Source: Alameda County Planning Department (2004), City of Fremont (2011), City of Hayward (2014), City of Newark (2013), City of San Leandro (2021c), and City of Union City (2021a).

Notes: EBMUD = East Bay Municipal Utilities District, OLSD = Oro Loma Sanitary District, USD = Union Sanitary District.

East Bay Municipal Utility District and City of Oakland

The City of Oakland owns and operates a wastewater collection system that serves approximately 400,000 people and includes 101,000 service connections. The collection system encompasses approximately 933 miles of gravity sewer mains, over 1.25 miles of pressurized sewer mains, and 11 wastewater pump stations (City of Oakland 2019a). The City's collected wastewater is conveyed to EBMUD's wastewater interceptor system, which transports it to EBMUD's main wastewater treatment plan for treatment. The treated effluent is ultimately discharged to San Francisco Bay. EBMUD's wastewater collection system includes 37 miles of pipelines, 15 pump stations, and five overflow structures (EBMUD 2021d).

Oro Loma Sanitary District

The Oro Loma Sanitary District (OLSD) provides wastewater services to unincorporated Alameda County, including San Lorenzo, as well as designated areas within the cities of Hayward and San Leandro. OLSD owns and maintains about 273 miles of wastewater lines. The OLSD treats sewage at the wastewater treatment plant that it jointly owns with Castro Valley Sanitary District (OLSD 2023).

The City of San Leandro is responsible for operating and maintaining local and regional sewer lines as well as collecting, treating, and disposing of wastewater. The City maintains about two thirds of its 130 miles of sewers, primarily in the northern portion of the City. The sewage from the City wastewater system is conveyed to and treated at the San Leandro Water Pollution Control Plant (City of San Leandro 2022).

The City of Hayward owns and operates the wastewater collection and treatment system that serves almost all of the residential, commercial, and industrial users within the incorporated City limits, and limited portions of the adjacent unincorporated areas of Alameda County. The Hayward collection system includes about 320 miles of sewer mains, nine sewage lift stations, and 4.2 miles of force mains and treatment occurs at the City's Water Pollution Control Facility (City of Hayward 2014).

Union Sanitary District

The Union Sanitary District (USD) provides wastewater services for the cities of Newark, Fremont, and Union City. USD is responsible for the maintenance and repair of all sanitary sewer main lines in local streets. USD operates a 33-acre wastewater treatment facility in Union City and provides collection, treatment, and disposal services to a total population of over 356,000 in Fremont, Newark, and Union City. USD maintains over 830 miles of underground wastewater lines in its service area (USD 2023).

Communications

There are numerous telecommunications providers within the utility RSA that provide phone, internet, and cable services to residents and businesses. Communications utilities crossed by the proposed Project include phone and fiber optic lines owned by Lumen, AT&T, Comcast, MCI, and Sprint.

Waste

Solid and hazardous waste within Alameda County is disposed of at multiple locations, identified in **Table 3.20-9**. The proposed Project would use the local collection service providers listed in **Table 3.20-9**, or self-haul, to the specified disposal locations.

Table 3.20-9. Summary of Waste Management Facilities and Service Providers

County/City Location	Waste Collection Service Provider	Disposal Location
Solid Waste Disposal		
Oakland	WMAC	Altamont Landfill
San Leandro	Alameda County Industries	Vasco Road Landfill
San Lorenzo (Unincorporated Alameda County)	OLSD, WMAC	Altamont Landfill
Hayward	WMAC	Altamont Landfill
Union City	Republic Services	Altamont Landfill
Fremont	Republic Services	Altamont Landfill
Newark	Republic Services	Altamont Landfill
Hazardous Waste Disposal		
Kings County	-	Waste Management, Kettleman Hills
Kern County	-	Clean Harbors Facility, Buttonwillow

Source: ACWMA 2020.
Notes: WMAC = Waste Management of Alameda County, OLSD = Oro Loma Sanitary District

Alameda County has been in compliance with AB 939, with an average diversion rate of 67 percent in 2018 (Alameda County 2020), well over the goal of 50 percent waste diversion (**Table 3.20-10**).

Table 3.20-10. 2018 AB 939 Diversion Rates

City/County	Diversion Rate
City of Oakland	63%
City of San Leandro	58%
Unincorporated Alameda County	76%
City Hayward	66%
Union City	80%
City of Fremont	63%

Table 3.20-10. 2018 AB 939 Diversion Rates

City/County	Diversion Rate
City of Newark	67%
Alameda County	67%

Source: Alameda County 2020.

There are three categories of landfills within the solid and hazardous waste RSAs:

- Class I: A facility that can accept all types of municipal solid waste (MSW), waste that can cause foul odors when decomposing (putrescible), household waste, C&D waste, household hazardous waste, special waste, and some industrial wastes.
- Class II: An unlined landfill designed to accept putrescible and inert (stable) wastes.
- Class III: A scientifically engineered facility built into or on the ground that is designed to hold and isolate waste from the environment (Alameda County 2020).

Solid Waste

Solid waste produced by the proposed Project would be disposed of at either the Altamont or Vasco Road Landfills.

Altamont Landfill

The Altamont Landfill is a non-hazardous Class II and Class III disposal facility (Waste Management of Alameda County [WMAC] 2023c). Altamont Landfill is located at 10840 Altamont Pass Road in unincorporated Alameda County on a 2,034-acre site, of which 480 acres are permitted for landfill (Alameda County 2020). The Altamont Landfill currently receives MSW from the cities of Alameda, Albany, Berkeley, Castro Valley, Dublin, Emeryville, Hayward, Fremont, Newark, Oakland, Union City as well as OLSD. Permitted materials for disposal at Altamont include agricultural, asbestos, ash, auto shredder, C&D waste, contaminated soil, industrial, inert waste, liquids, MSW, sewage sludge (dewatered), tires, treated wood waste, and high liquid content waste. There are no specific tonnage or origin limits on non-disposal tonnage, such as alternative daily cover, reuse, recycle, or transfer materials (WMAC 2023a). The permitted capacity at Altamont is 87 million cubic yards (MCY) (see **Table** 3.20-11). As of 2018, the estimated remaining refuse capacity for the Altamont Landfill was 65 MCY. At the average rate of fill from 2014-2018, and adjusting for projections for waste declines through 2023, the facility has more than 30 years of capacity remaining and an estimated closure date of 2049 (Alameda County 2020).

Vasco Road Landfill

Vasco Road Landfill is located on 246 acres of a 435-acre site at 4001 North Vasco Road, northeast of the city of Livermore. Vasco Road is a Class II/III designated facility. The landfill currently accepts franchised MSW from the cities of Livermore, Pleasanton, and San Leandro in Alameda County, as well as San Ramon in Contra Costa County, with a maximum capacity 2,518 tons per day (TPD).

Vasco Road accepts non-franchised C&D debris and non-hazardous waste that can pose special disposal problems (designated waste) and receives out-of-county disposal. Vasco Road is permitted to receive the following types of waste: asbestos, ash, auto shredder, C&D, contaminated soils, dead animals, industrial, inert, MSW, sewage sludge, and tires (Alameda County 2020). Vasco Road is authorized to accept TWW (SWRCB 2023). As of 2018, Vasco Road reported remaining capacity for about 6 MCY of waste (**Table** 3.20**-**11). The estimated closure year for Vasco Road is 2035 (Alameda County 2020).

In Alameda County, there is a total of 71 MCY of landfill space available as of 2018. Daily capacity at Alameda County landfills is 13,668 TPD. Alameda County has sufficient landfill capacity through the estimated permitted closure date of the Altamont Landfill in 2049.

Table 3.20-11. Solid Waste Landfill Facility Summary

Landfill	Owner/ Operator	State Classification	County	Landfill Permitted Capacity (TPD)	Maximum Permitted Landfill Capacity (MCY)	Remaining Landfill Capacity (MCY)	Remaining Capacity as of Date	Estimated Permitted Closure Date
Altamont	WMAC	II/IIII	Alameda	11,150	87	65	2018	2049
Vasco Road	Republic Services	II/IIII	Alameda	2,518	33	6	2018	2035
			Total	**13,668**	**120**	**71**		

Source: Alameda County 2020, SWRCB 2021.
Notes: WMAC = Waste Management of Alameda County, TPD = tons per day, MCY = million cubic yards

Hazardous Waste Disposal Facilities

Hazardous waste is a waste with properties that make it potentially dangerous or harmful to human health or the environment, and include liquids, solids, or contained gases. Hazardous wastes are those that appear on one of the four RCRA hazardous waste lists, or that exhibits one of the four characteristics of a hazardous waste – ignitability, corrosivity, reactivity, or toxicity. Additional materials can be hazardous wastes, such as used oil, products which contain mercury, those mixed with or derived from hazardous materials, and media that contains hazardous materials (e.g., contaminated soil) (DTSC 2021b). Hazardous materials are discussed in more detail in the Hazards and Hazardous Materials Memo. This memo focuses on the capacity of hazardous waste facilities.

There are two RCRA-permitted hazardous waste landfills in California that currently accept hazardous waste—the Kettleman Hills facility in Kings County and the Clean Harbors facility in Buttonwillow in Kern County (**Table** 3.20**-**12, DTSC 2021a). The Kettleman Hills facility is approximately 160 miles south of the Project Footprint, the Clean Harbors Buttonwood Facility is approximately 200 miles south of the Project Footprint. The Kettleman Hills facility in Kings County has a remaining disposal capacity of approximately 4.9 MCY based on DTSC approval of a permitted expansion in 2014 (DTSC 2019, WMAC 2023b). The Kettleman Hills facility is planning the development of a new hazardous waste landfill (Unit B-20) on currently undeveloped land at the Kettleman Hills site, to open after current unit (B-18) reaches capacity, and the facility is planning to operate until 2042 (Kings County Planning Agency 2008). The Clean Harbors Buttonwillow Facility has a permitted hazardous waste disposal capacity of 13.25 MCY and an estimated closure date of 2040 (CalRecycle 2021a). Clean Harbors reported a permitted disposal capacity of over 10 MCY for the Buttonwillow facility (CalRecycle 2021a).

Table 3.20-12. Hazardous Waste Disposal Facility Summary

Facility	Owner/ Operator	State Classification	County	Landfill Permitted Daily Tonnage	Maximum Permitted Hazardous Capacity (MCY)	Remaining Hazardous Capacity (MCY)	Remaining Capacity as of Date	Estimated Permitted Closure Date
Kettleman Hills	Waste Management	I/II	Kings	9,000	15.6	4.9	2021	2042
Buttonwillow	Clean Harbors	I	Kern	10,500	13.25	7.75	2021	2040
			Total	**19,500**	**28.85**	**12.65**		

Source: Alameda County 2020, SWRCB 2021.
Notes: MCY = million cubic yards

3.20.5 Best Management Practices

As noted in Chapter 2, Project Alternatives, CCJPA would incorporate a range of BMPs to avoid and minimize adverse effects on the environment that could result from implementation of the proposed Project. BMPs are included in the proposed Project description, and the impact analyses were conducted assuming application of these practices. The BMPs relevant to utilities and service systems are summarized below. Full descriptions of the BMPs are provided in Chapter 2, Project Alternatives.

BMP UT-1: Utility Verification and Coordination with Utility Providers and CPUC.

BMP UT-2: Minimize Potable Water Use.

BMP UT-3: Water Efficient Landscaping.

BMP UT-4: Public Notification.

BMP UT-5: Coordinate with the HWS and ACWD in Dry Construction Years.

BMP UT-6: Minimize C&D Debris Disposal.

BMP UT-7: TWW Handler Notification.

The proposed Project would also implement all relevant BMPs and mitigation measures to protect other types of environmental resources. Measures described in Section 3.2 Aesthetics, Section 3.5 Biological Resources, Section 3.6 Cultural Resources, Section 3.7 Energy, Section 3.9 GHG emissions, Section 3.10 Hazards and Hazardous Materials, Section 3.11 Hydrology and Water Quality, Section 3.14 Noise and Vibration, Section 3.17 Recreation, Section 3.18 Transportation, and Section 3.19 Tribal Cultural Resources are expected to be applicable to utility relocations.

3.20.6 Environmental Impacts

This section describes the potential environmental impacts on utilities and service systems as a result of implementation of the proposed Project.

3.20.6.1 Require or result in the relocation or construction of new or expanded water, wastewater treatment or stormwater drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?

No Project Alternative

No Impact. Under the No Project Alternative, there would be no change to existing transportation facilities or utilities. The No Project Alternative would not require or result in the relocation or construction of new or expanded utilities and would therefore have no impact.

Proposed Project

Construction and Operations.

Less than Significant Impact. The proposed Project would require protection and relocation of utilities and potentially construction of new distribution connections to existing utilities. Utilities that are identified as PIP may require no further action, or they may require a variety of protection measures, including installation of a new casing around the utility, an extension of an existing casing, installation of utility protection structures, or other protection measures, such as temporary fencing during construction. Installation of protection structures or extension of casings would involve ground disturbance; however, work would generally occur within the area that was previously disturbed in the original utility installation. In some situations, utility relocation, both horizontal and vertical, may be required to accommodate an additional track. Examples of vertical relocation include putting an overhead utility underground or lowering an existing underground utility. Horizontal relocation is where a utility is shifted away from project features; for example, where a manhole is shifted away from the proposed track alignment or where a short section of new utility is constructed (often adjacent to an existing utility) as a replacement for the existing utility. Relocations are generally expected to occur within existing road or rail ROW, with the exception of a few locations where the acquisition of rail ROW is anticipated or where connections to existing utilities would be made and may involve excavation in areas not previously disturbed by prior construction.

Major utility conflicts are summarized in **Table 3.20-13**.

Table 3.20-13. Major Utility Conflicts Resulting in Relocation or Protected In Place

Electric PIP/ Relocation	Gas PIP/ Relocation	Sewer PIP/ Relocation	Stormwater PIP/Relocation	Telecom PIP/Relocation	Water PIP/ Relocation	Total PIP/ Relocation
3/0	1/2	1/1	1/0	0/2	1/0	7/5

Source: HDR 2022, HNTB 2021a, HNTB 2023a
Notes: PIP = Protected in Place

Utilities located in the Coast Subdivision that could be affected by the proposed Project include fiber optic and natural gas lines that parallel the alignment within the UPRR ROW for much of the length of the proposed Project. There are also shorter sections of other utilities that also parallel the alignment within the UPRR ROW, such as sanitary sewers, storm drains and channels, petroleum pipelines, and electric lines that may be affected. In addition, grade crossings are a common location for utilities that cross the ROW. Where existing utilities cross the ROW, it is assumed that the utilities either meet criteria for crossing a railroad or could require additional PIP. Affected utility owners include but are not limited to ACWD, AT&T, City of Fremont, City of Hayward, City of San Leandro, City of Union City, City of Newark, Centurylink/ Level 3, Comcast, EBMUD, Kinder Morgan, LAVMA, Lumen, PG&E, SFPUC, Shell, City of Union City, and USD.

For all utility conflicts, the proposed Project would coordinate with utility providers regarding the type of protection that is required for their facilities (BMP UT-1: Utility Verification and Coordination with Utility Providers and CPUC). CCJPA would coordinate with utilities and comply with General Order 131-D as needed during final design (BMP UT-1). The modification, alteration, or

addition of distribution lines (i.e., electrical lines less than 50 kV) is not anticipated to require a certificate of public convenience and necessity or permit to construct. The proposed Project would implement all relevant BMPs to protect environmental resources, including measures to address impacts to noise, transportation, hazards and hazardous materials, hydrology and water quality, and biological resources. Temporary ground disturbance may be required to protect utilities, however this would typically occur within the area previously disturbed to install the utility. Ground disturbance may also be needed for relocation of utilities. Relocated utilities would typically be moved within the existing UPRR or roadway ROW. If ground disturbance is necessary to protect or relocate utilities, at the end of construction the proposed Project would return the area to its previous condition. Protection or relocation of existing utilities is not expected to result in interruptions to utility service. Temporary service interruptions may be required to connect the new or relocated utility but would be minimized to the extent feasible. CCJPA or the construction contractor would notify the public of unavoidable service interruptions (BMP UT-4: Public Notification). Construction would be coordinated to avoid interruptions of utility service to any emergency services such as hospitals.

The proposed Project would construct new connections to existing electrical, water, stormwater, and telecommunications distribution lines to Ardenwood Station and to new signals, switches, and grade crossing improvements. These new connections would be constructed within either existing UPRR or public roadway ROW to the extent feasible. New electrical connections would be needed to power signals and switches, as well as the new Ardenwood Station (e.g., lights and signage). The new station may also need connections to water lines for fire suppression, cleaning, and maintenance. The station may also require a telecommunications connection to provide ticketing and passenger information services. Runoff from new and reworked impervious surfaces would be treated on site to the greatest extent feasible and is not expected to exceed capacity of the existing stormwater system. The new station would require more electrical power than the existing Hayward Station due to the larger parking facility and associated lighting. New connections to existing electrical distribution lines are sufficient to provide power to the station. No new electrical transmission lines, high voltage lines, or major water lines are proposed. The proposed Project would implement all mitigation measures and BMPs identified in Sections 3.1 through 3.21 to avoid, minimize, and mitigate impacts to sensitive resources associated with construction activities, including utility relocations and installation of new utilities. The proposed Project would have a less than significant impact as a result of utility relocations and installation of new utilities.

3.20.6.2 Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry, and multiple dry years?

No Project Alternative

No Impact. Under the No Project Alternative, there would be no change to existing transportation facilities or utilities. The No Project Alternative would not require water supplies and would therefore have no impact.

Proposed Project

Construction. **Less than Significant**, Construction is expected to occur over three years, from 2027-2029. Total and average annual construction water use is provided below in **Table 3.20-14**. In

addition to potable water, construction can also use recycled water where available. Due to the length of the alignment, water would be sourced from the multiple water districts in which construction is occurring, EBMUD, HWS, and ACWD. The following discussion looks at estimated water use during construction for the proposed Project by provider.

Table 3.20-14. Construction Water Use for the Proposed Project by Provider

Provider	Proposed Project Total (MG)	Proposed Project Average Per Year (MG)
EBMUD	2.5	0.8
HWS	1.9	0.6
ACWD	3.0	1.0
Total	7.4	2.5

Source: HNTB 2023b
Notes: MG = million gallons.

The proposed Project would require water from EBMUD due to the track work in Oakland and San Leandro. All water obtained from EBMUD for construction would come from the recycled water program (BMP UT-2: Minimize Potable Water Use) and would therefore not affect potable water supplies. The proposed Project would also require water during construction from HWS and ACWD and would implement BMP UT-5: Coordinate with the HWS and ACWD in Dry Construction Years. With implementation of BMPs UT-2 and UT-5, the proposed Project would have sufficient water supplies for construction during normal, single, and multiple dry years. Therefore, the proposed Project would have a less than significant impact on water supplies during construction.

Operations.

No Impact. Operational changes associated with the proposed Project that could affect water use are limited to station operation. Due to the lack of any facilities that would provide water to the public (e.g., restrooms, drinking fountains), it is assumed that the proposed Ardenwood Station would use less water than the average household in Alameda County—about 99,000 gallons per year (ACWD 2014). Water use at the new Ardenwood Station would be limited to cleaning, maintenance, and irrigation, which would be obtained from ACWD. No water use would be required from EBMUD or the HWS as part of proposed Project operations. The termination of CCJPA service to the Hayward Station would not affect water use from the HWS, since the existing landscaping and any associated irrigation at the Hayward station is anticipated to remain. The Fremont Station would remain in operation for ACE service and therefore cessation of CCJPA service at that station would not affect water use at that station.

As a C.3 Regulated Project (per the Municipal Regional Permit [MRP] provision C.3.b), the proposed Project is required to include all low impact development (LID) site design measures to increase on-site infiltration of stormwater and reduce stormwater runoff, including directing runoff into vegetated areas. Directing runoff into vegetated areas (BMP HYD-6: Addressing hydromodification impacts) and use of drought tolerant species (MM AES-4: Landscape Plan at Ardenwood Station) would limit the need for irrigation at Ardenwood Station. The proposed Project would also

implement landscaping as part of grade crossing improvements at roadways throughout the proposed Project. As these roadway improvements would be within municipal ROW, CCJPA would coordinate with the respective cities on design and installation of landscaping and irrigation. For all landscaping, the proposed Project would implement BMP UT-3: Water Efficient Landscaping, which would limit water use by project landscaping. Based on projections by ACWD, there would be sufficient available water when project operation starts in 2027 in normal and multiple dry year scenarios. In dry years, CCJPA would comply with ACWD's WSCP (ACWD 2021). Project operation would therefore have no impact with respect to having sufficient water supplies available during normal, single, and multiple dry years.

3.20.6.3 Result in a determination by the wastewater 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?

No Project Alternative

No Impact. Under the No Project Alternative, there would be no change to existing transportation facilities or utilities. The No Project Alternative would not require wastewater treatment and would therefore have no impact.

Proposed Project

Construction and Operations.

No impact. No wastewater treatment would be required during construction or operation of the proposed Project. Although dewatering would be required during construction, particularly for structural foundations, it is assumed that water from dewatering operations would be treated and discharged as specified in the dewatering permit, NPDES permits, and 401 Water Quality Certification. Treated water may be discharged to storm drains, sanitary sewers, or surface waters as permitted and within existing capacity. No new restrooms are proposed at the new Ardenwood Station. Therefore, the proposed Project would have no impact with respect to adequate wastewater treatment capacity.

3.20.6.4 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?

No Project Alternative

No Impact. Under the No Project Alternative, there would be no change to existing transportation facilities or utilities. The No Project Alternative would not result in generation of solid waste and would therefore have no impact.

Proposed Project

Construction.

Less than Significant Impact. Construction of the proposed Project is not expected to result in the generation of solid waste in excess of State or local standards or in excess of the capacity of local infrastructure. During construction, solid waste would be produced as part of site work (such as grading, earthwork, utility relocation/protection, and demolition), railroad preparation and follow-up work (such as track replacement), and excavation of structural foundations. For example, solid waste includes excess fill, construction debris, railroad ties, and any solid materials produced as part of construction that would need to be reused, recycled, or disposed of. Concrete demolition would be required for road and water crossings as well as at the proposed Ardenwood Station site. Construction of the proposed Project is estimated to produce about 210,000 cubic yards of solid waste (HNTB 2023b). Solid waste estimates have incorporated reuse of excavated material for Project fill to minimize export of materials. The proposed Project would implement BMP UT-6: Minimize C&D Debris Disposal, which would minimize C&D debris by prioritizing reuse and recycling of C&D materials. Based upon current and projected disposal rates, estimated volume of solid waste disposal by construction of the proposed Project, as well as the remaining capacity reported by Vasco Road and Altamont landfills, it is projected that Alameda County has sufficient landfill capacity (Alameda County 2020).

A portion of the solid waste produced during Project construction is assumed to be hazardous, as described in Section 3.10, Hazards and Hazardous Materials. The volume of hazardous waste produced by the proposed Project cannot be determined prior to Phase 1 and 2 Environmental Site Assessments are conducted, which would occur as part of BMP HAZ-2 Property Acquisition Phase 1 and Phase 2 Environmental Site Assessments prior to ROW acquisition. However, a portion of the soil removed as part of site work is assumed to be Class II hazardous waste and would require disposal at Kettleman Hills or Buttonwillow landfills. Based on the types of hazardous waste expected to be encountered (as documented in Section 3.10, Hazards and Hazardous Materials), as well as the capacity of existing hazardous waste facilities shown in **Table** 3.20-12, the proposed Project is not expected to exceed the capacity of existing infrastructure.

Therefore, construction of the proposed Project would have a less than significant impact with respect to generation of solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or attainment of solid waste reduction goals.

Operations.

Less than Significant Impact. The proposed Project is not expected to result in new solid waste production during operation from track and systems. Regular track maintenance, including vegetation clearing for the tracks is assumed to be the same under the proposed Project and No Project conditions. Operation of the proposed Ardenwood Station would result in solid waste production, which would be limited to personal passenger trash and from regular station maintenance and cleaning. However, removal of CCJPA service from the Hayward and Fremont stations (the latter of which would still serve the Altamont Corridor Express) would reduce trash production at those stations. A net increase in solid waste production may occur as a result of the proposed Project associated with additional passengers using improved CCJPA service.

Based upon current and projected disposal rates, estimated volume of solid waste disposal by operation of the proposed Project, as well as the remaining capacity reported by Vasco Road and

Altamont landfills, it is projected that Alameda County has sufficient landfill capacity (Alameda County 2020). Therefore, operation of the proposed Project would have a less than significant impact with respect to generation of solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or attainment of solid waste reduction goals.

3.20.6.5 Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?

No Project Alternative

No Impact. Under the No Project Alternative, there would be no change to existing transportation facilities or utilities. The No Project Alternative would comply with federal, state, and local management and reduction statutes and regulations related to solid waste and would therefore have no impact.

Proposed Project

Construction.

No Impact. Construction of the proposed Project would comply with federal, state, and local management and reduction statutes and regulations related to solid waste. Compliance with statutes and regulations related to hazardous waste handling is discussed in Section 3.10 Hazards and Hazardous Materials; this section addresses compliance with statutes and regulations related to waste reduction. As described above, Alameda County solid waste disposal facilities have sufficient capacity for solid waste produced by the proposed Project. The proposed Project would comply with Objective 1 of the (CoIWMP) – to have a minimum of 15 years of disposal capacity available.

The proposed Project would implement BMP UT-6: Minimize Construction and Demolition Debris Disposal, which requires reuse or recycling according to state, county, and local plans and policies. These generally require recycling of all asphalt, concrete and dirt, composting of all plant debris, and 50-65 percent reuse or recycling of all other materials. BMP UT-6 would support progress towards achieving the statewide goals of 75 percent waste diversion from landfills compared to 1990 and a 75 percent reduction in organics from landfills compared to 2014. BMP UT-6 would ensure the proposed Project is in compliance with the specific requirements of the California State Building Code, the Plant Debris Landfill Ban (ACWMA Ordinance 2008-01), municipal C&D Ordinances (cities of Oakland, San Leandro, Hayward, Union City, Fremont), and City of Fremont Waste Handling Guidelines (2018c). BMP UT-6 would also support the general waste reduction goals specified in municipal climate action plans (cities of Oakland, San Leandro, Fremont, and Newark) and general plans (cities of San Leandro, Hayward, Union City, and Newark). With implementation of BMP UT-6, the proposed Project would not affect Alameda County's compliance with AB 939, as the average diversion rate for the county in 2018 was 67 percent (Alameda County 2020), well over the goal of 50 percent waste diversion. The proposed Project would also maintain municipal compliance with 50 percent waste diversion for all cities within the utility RSA (**Table 3.20-10**). The proposed Project would comply with the Alameda County Waste Reduction and Recycling Act.

The proposed Project would produce substantial TWW as part of railroad tie renewal. The preservatives in TWW often include one or more of the following constituents: arsenic, chromium, copper, pentachlorophenol, and creosote. Over 1,000 pounds of TWW may be produced by the proposed Project within 30 days and therefore may be subject to AB 332. The proposed Project

would comply with the handling and disposal requirements of AB 332. The proposed Project would dispose of the TWW at Vasco Landfill or another nearby landfill, which is authorized by the Regional Water Quality Control Board to accept TWW. The proposed Project would notify DTSC within 30 days if generating more than 10,000 pounds of TWW per calendar year (BMP UT-7: TWW Handler Notification). TWW handling and disposal is required to comply with specific Alternative Management Standards and may be disposed of at specific non-hazardous waste landfills.

Therefore, construction of the proposed Project would have no impact with respect to compliance with federal, state, and local management and reduction statutes and regulations related to solid waste.

Operations.

No Impact. Operations would not result in a substantial increase in waste production beyond existing conditions. The generation, collection, storage, and transportation of solid waste associated with CCJPA operations, including but not limited to passenger, cleaning, and maintenance waste, would shift from the Hayward and Fremont stations to the proposed Ardenwood Station. Any increase in waste production as part of operations would be limited to an increase in passenger trash proportional to an increase in number of passengers associated with the improved CCJPA service with the proposed Project. Waste collection at Ardenwood Station would comply with federal, state, City of Fremont, and Alameda County management and reduction statutes and regulations related to solid waste.

Therefore, operation of the proposed Project would have no impact with respect to compliance with federal, state, and local management and reduction statutes and regulations related to solid waste.

3.20.7 Mitigation Measures

No mitigation measures for utilities and service systems are required for the proposed Project. The proposed Project would implement mitigation measures for other resources, as described in Sections 3.11 through 3.21. These measures would be implemented as applicable where utility installation, protection and relocations occur near sensitive resources.

3.20.8 Cumulative Impact Analysis

3.20.8.1 Cumulative RSA

The cumulative RSA is limited to areas where the proposed Project has the potential for an impact, including impacts that are less than significant. As described in Section 3.20.6 Environmental Impacts, there are three CEQA criteria where the proposed Project has the potential for a less than significant impact: relocation or construction of new or expanded utilities, sufficient available water supplies, and generation of solid waste (Sections 3.20.6.1, 3.20.6.2, and 3.20.6.4). The proposed Project would have no direct, indirect, or cumulative impact on Sections 3.20.6.3 or 3.20.6.5.

The cumulative RSA varies by CEQA criteria. The cumulative RSA for Section 3.20.6.1 (cumulative utility RSA) is the cities of Oakland, San Leandro, Hayward, Newark, Union City, and Fremont. The proposed Project would relocate utilities in all of these cities. Construction water use impacts (Section 3.20.6.2) and therefore the cumulative water use RSA is limited to within the City of Hayward (HWS) and the service area for ACWD (cities of Newark, Fremont, and Union City). Due to the availability of recycled water from EBMUD, there are no impacts to water availability within

EBMUD's service area. For Section 3.20.6.4, disposal of construction waste would occur at Alameda County landfills and therefore requires a larger study area covering Alameda County (cumulative waste RSA).

Contributions of related projects (current, past, and reasonably foreseeable) were considered for inclusion in the cumulative impact analysis (see Table 3-1 in Section 3.1, Introduction). Projects that are within the cumulative utility, water use, or waste RSAs and were expected to have some impact on utilities, water use, or waste were identified for further analysis. Where available, impacts to these same resources are described and impact determinations from their environmental documents have been included. Where no environmental document is available, or the environmental document does not analyze the same types of impacts (e.g., for older CEQA documents that use a different Appendix G checklist), general assumptions about the level of impacts that could occur from the type of project have been included.

3.20.8.2 Cumulative Condition and Contribution of the Proposed Project

New and relocated utilities, water use, and construction waste, are analyzed separately for the proposed Project's potential to contribute considerably to a cumulative impact.

Water Use

Construction water use within the City of Hayward and ACWD would be limited to the construction years of 2027-2029. Other projects that would require water use (either as part of construction or operation) are identified in Appendix J. As described in Section 3.20.6.2, the proposed Project would minimize the use of potable water (BMP UT-2: Minimize Potable Water Use) and would coordinate with HWS and ACWD during dry construction years (BMP UT-5: Coordinate with the HWS and ACWD). Coordination with HWS and ACWD would ensure that the proposed Project, in combination with other related projects identified in Section 3.1, Introduction, would not result in a significant cumulative impact with respect to water use.

Construction Waste

Other projects that would result in an impact with respect to solid waste capacity are identified in Appendix J. As described in Section 3.20.4, Affected Environment, Alameda County has landfill waste capacity through 2049. Compliance with municipal, County, and state waste diversion policies (as described in BMP UT-6: Minimize C&D Disposal) would reduce waste that needs to go to the landfill. Other projects described in Appendix J, would also be similarly required to comply with waste diversion policies. Given the available capacity of existing landfills and mandatory waste diversion policies, the proposed Project in combination with other related projects identified in Appendix J, would not result in a significant cumulative impact with respect to waste.

New and Relocated Utilities

The majority of new and relocated utilities are within the cities of Hayward, Union City, Fremont and Newark, with a few relocations needed in Oakland and San Leandro. New utilities connections would include water, electrical, telecommunications, and potentially stormwater. There are no project features that require substantial volumes of water, electricity, telecommunications, nor would substantial volumes of untreated stormwater runoff be produced. It is assumed that new distribution connections to the existing water, electrical, telecommunications, and stormwater systems would be sufficient to supply grade crossings, track improvements, and Ardenwood Station.

Related projects with the potential to also result in impacts from new or relocated utilities are identified in Appendix J. Those projects within the cumulative utility RSA that have identified utility impacts are described further below.

The following projects are located within Hayward:

- **I-5: 4150 Point Eden Way Industrial Development Project.** This project would involve the construction of a new industrial building and creation of an open space/wetland preserve. The proposed industrial building would require utility and drainage improvements including new sewer, stormwater, and water lines within Point Eden Way (City of Hayward 2021a). Bioretention areas would be constructed on-site to collect and treat stormwater runoff prior to discharge into the City's stormwater system.
- **P-19: Bidwell Park Master Plan.** The existing facilities in the Master Plan area would be repurposed to create a community center, play and picnic areas, multi-use courts, pedestrian paths, and dog parks (HARD 2020). This project would maintain existing water conveyance facilities, with no expansion required. This project would add approximately 75,200 square feet of impervious surface on site, update the stormwater drainage system, extend stormwater pipes and add 11,000 square feet of bioretention areas. No improvements would be required off-site to accommodate additional stormwater. This project would result in a limited new demand for electricity, natural gas, and telecommunications facilities during construction and operations.
- **T-7: I-880 Interchange Improvements Project (Whipple Road/Industrial Parkway Southwest and Industrial Parkway West).** The project proposes to provide interchange and local roadway improvements along Interstate 880 (I-880) from 0.6 mile south of the I-880/Whipple Road-Industrial Parkway Southwest Interchange to 0.3 mile north of the I-880/Industrial Parkway West Interchange. It would include interchange ramp reconfigurations, modifications and/or replacement of bridge structures, local roadway realignments and restriping, and bicycle and pedestrian improvements in the cities of Hayward and Union City. Construction would occur for 32 months from Spring 2023. This project would include relocation of existing utilities along local roadways which would be coordinated with affected utility owners (California Department of Transportation [Caltrans] 2021). Construction would require temporary shutoffs of existing utilities to allow for local roadway improvements. This project requires detailed utility coordination and verification during the design phase. This project would not require the addition or expanded utility service, nor would it add demand to local utility providers.

  This project would also include a realignment of an approximately 1,000-foot reach of Ward Creek (ACFCWCD Line B) to accommodate a new northbound I-880 offramp at Industrial Parkway West. The existing Ward Creek cross-section and flood conveyance would be maintained or slightly expanded. This realignment would therefore not affect the rate or amount of surface runoff in a manner which would result in flooding.

The following projects are located within Union City:

- **I-4: Station East Residential/Mixed Use Project.** The project proposes the demolition of the buildings and surface parking lots and development of up to 1.8 million square feet, including 974 new residential units and approximately 30,800 square feet of commercial space. Construction of this project would begin in mid-2021 with anticipated completion in late 2025.

This project is located on the east side of the Niles Subdivision, south of Decoto Road (Union City 2020, 2021b). As part of this project, approximately 6,500 linear feet of new water mains would be installed, the amount of impervious area would increase, and approximately 13,000 square feet of bio-treatment areas would be installed. Two basins, totaling approximately 1.42 acres would be provided to treat runoff from roofs and impervious areas before ultimately discharging from the site. The project would also require new connections to existing sewer mains on L Street, Bradford Way, and Zwissig Way, and new electricity, natural gas, and telecommunications lines would be required.

- **T-4: Quarry Lakes Parkway Project (East-West Connector).** In five phases, this project would provide an improved link between I-880 and Mission Boulevard (SR-238) by widening portions of Decoto Road and Paseo Padre Parkway, constructing a new roadway from Paseo Padre Parkway to Mission Boulevard and improving Mission Boulevard where it intersects with the new roadway. Potential utility relocations would include relocation of joint utility poles and overhead utilities on Decoto Road (Alameda County Transportation Authority 2009). Existing streetlights, traffic signal poles, storm drains, and storm drainage inlets would also be relocated to conform to the widened roadway, as would any water meters, fire hydrants, vaults and boxes, air valves, and other water-related facilities. Where possible, existing utilities and pipelines that run along the various railroad lines would be supported in place during construction and placed on the new grade-separated structures upon completion.

  This project would improve stormwater drainage in the area. A separate roadway drainage system would be constructed on the north side of the new roadway between Chesapeake Drive and Alvarado-Niles Road. Stormwater runoff from the new roadway would be collected and conveyed through underground conduits into infiltration basins, which would provide treatment before it infiltrates into the ground or enters Old Alameda Creek. The outfall structures and infiltration basins would be located on existing nonnative grassland areas adjacent to the new roadway between the Old Alameda Creek Flood Control Channel and Alvarado-Niles Road. This project includes the infrastructure to ensure that drainage and stormwater infrastructure is built to handle flooding and stormwater runoff adequately.

  The project includes modifying ACFCWCD's Line M Channel to accommodate project features and provide the additional capacity needed for flood control.

The following projects are located within Fremont:

- **I-6: Niles Gateway Mixed Use.** This project proposes a new residential development in the Niles Historical Overlay District that would include 75 attached residential units on approximately 6.08 acres (City of Fremont 2018b). The proposal would redevelop a vacant, remnant industrially zoned property. New sewer, stormwater, water, and fire service water lines would be installed to accommodate the project's additional demand. The project would not exceed the capacity of the existing sanitary sewer system. Other than extending the existing infrastructure to individual units on the project site, no additional wastewater treatment facilities would be needed.

  This project would create approximately 5.23 acres of impervious surface area. Stormwater runoff from these areas would be treated before it is discharged into the City's storm drainage system, in accordance with the C.3 LID requirements of the MRP and the Alameda Countywide Clean Water Program. The Project would install an onsite stormwater drainage system consisting of a network of 12 bioretention areas, inlets, and underground piping. The Project

would include connections to the existing storm drain and sewer on Niles Boulevard, and the existing water main at the north end of the site. Implementing the required drainage and treatment controls and would avoid or minimize potential impacts on municipal drainage facilities.

This project would increase water demand from ACWD by approximately 23.5 acre-feet per year. ACWD has estimated future water demands in its service area through 2030 based on planned future land uses in the service area. As identified in the City's General Plan EIR, to minimize additional demands on potable water supplies, new development is required to install water efficient plumbing fixtures, irrigation systems and landscaping according to the California Green Building Code and WELO. Since the projected water demand of this project has already been accounted for in the General Plan, the project's impact on water supply availability and potential need or construction of new water treatment facilities would be less than significant.

- **T-1: Irvington BART Station.** The future Irvington BART Station would be located in the Irvington District at the intersection of Washington Boulevard and Osgood Road. The Warm Springs Extension (WSX) EIRs and Environmental Impact Statement (EIS) analyzed potential impacts of the WSX project on public services and utility systems and found that all impacts, could be mitigated to a less than significant level and that no significant cumulative impacts would occur (BART 1991, 2006, 2019). The impacts that are applicable to the Irvington Station include potential disruptions of utilities related to the operation of the Station and construction-related service interruptions to telecommunications, sewer lines, and petroleum pipelines.

  The 1991 EIR identified conflicts with Hetch Hetchy water pipelines, electrical transmission lines, natural gas lines, sewer lines, petroleum pipelines, telecommunications, and ACWD water lines due to construction and operation of the WSX project. There are utility conflicts in or near Irvington Station, including a sewer line and Kinder Morgan petroleum pipeline. The project would comply with California Government Code 4216-4216.9, coordinate with utility and service providers, and maintain appropriate clearances between BART facilities and utility equipment. Additionally, BART would also protect metal utility pipes from stray electrical currents related to BART operation.

  The increased demand to the electrical transmission grid could have an adverse impact, as described in the 2006 EIS (BART 2006). Because no mitigation is available to reduce this impact to less than significant, it is considered adverse. However, the EIS describes electricity demand of WSX as being the same with or without Irvington Station. It is therefore assumed that Irvington Station alone is not responsible for the adverse impact. With completion of the WSX extension without Irvington Station, it is assumed that most of these impacts have already been realized and addressed.

  Water use required at the BART station would include landscaping, bathroom facilities and drinking water. Water consumption is expected to be low with a negligible impact on local water supply (BART 2006).

The following projects are located within Newark:

- **O-1: Draft Environmental Assessment (EA) for Cargill, Incorporated Solar Sea Salt System Maintenance and Operations Activities.** The purposed of the Cargill project is to continue maintenance of and operational activities at Cargill's solar salt systems in Newark/Fremont and

Redwood City for the next 10 years (San Francisco Bay Conservation and Development Commission [BCDC] 2021). There is no potable water or wastewater service within the project area, and maintenance activities in the project area would not affect any water or wastewater pipelines. Stormwater is contained within the project area; during extreme storm events, some rainwater may be discharged via low salinity ponds. Electrical power in the project area is supplied by PG&E. No CEQA document was available.

- **T-5: Bayside Newark.** The Bayside Newark project proposes a new neighborhood that would provide a broad range of new housing, retail, and business opportunities in western Newark (City of Newark 2011). This project could result in potential impacts to wastewater service and facilities. The existing sewer pipelines may not be sized to accommodate buildout of the Dumbarton Transit-oriented Development Specific Plan area. In addition, sewer lines would likely require structural upgrades or relocation as a result of future development proposed by the Specific Plan.

The following project is regional in nature.

- **D-1: Plan Bay Area 2050.** Plan Bay Area 2050 includes SBC under plan strategy T11 – Expand and Modernize the Regional Rail Network (Association of Bay Area Governments (ABAG) and Metropolitan Transportation Commission [MTC] 2021). Plan Bay Area 2050 indicates that there would be a significant and unavoidable impact with respect to construction of new or expanded utilities. The Plan Bay Area 2050 EIR recommends that implementing agencies and/or project sponsors implement the following measures, where feasible and necessary:

  Mitigation Measure PUF-1(a): For projects that could increase demand on water and wastewater treatment facilities, coordinate with the relevant service provider to ensure that the existing public services and utilities could accommodate the increase in demand. If the current infrastructure servicing the project site is found to be inadequate, infrastructure improvements for the appropriate public service or utility shall be identified in each project's CEQA documentation.

  Mitigation Measure PUF-1(b):

  - During the design and CEQA review of individual future projects, determine whether sufficient stormwater drainage facilities exist for a project. These CEQA determinations must ensure that the proposed development can be served by its existing or planned drainage capacity. If adequate stormwater drainage facilities do not exist, project sponsors shall coordinate with the appropriate utility and service provider to ensure that adequate facilities could accommodate the increased demand, and if not, infrastructure and facility improvements shall be identified in each project's CEQA determination.
  - For projects of greater than 1 acre in size, reduce stormwater runoff caused by construction by implementing stormwater control best practices, based on those required for a SWPPP.
  - Model and implement a stormwater management plan or site design that prevents the post-development peak discharge rate and quantity from exceeding pre-development rates.

Mitigation Measure PUF-1(c): For transportation projects, incorporate stormwater control, retention, and infiltration features, such as detention basins, bioswales, vegetated median strips, and permeable paving, early into the design process to ensure that adequate acreage and elevation contours are planned.

Contribution of the Proposed Project to Cumulative Utility Impacts

The proposed Project has limited potential to contribute to a cumulative impact. Some of the same types of utilities, owned by the same utility companies, would be relocated by the proposed Project as well as by related projects. However, all projects would need to coordinate with the utility companies to relocate their facilities. Potential conflicts or impacts due to utility relocations could only occur during construction of the proposed Project and would be identified and avoided as a result of coordination with the utility companies as part of BMP UT-1: Utility Verification and Coordination with Utility Providers and CPUC. Furthermore, the proposed Project would avoid any potential safety or community impacts by notifying the public of any service interruptions (BMP UT-4: Coordinate with the HWS and ACWD in Dry Construction Years) because of new or relocated utilities.

The proposed Project would PIP Line M and therefore would not affect the improvements to Line M proposed by the Quarry Lakes Parkway Project. The Quarry Lakes Parkway Project proposes a grade separation at the proposed Project as part of Phases 3 and 4, which are expected to be constructed in the next 10 years (Union City 2022). The Quarry Lakes Parkway Project would be required to coordinate with UPRR and CCJPA in order to work within the UPRR railroad ROW. Coordination with the railroad, as well as with utility providers would ensure that there are no conflicts or cumulative impacts between the two projects with respect to Line M.

The proposed Project would result in new or reworked impervious surfaces within the city of Fremont, as part of the new Ardenwood Station, grade crossing improvements, and grade separations. The proposed Project and related projects would meet the requirements of the MRP and Alameda Countywide Clean Water Program, as well as other local, state, and federal requirements for stormwater quantity and quality. The proposed Project may require localized modifications to drainage channels near areas where the tracks cross drainage channels but does not require expansion of receiving stormwater channels. and prioritizes treatment of stormwater with onsite LID measures where feasible.

The proposed Project would require water connections for operation of the Project. Operational water uses would be limited to irrigation, cleaning, and fire suppression lines at Ardenwood Station, and any irrigation needs for improvements within the city ROW. There are no restrooms, fountains, or other features at the Station that would require substantial amounts of water. Connections to existing water lines would be sufficient to supply both Ardenwood Station and any irrigation needed to maintain plantings associated with existing grade crossings or proposed grade crossing improvements. The proposed Project's operational water use in comparison to residential and commercial development projects would be insignificant. Further, development projects are generally planned as part of general and/or specific plans and have been incorporated into ACWD projections for water use. Therefore, the proposed Project in combination with other related Projects, would not result in a cumulative impact due to new or relocated water lines.

With respect to expansion of utilities, no additional sewer lines or expansion of the capacity of existing lines would be required for the proposed Project. Similarly, the proposed Project would not require the modification, alteration, or addition of any electrical transmission lines. New

distribution connections are expected to be sufficient to power track, systems and Ardenwood Station. Relocation and protection of power lines would be required. Therefore, the proposed Project could not contribute to a cumulative impact with respect to expansion of electrical or sewer capacity.

Given the significant and unavoidable impact identified in Plan Bay Area 2050, there would be a cumulative impact in combination with the proposed Project and other related projects. The proposed Project, however, would not make a considerable contribution to this cumulative impact as the Project does not require additional wastewater lines or capacity; has low operational water, electrical, and telecommunications needs; and would use of LID measures to minimize stormwater runoff. As described in Section 3.20.5, Best Management Practices, the proposed Project would also implement all relevant BMPs to protect environmental resources. All relevant mitigation measures from other resource sections (3.1 through 3.21) would be applied to utility relocations where they occur near sensitive resources. All related projects would also implement similar measures to comply with CEQA, NEPA, and federal, state, and local laws, plans, and policies to protect environmental resources.

3.20.8.3 Conclusion

In conclusion, with implementation of BMPs, the proposed Project's incremental effects would not result in a cumulatively considerable impact when combined with other past, present, and reasonably foreseeable future projects. Therefore, the proposed Project does not have a significant cumulative impact with respect to utilities and service systems.

3.20.9 CEQA Significance Findings Summary Table

Table 3.20-15 summarizes the utility and service system impacts of the proposed Project.

Table 3.20-15. Utilities and Service Systems Resources Impacts Summary

Impact	Level of Significance Before Mitigation	Incremental Project Contribution to Cumulative Impacts	Mitigation	Level of Significance with Mitigation Incorporated	Incremental Project Cumulative Impact after Mitigation
a) Require or result in the relocation or construction of new or expanded water, wastewater treatment or stormwater drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?	LTS	NCC	N/A	LTS	NCC
b) Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?	LTS	NCC	N/A	LTS	NCC
c) Result in a determination by the wastewater 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?	NI	NCC	N/A	NI	NCC
d) 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?	LTS	NCC	N/A	LTS	NCC
e) Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?	NI	NCC	N/A	NI	NCC

Notes: LTS = Less than Significant Impact, NI = No Impact, N/A = Not Applicable, NCC = Not Cumulatively Considerable.

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