4.16 Utilities and Service Systems

This section of the environmental impact report (EIR) describes the existing utilities and service systems for the proposed 123 Independence Drive Residential Project (project; proposed project) site and vicinity, identifies associated regulatory requirements, evaluates potential impacts, and identifies mitigation measures where necessary to avoid or reduce potential significant impacts. The analysis in this section addresses water supply, wastewater treatment, solid waste, electrical infrastructure, and telecommunications infrastructure. Energy consumption is addressed in Section 4.5, Energy, and stormwater infrastructure is addressed in Section 4.9, Hydrology and Water Quality.

As discussed in Chapter 2, Introduction, and Chapter 4, Environmental Analysis, two Notices of Preparation (NOPs) were circulated for this EIR; one in January and February 2021, and one in September and October 2021. No comments regarding utilities and service systems were received in response to the NOPs or during scoping sessions held for this EIR. Both NOPs and the comments received in response to them are provided in Appendix A of this EIR.

The primary sources reviewed to prepare this section include the ConnectMenlo General Plan Update (City of Menlo Park 2016a), the ConnectMenlo General Plan Update Draft EIR (City of Menlo Park 2016b), the City of Menlo Park Municipal Code (City of Menlo Park 2021), the 2020 Urban Water Management Plan for Menlo Park Municipal Water (MPMW 2021), the 123 Independence Water Budget (Appendix K1), the project's Mixed Use Town Home Parcel Zero Waste Management Plan (Appendix K2), and the project's Mixed Use Apartments Zero Waste Management Plan (Appendix K3).

4.16.1 Environmental Setting

Water

Water Service—Menlo Park Municipal Water

There are four water utility companies that serve various portions of the City of Menlo Park. The water provider in the Bayfront Area is Menlo Park Municipal Water (MPMW), which is governed by the City Council and run by the City's Public Works Department. MPMW's primary responsibilities are water distribution and maintenance. MPMW does not undertake water treatment because it purchases all of its potable water from the San Francisco Public Utilities Commission (SFPUC) as a member of Bay Area Water Supply and Conservation Agency (BAWSCA); water purchased from the SFPUC does not require further treatment (MPMW 2021).

MPMW serves approximately 50 percent of the City's population. In 2020, this equated to about 18,276 residents in an approximately 9-square-mile area. The service territory is divided into the following three pressure zones, which are hydraulically disconnected from each other:

- The Lower Zone is generally located north and east of El Camino Real and includes part of the Belle Haven neighborhood, Bay Road, and Willows neighborhood. This area includes residential, commercial, and industrial land uses.
- The High Pressure Zone is located in the northern portion of the City between US 101 and the Bayfront Expressway. This zone serves multi-family residential, a mobile home park, commercial, and light industrial land uses.
- The Upper Zone is located in the southwest portion of the City near Interstate 280. It primarily serves the residential Sharon Heights neighborhood and business parks along Sand Hill Road (MPMW 2021).

The MPMW distribution system consists of 59 miles of water mains, approximately 4,296 metered connections, two reservoirs, and one pump station. MPMW also maintains fire hydrants, backflow prevention devices, flushing points, and service connections to the SFPUC, which controls access to water via the Hetch Hetchy pipeline right-of-way through the City (MPMW 2021). MPMW is a member of BAWSCA, which represents MPMW and the 25 other water districts, cities, and utilities in the region that purchase wholesale water from SFPUC. BAWSCA negotiates and coordinates with the SFPUC in the development of regional water demand and conservation projections and programs and long-term strategies and programs for improving water supply reliability, including SFPUC's efforts to develop alternative water supplies.

Water Sources

The major water supply source for the proposed project is the San Francisco Regional Water System, which consists of more than 280 miles of pipelines, 60 miles of tunnels, 11 reservoirs, 5 pump stations, and 2 water treatment plants. It includes the Hetch Hetchy System and the Bay Area water system facilities. The Hetch Hetchy System is generally composed of the reservoirs, hydroelectric generation and transmission facilities, and water transmission facilities from the Hetch Hetchy Valley in the Sierra Nevada west to the Alameda East Portal of the Coast Range Tunnel in Sunol Valley. Hetch Hetchy System water is disinfected at the Tesla Treatment Facility. Because water supply for the Regional Water System comes from the Sacramento-San Joaquin Delta, the total amount of available water for the region is influenced by the Sacramento-San Joaquin Delta Reform Act of 2009 and the Delta Plan prepared in 2013 by the Delta Stewardship Council, which was created under the Delta Reform Act.

SFPUC's Bay Area water system is comprised of two parts—the Alameda System and the Peninsula System—generally consisting of the facilities west of the Alameda East Portal of the Coast Range Tunnel, including the 63,000-acre Alameda and Peninsula watersheds, storage reservoirs, two water treatment plants, and the distribution system that delivers water to both retail and wholesale customers.

The Alameda System includes two reservoirs, San Antonio Reservoir and Calaveras Reservoir, which collect water from the San Antonio Creek, Upper Alameda Creek, and Arroyo Hondo watersheds in Alameda County. San Antonio Reservoir also receives water from the Hetch Hetchy System. The Sunol Valley Water Treatment Plant (SVWTP) filters and disinfects water supplied from San Antonio Reservoir and Calaveras Reservoir.

The Hetch Hetchy System and the Alameda System are connected to the Peninsula system via the Bay Division Pipelines, which cross the South Bay. The Peninsula System includes the Crystal Springs Reservoir, San Andreas Reservoir, and Pilarcitos Reservoir. Water from the Crystal Springs and San Andreas reservoirs are treated at the Harry Tracy Water Treatment Plant (HTWTP) while the water from the Pilarcitos Reservoir is provided directly to wholesale customers and delivered to Crystal Springs and San Andreas Reservoirs.

Water Treatment

Water from the Hetch Hetchy Reservoir meets or exceeds all federal and state criteria for watershed protection. All water derived from sources other than Hetch Hetchy Reservoir is treated at one of two treatment plants: SVWTP or the HTWTP. The SVWTP primarily treats water from the Alameda System reservoirs and has both a peak capacity and sustainable capacity of 160 million gallons per day (mgd). The HTWTP treats water from the Peninsula System reservoirs and has a peak capacity of 180 mgd and a sustainable capacity of 140 mgd. Major upgrades to the SVWTP were completed in 2013 and to the HTWTP in 2015 (MPMW 2021).

Groundwater

As discussed in Section 4.9, Hydrology and Water Quality, the project region overlies the southern end of the San Mateo Plain Groundwater Subbasin of the Santa Clara Valley Groundwater Basin. MPMW does not utilize groundwater as a potable water source outside of emergency conditions. MPMW anticipates bringing one groundwater well online in early 2023 and is planning to construct an additional one or two wells to provide up to 3,000 gallons per minute of potable and fire supply in these zones (MPMW 2021).

Water Supply and Demand

MPMW purchases all of its water supplies from the SFPUC. Currently, MPMW has a contractual supply of 4.456 mgd, which is approximately 1,630 million gallons per year. This is expected to be sufficient to meet projected water demand through 2040 in normal water years (MPMW 2021).

In its 2020 Urban Water Management Plan (UWMP) Update, MPMW notes that its service area is largely built-out, thus residential population growth is expected to occur primarily through redevelopment projects, particularly within the Bayfront Area, consistent with the City's General Plan. MPMW also supplies water to commercial, industrial, and institutional customers and anticipates increases in the number of jobs in the service area. Table 4.16-1, Existing and Projected Residential Population and Employment reflects the population and employment estimates for the MPMW service territory through 2040, as identified in the UWMP. The changes in employment reflect anticipated growth in the commercial sector and declines in the industrial sector.

Table 4.16-1. Existing and Projected Residential Population and Employment

Year	Population	Employment
2020	18,276	23,574
2025	23,383	29,511
2030	25,166	32,356
2035	27,675	34,834
2040	30,184	37,311

Source: MPMW 2021.

The 2020 UWMP population and employment projections reflect the redevelopment that could occur under the ConnectMenlo General Plan Update, particularly the increased development potential within the Bayfront Area, which is expected to include:

- 2.3 million non-residential square feet, including offices, life-sciences buildings, and other commercial uses;
- 400 hotel rooms;
- 4,500 multi-family residential units;
- Two transit centers; and
- Up to 61 acres of landscaped open space.

The ConnectMenlo EIR evaluated potential development of a total of 5,500 residential units within the City, reflecting the capacity for development of 4,500 units within the Bayfront Area and 1,000 units in other areas of the City. However, MPMW does not provide water supply to all areas of the City. Thus, as reflected in Appendix D of

the UWMP, buildout of the General Plan is expected to accommodate up to 4,500 new residential units and a population of 11,570 new residents within the MPMW service area (MPMW 2021).

The ConnectMenlo EIR also identified that the buildout potential for future development was expected to occur over a 24-year buildout horizon (from approximately 2016 to 2040) (City of Menlo Park 2016b); however, the UWMP recognized that based on development applications that were already being reviewed by the City at the time the UWMP was being prepared, buildout of the anticipated maximum number of residential units was likely to occur more rapidly than had been projected in the ConnectMenlo EIR. Specifically, the UWMP notes that 40 percent of the total population growth expected through the year 2040 was assumed to occur between the years 2020 and 2025.

MPMW used the anticipated level of redevelopment in the Bayfront Area, buildout projections for the entire MPMW service area, and reasonably expected improvements in water conservation measures to determine projected future water demands, as shown in Table 4.16-2, Projected Water Demand and Supply. Conservation measures include both passive conservation, which accounts for reductions in water use from redevelopment projects that replace older water fixtures with more efficient fixtures and replace existing landscaping with low-water use landscaping, as well as active conservation measures, which account for water savings resulting from MPMW's implementation of water conservation programs, education programs, and the offering of financial incentives (such as rebates for homeowner replacement of older water fixtures).

Table 4.16-2. Projected Water Demand and Supply (million gallons per year)

Year	Normal Year Supply	Single Dry Year Supply	Multiple Dry Year Supply at 5th Dry Year	Projected Water Demand
2025	1,678	877	760	1,296
2030	1,750	978	854	1,345
2035	1,750	1,018	824	1,410
2040	1,750	1,062	832	1,483

Source: MPMW 2021.

Wastewater

The West Bay Sanitary District (WBSD) provides wastewater collection and conveyance services to Menlo Park, Atherton, Portola Valley, and areas of East Palo Alto, Woodside, and unincorporated San Mateo and Santa Clara counties. WBSD collected wastewater is conveyed Silicon Valley Clean Water (SVCW), a Joint Powers Authority, pumping and transmission lines and then to the SVCW Regional Wastewater Treatment Plant (WWTP) in Redwood Shores. SVCW then discharges treated water to the San Francisco Bay.

Wastewater Collection

The WBSD service area encompasses approximately 8,325 acres and includes approximately 19,000 service connections to serve a population of 52,900. WBSD operates and maintains approximately 200 miles of gravity sewer mains in size from 6 to 54 inches in diameter and operates 12 pump stations ranging in capacity from 110 to 2,500 gallons per minute. The system serves residential, commercial, and industrial users, and contains 150 miles of private lateral sewers. WBSD conveys raw wastewater to SVCW for treatment through the Menlo Park Pump Station and force main.

The WBSD's Base Wastewater Flow ("dry weather flow"), as measured during the 2009/10 flow monitoring program, is 4.6 mgd. This Base Wastewater Flow translates to approximately 87 gallons per person per day.

Wastewater Conveyance

The SVCW pumping and transmission facilities include four pump stations, a wet weather booster station co-located with the San Carlos Pump Station, a lift station at the WWTP, and an approximately 9-mile-long, reinforced concrete force main. The Menlo Park Pump Station is the southernmost facility within the SVCW conveyance system.

SVCW determined that the four pump stations and the force main were in poor to very poor condition and developed an improvement program, known as the RESCU Program, consisting of "rehabilitation and/or repurposing of existing pump stations, improvements to the existing WWTP, and replacement of the existing force main pipeline with a gravity pipeline" (SVCW 2017). The RESCU Program was evaluated under the Wastewater Conveyance System and Treatment Plant Reliability Improvement Project EIR (SVCW 2017).

SVCW is currently implementing the RESCU Program, which is necessary to continue to provide wastewater conveyance and treatment service to the existing population and non-residential customers within the service area as well as to serve planned customers already accounted for in the General Plans of the cities within the service area. The specific components of the RESCU Program currently being implemented include the Gravity Pipeline, Front of Plant, Pump Stations, and Belmont Force Main projects.

The gravity pipeline would replace the force main, which is necessary because the force main is over 45 years old and in very poor condition. The conversion to gravity flow would also reduce energy consumption for wastewater convenance,

Wastewater Treatment

The SVCW WWTP treats raw wastewater from Menlo Park and other communities and discharges to the deep water channel of the San Francisco Bay. Operation of the SVCW WWTP is governed by the waste discharge requirements found in Regional Water Board Order No. R2-2018-00XX (NPDES No. CA0038369). The WWTP is designed to remove more than 97 percent of all solids, organic material, and pathogens from the wastewater through physical and biological processes. During the dry season, SVCW further treats some of the WWTP flow with coagulation and additional disinfection for use as recycled water for landscape irrigation in the SVCW service area.

The SVCW's WWTP has an existing dry weather capacity of 29 mgd and wet weather capacity of 71 mgd. As reported by the RWQCB from July 2008 through June 2011, the average monthly flow was 15.9 mgd, and the maximum daily flow was 48.8 mgd. Between October 2012 and August 2017, flows decreased somewhat, with average flows of 13.5 mgd and a maximum instantaneous flow of 50 mgd. Under its Stage 2 Expansion Program, the SVCW will increase WWTP capacity to 80 mgd wet weather capacity as needed. The improvements under the SVCW's Capital Improvement Project are intended to improve the conveyance system, treatment processes and capacity to accommodate regional development.

The RESCU Program includes a component called the Front of Plant project. Under this component, SVCW will construct a Headworks Facility that includes a preliminary treatment system to allow large inorganic material (such as plastics, wood, and metal) to be screened out of the wastewater stream, and a new grit removal system to remove grit, sand, and rocks before wastewater enters the primary treatment process. Without these improvements, the existing partial screening and grit removal processes allow too much grit and unscreened material to enter the WWTP, which causes excessive wear on equipment and high maintenance and repair costs (SVCW 2017).

The RESCU Program also includes construction of flow diversion facilities to increase storage volume, including a Flow Diversion Structure (FDS) that would be used in conjunction with the gravity pipeline to store incoming wastewater for a short period to allow for a more consistent flowrate into the WWTP processes. The gravity pipeline will be used as the primary method of storage while the FDS, which would consist of a three million gallon, above-grade concrete tank, would be used for additional storage when needed.

Equalization in the new conveyance system would be provided by the new Gravity Pipeline and FDS for both daily and wet weather flows. The Gravity Pipeline and the FDS would provide the storage capacity required to provide SVCW the option to limit wastewater flow through the WWTP to 60 mgd during the wet weather season and a constant daily flow during the dry weather season to enhance the operation of the treatment processes. This would be achieved in wet weather with a combination of storage in the Gravity Pipeline and installation of overflow piping from the FDS to one of SVCW's existing drying beds that would provide an additional 4.4 million gallons of storage.

The peak wet weather storage would be designed for a single, 10-year, 24-hour storm event with incoming flow rates to the WWTP at 108 mgd (which includes five mgd of peak flow from the Redwood Shores Force Main), and would have sufficient storage volume to reduce the process flow to the maximum wet weather treatment plant process flow rate of up to 80 mgd. A total storage volume of 15.4 million gallons would be needed to limit process flows to up to 80 mgd. While current peak flow capacity of the WWTP is higher than 60 mgd, this facility would improve the ability to store wastewater short-term and increase the reliability of the processes during storm events.

Solid Waste

Recology Incorporated provides solid waste collection and conveyance service for the City of Menlo Park. Collected recyclables, organics, and garbage are conveyed to the Shoreway Environmental Center in San Carlos for processing and shipment. The Shoreway Environmental Center is owned by RethinkWaste (former South Bayside Waste Management Authority), which is a Joint Powers Authority that is comprised of 12 public agencies, including the City, surrounding cities, the County of San Mateo, and WBSD, and operated by South Bay Recycling under a 10-year contract with RethinkWaste as of January 1, 2011 (City of Menlo Park 2016b).

The Shoreway Environmental Center consists of a transfer station, a materials recovery facility, a public recycling center, an environmental education center, Recology offices, and South Bay Recycling offices in separate buildings on 16 acres of land. Shoreway serves as a regional solid waste and recycling facility for the receipt, handling and transfer of refuse, recyclables and organic materials collected from the RethinkWaste service area (southern and central San Mateo County). The primary goal of RethinkWaste is to provide cost effective waste reduction, recycling, and solid waste programs to member agencies through franchised services and other recyclers to meet and sustain a minimum of 50-percent diversion of waste from landfill as mandated by California State Law, AB 939.

CalRecycle reports that in 2019 a total of 34,913 tons of solid waste from the City was disposed of at 19 different landfills, with the majority of this waste being disposed of at the Ox Mountain Landfill (also called Corinda Los Trancos Landfill). The Ox Mountain Landfill is a sanitary landfill located in Half Moon Bay, California. It has a permitted throughput capacity of 3,598 tons per day. Its remaining permitted capacity is 22,180,000 cubic yards. The Ox Mountain Landfill has an estimated "cease operation date" of January 1, 2034 (CalRecycle 2021a). The three landfills receiving the second, third and fourth largest amount of solid waste from Menlo Park in 2019 were:

- Monterey Peninsula Landfill received 6,414 tons of Menlo Park solid waste in 2019 (CalRecycle 2019). Located in Marina, California, this landfill has a permitted throughput capacity of 3,500 tons per day, a

remaining permitted capacity of 48,560,000 cubic yards, and an estimated "cease operation date" of February 28, 2107 (CalRecycle 2021b).

- Altamont Landfill received 1,399 tons of Menlo Park solid waste in 2019 (CalRecycle 2019). Located in Livermore, California, this landfill has a permitted throughput capacity of 11,150 tons per day, a remaining permitted capacity of 65,400,000 cubic yards, and an estimated "cease operation date" of January 1, 2070 (CalRecycle 2021c).
- John Smith Road Landfill received 1,298 tons of Menlo Park solid waste in 2019 (CalRecycle 2019). Located in Hollister, California, this land fill has a permitted throughput capacity of 1,000 tons per day, remaining permitted capacity of 1,921,000 cubic yards, and estimated "cease operation date" of August 1, 2025 (CalRecycle 2021d).

Energy Infrastructure

The project site is currently developed and served with electrical and natural gas supply from Pacific Gas & Electric (PG&E). There are existing overhead PG&E electrical transmission lines that run through the middle of the project site, starting at Chrysler Drive and running northwest. As discussed in Section 4.5, Energy, residences and businesses within the City of Menlo Park (including those on the project site) receive electricity from either PG&E or the Peninsula Clean Energy Authority (PCE). PCE is a Community Choice Aggregator that was created as a Joint Powers Agency in 2016 to serve all areas of San Mateo County. PCE is the default energy provider throughout San Mateo County, including each of the 20 incorporated cities within the County, but residents may opt-out of obtaining energy from PCE and instead obtain it from PG&E.

PCE obtains all of its electric power from renewable resources (e.g., water, wind, and solar) and carbon-free sources (e.g., hydroelectric and geothermal). Energy supplied through PCE is transmitted to customers through transmission lines and other infrastructure owned and maintained by PG&E. PG&E owns 106,681 circuit miles of electric distribution lines and 18,466 circuit miles of interconnected transmission lines over a 70,000-square-mile service area that includes Northern California and Central California (PG&E 2016).

In 2020, a total of 4,168 million kWh of electricity was consumed in San Mateo County, with 2,516 million kWh being used by non-residential customers and 1,652 million kWh being used by residential customers (CEC 2021a). PCE serves 765,000 customers in San Mateo County by providing more than 3,500 gigawatt hours annually of electricity while PG&E provides electric services to 5.4 million customers. According to PG&E, its customers consumed 78,519 million kWh of electricity in 2020 (Table 4.5-1) (CEC 2021b).

Telecommunications Infrastructure

The project site is currently developed and served with telecommunications services. There are existing overhead telecommunication lines co-located with the PG&E electrical transmission lines through the project site.

4.16.2 Regulatory Framework

Federal Regulations

Federal Safe Drinking Water Act

The Safe Drinking Water Act is the main federal law that regulates the quality of potable water for the public. The Safe Drinking Water Act authorizes the U.S. Environmental Protection Agency (EPA) to establish national health-based standards for drinking water quality. These standards may apply to naturally occurring and human-caused constituents in drinking water. The national standards are established using scientific methods to evaluate health risks and

consider available technology and costs to achieve the standards. The National Primary Drinking Water Regulations establish maximum contaminant levels or mandated methods for water treatment to remove contaminants, and requirements for regular water quality testing to make sure standards are achieved. In addition to setting these standards, the EPA provides guidance, assistance, and public information about drinking water, collects drinking water data, and oversees state drinking water programs. States can apply to the EPA for authority to implement the Safe Drinking Water Act within their jurisdictions by showing that they will adopt standards at least as stringent as the national standards and adequately enforce these standards. California has been granted this authority, and the California Department of Public Health establishes and enforces statewide drinking water standards.

Clean Water Act

The Federal Water Pollution Act of 1972, more commonly known as the Clean Water Act, regulates the discharge of pollutants into watersheds throughout the nation. It is the primary federal law governing water pollution. Under the Clean Water Act, the US EPA implements pollution control programs and sets wastewater standards. The objective of the Clean Water Act is to restore and maintain the chemical, physical, and biological integrity of the nation's waters by preventing point and nonpoint pollution sources, providing assistance to publicly owned treatment works for the improvement of wastewater treatment, and maintaining the integrity of wetlands.

National Pollutant Discharge Elimination System

The National Pollutant Discharge Elimination System (NPDES) permit program was established in the Clean Water Act to regulate municipal and industrial discharges to surface waters of the United States. Federal NPDES permit regulations have been established for broad categories of discharges, including point-source municipal waste discharges and nonpoint-source stormwater runoff. NPDES permits generally identify effluent and receiving water limits on allowable connections and/or mass emissions of pollutants contained in the discharge; prohibitions on discharges not specifically allowed under the permit; and provisions that describe required actions by the discharger, including industrial pretreatment, pollution prevention, self-monitoring, and other activities.

Wastewater discharge is regulated under the NPDES permit program for direct discharges into receiving waters and by the National Pretreatment Program for indirect discharges to a sewage treatment plant.

Operation of the SVCW WWTP and its wastewater collection system is regulated by Waste Discharge Requirements (WDRs; NPDES No. CA0038369) found in RWQCB Order No. R2-2012-0062 effective October 1, 2012, and expiring September 30, 2017. The discharger's wastewater collection system consists of four pump stations which receive wastewater from the "satellite" wastewater collection systems of four municipal jurisdictions (West Bay Sanitary District, City of Belmont, City of San Carlos and City of Redwood City). The effluent from the WWTP is also subject to two other NPDES permits: 1) the WDRs for mercury and polychlorinated biphenyls (PCBs) from municipal and industrial wastewater discharges to San Francisco Bay (NPDES No. CA0038849); and 2) waste discharge requirements for nutrients from municipal wastewater discharges to San Francisco Bay (NPDES No. CA0038873). The three NPDES permits enable SVCW to discharge treated wastewater into San Francisco Bay

State Regulations

California Porter-Cologne Water Quality Control Act

Under the Porter-Cologne Water Quality Control Act, which was passed in California in 1969 and amended in 2013, the State Water Resources Control Board (SWRCB) has authority over state water rights and water quality policy.

This Act divided the state into nine regional basins, each under the jurisdiction of a Regional Water Quality Control Board (RWQCB) to oversee water quality on a day-to-day basis at the local and regional level. RWQCBs engage in a number of water quality functions in their respective regions. RWQCBs regulate all pollutant or nuisance discharges that may affect either surface water or groundwater. Menlo Park is overseen by the San Francisco Bay RWQCB.

California Senate Bills 610 and 221

Senate Bill (SB) 610 and SB 221 amended state law to ensure better coordination between local water supply and land use decisions and ensure adequate water supply for new development. Both statutes require that detailed information regarding water availability be provided to city and county decision-makers prior to approval of large development projects. SB 610 requires water supply assessments (WSAs) for certain types of projects, as defined by Water Code Section 10912, which are subject to the California Environmental Quality Act (CEQA). Projects required to prepare a WSA are the following:

- Residential development of more than 500 dwelling units
- Shopping center or business establishment employing more than 1,000 persons or having more than 500,000 square feet of floor area
- Hotel or motel, or both, having more than 500 rooms
- Industrial, manufacturing, or processing plant, or industrial park planned to employ more than 1,000 persons, occupying more than 40 acres of land, or having more than 650,000 square feet of floor area
- Mixed-use project that includes one or more of the projects specified above
- Projects that would demand an amount of water equivalent to, or greater than, the amount of water required for 500 dwelling units.

SB 221 establishes consultation and analysis requirements related to water supply planning for residential subdivisions including more than 500 dwelling units.

California Urban Water Management Planning Act

Through the Urban Water Management Planning Act of 1983, the California Water Code requires all urban water suppliers within California to prepare and adopt an UWMP and update it every 5 years. This requirement applies to all suppliers providing water to more than 3,000 customers or supplying more than 3,000 acre-feet of water annually. The Act is intended to support conservation and efficient use of urban water supplies. The Act requires that total project water use be compared to water supply sources over the next 20 years in 5-year increments, that planning occur for single and multiple dry water years, and that plans include a water recycling analysis that incorporates a description of the wastewater collection and treatment system within the agency's service area along with current and potential recycled water uses. In September 2014, the Act was amended by SB 1420 to require urban water suppliers to provide descriptions of their water demand management measures and similar information. Additionally, in 2018 the Act was amended by SB 606 and Assembly Bill (AB) 1668 requiring UWMPs to include a Water Shortage Contingency Plan (WSCP). The WSCP addresses water supply risks facing a water system, including unforeseeable factors that could contribute to water supply constraints, and identifies feasible response actions. The WSCP must address six water shortage levels (corresponding to 10 percent, 20 percent, 30 percent, 40 percent, and 50 percent water shortages) and identify locally appropriate response actions for each shortage level.

The Water Conservation Act of 2009

The Water Conservation Act of 2009, SB X7-7, requires all water suppliers to increase water use efficiency. The legislation sets an overall goal of reducing per capita water by 20 percent by 2020, with an interim goal of a 10 percent reduction in per capita water use by 2015. Effective in 2016, urban retail water suppliers who do not meet the water conservation requirements established by this bill are not eligible for state water grants or loans. The SB X7-7 requires that urban water retail suppliers determine baseline water use and set reduction targets according to specified standards. It also requires agricultural water suppliers to prepare plans and implement efficient water management practices.

State Updated Model Landscape Ordinance

The updated Model Landscape Ordinance requires cities and counties to adopt landscape water conservation ordinances by February 1, 2016 or to adopt a different ordinance that is at least as effective in conserving water as the updated Model Ordinance. The City of Menlo Park adopted Ordinance No. 968, Water Efficient Landscaping Regulations, in 2016, and revised Municipal Code Chapter 12.44, which is described below.

CAL Green Building Code

On July 17, 2008, the California Building Standards Commission adopted the nation's first green building standards. The California Green Building Standards Code (Part 11, Title 24, known as "CALGreen") was adopted as part of the California Building Standards Code (Title 24, California Code of Regulations [CCR]) to apply to the planning, design, operation, construction, use, and occupancy of every newly constructed building or structure, unless otherwise indicated in the code, throughout the State of California. CALGreen established planning and design standards for sustainable site development, including water conservation measures and requirements that new buildings reduce water consumption by 20 percent. The mandatory provisions of the California Green Building Code Standards became effective January 1, 2011. The building efficiency standards are enforced through the local building permit process. The purpose of CALGreen is to improve public health, safety, and general welfare by enhancing the design and construction of buildings through the use of building concepts having a reduced negative impact or positive environmental impact and encouraging sustainable construction practices in the following categories:

- Planning and design
- Energy efficiency
- Water efficiency and conservation
- Material conservation and resource efficiency
- Environmental quality

The California Building Code, including CALGreen, is updated every 3 years. The California Energy Commission adopted the 2022 Title 24 Energy Code in August 2021 and the California Building Standards Commission approved incorporating the updated code into the California Building Standards Code in December 2021. The 2022 Energy Code will go into effect on January 1, 2023.

The California Plumbing Code (Part 5, Title 24, CCR)

The California Plumbing Code (Part 5, Title 24, CCR) was adopted as part of the California Building Standards Code. The general purpose of the universal code is to prevent disorder in the industry as a result of widely divergent

plumbing practices and the use of many different, often conflicting, plumbing codes by local jurisdictions. Among many topics covered in the code are water fixtures, potable and non-potable water systems, and recycled water systems. Water supply and distribution shall comply with all applicable provisions of the current edition of the California Plumbing Code.

Executive Order 29-B-15

Executive Order B-29-15, signed by Governor Brown on April 1, 2015, imposed mandatory water restrictions in California. The Order requires the SWRCB to impose restrictions to achieve a statewide 25 percent reduction in potable urban water usage through February 28, 2016 as compared to the amount used in 2013. In addition to requiring cities and towns to save water, the Order is intended to increase enforcement to prevent wasteful water use, streamline the state's drought response and invest in new technologies that will make California more drought resilient.

Executive Order B-36-15

On November 13, 2015, Governor Brown issued Executive Order B-36-15 (EO B-36-15) that calls for an extension of restrictions to urban potable water usage until October 31, 2016, should drought conditions persist through January 2016.9 EO B-36-15 is the fifth in a series of Executive Orders by Governor Brown on actions necessary to address California's severe drought conditions. On February 2, 2016, the SWRCB adopted an extended and revised emergency regulation. The regulation extends restrictions on urban water use through October 2016 while providing urban water suppliers more flexibility in meeting their conservation requirements. It also directs staff to report back on additional flexibility once more complete water supply information is known in April 2016. The February 2016 Emergency Regulation allows suppliers flexibility in meeting their conservation requirements through adjustments and credits that allow a supplier to modify its conservation standard up to eight percentage points, based on consideration of: (1) climatic differences experienced throughout the state; (2) water- efficient growth experienced by urban areas; and (3) significant investments that have been made by some suppliers toward creating new, local, drought-resilient sources of potable water supply. Conservation standards were able to be adjusted by submitting required information for verification through the new on-line reporting tool at the state's Drinking Water Information Clearinghouse Portal. The tool was available beginning the week of February 8, 2016 through March 15, 2016. On May 9, 2016, the Governor issued an Executive Order (B-37-16) that directs the SWRCB to adjust and extend its emergency water conservation regulations through the end of January 2017 in recognition of the differing water supply conditions for many communities.

Executive Order N-7-22

On April 12, May 10, July 8, and October 19, 2021, Governor Newsom proclaimed states of emergency due to extreme drought conditions across California. On March 28, 2022, Governor Newsom issued EO N-7-22 in an attempt to achieve water conservation goals, including those described in previous proclamations except as modified by the EO. EO N-7-22 encourages the SWRCB to consider adopting emergency regulations that would require urban water suppliers to submit preliminary annual water supply and demand assessments and to implement water shortage response actions. The EO also suspended any requirements adopted by a public agency that prohibits the hauling of water out of the water's basin of origin or the public agency's jurisdiction for the purposes of human consumption, cooking, or sanitation in communities threatened with the loss of affordable safe drinking water. The EO also called for the SWRCB to expand inspections to determine whether illegal diversions or wasteful uses of water are occurring and to bring enforcement actions against those engaging in wasteful or illegal activities, among other orders to promote the efficient use of water.

State Water Resources Control Board

On May 2, 2006, the SWRCB adopted a General Waste Discharge Requirement (Order No. 2006-0003) for all publicly owned sanitary sewer collection systems in California with more than 1 mile of sewer pipe. The order provides a consistent statewide approach to reducing sanitary sewer overflows (SSOs) by requiring public sewer system operators to take all feasible steps to control the volume of waste discharged into the system, to prevent sanitary sewer waste from entering the storm sewer system, and to develop a Sanitary Sewer Master Plan. The General Waste Discharge Requirement also requires that storm sewer overflows be reported to the SWRCB using an online reporting system.

The SWRCB has delegated authority to nine Regional Water Quality Control Boards (RWQCBs) to enforce these requirements within their region. The San Francisco Bay RWQCB issues and enforces NPDES permits applicable to the WBSD wastewater collection system in Menlo Park and the SVCW WWTP in Redwood City.

Sanitary District Act of 1923

The Sanitary District Act of 1923 (Health and Safety Code Section 6400 et seq.) authorizes the formation of sanitation districts and enforces the Districts to construct, operate, and maintain facilities for the collection, treatment, and disposal of wastewater. The Act was amended in 1949 to allow the districts to also provide solid waste management and disposal services, including refuse transfer and resource recovery.

California Integrated Waste Management Act

California's Integrated Waste Management Act of 1989, AB 939, subsequently amended by SB 1016, set a requirement for cities and counties throughout the state to divert 50 percent of all solid waste from landfills by January 1, 2000 though source reduction, recycling, and composting. To help achieve this, the Act required that each city and county prepare and submit a Source Reduction and Recycling Element. AB 939 also established the goal for all California counties to provide at least 15 years of on-going landfill capacity.

In 2007, SB 1016 amended AB 939 to establish a per capita disposal measurement system. The per capita disposal measurement system is based on two factors: a jurisdiction's reported total disposal of solid waste divided by a jurisdiction's population. The California Integrated Waste Management Board was replaced by the California Department of Resources Recycling and Recovery (CalRecycle) in 2010. CalRecycle sets a target per capita disposal rate for each jurisdiction. Each jurisdiction must submit an annual report to CalRecycle with an update of its progress in implementing diversion programs and its current per capita disposal rate. In 2013, the statewide residential per capita disposal rate was 4.4 pounds per resident per day, and the statewide employee per capita disposal rate was 10.2 pounds per employee per day.

In 2011, AB 341 was passed that sets a state policy goal of not less than 75 percent of solid waste that is generated to be source reduced, recycled, or composted by the year 2020. CalRecycle was required to submit a report to the legislature by January 1, 2014 outlining the strategy that will be used to achieve this policy goal.

California Solid Waste Reuse and Recycling Access Act of 1991

The California Solid Waste Reuse and Recycling Access Act require areas in development projects to be set aside for collecting and loading recyclable materials. This Act required CalRecycle to develop a model ordinance for adoption by any local agency relating to adequate areas for collection and loading of recyclable materials as part

of development projects. Local agencies are required to adopt the model, or an ordinance of their own, providing for adequate areas in development projects for the collection and loading of recyclable materials.

Mandatory Commercial Organics Recycling

In October of 2014 Governor Brown signed AB 182676 requiring businesses to recycle their organic waste on and after April 1, 2016, depending on the amount of waste they generate per week. This law also requires that on and after January 1, 2016, local jurisdictions across the state implement an organic waste recycling program to divert organic waste generated by businesses, including multifamily residential dwellings that consist of five or more units. Organic waste means food waste, green waste, landscape and pruning waste, nonhazardous wood waste, and food-soiled paper waste that is mixed in with food waste. Greenhouse gas (GHG) emissions result from the decomposition of organic wastes in landfills. Mandatory recycling of organic waste is aimed at helping achieve California's aggressive recycling and GHG emission goals. The implementation schedule is as follows:

- **January 1, 2016:** Local jurisdictions shall have an organic waste recycling program in place. Jurisdictions shall conduct outreach and education to inform businesses how to recycle organic waste in the jurisdiction, as well as monitoring to identify those not recycling and to notify them of the law and how to comply.
- **April 1, 2016:** Businesses that generate eight cubic yards of organic waste per week shall arrange for organic waste recycling services.
- **January 1, 2017:** Businesses that generate four cubic yards of organic waste per week shall arrange for organic waste recycling services.
- **August 1, 2017 and Ongoing:** Jurisdictions shall provide information about their organic waste recycling program implementation in the annual report submitted to CalRecycle. (See above for description of information to be provided.)
- **Fall 2018:** After receipt of the 2016 annual reports submitted on August 1, 2017, CalRecycle shall conduct its formal review of those jurisdictions that are on a two-year review cycle.
- **January 1, 2019:** Businesses that generate four cubic yards or more of commercial solid waste per week shall arrange for organic waste recycling services.
- **Fall 2020:** After receipt of the 2019 annual reports submitted on August 1, 2020, CalRecycle shall conduct its formal review of all jurisdictions.
- **Summer/Fall 2021:** If CalRecycle determines that the statewide disposal of organic waste in 2020 has not been reduced by 50 percent of the level of disposal during 2014, the organic recycling requirements on businesses will expand to cover businesses that generate two cubic yards or more of commercial solid waste per week. Additionally, certain exemptions, previously discussed, may no longer be available if this target is not met.

Global Warming Solutions Act of 2006

The California Global Warming Solutions Act of 2006 (also known as AB 32) Scoping Plan, which was adopted by the California Air Resources Board, included a Mandatory Commercial Recycling Measure. The Mandatory Commercial Recycling Measure focuses on diverting commercial waste as a means to reduce greenhouse gas (GHG) emissions, with the goal of reducing GHG emissions by five million metric tons of carbon dioxide equivalents (MTCO2e), consistent with the 2020 targets set by AB 32. To achieve the Measure's objective, the commercial sector will need to recycle an additional 2 to 3 million tons of materials annually by the year 2020.

CalRecycle adopted this Measure at its January 17, 2012 monthly public meeting. The regulation was approved by the Office of Administrative Law on May 7, 2012 and became effective immediately. On June 27, 2012, the Governor signed SB 1018, which included an amendment requiring both businesses that generate 4 cubic yards or more of commercial solid waste per week and multi-family residences with five or more units to arrange for recycling services. This requirement became effective on July 1, 2012.

Statewide General Permit

The SWRCB elected to adopt a statewide general permit (Water Quality Order No. 2003-0005-DWQ) for Small Municipal Separate Storm Sewer System (MS4s) operators to efficiently regulate stormwater discharges under a single permit. Permittees must develop and implement a Stormwater Management Plan (SWMP) with the goal of reducing the discharge of pollutants to the maximum extent practicable.

NPDES Municipal Regional Stormwater Permit

The proposed project study area is covered under the regulations of the new Municipal Regional Stormwater NPDES Permit (MRP) issued by the RWQCB, which became effective on July 1, 2022. This NPDES Permit falls under Order R2-2022-0018, adopted on May 11, 2022. This 2022 order revised the prior MRP, which was adopted under Order R2-2015-0049 on November 19, 2015. However, the project is proposed under SB 330, the Housing Crisis Act of 2019, which states that a municipality can require a housing development project under the Housing Crisis Act of 2019 to comply with only those ordinances, policies, and standards adopted and in effect when the project's Preliminary Application was submitted, subject to certain exceptions. The Preliminary Application for the proposed project was submitted on February 26, 2020. Thus, under the provisions of the Housing Crisis Act of 2019, the project is subject to the MRP as it existed on February 26, 2020.

Under the MRP, municipalities have to require both private and public projects to implement post-construction stormwater controls as part of their obligations under Provision C.3 of the MRP. Above and beyond post-construction stormwater management practices, the permit also requires municipalities to adopt trash and street sweeping programs to regulate discharges into storm drain systems or directly into waters of the United States.

California Public Utilities Commission

In September 2008, the California Public Utilities Commission adopted the Long Term Energy Efficiency Strategic Plan, which provides a framework for energy efficiency in California through the year 2020 and beyond. It articulates a long-term vision, as well as goals for each economic sector, identifying specific near-term, mid-term, and long-term strategies to assist in achieving these goals. This Plan sets forth the following four goals, known as Big Bold Energy Efficiency Strategies, to achieve significant reductions in energy demand:

- All new residential construction in California will be zero net energy by 2020;
- All new commercial construction in California will be zero net energy by 2030;
- Heating, Ventilation and Air Conditioning (HVAC) will be transformed to ensure that its energy performance is optimal for California's climate; and
- All eligible low-income customers will be given the opportunity to participate in the low-income energy efficiency program by 2020.

With respect to the commercial sector, the Long Term Energy Efficiency Strategic Plan notes that commercial buildings, which include schools, hospitals, and public buildings, consume more electricity than any other end-use

sector in California. The commercial sector's five billion-plus square feet of space accounts for 38 percent of the state's power use and over 25 percent of natural gas consumption. Lighting, cooling, refrigeration, and ventilation account for 75 percent of all commercial electric use, while space heating, water heating, and cooking account for over 90 percent of gas use. In 2006, schools and colleges were in the top five facility types for electricity and gas consumption, accounting for approximately 10 percent of state's electricity and gas use.

The California Public Utilities Commission and the California Energy Commission have adopted the following goals to achieve zero net energy (ZNE) levels by 2030 in the commercial sector:

- **Goal 1:** New construction will increasingly embrace zero net energy performance (including clean, distributed generation), reaching 100 percent penetration of new starts in 2030.
- **Goal 2:** 50 percent of existing buildings will be retrofit to zero net energy by 2030 through achievement of deep levels of energy efficiency and with the addition of clean distributed generation.
- **Goal 3:** Transform the commercial lighting market through technological advancement and innovative utility initiatives.

Regional and Local Regulations

2020 Urban Water Management Plan, Menlo Park Municipal Water

This UWMP is a foundational document and source of information about MPMW's historical and projected water demands, water supplies, supply reliability and potential vulnerabilities, water shortage contingency planning, and demand management programs. Among other things, it is used as:

- A long-range planning document for water supply and system planning; and
- A source for data on population, housing, water demands, water supplies, and capital improvement projects used in:
  - Regional water resource management plans prepared by wholesale water suppliers and other regional planning authorities (as applicable),
  - General Plans prepared by cities and counties, and
  - Statewide and broad regional water resource plans prepared by the California Department of Water Resources, the SWRCB, or other state agencies.

MPMW's last UWMP was completed in 2016, referred to herein as the "2015 UWMP" (City of Menlo Park, 2016a). This Plan is an update to the 2015 UWMP and carries forward information that remains current and is relevant to this Plan, and it provides additional information as required by amendments to the UWMP Act (CWC Section 10610-10657). Although this Plan is an update to the 2015 UWMP, it was developed to be a self-contained, stand-alone document and does not require readers to reference information contained in previous updates.

2020 Water Shortage Contingency Plan, Menlo Park Municipal Water

MPMW's WSCP is developed to serve as a flexible framework of planned response measures to mitigate future water supply shortages. The WSCP is included as a chapter in the 2020 UWMP and supersedes the WSCP that was presented in the 2015 UWMP. The WSCP includes six stages of response to a water shortage caused by drought or by supply interruptions caused by infrastructure failure, regulatory mandate, or catastrophic human-caused or natural events. The primary objective of the WSCP is to ensure that MPMW has in place the necessary resources and management responses needed to protect health and human safety, minimize economic disruption, and

preserve environmental and community assets during water supply shortages and interruptions. The WSCP also includes procedures to conduct an annual assessment of water supply and demand in order to determine whether water shortage conditions are likely to exist in the forthcoming year, and to proactively begin the process of implementing WSCP stages of action, as appropriate. For example, the Menlo Park City Council adopted drought stage 2 on May 24, 2022 and the WSCP stage 2 regulations became effective on June 10, 2022. The information presented in the respective WSCP sections and the associated text and tables are collectively intended to fulfill the requirements of that sub-section of the UWMP Act. MPMW has authority within Section 7.35 of the City's Municipal Code to require water rationing and conservation and to enforce penalties.

West Bay Sanitary District Code of General Regulations

The WBSD's Code of General Regulations establishes standards, conditions, and provisions for fees relating to the use of sanitary wastewater facilities of the WBSD. Article VII requires Class 1 sewer permits for residential connections, Class 2 sewer permits for non-residential connections, and Class 3 sewer permits for construction of sewer mains, pumping stations, and other wastewater facilities. In order to receive a permit, a developer must submit an application, pay all fees and charges, and satisfy requirements, such as extending the collection facilities to the vicinity of the development site. For a Class 3 permit, the WBSD Manager examines the submitted application's conformance with engineering practices and the standard specifications and policies of the WBSD and then submits it to the WBSD Board of Directors for approval. Subsequent to the WBSD's acceptance of a Class 3 permit, but prior to connection of and discharge into the WBSD's wastewater facilities, a Class 1 or Class 2 permit, as applicable, must be obtained by the developer. All costs and expenses associated with the installation and connection of the building sewer shall be at the owner's expense. All work shall be performed under the inspection of, and in accordance with, the standard specifications of WBSD.

San Mateo Countywide Integrated Waste Management Plan

The California Integrated Waste Management Act of 1989 (AB 939) requires each County to prepare and adopt a Countywide Integrated Waste Management Plan. San Mateo County government and all the cities in the county have prepared and adopted elements that comprise the Countywide Integrated Waste Management Plan. The elements of the Countywide Integrated Waste Management Plan are the Source Reduction and Recycling Element, the Household Hazardous Waste Element, and the Non-Disposal Facility Element.

City of Menlo Park Climate Action Plan

The City's 2009 Climate Action Plan (CAP) was developed to reduce GHG emissions by implementing various strategies and programs at the local level. The 2009 CAP identified the City's existing GHG inventory and estimates emissions for the year 2020 under different scenarios. Based on this, the 2009 CAP proposed emission reduction targets to help meet AB 32's regional goals. Specifically, the City Council adopted a GHG reduction target of 27 percent below 2005 levels by 2020, and data from 2017 showed that an 18.6 percent reduction had been attained by that time. This included 13,321 tons of emissions reductions associated with solid waste resulting from installation of efficient gas capture devices at Ox Mountain landfill (City of Menlo Park 2019).

The 2009 CAP recommended short- and mid- term strategies for the community and municipal operations to meet the targets. The 2009 CAP strategies related to solid waste included 1) adopting a new mandatory commercial recycling ordinance to reduce waste to landfill and 2) adopting a Zero Waste Policy, which requires a 75-percent diversion rate by 2020 and a 90 percent diversion rate by 2030. In a 2015 strategic update to the 2009 CAP, the City identified that 1 percent of Menlo Park GHG emissions at that time were attributable to solid

waste. Strategies to be implemented between 2015 and 2020 included considering changes to the City's solid waste, recycling, and organics collection franchise that encourage zero waste and decrease waste to landfill.

The City adopted a 2030 CAP in 2020, which was amended in 2021. The 2030 CAP established a climate goal of zero carbon by 2030 and identified that this goal could be achieved through a "90 percent reduction in carbon dioxide equivalent emissions (CO2e) from 2005 levels, and elimination of the remaining 10 percent of CO2e through direct carbon removal measures" (City of Menlo Park 2021). The 2030 CAP identified that the City had generated 21,745 metric tons of CO2e emissions related to solid waste in 2005, which was reduced to 8,424 metric tons of CO2e emissions by 2017, and set a target of reducing these emissions to 2,903 metric tons CO2e by 2030. Achievement of this goal is expected to be supported by the City's adoption in 2017 of the Community Zero Waste Plan, as anticipated under the strategic updates to the 2009 CAP.

City of Menlo Park Community Zero Waste Plan

Under the periodic strategic updates to the 2009 CAP, the City identified a goal of adopting a Zero Waste Plan to support further reductions in GHG emissions associated with solid waste. Accordingly, the City adopted the Zero Waste Plan in 2017 to reduce generation of solid waste and divert waste from landfill disposal. Specifically, the plan established a goal of reducing the amount of landfilled material generated per person per day from 5.0 pounds in 2015 to 3.1 pounds by 2035. This is projected to reduce the total annual volume of landfilled material generated by the city's residents from approximately 30,200 tons in 2015 to 18,600 tons in 2035 (City of Menlo Park 2017).

The strategies identified in the Community Zero Waste Plan identify a range of short-term, mid-term, and long-term actions to be taken by the City, the South Bayside Waste Management Authority, and/or the solid waste franchised collection service providers (which, in the City of Menlo Park, is Recology). This includes strategies such as conducting community education and outreach; expanding curbside recycling and pick-up programs; mandating that waste generators participate in recycling and composting programs; providing universal recycling and composting collection services to all commercial and multi-family customers who have trash collection; and partnering with community organizations and businesses to increase options for reuse, repair, recycling, or composting, Individual development projects can demonstrate consistency with the Community Zero Waste Plan by complying with the Menlo Park Municipal Code requirements to recycle and salvage construction and demolition debris, as discussed below, and by ensuring that appropriate and adequate provisions are made to accommodate recycling and composting in addition to solid waste collection.

City of Menlo Park 2013 Green Building Standards Codes

The City has adopted local amendments to 2013 CALGreen, which has been enforced since January 1, 2014. Chapter 12.18 of the Menlo Park Municipal Code adopts and amends CALGreen by reference, establishing sustainable building requirements that are applicable to all newly constructed buildings or structures. Section 12.18.010 of the Menlo Park Municipal Code requires that newly constructed buildings achieve at least a 15 percent reduction in energy usage when compared to the state's mandatory energy efficiency standards.

San Francisco Bay Basin Water Quality Control Plan

The San Francisco Bay RWQCB oversees a Water Quality Control Plan for the San Francisco Bay Basin (the Basin Plan) that designates "beneficial" uses, establishes water quality objectives, and contains implementation programs and policies to achieve those objectives for all waters addressed through the Basin Plan, which includes wetlands in and near Menlo Park. The Basin Plan centers on watershed management, a strategy for protecting

water quality by examining all inputs into drainages and downstream water bodies. Accordingly, compliance with the Basin Plan involves adherence to stormwater control requirements for land use activities in Menlo Park.

Grading and Drainage Guidelines

The Grading and Drainage Guidelines (G&D Guidelines) establish design requirements for new construction and redevelopment projects. These G&D Guidelines describe the stormwater control and treatment measures that reduce the amount of stormwater runoff and prevent sediment and pollutants from entering into the City's storm drain system. In particular, G&D Guidelines require that post-development runoff rate not exceed pre-project levels, and the retention/detention systems be designed to treat storm water run-off in the event of a 10-year storm with a time of concentration of 10 minutes.

In addition, the G&D Guidelines outline requirements for G&D Plans, which the City of Menlo Park Engineering Division requires for any new construction or redevelopment that increases impervious areas by more than 500 square feet. The G&D Guidelines indicate that a G&D Plan must include existing and proposed calculations showing site grading and drainage features. The grading and drainage design for the project shall control stormwater runoff and pollutants using San Mateo County's C.3 Stormwater Technical Guidance criteria. The City also requires G&D Plans to include erosion and sedimentation control details and include an Impervious Area Worksheet evaluating existing and proposed impervious areas (City of Menlo Park 2014).

Menlo Park General Plan

The City of Menlo Park General Plan includes goals, policies, and programs relevant to the environmental factors potentially affected by the proposed project. The proposed Land Use Element, Open Space/Conservation, Noise and Safety Elements, contains general goals, policies, and programs that would require local planning and development decisions to consider impacts to the environment related to water supply and demand, wastewater treatment and capacity, solid waste collection, and energy.

Water

Goal OSC-1: Maintain, protect and enhance open space and natural resources.

> Policy OSC-1.11: Sustainable Landscape Practices. Encourage the enhancement of boulevards, plazas and other urban open spaces in high-density and mixed-use residential developments, commercial and industrial areas with landscaping practices that minimize water usage.

Goal OSC-2: Provide Parks and Recreation Facilities.

> Policy OSC-2.7: Conservation of Resources at City Facilities. Reduce consumption of water, energy, landfilled waste, and fossil fuels in the construction, operations and maintenance of City owned and/or operated facilities.

Goal OSC-4: Promote sustainability and climate action planning.

> Policy OSC-4.2: Sustainable Building. Promote and/or establish environmentally sustainable building practices or standards in new development that would conserve water and energy, prevent stormwater pollution, reduce landfilled waste, and reduce fossil fuel consumption from transportation and energy activities.

Goal OSC-5: Ensure healthy air quality and water quality.

Policy OSC-5.3: Water Conservation. Encourage water-conserving practices in businesses, homes and institutions.

Program OSC-5.A: Expand Water Conservation Programs. Expand the Menlo Park Municipal Water District's conservation programs through education, social marketing methods, establishing standards, and providing incentives.

Goal LU-4: Promote the development and retention of business uses that provide goods or services needed by the community that generate benefits to the City, and avoid or minimize potential environmental and traffic impacts.

Policy LU-4.5: Business Uses and Environmental Impacts. Allow modifications to business operations and structures that promote revenue generating uses for which potential environmental impacts can be mitigated.

Goal LU-7: Promote the implementation and maintenance of sustainable development, facilities and services to meet the needs of Menlo Park's residents, businesses, workers, and visitors.

Policy LU-7.1 Sustainability. Promote sustainable site planning, development, landscaping, and operational practices that conserve resources and minimize waste.

Policy LU-7.4 Water Protection. Work with regional and local jurisdictions and agencies responsible for ground water extraction to develop a comprehensive underground water protection program in accordance with the San Francisquito Creek Watershed Policy, which includes preservation of existing sources and monitoring of all wells in the basin to evaluate the long term effects of water extraction.

Policy LU-7.5: Reclaimed Water Use. Implement use of adequately treated "reclaimed" water (recycled/nonpotable water sources such as, graywater, blackwater, rainwater, stormwater, foundation drainage, etc.) through dual plumbing systems for outdoor and indoor uses, as feasible.

Wastewater

Goal LU-4: Promote the development and retention of business uses that provide goods or services needed by the community that generate benefits to the City, and avoid or minimize potential environmental and traffic impacts.

Policy LU-4.5: Business Uses and Environmental Impacts. Allow modifications to business operations and structures that promote revenue generating uses for which potential environmental impacts can be mitigated.

GOAL LU-7: Promote the implementation and maintenance of sustainable development, facilities and services to meet the needs of Menlo Park's residents, businesses, workers, and visitors.

Policy LU-7.6: Sewage Treatment Facilities. Support expansion and improvement of sewage treatment facilities to meet Menlo Park's needs, as well as regional water quality standards, to the extent that such expansion and improvement are in conformance with other City policies.

Program LU-7.A: Green Building Operation and Maintenance. Employ green building and operation and maintenance best practices, including increased energy efficiency, use of renewable energy and reclaimed water, and install drought-tolerant landscaping for all projects.

Goal OSC-5: Ensure Healthy Air Quality and Water Quality.

Policy OSC-5.3: Water Conservation. Encourage water-conserving practices in businesses, homes and institutions.

Program OSC-5.A: Expand Water Conservation Programs. Expand the Menlo Park Municipal Water District's conservation programs through education, social marketing methods, establishing standards, and providing incentives.

Solid Waste

Goal OSC-4: Promote sustainability and climate action planning.

Policy OSC-4.2: Sustainable Building. Promote and/or establish environmentally sustainable building practices or standards in new development that would conserve water and energy, prevent stormwater pollution, reduce landfilled waste, and reduce fossil fuel consumption from transportation and energy activities.

Policy OSC-4.6: Waste Reduction Target. Strive to meet the California State Integrated Waste Management Board per person target of waste generation per person per day through their source reduction, reuse, and recycling programs.

Policy OSC-4.7: Waste Management Collaboration. Continue to support and participate in efforts such as the South Bayside Waste Management Authority, which provides waste reduction, recycling, and solid waste programs and solutions.

Policy OSC-4.8: Waste Diversion. Develop and implement a zero waste policy, or implement standards, incentives, or other programs that would lead the community towards a zero waste goal.

Goal LU-4: Promote the development and retention of business uses that provide goods or services needed by the community that generate benefits to the City, and avoid or minimize potential environmental and traffic impacts.

Policy LU-4.5: Business Uses and Environmental Impacts. Allow modifications to business operations and structures that promote revenue generating uses for which potential environmental impacts can be mitigated.

GOAL LU-7: Promote the implementation and maintenance of sustainable development, facilities and services to meet the needs of Menlo Park's residents, businesses, workers, and visitors.

Policy LU-7.1: Sustainability. Promote sustainable site planning, development, landscaping, and operational practices that conserve resources and minimize waste

Menlo Park Municipal Code

The City of Menlo Park Municipal Code, organized by title, chapter, and section, contains all ordinances for Menlo Park. Title 7, Health and Sanitation, and Title 12, Buildings and Construction, include regulations relevant to solid waste resources in Menlo Park as discussed below.

Chapter 7.04, Garbage and Rubbish Disposal

Chapter 7.04 describes the responsibilities and requirements for owners, occupants and service providers regarding solid waste collection, storage, recycling and disposal.

Chapter 7.06, Refuse and Garbage Collection Service Areas

Chapter 7.06 establishes service areas and describes the process of determining and allocating charges for service.

Chapter 7.10, Reusable Bag Ordinance

Chapter 7.10 specifies that Chapter 4.114, "Reusable Bags," of Title 4, "Sanitation and Health," of the San Mateo County Ordinance Code, and any amendment thereto approved by the Menlo Park city council, is adopted in its entirety by reference and made effective in the city.

Chapter 7.35, Water Conservation

Chapter 7.35 of the City's Municipal Code contains regulations and restrictions on water use in order to conserve water resources and eliminate wasteful water uses. Municipal Code Section 7.35.020 allows the City Council to adopt by resolution a water conservation plan to mandate any water conservation measures in the event of adoption of emergency water conservation regulations by the SWRCB.

Chapter 12.44, Water Efficient Landscaping

Chapter 12.44 of the City's Municipal Code establishes water-efficient landscaping standards to conserve water use on irrigation. The provisions of this chapter apply to landscaping projects that include irrigated landscape areas exceeding 500 square feet for all landscape areas and 1,000 square feet for rehabilitated landscapes associated with projects requiring City review and approval.

Chapter 12.48, Recycling and Salvaging of Construction and Demolition Debris

Chapter 12.48 establishes landfill diversion requirements of Construction and Demolition debris. Residential projects of 1,000 square feet or greater and commercial projects of 5,000 square feet or greater are required to divert 60 percent of total generated waste tonnage through recycling, reuse, salvage, and other diversion programs. As part of a building or demolition permit application, project applicants must submit estimated tonnage of Construction and Demolition debris and plans for diverting materials to the building division.

4.16.3 Thresholds of Significance

The significance criteria used to evaluate the project impacts with regard to utilities and service systems are based on Appendix G and Section 15130 of the CEQA Guidelines. A significant impact related to utilities and service systems would occur if the project 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.

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

F. Make a cumulatively considerable contribution to a significant cumulative impact related to provision of water, wastewater treatment, stormwater drainage, energy, telecommunication, or solid waste utilities and services.

4.16.4 Impacts and Mitigation Measures

Methodology

This section evaluates project impacts on the existing utilities and service systems that would serve the project site. The City of Menlo Park General Plan (City of Menlo Park 2016a) and ConnectMenlo General Plan Update EIR (City of Menlo Park 2016b), proposed 123 Independence Residential Project Plans (Appendix B), 123 Independence Water Budget Summary (Appendix K1), 123 Independence Stormwater Management Plan (Appendix G2), the Menlo Park Municipal Water 2020 Urban Water Management Plan (MPMW 2021), the project's Mixed Use Town Home Parcel Zero Waste Management Plan (Appendix K2), and the project's Apartments Zero Waste Management Plan (Appendix K3) were all referenced to evaluate the project's potential effects on existing utilities and service systems.

Project Impacts

Impact 4.16-1 Would the project require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?

The project site is located in an urban area with existing utilities and infrastructure. The proposed project would be required to install the following utility connections in compliance with City and provider specifications to serve the residential development:

- Connect to existing 8-inch water lines located in Constitution Drive adjacent to the northern boundary of the project site and located in Independence Drive adjacent to the southern boundary of the project site;
- Provide a fire hydrant at the northeast corner of the proposed office building which would connect to the existing 12-inch water line in Chrysler Drive;
- Connect to existing 8-inch sanitary sewer lines located in Constitution Drive and Independence Drive, and an existing 10-inch sanitary sewer line in Chrysler Drive;
- Implement biotreatment measures and connect to existing stormwater drainage;
- Relocate existing overhead electricity lines within the project limits underground; and
- Relocate existing overhead telecommunications lines within the project limits underground.

Water Supply Infrastructure

The project site is already served by MPMW and no off-site expansion of water supply infrastructure would be needed to provide water supply to the proposed residential units. As noted above and shown on Sheet C3.0 of the project plans (Appendix B), the project would connect to existing 8-inch water lines located in Constitution Drive adjacent to the northern boundary of the project site and located in Independence Drive adjacent to the southern boundary of the project site.

Water Treatment

As discussed in Section 4.16.1, the City does not own or operate a water treatment plant (WTP). The water received by MPMW is treated by SFPUC at one of three WTPs: the Tesla Treatment Facility, which was constructed in 2011 and has the capacity to treat 315 mgd, the SVWTP, which has both a peak capacity and sustainable capacity of 160 mgd, and the HTWTP, which has a peak capacity of 180 mgd and a sustainable capacity of 140 mgd. The 123 Independence Water Budget Summary (Appendix K1) identifies that the project would require 16.94 million gallons of water annually (approximately 46,422 gallons per day or 0.05 mgd). This demand is consistent with the demand evaluated in the ConnectMenlo EIR, which evaluated development of 4,500 new dwelling units within the Bayfront Area. Although the ConnectMenlo EIR assumed that 3,000 of those units would be multi-family dwellings and 1,500 of those units would be dormitory style corporate campus units, the Water Supply Evaluation prepared to support that EIR applied a constant water demand factor to all housing units, assuming a household size of 2.57 people (City of Menlo Park 2015). While the proposed project in combination with other pending and approved projects would result in more than 3,000 multi-family units being constructed in the Bayfront Area, the total number of housing units would be less than 4,500 and therefore the total water demand would be within the amount estimated in the ConnectMenlo EIR and the Water Supply Evaluation.

Further, the proposed project is expected to use less water per unit than was assumed in the Water Supply Evaluation. The Water Supply Evaluation estimated indoor water use for each residential unit to be 127 gpd, or 49.4 gallons per capita per day, while the 123 Independence Water Budget Summary estimates that indoor water use for the dwelling units within the project would be 102.5 gpd, or 39.9 gallons per capita per day. Similarly, the Water Supply Evaluation estimated outdoor water use for each residential unit to be 10 million gallons per year, or 2.3 gallons per capita per day, while the 123 Independence Water Budget Summary estimates that indoor water use for the dwelling units within the project would be 1.9 gallons per capita per day (City of Menlo Park 2015 and Appendix K1).

In Impact UTIL-2, the ConnectMenlo EIR concluded that "adoption and implementation of the proposed project would not prompt a need to expand treatment facilities or regional water system conveyance and storage facilities in order to meet its demand." As demonstrated above, the water demand of the proposed project is consistent with the assumptions used in the ConnectMenlo EIR and Water Supply Evaluation, which treated all 4,500 dwelling units anticipated under ConnectMenlo as typical multi-family units. Thus, the ConnectMenlo EIR analysis of demand for water treatment, conveyance, and storage is applicable to the proposed project. Although it is not known which of the three WTPs would treat water for the project site, this increase in demand of approximately 0.05 mgd is anticipated to be within the existing capacity of each of the respective WTPs and would not be considered a substantial increase for the SFPUC system, which has a total treatment capacity of approximately 615 mgd. The SFPUC periodically makes improvements to its WTPs to improve system reliability and accommodate projected regional growth. For example, the SFPUC completed capacity expansion and other improvements to the Tesla Treatment Facility in 2013, the SVWTP in 2013, and the HTWTP in 2015 (SFPUC 2022). The project would not require expansion of the three WTPs that serve the City and this impact would remain **less than significant.**

Wastewater Conveyance and Treatment

Wastewater collection and conveyance service is already provided to the existing land uses at the project site by WBSD and no off-site expansion of wastewater conveyance infrastructure would be needed to serve the proposed residential units. As noted above and shown on Sheet C3.0 of the project plans (Appendix B), the project would connect to existing 8-inch sanitary sewer lines located in Constitution Drive and Independence Drive and an existing 10-inch sanitary sewer line in Chrysler Drive.

Wastewater collected in WBSD infrastructure is conveyed to the SVCW's WWTP. As identified in Section 4.16.1, the WWTP has an existing dry weather capacity of 29 mgd and wet weather capacity of 71 mgd and is planned to be expanded to achieve a wet weather capacity of 80 mgd. The MPMW UWMP identifies that in 2020, WBSD collected approximately 873 million gallons of wastewater, which is approximately 2.4 mgd, from within the MPMW service area (MPMW 2021).

With a total indoor water use budget of 16.16 million gallons per year (0.044 mgd) (Appendix K1), and a typical wastewater generation rate equal to 90 percent of the indoor water use, the project would be expected to generate 0.039 mgd of wastewater. This increase in wastewater generation would not be considered a substantial increase for the SVCW's WWTP relative to the treatment capacity of approximately 71 mgd. Thus, the Project would not require expansion of the WWTP and this impact would remain **less than significant.**

Further, because the proposed project would redevelop the site, replacing the existing office and light industrial uses with residential uses, a portion of wastewater generated by the proposed project would be offset by the current wastewater generation at the site associated with the existing uses. However, estimates of the current wastewater generation for the existing uses is not available and thus the net increase in wastewater generation has not been determined.

Stormwater Management

Stormwater drainage and management services are provided by the City. As shown in Sheets C4.0 and C4.1 of the project site plans (Appendix B) and documented in the Stormwater Report (Appendix G2), runoff from the site would be directed into treatment measures consisting of both Biotreatment Ponds and Flow-Through Planters. The water will be directed through both storm drain pipes, and surface flow as shown in the site grading and drainage plan into the proposed biotreatment areas. The proposed project would connect to existing storm drain networks at the associated project frontages in Independence Drive (18-inch storm drain diameter line), Constitution Drive (18-inch storm drain diameter line), and Chrysler Drive (48-inch/54-inch storm drain diameter lines). The implementation of biotreatment measures and connection into the City's existing stormwater network would not require additional expansion, construction, or relocation of stormwater facilities as a result of the proposed project. Therefore, the Project would result in a **less-than-significant** impact associated with stormwater management.

Electrical Supply

Electricity at the Project site is currently provided by PG&E but after project construction the property owners could opt to receive electrical service from either PG&E or Peninsula Clean Energy, as discussed further in Section 4.5. The proposed project would include undergrounding the existing overhead electricity lines within the project site. The lines would remain within a public easement and continue to serve the properties beyond the project site to the northwest. The joint pole lines beyond the project site limits would remain in their current condition. The relocated powerlines would supply electricity to the project and would not require additional expansion or construction of a new facility. Therefore, the proposed project would result in a **less than significant** impact related to electrical supply.

Natural Gas

Section 4.5 identifies the amount of energy that would be consumed during project construction and operation and evaluates the potential environmental effects associated with energy consumption. As discussed in more detail in Section 4.5, all of the project's energy demand would be met with electrical energy; no natural gas would be used. Thus the project would have **no impact** associated with natural gas infrastructure or supplies.

Telecommunications

Telecommunications services are provided in Menlo Park by a variety of private telecommunications companies. The proposed project would connect into existing telecommunication infrastructure within and adjacent to the site and would not require additional expansion, construction, or relocation of telecommunications. Therefore, the proposed project would result in a **less-than-significant** impact associated with telecommunication services.

Mitigation Measures

No mitigation measures are required.

Impact 4.16-2 Would the project have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry, and multiple dry years?

The major water supply source for the MPMWD is the San Francisco Regional Water System (RWS), operated by the SFPUC, under the 2009 "Water Supply Agreement between the City and County of San Francisco and Wholesale Customers in Alameda County, and Santa Clara County." The source of water in the RWS is predominately from the Tuolumne River watershed in the Sierra Nevada Mountains, delivered through the Hetch Hetchy aqueducts, but also includes treated water produced by the SFPUC from its local watersheds and facilities in Alameda and San Mateo Counties. In June 2009, the City of Menlo Park (and California Water Service Company [i.e., Cal Water]) entered into an agreement with the SFPUC that implemented a new system for allocating water during water shortages, such as drought years. This allocation system accounts for usage by both wholesale and retail customers in the SFPUC service area and specific reductions in use would be determined by water availability and projected demand at the time a water shortage is declared (City of Menlo Park 2016b).

The 123 Independence Water Budget Summary (Appendix K1) identifies that the project would require 16.94 million gallons of water annually (approximately 46,422 gallons per day). This includes 16.16 million gallons for indoor water use and 0.78 million gallons for outdoor water use. With construction of 432 dwelling units and an average household size of 2.57 persons, the project could accommodate approximately 1,110 residents. Thus, the project would consume approximately 41.8 gallons per capita per day. This is less than the 51.7 gallons per capita per day that was assumed in the ConnectMenlo EIR for all dwelling units, and substantially less than the MPMW 2020 water use target of 204 gallons per capita per day and the actual 2020 per capita daily water use of 160 gallons per capita per day (MPMW 2021). Because the proposed project would redevelop the site, replacing the existing office and light industrial uses with residential uses, a portion of project-generated water consumption would be offset by the current water consumption at the site associated with the existing uses. However, a water budget for the existing uses is not available and thus the net increase in water consumption has not been determined.

As discussed in Section 4.16-1, water for the proposed project would be supplied by MPMW, which receives 100 percent of its potable water from the SFPUC. The MPMW's demand projections anticipate modest residential growth because the service area is largely built-out and residential population growth is expected to occur primarily through

redevelopment projects, consistent with the City's General Plan, including the ConnectMenlo General Plan Update. The ConnectMenlo General Plan Update EIR assumed a maximum of 5,500 new residential units would be developed within the City, with 4,500 of those units being located within the MPMW service area. This residential development projection was relied upon in the MPMW 2020 UWMP. As noted in Appendix D to the UWMP, the projected residential development could accommodate a population of 11,570 new residents, which reflects an average household size of 2.57 persons (MPMW 2021). Although the ConnectMenlo EIR assumed that 1,500 of the new residential units would be corporate campus units, the same average household size was applied to all of the 4,500 new units, thus the same water demand amount was allocated to each residential unit, as reflected in the Water Supply Evaluation prepared for the ConnectMenlo EIR (City of Menlo Park 2015) and the UWMP. Therefore, the water supply demand that would be generated by the proposed project would not cause the total water supply demand on MPMW from buildout of the General Plan to exceed the anticipated water supply demand evaluated in the UWMP. Since adoption of the ConnectMenlo General Plan Update, the City has received development applications for a total of 3,248 dwelling units within the Bayfront Area, including the proposed 123 Independence Project. In addition, Section 4.16.1 also discusses that the rate of at which buildout of future development accommodated by the General Plan Update is occurring more rapidly than had been projected in the ConnectMenlo EIR, and that the 2020 UWMP accounted for this by assuming that 40 percent of the total population growth expected through the year 2040 would occur between the years 2020 and 2025. Specifically, the UWMP states "The projections have been updated by the City's Planning Division to account for frontloading of development between 2020 and 2025, as indicated by their review of the approved and pending projects. The total population within the MPMW service area is projected to be 30,184 by 2040. More than 40 percent of the increase is expected to take place within the next five years (2020 to 2025)" (MPMW 2021). Thus, the proposed project would not increase the residential population of the MPMW service area beyond that anticipated in the UWMP under both near-term and long-term conditions.

As reflected in Table 4.16-2, the MPMW UWMP demonstrates that there is sufficient water supply to serve the projected population in normal years but insufficient water supply to meet the full range of base water demand for the single dry year and multiple dry year scenarios. Table 4.16-3 provides additional details of dry year water supply shortages, showing that water shortages in the MPMW service area would range from 419 to 652 million gallons per year. As noted in Section 4.16.1, buildout of the dwelling units accommodated under the ConnectMenlo General Plan Update is occurring faster than was anticipated at the time that the General Plan Update was adopted, but the faster buildout has been incorporated in the 2020 UWMP. Thus, the proposed Project would contribute to these forecasted shortages but would not exacerbate the short-term or long-term shortages beyond what is forecast in the UWMP. As discussed further below, the UWMP includes a Water Shortage Contingency Plan that includes a range of measures to reduce base water demand in single dry and multiple dry years.

Table 4.16-3. Consecutive Dry Year Demand and Supply (million gallons per year)

		2025	2030	2035	2040
Total Base Demand		1,296	1,345	1,410	1,483
Total Supply/Shortage		—	—	—	—
First Dry Year	Supply	877	978	1,018	1,062
	Shortage	-419 (32 percent)	-367 (27 percent)	-392 (28 percent)	-422 (28 percent)
Second Dry Year	Supply	760	854	887	927
	Shortage	-536 (41 percent)	-491 (37 percent)	-523 (37 percent)	-557 (38 percent)
Third Dry Year	Supply	760	854	887	927
	Shortage	-536 (41 percent)	-491 (37 percent)	-523 (37 percent)	-557 (38 percent)

Table 4.16-3. Consecutive Dry Year Demand and Supply (million gallons per year)

		2025	2030	2035	2040
Fourth Dry Year	Supply	760	854	887	832
	Shortage	-536 (41 percent)	-491 (37 percent)	-523 (37 percent)	-652 (44 percent)
Fifth Dry Year	Supply	760	854	824	832
	Shortage	-536 (41 percent)	-491 (37 percent)	-585 (41 percent)	-652 (44 percent)

Source: MPMW 2021.

Section 7 of the UWMP presents analysis of water supply reliability, including considerations of drought conditions, changes in water supply due to climate change, and uncertainties in water supply due to implementation of other water and environmental resource management efforts, such as the Bay-Delta Plan Amendment. The UWMP states that MPMW relied upon the water supply reliability projections provided by the SFPUC for this analysis.

A critical factor in this analysis is the future implementation of an amendment to the Water Quality Control Plan for the San Francisco Bay/Sacramento-San Joaquin Delta Estuary (Bay-Delta Plan Amendment (the Bay-Delta Amendment), which was adopted to increase salmon populations in three San Joaquin River tributaries. However, as discussed further in the UWMP, several lawsuits have been filed challenging adoption of the Bay-Delta Amendment, and the amendment is not self-implementing, meaning that water supply and river flow allocations would need to be developed through other regulatory and/or adjudicatory proceedings. Thus, the actual and full effects of the Bay-Delta Amendment is uncertain.

For regional planning, BAWSCA has developed water supply projections that reflect full implementation of the Bay-Delta Plan Amendment under the assumptions that a Voluntary Agreement between the SFPUC and the State Water Resources Control Board is not reached and that SFPUC's Alternative Water Supply Program is not implemented. Thus, the UWMP states that the water supply projections for single dry and multiple dry years reflect a worst-case scenario. Further, the UWMP notes that "without the Bay-Delta Plan Amendment SFPUC would be able to supply 100 percent of projected [Regional Water System] demands in all year types through 2045, except for the 4th and 5th consecutive dry year in 2045, during which 90 percent of projected" demands would be met. However, this is considered to be a "highly optimistic water supply reliability outcome" (MPMW 2021).

In addition, the UWMP recognizes that a variety of regional water planning efforts are currently underway that could affect water supply reliability (such as a potential Tuolumne River Voluntary Agreement and changes in BWSCA's and SFPUD's drought allocation methodology and plan). The UWMP states that modeling for scenarios that include the Tuolumne River Voluntary Agreement and SFPUC's Alternative Water Supply Program showed significantly improved water supply availability for the Regional Water System, however these elements are not incorporated in the water supply and demand projections in the UWMP. Additionally, the UWMP notes that "MPMW is working independently and with the other BAWSCA agencies to identify regional mitigation measures to improve reliability for regional and local water supplies and meet its customers' water needs. If conditions for large drought cutbacks to the [Regional Water System] persist, MPMW will need to implement additional demand management practices to invoke strict restrictions on potable water use and accelerate efforts to develop alternative supplies of water" (MPMW 2021).

To address the insufficient water supply for the single dry year and multiple dry year scenarios, the UWMP includes a Water Shortage Contingency Plan, which defines the policies and procedures to be implemented during dry years under specific water shortage level scenarios. The Water Shortage Contingency Plan includes six levels of actions that address shortage conditions associated with single and multiple dry years, including mandatory water use restrictions and supply augmentation actions tailored to each shortage condition level.

In conclusion, based on the water demand and supply projections in the UWMP, MPMW has sufficient water in normal water years to meet projected demand through 2040. However, MPMW could experience water shortages at single dry years and in all years of a multiple dry year cycle. Water shortages would range from 27 percent to 44 percent. With implementation of MPMW's Water Shortage Contingency Plan, the shortages in multiple dry years would be managed through demand reductions sufficient to reduce the shortage amount by between 10 percent and 55 percent and supply augmentations and other policy actions that would reduce the shortage amount by between 5 percent to 45 percent (MPMW 2021). Thus the project would not require expansion of water supply sources and this impact would be **less than significant.**

In addition, MPMW is pursuing implementation of an Emergency Water Storage/Supply Project, which is designed to provide the City with an emergency backup water supply for use in the event of damage to SFPUC infrastructure and a reduced water supply. That project includes construction of two or three emergency groundwater wells that would provide a total capacity to provide up to 3,000 gallons per minute. The first well is completed. MPMW is currently working with the SWRCB to permit another well and amend MPMW's drinking water permit (MPMW 2022).

Mitigation Measures

No mitigation measures are required.

Impact 4.16-3 Would the project result in a determinization 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?

As discussed in Impact 4.16-1, the proposed project would be expected to generate 0.039 mgd of wastewater. This increase in wastewater generation would not be considered a substantial increase for the SVCW's WWTP relative to the treatment capacity of approximately 71 mgd. Thus, SVCW has adequate capacity to meet the project's demand for wastewater treatment and this impact would remain **less than significant.**

Mitigation Measures

No mitigation measures are required.

Impact 4.16-4 Would the project generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?

The majority of solid waste generated within the City is transported to the Corinda Los Trancos Landfill, also known as Ox Mountain Landfill. As discussed in Impact UTIL-8 of the ConnectMenlo EIR, in 2014 approximately 74 percent of solid waste (21,658 tons) from the City was disposed of in this landfill and three other smaller landfills received approximately 5,966 tons combined. The ConnectMenlo EIR estimated the amount of additional solid waste generated by development under the buildout of the General Plan based on the City's actual per capita daily solid waste generation rate from 2014, which was 4.9 pounds per day. The solid waste generation assumptions in the ConnectMenlo EIR apply the same generation rate to all dwelling units. With the total new population of 11,570 residents, the ConnectMenlo EIR estimated that at buildout of the General Plan the City's residents and employees would generate approximately 58.3 tons per day, which represents less than 1.5 percent of the daily capacity of Corinda Los Trancos Landfill. The ConnectMenlo EIR also determined that the landfill is anticipated to reach its

permitted capacity prior to 2040. However, the other three landfills that serve Menlo Park are not estimated to reach their capacity until 2048, 2077, and 2107 (City of Menlo Park 2016).

As described in Section 4.16.2, the California Waste Management Act sets requirements for cities and counties throughout the state to divert 75 percent of all solid waste from landfills through waste reduction, recycling, and compost. Further, the California Green Building Standards Code ("CALGreen") is intended to enhance the design and construction of buildings through the use of building concepts that reduce negative environmental impacts and encourage sustainable construction practices, including material conservation and resource efficiency. Additionally, the City has adopted a Zero Waste Plan that calls for reducing solid waste generation per capita from 5.0 pounds in 2015 to 3.1 pounds by 2035. The City's Community Zero Waste Plan notes that "successfully engaging the multi-family sector to participate in diversion programs is a challenge in Menlo Park" and that "high turnover in multi-family residences can contribute to an ongoing need for outreach, education, and periodic re-education" (City of Menlo Park 2017) The proposed project would construct 432 new multi-family dwelling units, which could incrementally increase the need for ongoing outreach and education. However, the project design incorporates building standards and elements that would encourage diversion of materials from the landfill by providing recycling and compost collection facilities that would be easily accessible for all project residents.

Consistent with City requirements, the project applicant has submitted two project-specific zero-waste management plans, one for the townhomes and one for the apartment building (Appendices K2 and K3, respectively). The zero waste management plan outlines the applicant's plan to reduce, recycle, and compost waste from demolition, construction, and operational phases of the project to ensure compliance with the City's waste reduction target of diverting 90 percent of non-hazardous waste from landfill and incineration by 2035. Both of the project's zero waste management plans show that the proposed project is estimated to generate 5.0 pounds of solid waste per person per day upon initial operation and reduce solid waste generation incrementally, measured in 3-year increments, until a generation rate of 0.5 pounds per person per day is achieved in 2035. The project would initially generate solid waste at generally the same rate per person as was assumed in the ConnectMenlo EIR and at lower rates in future years. Thus, the conclusions of the ConnectMenlo EIR regarding landfill capacity are applicable to the proposed project and the landfills that serve the City would have sufficient capacity to accommodate the proposed 123 Independence project.

The project's zero waste plan indicates that the project would comply with the City's requirements and goals of 90 percent diversion by 2035 by having: (1) trash chutes and concierge services for waste, compost, and recycling; (2) compost collection in each trash chute vestibule; (3) signage in each trash chute vestibule so residents are informed of what can be diverted from the waste stream; (4) project design that allows for access to all three streams of waste; and (5) regular building management meetings with the City's recycling coordinator.

Waste from construction and demolition would be disposed of in accordance with Chapter 12.48 of Menlo Park Municipal Code which establishes landfill diversion requirements for construction and demolition debris. This chapter requires residential projects of 1,000 square feet or greater (which includes this project) to divert 60 percent of total generated waste tonnage through recycling, ruse, salvage, and/or other diversion programs. The project applicants are required to submit the estimated tonnage of construction and demolition debris and plans for diverting 60 percent of these materials as part of the project's building and demolition permit application and approval process. The proposed project would be required to comply with the state's statutes and City's regulations, including General Plan policies and Zoning regulations listed above in Section 4.16.2 intended to minimize impacts related to solid waste disposal. As described above, operationally, the project is expected to comply with the City's requirements for waste reduction through the implementation of zero waste management plans. The project plans (Appendix B) indicate where trash chutes and collection bins would be placed in the apartment building, and City

staff would verify appropriate content and placement of signage prior to issuance of a certificate of occupancy. For these reasons, the proposed project would result in a **less-than-significant** impact with respect to compliance state or local standards related to solid waste reduction goals.

Mitigation Measures

No mitigation measures are required.

Impact 4.16-5 Would the Project comply with federal, state and local management and reduction statutes and regulations related to solid waste?

As discussed in Impact 4.16-4, the City has complied with state requirements to reduce the volume of solid waste through recycling and reduction of solid waste and has established solid waste diversion requirements in its Municipal Code that the project would comply with. The project would comply with all federal, state, and local solid waste statutes and/or regulation related to solid waste; thus, the project would have **no impact** associated with solid waste management and reduction statutes and regulations.

Mitigation Measures

No mitigation measures are required.

Cumulative Impacts

This analysis of potential cumulative impacts associated with utilities and service systems considers the effects of ongoing development throughout the service areas of the applicable utility and service system providers. This geographic area is appropriate for consideration of cumulative impacts to utilities and service systems because each utility and service provider must maintain adequate levels of service for all populations within their service area, and thus the effects of the proposed project must be considered in context with other reasonably foreseeable projects that could contribute to increased demands for service. As discussed in Section 4.0, Environmental Analysis, this cumulative impact analysis evaluates the proposed project's contribution to environmental effects expected to occur under buildout of the City's General Plan, as discussed in the ConnectMenlo EIR. This includes consideration of the potential incremental increases in cumulative impacts due to the number of reasonably foreseeable multi-family residential units within the Bayfront Area based on the specific projects that have been constructed, approved, and proposed since adoption of the ConnectMenlo General Plan Update, as summarized in Section 4.0. Including the proposed project, there are 98 more multi-family units planned or proposed within the Bayfront Area relative to the development projections evaluated in the ConnectMenlo EIR, which can increase demands on utilities and service systems.

Impact 4.16-6 Would the project make a cumulatively considerable contribution to a significant cumulative impact related to provision of water, wastewater treatment, stormwater drainage, energy, telecommunication, or solid waste utilities and services?

Water Supply Infrastructure

The ConnectMenlo EIR found that ongoing development in the project area is not expected to require new or upgraded water supply infrastructure outside of individual project sites. Thus, there is no significant cumulative impact associated with water supply infrastructure to which the project could contribute. As noted in Impact 4.16-1, the proposed project is already served by MPMW, and no off-site expansion of water supply infrastructure would be

needed to support the project. Thus, the project would be consistent with the findings of the ConnectMenlo EIR and would not create or contribute to a significant cumulative impact related to water supply infrastructure.

Water Supply

The ConnectMenlo EIR found that MPMW, through the SFPUC, has sufficient water supplies to meet projected demands in 2040 from buildout of the City's General Plan in normal water years. The ConnectMenlo EIR also found that local and regional efforts to reduce water demand and increase water supplies in single-dry and multiple-dry years are sufficient to ensure that dry-year water demands can also be met. These regional plans include the MPMW Water Shortage Contingency Plan and BAWSCA's long-term water supply strategy. Since preparation of the ConnectMenlo EIR, the City adopted the MPMW 2020 UWMP, which confirms that MPMW expects to meet the water supply shortfalls during single-dry and multiple-dry years through implementation of water conservation measures identified in the Water Shortage Contingency Plan.

The proposed project would introduce 98 more multi-family dwelling units to the region than were evaluated under the proposed project buildout projections in the ConnectMenlo EIR. However, as discussed in Impact 4.16-2, The water demands projected for the area in the ConnectMenlo EIR and the MPMW 2020 UWMP applied the same average household size of 2.57 persons to all of the 4,500 new units, thus the same water demand amount was allocated to each residential unit, and the proposed project is within the growth that was anticipated in the analysis of the UWMP. Further, as discussed in Section 4.16.1 and noted in Impact 4.16-2, the 2020 UWMP accounted for the rapid pace of redevelopment within the Bayfront Area by assuming that 40 percent of the total population growth expected through the year 2040 would occur between the years 2020 and 2025. Thus, the proposed project would not increase the residential population of the MPMW service area beyond that anticipated in the UWMP under both near-term and long-term conditions. Therefore, the conclusions of the ConnectMenlo EIR remain applicable to the proposed project and other Bayfront Area projects included in the cumulative development scenario.

The proposed project, along with all other projects in the cumulative development scenario would contribute to the forecasted water shortages under the UWMP but would not exacerbate the short-term or long-term shortages beyond what is forecast in the UWMP. However, each project would also be subject to water efficiency requirements (including through low-water use fixtures and low-water use landscaping) and water conservation measures during dry years. The proposed project would also meet stringent water conservation measures as demonstrated by the project water budget (Appendix K1), which estimates that project residents would consume approximately 41.8 gallons per capita per day. This is less than the 51.7 gallons per capita per day that was assumed in the ConnectMenlo EIR for all dwelling units and substantially below the existing average water demand per capita in the MPMW service area of 160 gallons per day (MPMW 2021).

Thus, consistent with the analysis in the ConnectMenlo EIR and including consideration of the specific projects that have been constructed, approved, or proposed within the Bayfront Area, including the proposed project, there is no significant cumulative impact associated with water supply to which the project could contribute.

Wastewater Conveyance and Treatment

The ConnectMenlo EIR found that the cumulative demand for wastewater treatment would not exceed the existing or planned capacity of the SVCW's wastewater treatment system and thus there would not be a need to construct new or expanded wastewater treatment facilities. As discussed in Impact 4.16-1, the SVCW WWTP has an average dry-weather design flow of 29 mgd and a peak wet-weather design flow of 71 mgd and is planned to be expanded to achieve a wet weather capacity of 80 mgd. As discussed in Section 4.16-1, SVCW is currently implementing

several improvement projects to improve dry-weather and wet-weather capacity for wastewater treatment system to ensure there is sufficient capacity to serve the project region under the cumulative development scenario in both dry-weather and wet-weather conditions. The analysis in the ConnectMenlo EIR concluded that there is no significant cumulative impact related to wastewater conveyance and treatment to which the project could contribute because wastewater treatment demand under the cumulative development scenario would not substantially reduce the existing or planned capacity of the SVCW's wastewater treatment system and would not require construction of new wastewater treatment facilities.

The proposed project would contribute to the regional demand by generating approximately 0.039 mgd of wastewater. Although the proposed project would introduce 98 more multi-family dwelling units to the region than were assumed under the proposed project buildout projections in the ConnectMenlo EIR, the analysis in that EIR applied the same wastewater treatment demand rate to each residential unit, regardless of type. Specifically, the cumulative demand for wastewater treatment evaluated in the ConnectMenlo EIR was calculated as a percentage of the total water demand, which as discussed above applied the same water demand rate to each unit. Thus, the proposed project would not increase the residential population of the SVCW service area and would not increase the total wastewater treatment demand beyond that evaluated in the ConnectMenlo EIR. Therefore, the conclusions of the ConnectMenlo EIR remain applicable to the proposed project and other Bayfront Area projects included in the cumulative development scenario.

Stormwater Management

The stormwater analysis in the ConnectMenlo EIR noted that most of the development potential reflected in the cumulative scenario consists of redevelopment of parcels in the Bayfront Area that have already been developed and are covered with impervious surfaces. Because there would not be substantial increases in the amount of impervious surfaces, post-development runoff rates would not be significantly different than pre-development rates. In addition, development projects would be required to implement low-impact development techniques and construct improvements to detain/retain stormwater runoff such that discharges do not exceed existing flow rates. As shown in Sheets C4.0 and C4.1 of the project site plans (Appendix B) and documented in the Stormwater Report (Appendix G2), runoff from the site will be directed into treatment measures consisting of both Biotreatment Ponds and Flow-Through Planters. Thus, the project would be consistent with the analysis in the ConnectMenlo EIR, which found that all development projects in the cumulative scenario would be required to implement stormwater control measures, retention, infiltration, low-impact design measures, and review by the City's Public Works Department to integrate measures to reduce potential flooding impacts. With incorporation of these measures in each project, the analysis in the ConnectMenlo EIR concluded that there would be no significant cumulative impact associated with stormwater management to which the project could contribute.

While the proposed project would result in more multi-family dwelling units than were assumed to be present within the Bayfront Area, it does not increase the footprint of development in the area and thus would not result in a potential increase in stormwater runoff flow rates or volumes. Thus, the conclusions of the ConnectMenlo EIR regarding stormwater management under the cumulative scenario remain applicable to the proposed project.

Electrical Supply

The ConnectMenlo General Plan Update planning area is a small component of PG&E's 70,000-square-mile service territory. The ConnectMenlo EIR analysis found that the scale and nature of redevelopment accommodated by the General Plan Update would not generate substantial increases in energy demands within the PG&E service territory and would not require new energy supply facilities. As discussed in Section 4.16.1, PCE is the default energy provider

throughout San Mateo County, serving 765,000 customers. PCE obtains all of its electric power from renewable resources (e.g., water, wind, and solar) and carbon-free sources (e.g., hydroelectric and geothermal). Energy supplied through PCE is transmitted to customers through transmission lines and other infrastructure owned and maintained by PG&E. No improvements to existing energy supply facilities, transmission lines, and other infrastructure would be needed to serve the proposed project and other development anticipated under ConnectMenlo.

The proposed project, along with all other projects in the cumulative scenario, would be required to be consistent with the Municipal Code and state regulations requiring energy efficiency in all building components. As discussed further in Section 4.5, the energy demand associated with the proposed project and other projects in the cumulative scenario would be consistent with the energy supply and demand analysis in the ConnectMenlo EIR, which concluded that there is no significant cumulative impact to which the project could contribute.

Natural Gas

As discussed in more detail in Section 4.5, all of the project's energy demand would be met with electrical energy; no natural gas would be used. Thus, the project would have no contribution to cumulative impacts associated with use of natural gas or development of natural gas facilities.

Solid Waste

The ConnectMenlo EIR found that cumulative impacts from buildout of the General Plan and other development in the region could be significant because of a potential lack of landfill capacity for disposal of solid waste. To address this impact, the ConnectMenlo EIR identified MM UTIL-10, which requires the City continue waste reduction programs to lower the per capita disposal rate, monitor landfill capacity, and seek new landfill sites to replace the Ox Mountain landfill. The ConnectMenlo EIR concluded that with implementation of this mitigation measure, cumulative solid waste impacts would be less than significant because development in the City would be required to comply with the City's solid waste reduction regulations and growth would occur incrementally over a period of 24 years. Thus, ConnectMenlo EIR did not identify a significant cumulative impact to which the project could contribute.

As discussed in Impact 4.16-4, the project's townhouse and apartment zero-waste management plans (Appendix K2 and K3, respectively) estimates that the proposed project would generate 5.0 pounds of solid waste per person per day upon initial operation, consistent with the per capita generation rate assumed in the ConnectMenlo EIR and would gradually reduce solid waste generation to a rate of 0.5 pounds per person per day by 2035. With implementation of the project's zero waste management plans, the proposed project would comply with the City's adopted targets for solid waste reduction.

As discussed in section 4.16.1 and Impact 4.16-2, development in the Bayfront Area is occurring more rapidly than was assumed in the ConnectMenlo EIR. Based on the population projections provided by the City, the UWMP assumed that 40 percent of the projected new population would be realized by 2025. This would increase consumption of landfill capacity in the short term; however implementation of the City's Zero Waste Plan and the project-specific zero waste management plans that the City requires for all new development would ensure that daily solid waste generation decreases over time, which would prolong the lifespan of the landfills serving the City. The proposed project would not cause the City to exceed the General Plan and ConnectMenlo EIR population projections and would comply with the City's solid waste reduction measures. Therefore, the project would not cause a significant cumulative impact that was not evaluated in the ConnectMenlo EIR and this impact would remain **less than significant**.

Mitigation Measures

No mitigation measures are required.

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