

# Utilities

This chapter discusses potential impacts on utilities, including water, solid waste, wastewater, and electricity and gas. It includes descriptions of existing utilities, regulatory frameworks, and potential impacts on each utility resulting from implementation of the proposed Project as well as mitigation measures as applicable.

## 17.1 Existing Setting

### 17.1.1 Water

San Mateo is supplied with water primarily by California Water Service Company (Cal Water), an investor-owned water utility. The City is located within Cal Water's Mid-Peninsula District, which includes the cities of San Mateo and San Carlos as well as adjacent unincorporated areas of San Mateo County. A small part of eastern San Mateo receives water service from EMID. These agencies procure water supply and own and maintain the delivery infrastructure, including potable water pipelines and pump stations.

### 17.1.2 Solid Waste

The South Bayside Waste Management Authority, also known as RethinkWaste, is a joint powers authority of 12 public agencies in southern and central San Mateo County that provides solid waste, waste reduction, and recycling services to member agencies.

Recology San Mateo County (Recology) is the franchise waste hauler for the City of San Mateo (RethinkWaste, 2018a). Recology provides recycling, compost, and garbage collection services to residences and businesses in the City. Garbage, recyclables, and compost are picked up once a week. South Bay Recycling (SBR) provides recycling services for materials collected in San Mateo (RethinkWaste, 2018b). SBR operates the Shoreway Environmental Center, a recycling and transfer station facility in San Carlos, under contract with RethinkWaste. 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, including the City of San Mateo. Residential and commercial solid waste recyclables and organic materials collected by Recology are taken to the Shoreway for consolidation by type and then loaded into large transfer trailers for shipment to either a landfill or recycling facilities (RethinkWaste, 2018c).

Solid waste for landfill disposal is sent to Corinda Los Trancos Landfill (also known as Ox Mountain) located off SR 92 in Half Moon Bay; this is the only active landfill in San Mateo County. The Corinda Los Trancos Landfill is operated by Browning-Ferris Industries of California, Inc. As of March 2017, the landfill had a remaining capacity of approximately 22 million cubic yards out of a permitted capacity of 60.5 million cubic yards (San Mateo County Environmental Health, 2018; CalRecycle, 2018). The remaining capacity is expected to last through 2034, with the next permit review date of June 2022 (CalRecycle, 2017).

Construction and demolition waste and other types of construction materials are sent to the Zanker Road recycling facility in San Jose. Compostable materials such as yard trimmings and food scraps are sent to the Newby Island and Grover composting facilities in San Jose and near Tracy, respectively (RethinkWaste, 2018c).

### 17.1.3 Wastewater

Existing wastewater collection and treatment in San Mateo are provided by the City's WWTP, located at 2050 Detroit Drive near J. Hart Clinton Drive at Marina Lagoon. The City's collection system includes approximately 234 miles of sanitary sewer pipeline, 5,555 sewer manholes, and 26 pump stations. The City's WWTP also treats wastewater from the following surrounding communities: Foster City and EMID, Town of Hillsborough, City of Belmont, CSCSD, and other portions of unincorporated San Mateo County. All these communities are responsible for collecting and conveying their wastewater to the WWTP.

The WWTP has a permitted capacity of 15.7 mgd for ADWF. The current ADWF is approximately 11 mgd and is expected to increase to 13.9 mgd by 2035, based on the modest growth anticipated in the City's service area (Carollo Engineers, Inc., 2014).

The PWWF for the WWTP is 40 mgd, based on secondary treatment capacity. However, flows often exceed 40 mgd during peak wet weather events. When flows exceed 40 mgd, primary and secondary effluent are blended for discharge of up to 60 mgd, which is the outfall capacity limitation. This 60-mgd limitation and the insufficient capacity of portions of the City's collection system have historically caused backups in the system, resulting in SSOs.

The WWTP is approximately 1.4 miles northeast of the Project site.

### 17.1.4 Energy – Electricity and Natural Gas

Electrical and natural gas service in San Mateo is provided by Pacific Gas and Electric (PG&E). In 2016, PG&E's power mix consisted of non-emitting nuclear generation (24 percent), renewable resources including solar, wind, geothermal, biomass, and small hydroelectric (33 percent), large hydroelectric facilities (12 percent), natural gas/other (17 percent), and unspecified/untraceable (14 percent) (PG&E, 2018). The total electricity generated and procured by PG&E in 2016 was 68,441 gigawatt-hours (PG&E, 2016).

PG&E is continuing to add renewable energy to its power mix, with a goal of 33 percent renewables by the end of 2020 (PG&E, 2016). PG&E can also purchase power from customers who install eligible renewable generation up to 1.5 megawatts in size. PG&E is also continuing to invest in conventional generation facilities such as combined-cycle natural gas power plants.

## 17.2 Regulatory Framework

### 17.2.1 State Regulations

#### 17.2.1.1 California Water Code

The California Water Code requires all urban water suppliers that provide water for municipal purposes either directly or indirectly to more than 3,000 customers (or supply more than 3,000 acre-feet of water annually) to prepare urban water management plans at least every 5 years. The plans describe and evaluate sources of supply, reasonable and practical efficient uses, reclamation, and demand management activities. Components of a plan may vary according to individual community or area characteristics and its capability to efficiently use and conserve water. The plans address measures for residential, commercial, governmental, and industrial water demand management.

#### 17.2.1.2 California Integrated Waste Management Act

The California Integrated Waste Management Act, also known as Assembly Bill 939, requires each jurisdiction in the State to divert 25 percent of its solid waste from landfill or transformation facilities by 1995 and 50 percent by 2000. Accepted diversion methods include source reduction, recycling, and

composting activities. The act also requires each county to prepare a countywide integrated waste management plan, which is the primary planning document for solid waste management in each county.

## 17.2.2 Local Regulations

Title 15 of the Municipal Code provides requirements and procedures for applicants seeking a franchise for electric or gas transmission or distribution (City of San Mateo, 2017).

The San Mateo City Council passed an ordinance amending the Municipal Code to require that certain construction and demolition projects achieve waste diversion rates of up to 60 percent. The ordinance requires that a construction and demolition recycling and waste reduction plan along with a security deposit be submitted as a condition of a building permit. The City provides a list of construction salvage and recycling centers to support construction waste diversion. The ordinance also requires that documentation of compliance with the required diversion rate be submitted upon completion of the final inspection as a condition of refunding the deposit. Specific diversion requirements include the following:

- A minimum recycling rate of 60 percent is required for all new construction and demolition projects.
- A minimum recycling rate of 50 percent is required for alteration projects covered by the ordinance.
- For all projects, at least 25 percent of diverted material shall come from waste that excludes soil, concrete, asphalt, and other non-structural debris.

Several of the goals and policies in the General Plan (City of San Mateo, 2010) are applicable to the provision of utilities, including the following:

**GOAL 4a: Facilities.** Seek to provide a safe and predictable supply of water, and provide storm drainage, sewer and flood control facilities adequate to serve existing needs, the projected population, and employment growth, and to reduce the associated life safety and health risks to acceptable levels.

**LU 4.4: Water Supply.** Seek to ensure a safe and predictable water system for existing and future development by taking the following actions:

- As a high priority, work with Cal Water and EMID and adjacent jurisdictions to develop supplemental water sources and conservation efforts.
- Strongly encourage water conservation by implementing pro-active water conservation methods, including requiring all new development to install low volume flush toilets, low-flow shower heads, and utilize drip irrigation while promoting high-efficiency washing machines and establishing an education program to improve water conservation practices.
- Investigate the feasibility of developing capacity to use recycled wastewater, stormwater runoff, graywater and groundwater that will enable reuse of water for irrigation purposes, freeing comparable potable water supplies for other uses.

**LU 4.28: Peakload Water Supply.** Seek to ensure that the Cal Water and EMID provide and maintain a water supply and distribution system, which provides an adequate static pressure to deliver a minimum fire hydrant flow of 2,500 gallons per minute to all areas of the City, except where a lesser flow is acceptable as determined by the Fire Chief. Ensure that new development does not demand a fire flow in excess of that available.

**LU 4.31: Solid Waste Disposal.** Continue to support programs to reduce solid waste materials in landfill areas in accordance with State requirements.

**LU 4.32: Recycling.** Support programs to recycle solid waste in compliance with State requirements. Require provisions for onsite recycling for all new development.

**PA 4.7: Wastewater Treatment Plant.** Maintain the WWTP as designated in Policy LU-4.5.

**LU 4.7: Sewer System.** Provide a sewer system which safely and efficiently conveys sewage to the wastewater treatment plant. Implement the Sewer System Management Plan (SSMP) to ensure proper maintenance, operations and management all parts of the wastewater collection system.

1. **Comprehensive Sewer System Study.** As a high priority, maintain the comprehensive sewer system study to assess the efficiency and integrity of the sewer lines and facilities, and develop a Capital Improvement Program to make any necessary improvements.
2. **Sewer Requirements for New Development.** Require new major multi-family and commercial developments to evaluate the main sewer lines in the Project vicinity that will be utilized by the new development and make any improvements necessary to convey the additional sewage flows.

## 17.3 Assessment Methods and Thresholds of Significance

Impacts on utilities may occur if the proposed Project would:

- Require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects
- Have insufficient water supplies available to serve the proposed Project and reasonably foreseeable future development during normal, dry, and multiple dry years
- Result in a determination by the wastewater treatment provider that serves or may serve the Project that it does not have adequate capacity to serve the proposed Project's projected demand in addition to the provider's existing commitments
- Generate solid waste in excess of state or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals
- Not comply with federal, state, and local statutes and regulations related to solid waste
- Result in wasteful, inefficient, or unnecessary consumption of energy or conflict with or obstruct a state or local plan for renewable energy or energy efficiency

## 17.4 Environmental Impacts

***Impact 17-1. Would implementation of the proposed 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?***

Minor disruptions in sewage or treatment service may occur during construction, and localized sewage service near the Project may need to be temporarily suspended for up to a few hours; however, service interruptions would be infrequent and short in duration (up to a few hours). Wastewater treatment service would otherwise be maintained during construction of the Project. No additional wastewater treatment facilities would be required during construction to maintain service.

The current permitted ADWF capacity of the WWTP is 15.7 mgd. The WWTP is currently undergoing an expansion to meet peak wet weather flows. However, the permitted capacity would not change with implementation of the Project. The Project would enable the WWTP to continue to serve the existing permitted capacity. In addition, the Project would increase the system capacity to efficiently convey and treat wet weather flows. No additional or expanded wastewater treatment facilities are expected to be needed after the Project is complete and no impacts would occur.

Except for minor aboveground structures to provide access, most of the proposed Project would be below ground. The existing site where the holding structure will be located is aggregate; however, once completed, the Project site will be paved with pervious concrete so stormwater runoff will not be increased. Because the site is already developed, the Project would not convert vegetated land to impervious surfaces (pavement and facilities) that would increase stormwater runoff. No new or expanded stormwater facilities would be needed after implementation of the Project and no impacts would occur.

***Impact 17-2. Would implementation of the proposed Project have insufficient water supplies available to serve the proposed Project and reasonably foreseeable future development during normal, dry and multiple dry years?***

Construction of the Project may require the use of water for dust control and for certain types of pipeline construction. However, the amount of water needed would be minor and would be met with existing water supplies. Construction impacts would be less than significant.

The underground wastewater temporary holding structure would be equipped with self-cleaning flushing channels. Nine 2,000-gallon buckets would be installed to clean the facility. The buckets would fill with clean water and then tip over forming a flushing wave across the bottom of the facility. A typical storm would require the use of three tipping buckets, requiring approximately 6,000 gallons of water for a single use. It is expected that the holding structure would be used approximately 15 times per year, and up to five times per year to allow the City to conduct maintenance on other collection system projects, resulting in an expected total use of approximately 120,000 gallons per year. Cleaning water would be met by existing water supplies and would not require a new or expanded entitlement; therefore, impacts would be less than significant.

***Impact 17-3. Would implementation of the proposed Project result in a determination by the wastewater treatment provider that serves or may serve the Project that it does not have adequate capacity to serve the proposed Project's projected demand in addition to the provider's existing commitments?***

Because the proposed Project is a component of the City's CWP, it is being constructed to provide adequate system capacity to efficiently convey and treat expected PWWFs. Because the existing system would remain in use during construction, except for minor disruptions in sewage or treatment service, the wastewater treatment capacity would be unchanged and no impacts would occur.

***Impact 17-4. Would the proposed 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?***

Implementation of the Project would result in the generation of construction and demolition waste, including concrete, asphalt, used sewage pipes, soil, and used equipment. Construction and demolition projects in San Mateo are required to achieve a minimum recycling rate of 60 percent. Construction waste that is not recycled could be diverted to Corinda Los Trancos Landfill or Dumbarton Quarry. Corinda Los Trancos is located approximately 7.5 miles west of the Project site. As of March 2017, Corinda Los Trancos Landfill had a remaining permitted capacity of more than 22 million cubic yards, and accepts construction/demolition, mixed municipal sludge (biosolids), asbestos, tires, and other waste types (San Mateo County; CalRecycle, 2018). Dumbarton Quarry is located approximately 12.5 miles east of the Project site. The site is currently under reclamation to backfill the quarry site, and is accepting fill material (Pacific States, 2017). Hazardous materials generated during construction would be disposed of at an appropriate licensed facility.

The identified landfills have sufficient capacity to accept the solid waste generated by the Project. Furthermore, generation and disposal of all solid wastes associated with the Project would comply with federal, state, and local statutes and regulations and no impacts would occur.

***Impact 17-5. Would implementation of the proposed Project result in wasteful, inefficient, or unnecessary consumption of energy?***

Implementation of the Project would result in the use of energy for construction, primarily the use of gasoline and diesel fuel to power construction equipment. Construction activities would occur over a 25-month period. As described in Chapter 16, it is estimated that peak construction activities would generate up to 271 daily trips and as many as 76 worker trips. However, these peaks would not be continuous through the overall construction period. BAAQMD's *Basic Construction Mitigation Measures* includes measures such as reduced idling times, which would reduce energy use by construction equipment and conserve fuels. Impacts of the use of energy during construction of the Project would be less than significant.

Implementation of the Project would result in the use of energy for operation, through electricity use for wastewater conveyance. In addition, a new 350-kW emergency diesel generator would be used to allow processes to continue during periods of power outages. However, operation of the diesel generator would be limited to 50 hours per year and would not result in a substantial increase of diesel fuel.

PG&E is continuing to invest in renewable and conventional energy production, and future energy supplies would be expected to be sufficient to meet the increased Project energy use. The maximum energy use estimated for the Project would be up to approximately 15 megawatt hours per year, less than 0.00002 percent of PG&E's current generation and procurement. The increased use of energy by the proposed Project would not require new or improved electric transmission infrastructure, nor conflict with or obstruct a state or local plan for renewable energy or energy efficiency. Impacts of the use of energy during operation of the proposed Project would be less than significant.

## 17.5 Mitigation Measures

All impacts to utilities would be less than significant and no mitigation measures are required.

## 17.6 References

CalRecycle. 2017. Documents: Corinda Los Trancos Landfill (Ox Mtn) (41-AA-0002). June 6, 2017, issued Modified permit to Ox Mountain landfill. <http://www.calrecycle.ca.gov/SWFacilities/Directory/41-AA-0002/Document>. Accessed February 6, 2018.

\_\_\_\_\_. 2018. Facility/Site Summary Details: *Corinda Los Trancos Landfill (Ox Mtn) (41-AA-0002)*. <http://www.calrecycle.ca.gov/SWFacilities/Directory/41-AA-0002/Detail/>. Accessed January 4.

Carollo Engineers, Inc. 2014. *City of San Mateo Integrated Wastewater Master Plan*. Prepared for City of San Mateo. October.

City of San Mateo. 2010. *City of San Mateo General Plan – Vision 2030*. Resolution No. 134-2010. Adopted by the City Council on October 18.

\_\_\_\_\_. 2017. *San Mateo City Charter and Municipal Code*. Available at <http://qcode.us/codes/sanmateo/>. Accessed January 4, 2018.

Pacific Gas & Electric (PG&E). 2018. Clean Energy Solutions Website <http://www.pge.com/en/about/environment/pge/cleanenergy/index.page>. Accessed January 4.

Pacific Gas and Electric (PG&E). 2016. *PG&E Corporation and Pacific Gas and Electric Company 2016 Joint Annual Report to Shareholders*. Available at [http://s1.q4cdn.com/880135780/files/doc\\_financials/2016/annual/2016-Annual-Report-Final.pdf](http://s1.q4cdn.com/880135780/files/doc_financials/2016/annual/2016-Annual-Report-Final.pdf). Accessed January 5, 2018.

Pacific States Environmental Contractors, Inc. (Pacific States). 2017. Dumbarton Quarry Reclamation. Available at <http://pacificstates.net/resources/dqa-acceptance-requirements/>. Accessed January 5, 2018.

RethinkWaste. 2018a. *Recology San Mateo County*. <http://www.rethinkwaste.org/about/service-providers/recology>. Accessed January 4.

\_\_\_\_\_. 2018b. *South Bay Recycling*. <http://www.rethinkwaste.org/about/service-providers/south-bay-recycling>. Accessed January 4.

\_\_\_\_\_. 2018c. *Shoreway Transfer Station*. Brochure. <http://www.rethinkwaste.org/about/service-providers/south-bay-recycling>. Accessed January 5.

San Mateo County Environmental Health Division. 2018. Ox Mountain Landfill (SWIS No. 41-AA-0002), Environmental Impact Report Technical Memorandum. March. Available [www.calrecycle.ca.gov/SWFacilities/Directory/41-AA-0002/Document/315220](http://www.calrecycle.ca.gov/SWFacilities/Directory/41-AA-0002/Document/315220). Accessed February 5, 2018.