

3.18 UTILITIES AND SERVICE SYSTEMS

This section describes the environmental and regulatory setting for water, wastewater, and solid waste. It also describes existing conditions and potential impacts on utilities and service systems that would result from implementation of the proposed project, and mitigation for potentially significant impacts, where feasible. Section 3.6, "Energy," contains information related to electricity and natural gas in the County. Stormwater and groundwater water resources is addressed in Section 3.10, "Hydrology and Water Quality."

3.18.1 Environmental Setting

HCSD provides water, wastewater, and street lighting services to the unincorporated areas surrounding the City of Eureka, including the project area. The project site will be annexed into the HCSD service boundary. HCSD has updated its SOI to include the project site under a separate CEQA review (SHN Engineers and Geologists 2014).

Wastewater

HCSD currently maintains 6,326 sewer service accounts, 97 of which are associated with commercial users, with the remainder associated with residential users (SHN Engineers and Geologists 2014). HCSD's wastewater infrastructure includes 29 wastewater pumping stations, and about 78 miles of sewer mains. Five of HCSD's lift stations are located in the Pine Hill area, five in the Rosewood area, five in the Cutten and Ridgewood areas, six in the Myrtle town area, three in the King Salmon area, and five in the Humboldt Hill area. HCSD's peak daily wastewater flow is approximately 1.92 MGD, with an average wastewater flow of 0.92 MGD (SHN Engineers and Geologists 2014). HCSD has an agreement with the City of Eureka to purchase approximately 30 percent of the capacity at the City of Eureka Elk River WWTP, which has a current peak dry weather treatment capacity of 8.6 MGD and peak wet weather treatment capacity of 12 MGD (Order No. R1-2016-0001 NPDES No. CA0024449) (RWQCB 2016).

Water

Water services within the project area are provided by HCSD. HCSD supplies water to 7,698 active connections, approximately 97 percent of which are residential and 3 percent commercial. Water service is not provided to any industrial uses. In 2015, a total of 740.2 million gallons of water was distributed to customers within the HCSD service area. Average daily use for HCSD customers is estimated at 2.03 MGD in 2015, and peak daily use estimated at 3.6 MGD (Humboldt County 2017c).

HCSD receives approximately 74 percent of its water from HBMWD and the City of Eureka. HCSD also maintains three water supply wells (two active and one active backup) that supplement the water supply, with a rated capacity of 1,580 gpm, or 2.28 MGD. HCSD's active connection with the City of Eureka has a capacity of 800 gpm, or 1.15 MGD. Its contract with the HBMWD allows for a peak rate allocation of 2.9 MGD. Therefore, the combined source capacity is estimated at 6.33 MGD. HCSD has expressed the requirement for a water storage tank to serve the proposed project, and a study to determine the size of the tank and identify infrastructure to support fire suppression is currently underway. The new water storage tank would be located adjacent to the existing tank on HCSD property, as shown in Figure 2-3.



Solid Waste

The Humboldt Waste Management Authority (HWMA) is a Joint Powers Authority (JPA) that was created to provide economic coordination of solid waste management and disposal services. The regions that are a part of the JPA include the County and the cities of Arcata, Blue Lake, Eureka, Ferndale, Rio Dell and Trinidad. The HWMA manages contracts with solid waste disposal companies and coordinated the disposal of solid waste collected within the boundaries of member jurisdictions. In addition, the HWMA manages waste reduction programs on behalf of the County (Humboldt County 2017c).

The HWMA owns and operates the Hawthorne Street Transfer Station (HSTS), the Eureka Recycling Center, and the Cummings Road Landfill (which is pending closure). Waste from this transfer station is then transported to either the Anderson Landfill in Shasta County, or the Dry Creek Landfill near Medford, Oregon. The Anderson Landfill has a daily permitted disposal of about 1,018 tons/day, and a remaining capacity of about 8 million tons. The Anderson Landfill is not expected to reach capacity until 2036. The Dry Creek Landfill has a remaining capacity of about 50 million tons without additional site expansion. It is anticipated that the Dry Creek Landfill could provide disposal capacity for its current service area, including the County, for another 75 to 100 years (Humboldt County 2017c).

Member agencies direct their respective franchise solid waste haulers to HSTS, or to one of the HWMA's contracted satellite facilities, to dispose of the solid waste. However, many residents living in incorporated and unincorporated areas of the County are served by licensed commercial waste haulers or franchise haulers. There are nine specific franchise areas with services provided by one of the five commercial haulers. The Greater Eureka area is served by Recology Humboldt County (Humboldt County 2017c).

The HSTS is the closest transfer station to the proposed project, located at 1059 West Hawthorne Street, in Eureka, approximately 4 miles northwest of the project site. This transfer station receives more than 60,000 tons of municipal solid waste annually and offers a one-stop service that includes the Eureka Recycling Center and hazardous waste collection services (HWMA 2019).

Telecommunication Services

Although County residents and businesses overall are underrepresented in terms of provider choice and speed, the Eureka area (including the proposed project area) has a combined upload and download speed of 10 to 100 megabytes per second for high-speed internet or broadband capability. This service is provided by a variety of providers, including Comcast, AT&T, and Suddenlink (Humboldt County 2017a).

Energy

Electricity is supplied to the project area by PG&E, which currently has an extensive system of natural gas and electrical facilities in the area. The existing utilities in the area would be extended as part of the proposed project to cover the new development.



3.18.2 Regulatory Setting

State

Porter Cologne Water Quality Control Act

The State of California established the SWRCB, which oversees the nine RWQCBs, through the Porter-Cologne Act. Through the enforcement of the Porter Cologne Act, the SWRCB determines the beneficial uses of the waters (surface and groundwater) of the state, establishes narrative and/or numerical water quality standards, and initiates policies relating to water quality. The SWRCB and, more specifically, the RWQCB, is authorized to prescribe WDRs for the discharge of waste, which may impact the waters of the State. Furthermore, the development of water quality control plans, or Basin Plans, are required by the Porter-Cologne Act to protect water quality. The SWRCB issues both general construction permits and individual permits under the auspices of the federal NPDES program.

Urban Water Management Planning Act

In 1983, the California Legislature enacted the Urban Water Management Planning Act (Water Code Sections 10610–10656). The Urban Water Management Planning Act requires that every urban water supplier that provides water to 3,000 or more customers, or that provides over 3,000 AFY shall prepare and adopt an Urban Water Management Plan (UWMP). Water suppliers are required to prepare a UWMP within a year of becoming an urban water supplier and update the plan at least once every five years. The Urban Water Management Planning Act also specifies the content that is to be included in an UWMP. It is the intention of the legislature to permit levels of water management planning commensurate with the number of customers served and the volume of water supplied. The Urban Water Management Planning Act states that urban water suppliers should make every effort to ensure the appropriate level of reliability in its water service sufficient to meet the needs of its various categories of customers during normal, dry, and multiple-dry years. The Urban Water Management Planning Act also states that the management of urban water demands, and the efficient use of water shall be actively pursued to protect both the people of the state and their water resources. The latest HCSD UWMP is the 2015 UWMP and was adopted in May 2016. The latest HBMWD UWMP is the 2015 UWMP and was adopted in June of 2016 (HCSD 2016; HBMWD 2016).

California Integrated Waste Management Act (AB 939 and AB 341)

To minimize the amount of solid waste that must be disposed of by transformation (i.e., recycling) and land disposal, the Legislature passed the California Integrated Waste Management Act of 1989 (Assembly Bill [AB] 939), effective January 1990. According to AB 939, all cities and counties are required to divert 25 percent of all solid waste from landfill facilities by January 1, 1995, and 50 percent by January 1, 2000. Solid waste plans are required to explain how each city's AB 939 plan will be integrated within its respective county plan. They must promote (in order of priority) source reduction, recycling and composting, and environmentally safe transformation and land disposal. In 2010, the state legislature passed AB 341 (Chesbro) which set a statewide recycling goal of 75 percent by 2020, which is anticipated to be achieved through source reduction, recycling, and continued diversion of materials such as organic wastes (Humboldt County 2017c).



Local

Humboldt County General Plan

The Humboldt County General Plan, adopted October 23, 2017, contains several policies that directly pertain to utilities and service systems, including the following:

Goal IS-G1. Adequate Infrastructure and Services. Well maintained public infrastructure and services supporting existing development.

- **Policy IS-P3: Requirements for Discretionary Development.** The adequacy of public infrastructure and services for discretionary development greater than a single family residence and/or second unit shall be assessed relative to service standards adopted by the Board of Supervisors, local service providers, and state and federal agencies. Such discretionary development may be approved if it can be found that:
 - A. Existing services are adequate; or
 - B. Adequacy will be attained concurrent with project implementation through project conditions; or
 - C. Adequacy will be obtained over a finite time period through the implementation of a defined capital improvement or service development plan; or
 - D. Evidence in the record supports a finding that approval will not adversely impact health, welfare, and safety or plans to provide infrastructure or services to the community.
- **Policy IS-P4: Fiscal Impact Assessment.** The fiscal impacts of discretionary development (i.e. projects that require the preparation of an Environmental Impact Report that may have significant impacts on existing and planned public infrastructure and services) shall be considered during the project review process. Significant adverse effects shall be mitigated to the extent feasible.
- **Policy IS-P9: District Boundaries, Spheres of Influence, and Community Plans.** District boundaries, spheres of influence, municipal service reviews, and community plans shall be mutually compatible and support the orderly development and timing of infrastructure and services.

Goal WR-G6. Public Water Supply. Public water systems able to provide adequate water supply to meet existing and long-term community needs in a manner that protects other beneficial uses and the natural environment.

Goal T-G1. Deployment and Availability. Communications, including high speed broadband, available to every resident, business, and institution in Humboldt County at a level of service and at a price comparable to urban communities.

Goal T-G2. Broadband Access. A broadband internet infrastructure that reliably connects Humboldt to national networks and extends throughout urbanized areas to our most rural communities.

Goal T-G3. New Construction. Broadband service capability integrated into new buildings and developments.

Goal T-G1. Deployment and Availability. Communications, including high speed broadband, available to every resident, business, and institution in Humboldt County at a level of service and at a price comparable to urban communities.



Goal T-G2. Broadband Access. A broadband internet infrastructure that reliably connects Humboldt to national networks and extends throughout urbanized areas to our most rural communities.

Goal T-G3. New Construction. Broadband service capability integrated into new buildings and developments.

- **Policy T-P1: Development of Communications Infrastructure and Services.** Support the development of communications infrastructure and services to facilitate the use of the best available technology for business, households, and government.
- **Policy T-P13: Subdivision Improvements Requirements.** New residential and commercial development projects shall include the infrastructure components necessary to support modern communication technologies, such as conduit space within joint utility trenches for future high-speed data equipment and flexible telephone conduit to allow for easy retrofit for high-speed data systems.
- **Policy T-P18: Trip Reduction.** Encourage communications infrastructure improvements and expansion as a means to reduce transportation impacts and improve air quality.
- **Policy T-P1: Development of Communications Infrastructure and Services.** Support the development of communications infrastructure and services to facilitate the use of the best available technology for business, households, and government.
- **Policy T-P13: Subdivision Improvements Requirements.** New residential and commercial development projects shall include the infrastructure components necessary to support modern communication technologies, such as conduit space within joint utility trenches for future high-speed data equipment and flexible telephone conduit to allow for easy retrofit for high-speed data systems.
- **Policy T-P18: Trip Reduction.** Encourage communications infrastructure improvements and expansion as a means to reduce transportation impacts and improve air quality.

Goal WM-G3. Reduce Waste. Reduce the amount and toxicity of waste generated by residents, businesses, industries, and institutions in the County to the greatest possible degree.

- **Policy WM-P1: Basic Principles.** The basic principles for program selection include:
 - Achieving the maximum feasible reduction in volume and/or weight of waste requiring landfill disposal;
 - Maximizing the economic value of materials heretofore discarded; and,
 - Accomplishing both of the above in ways which protect the quality of the environment and the health and safety of county citizens.

Humboldt County Integrated Waste Management Plan

Pursuant to the California Integrated Waste Management Act of 1989, the state has mandated a 50 percent reduction in the rate of solid waste directed to a landfill by 2000 for all municipal solid waste and established a statewide diversion 75 percent goal by 2020 for all municipal solid waste. To encourage the increase in diversion of solid waste from landfills, the California Integrated Waste Management Act also requires that each jurisdiction prepare a local IWMP that evaluates recycling programs, purchasing of recycled products, and waste minimization.



The County has prepared and adopted an IWMP, consistent with the Integrated Waste Management Act. The IWMP addresses source reduction and recycling, household hazardous waste, and countywide landfill capacity needs. Solid waste generation in the County has been reduced by more than half, between the years 1990 to 2014, decreasing from approximately 168,575 to 75,467 annual tons. The unincorporated area disposed of approximately 33,570 tons of solid waste in 2014, or approximately 2.6 pounds per person per day. The 2014 waste diversion rate for the unincorporated area of the County is 79 percent, according to the most recent Jurisdiction Profile published by the California Department of Resources Recycling and Recovery (CalRecycle) (Humboldt County 2017c).

Humboldt County Code

Section 331.11.5., Water Supply Requirements, includes minimum water supply requirements for new buildings within the County. This code states:

An applicant for a building permit must provide proof acceptable to the Chief Building Inspector and Health Department that each dwelling unit will be served by an individual water supply which will supply at least 720 gallons of potable water per day or by a public water supply which conforms to the requirements of the State of California Waterworks Standards (22 California Administrative Code § 64551 et seq.).

3.18.3 Methodology for Analysis

This section is based on a review of available studies and documents from the County, as well as state and local websites related to utilities.

3.18.4 Thresholds of Significance

The CEQA Guidelines' Appendix G Environmental Checklist was assessed during the NOP scoping process to identify the proposed project components that have the potential to cause a significant impact. The following thresholds of significance were used to determine if further evaluation within this EIR was warranted to ascertain whether the proposed project may:

- Require or result in the relocation or construction of new or expanded water, wastewater, or stormwater drainage, electrical power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects.
- Have sufficient water supply available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years.
- Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments.
- Generate solid waste in excess of state or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals.
- Comply with federal, state, and local management and reduction statutes and regulations related to solid waste.



3.18.5 Project Impact Analysis and Mitigation Measures

This section analyzes the proposed project's potential to result in significant impacts to utilities and services systems. When a potential impact was determined to be potentially significant, feasible mitigation measures were identified to reduce or avoid that impact.

Relocation or Construction of Utility Facilities

Impact UTIL-1: The proposed project would not 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.

Impact Analysis

Water

The proposed project would be served by HCSD infrastructure, including infrastructure located adjacent to the western edge of the project site, at Fern Street and Redwood Street. All water delivery to the project site, including water for landscape irrigation, fire protection, would come from the HCSD's municipal water supply. Water capacity is discussed in further detail under Impact UTIL-2, below.

The proposed project would require infrastructure improvements within the planned roadways for the project and would connect to the existing system HCSD system to provide water to the residential and commercial units. The proposed project also includes construction of a water storage tank adjacent to the existing HCSD water tank at an off-site location approximately 2.5 miles to the south of the proposed development. The new water storage tank would connect to the existing tank and impacts related to construction of the water tank are discussed in other sections of the EIR. No infrastructure extension from the proposed water storage tank would be required to connect to the proposed development. The proposed development would connect to the existing infrastructure and it is unknown if adequate pressure would be available to serve the project site. As discussed in Section 3.19, the proposed development would be located in a high fire hazard zone and therefore, having adequate water to service the proposed project but also have adequate pressure flows to service any needed fire hydrants, pressure storage tanks, or other emergency fire flow systems in case of a wildfire is crucial. MM UTIL-1 would require the preparation of a Water Supply, Pressure, and Storage Study that would address the adequate pressure flow to serve the project site including enough firefighting flow capacity. Less than significant impacts would occur with the construction of new or expanded water facilities with mitigation incorporated.

Wastewater

Wastewater pipelines would be extended to the project site from the existing utilities in the area, and wastewater collection and treatment would be provided by HCSD. Wastewater treatment capacity is discussed further under Impact UTIL-3 below.

A new sewer lift station would be added to the northeastern portion of the project site that is planned to be left as undeveloped forest land. All sewage within the subdivision would gravity flow to the low point at the north end of the subdivision to the new sewage lift station where the sewer would then be pumped through the proposed sewer line in Redwood Street and Walnut Drive. The new sewer line would



discharge to the existing sanitary sewer manhole located on Hemlock Street and Walnut Drive. The addition of these minor wastewater infrastructure facilities would be used to serve the new development at the project site. The construction of sewer line on Redwood Street and Walnut Drive would be located within County right of way. Construction impacts would be mitigated through implementation of MM TRANS-1, Traffic Management Plan. In addition, this area was planned for development, which would anticipate the need for new infrastructure. With the exception of the new lift station, a majority of these new wastewater infrastructure facilities would be located below ground after construction is complete and would not pose a significant environmental effect. Therefore, the proposed project would not result in construction of new or expanded wastewater facilities beyond those analyzed in this EIR that would cause a significant environmental effect. The impact would be less than significant with mitigation incorporated.

Storm Drainage

Development of the proposed project would create additional impervious surfaces for roads, rooftops, driveways, and compacted soils that could result in an increase in stormwater runoff. The proposed project site would be located in an area where stormwater runoff would be collected in a range of drainage facilities (such as curbs and gutters along the roadways) which would then flow to HCSO. Stormwater facilities in this area are managed by the County Public Works Department and must comply with the County's subdivision regulations and applicable stormwater standards in order to receive project approval. Additionally, a portion of the project site is within the County's MS4 Permit jurisdiction, and each individual parcel within the development would be required to comply with the MS4 Permit requirements. The proposed project would require implementation of MM HYD-2, Prepare a Stormwater Quality and Drainage Management Plan, to address project runoff post construction. Runoff during construction would be addressed through MM HYD-1, Prepare a Stormwater Pollution and Prevention Plan (SWPPP).

As noted in MM HYD-3, Prepare a Low Impact Development Plan, the proposed project would incorporate a combination of LID features, including infiltration galleries, bioswales, rain gardens, rain barrels, trees, etc. All proposed roadways would have a depressed parkway adjacent to the road surface that would function as a bioswale for roadway drainage. Storm drain inlets would be located within the bioswales to convey drainage to the storm drain system for flows exceeding the 85th percentile storm. Storm drainage would then be conveyed to the drainage area outlet. Each drainage management area within the MS4 Permit area would require additional stormwater detention. Therefore, with compliance with the MS4 Permit requirements and incorporation of the LID design features, the proposed project would not result in construction of new or expanded storm drain facilities that would cause a significant environmental impact. The impact would be less than significant with mitigation incorporated.

Electric Power/Natural Gas/Telecommunications

Development of the proposed project would require new electrical, natural gas, and telecommunications infrastructure to serve the future residents and commercial business in the area. Underground electricity and natural gas lines would be extended to the project site from existing facilities within the Fern Street right-of-way. Service would be provided by PG&E. A 40- to 50-foot-wide easement would be provided along the existing high voltage power line, which would not require relocation as part of the project. These facilities, once constructed, would be underground and would not pose a substantial adverse impact to the environment. Therefore, the proposed project would not result in construction of new or expanded electrical, natural gas, and telecommunications facilities that would cause a significant environmental impact. This impact would be less than significant.



Level of Significance Before Mitigation

Potentially Significant Impact.

Mitigation Measures

MM UTIL-1: Water Supply Pressure and Storage Study. Prior to filing a map for the first phase of the subdivision, the Applicant shall prepare and submit an approved Water Supply, Pressure, and Storage Study to the Humboldt County Public Works to demonstrate that adequate water supplies are available for the proposed development including water for fire suppression. In addition, the study shall include information on adequate pressure flows to serve the project site including adequate firefighting flow.

Mitigation measure TRANS-1 would also be required.

Level of Significance After Mitigation

Less Than Significant Impact With Mitigation Incorporated.

Water Supply

Impact UTIL-2: The proposed project would have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years.

Impact Analysis

According to the County General Plan EIR, HCSD purchases water from HBMWD, which currently has 40 to 45 MGD of water available above what is needed for its municipal customers. As such, projected growth in areas served by HBMWD through 2040 is not expected to require significant expansion of existing water supplies (Humboldt County 2017c). Further, the County General Plan EIR states that “serving all of its customers (seven wholesale customers and approximately 200 retail customers) will require less than 15 percent of its 84,000-AFY entitlement in 20 years” (Humboldt County 2017c). Section 7.2 of the HBMWD UWMP 2015 also shows that Mad River and Ruth Lake can provide sufficient water supply to retail water suppliers, HBMWD retail customers, industrial customers, and system losses during normal, single dry, and multiple dry years between now and 2035 (HBMWD 2016). As such, for the planned unit development within the HBWMD service area, there is both sufficient capacity and infrastructure to support such growth through 2035. HCSD’s system specifically has a total of 5 MGD of storage capacity currently, has a peak daily water consumption of approximately 3.20 MGD, and an average daily water consumption of approximately 2.56 MGD (SHN Engineers and Geologists 2014).

Development of the proposed project would result in an increase in long-term water demand for consumption, operational uses, maintenance and other activities on the proposed project site. Table 3.18-1 shows the proposed project’s estimated water demand. As shown in Table 3.18-1, the proposed project would generate an average daily water demand of approximately 231,610 GPD at build-out. As stated above, the HBMWD is currently only using 15 percent of its 84,000 AFY of entitled water capacity to serve existing customers. Since the proposed project would result in 231,610 GPD, or approximately 259 AFY, this would result in a 0.3 percent increase in current water use and would, therefore, be well below the 84,000-AFY entitlement of the HBMWD. This water demand does not include the requirement for adequate pressure flows to service any needed fire hydrants, pressure storage tanks, or other emergency fire flow systems in case of a wildfire. A Water Supply, Pressure, and Storage Study is currently underway



to determine adequate capacity and pressure flows to serve the proposed development. Since the results of the Water Supply, Pressure, and Storage Study are unknown at the time this EIR was prepared, MM UTIL-1 would be required to ensure that adequate pressures, and supporting infrastructure are included in the proposed project. HCSD has identified the location of the water storage tank and no other off-site improvements are required other than those discussed in this EIR. If the Water Supply, Pressure, and Storage Study identifies any other off-site improvements not evaluated in this EIR, additional CEQA review would be required. With implementation of MM UTIL-1, impacts would be less than significant.

Table 3.18-1: Estimated Water Demand

Land Use	Proposed Project Unit Amount	Water Demand	Proposed Project Demand (GPD)
Dwelling Units (du) ¹	320 d.u.	720 GPD per d.u.	230,400
Commercial	22,000 square feet	55 GPD per 1,000 square feet	1,210
Total			231,610

Note: This is a conservative estimate as the same water demand is utilized for multi-family, single-family, and affordable units.
Source: HCSD 2016; Humboldt County Code Section 331.11.5.

Level of Significance Before Mitigation

Potentially Significant Impact.

Mitigation Measures

MM UTIL-1 would be required.

Level of Significance After Mitigation

Less Than Significant Impact With Mitigation Incorporated.

Wastewater Treatment

Impact UTIL-3: The proposed project would 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.

Impact Analysis

The proposed project would result in an increase in daily wastewater flows from the project site to the existing wastewater collection system. As discussed in Section 3.8.1, Environmental Setting, HCSD’s existing peak wastewater flow is approximately 1.92 MGD. Through HCSD’s agreement with the City of Eureka Elk River WWTP, HCSD is entitled to 30 percent of the City of Eureka Elk River WWTP’s capacity, which would equate to approximately 2.58 MGD peak dry weather capacity at the WWTP. Wastewater generation from the proposed project is estimated to be less than the average water demand of 0.23 MGD and would not result in exceedance of permitted wastewater treatment capacity for peak dry weather. The County General Plan EIR stated that, based on a 2008 analysis of average dry weather flow at the Elk River WWTP and corrected for District growth through 2015, the HCSD has WWTP capacity that can accommodate about 2,689 additional equivalent dwelling units (Humboldt County 2017c). Thus, the proposed project’s additional wastewater flows would not substantially or incrementally exceed the



existing treatment capacity of the HCSD's wastewater collection system or the City of Eureka Elk River WWTP capacity. Impacts with respect to wastewater treatment capacity would be less than significant.

In summary, the proposed project would not require or result in the construction of new or expanded wastewater treatment capacity beyond what has been planned for either during construction or operation of the proposed project, and sufficient wastewater capacity would be available to serve the proposed project. Therefore, the impact would be less than significant.

Level of Significance Before Mitigation

Less Than Significant Impact.

Mitigation Measures

None required.

Level of Significance After Mitigation

Less Than Significant Impact.

Solid Waste

Impact UTIL-4: The proposed project would not generate solid waste in excess of state or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals.

Impact Analysis

Construction Waste Generation

Construction of the proposed project would include the construction of approximately 640,000 square feet of residential space and 22,000 square feet of commercial space. An estimate of the total construction debris generation anticipated for the proposed project is provided in Table 3.18-2 below. The estimates for construction debris waste generation rates were provided by the USEPA's *Characterization of Building-Related Construction and Demolition Debris in the United States* (USEPA 1998).

Table 3.18-2: Construction Solid Waste Generation

Activity	Type	Waste Generation (pounds/square foot)	Square Feet	Waste Generation (tons)
Construction	Nonresidential	3.89	22,000	85,580
	Residential ¹	4.38	640,000	2,803,200
Total				2,888,780

Note: Because exact square footage for residential dwelling is not known at this time, an average square footage of 2,000 was used for the 320 dwelling units.

Source: USEPA 1998



Implementation of the proposed project is estimated to generate 2,888,780 tons of construction debris. However, pursuant to AB 341, 75 percent of the construction waste would require to be recycled, resulting in 722,195 tons of waste to be diverted to a landfill. Moreover, this tonnage would be spread out over the length of the 20-year phased developed for the proposed project, and actual volumes of construction waste disposed of at any one time are not expected to be more than several tons of debris. This construction related waste would be hauled to the HSTS, or most current permitted transfer or landfill site, as approved by the County. As discussed in Section 3.8.1, Environmental Setting, the surrounding landfills in in the area have enough capacity to serve Humboldt County for the next 75 to 100 years. Therefore, the construction debris generated from the project would not result in the need for additional soils waste collection or expanded landfill capacity. Construction impacts related to solid waste would therefore be less than significant.

Operational Waste Generation

Operation of the proposed project would include daily and annual solid waste generation from the residences and commercial businesses. Estimates of the annual solid waste generation for the proposed project are included in Table 3.18-3 below. The waste generation rates are conservative assumptions obtained from the *Estimated Solid Waste Generation Rates* listed on the CalRecycle website. Although CalRecycle does not officially endorse any of these rates, they are being used in providing a general level of information for planning and analysis purposes of this section.

Table 3.18-3: Operational Solid Waste Generation

Activity	Size	Waste Generation Rate	Daily Total (tons)	Annual Total (tons)
Commercial	22,000 square feet	13 lbs/1000 square feet/day	0.14	52.2
Residential	320 housing units	13 lbs/household/day	2.08	759.2
Total			2.2	811.4

Source: CalRecycle 2019

Solid waste generated by the proposed project would be recycled or collected by private waste haulers as contracted by the Applicant and permitted by the County and taken for disposal to the HSTS or one of the County’s permitted transfer station locations. As shown in Table 3.18-3, operational waste would equate to approximately 2.2 tons of waste per day, or 811.4 tons of waste annually. This would represent an approximately 0.014 percent increase in HSTS’s of annual solid waste disposal quantity of 60,000 tons. While regional landfill capacity would be available to accommodate this amount of solid waste, this figure could be substantially reduced through recycling and waste reduction practices. The single-family residential dwelling units would be served with curbside solid waste and recycling collection service, which is a standard municipal service provided to all single-family residences. Multi-family residential uses and commercial uses typically employ centralized solid waste collection facilities and do not always offer convenient recycling options. To ensure that that the multi-family residential uses provide on-site recycling collection facilities, MM UTIL-2 is proposed requiring the provision of such facilities. The implementation of this MM would reduce potential impacts to a less than significant level.

Level of Significance Before Mitigation

Potentially Significant Impact.



Mitigation Measures

MM UTIL-2: Recycling Bins. Prior to issuance of final certificate of occupancy for each multi-family residential building and commercial development, the project Applicant shall install on-site recycling collection facilities. Such facilities shall be provided in centralized locations within enclosed facilities. Signage shall clearly identify accepted materials, and recycling collection vessels (i.e., dumpsters, receptacles, bins, totes, etc.) shall be distinctly different in appearance from solid waste collection vessels.

Level of Significance After Mitigation

Less Than Significant Impact with Mitigation Incorporated.

Solid Waste Statutes and Regulations

Impact UTIL-5: The proposed project would comply with federal, state, and local management and reduction statutes and regulations related to solid waste.

Impact Analysis

As discussed under Impact UTIL-4, construction of the proposed project would generate debris including excess concrete, excess building materials, and excess excavated materials. The proposed project would comply with AB 341 for recycling 75 percent of solid waste. Operation of the proposed project would generate solid waste from daily residential and commercial uses. Some of the material excavated during construction would be used as backfill within the project site such as during the placement of utilities and pipelines for the residences and buildings, which would reduce waste disposal at the HSTS. The proposed project construction and operation would be in compliance with both the state and local regulations relevant to waste. Construction waste is expected to be limited and would be spread out over the 20-year phase lifetime of the proposed project and, as such, would not impact local landfills with substantial amounts of waste at any given time. Operation of the proposed project would not result in substantial amounts of solid waste beyond what is typical for a subdivision. In addition, MM UTIL-2 would ensure that recycling is being implemented. Therefore, construction and operation of the proposed project would not conflict with any of the applicable goals and regulations, and this impact would be less than significant.

Level of Significance Before Mitigation

Less Than Significant Impact.

Mitigation Measures

None required.

Level of Significance After Mitigation

Less Than Significant Impact.



This page is intentionally left blank.

