4.11 PUBLIC SERVICES, RECREATION, AND UTILITIES

4.11.1 INTRODUCTION

The Public Services, Recreation and Utilities chapter of this EIR summarizes setting information and identifies potential new demands resulting from the proposed project on water supply, wastewater systems, solid waste disposal, law enforcement, fire protection, schools, parks and recreation, and energy utilities. Information for this chapter was drawn primarily from a Water Supply Assessment prepared for the proposed project by West Yost Associates (Appendix I).[1] Additional sources of information include the *City of Antioch General Plan* and associated EIR, the City of Antioch *Water System Master Plan Update*,[2] the *City of Antioch 2015 Urban Water Management Plan* (2015 UWMP),[3] the Delta Diablo *Conveyance System Master Plan Update*,[4] and information from local service providers. School data was derived from a recent Student Demographic Study prepared by the AUSD.[5]

4.11.2 EXISTING ENVIRONMENTAL SETTING

The following section describes the existing utilities including water supply, wastewater collection and treatment, solid waste, fire protection and law enforcement services, school and library services, parks and recreation facilities, and electricity and natural gas in the project area.

Water Supply and Demand

As shown on Figure 4.11-1, the proposed project site is currently located inside the existing Antioch city limits, which is serviced by the City of Antioch's water system. Consistent with the requirements of the Urban Water Management Act, the Antioch City Council adopted the 2015 UWMP on May 24, 2016, which includes current and projected water demands for existing and projected future land uses to be developed within the City's General Plan Sphere of Influence through 2040. The water demand projections in the City's 2015 UWMP include current City water demands, future water demands for proposed developments within the current City limits, and future water demands for future service areas outside the current City limits.

The current City water service area covers 28.8 square miles and includes the area within the City limits and some adjacent County land to the northeast and west. The Antioch water system serves about 31,798 connections within Contra Costa County (as of 2015).

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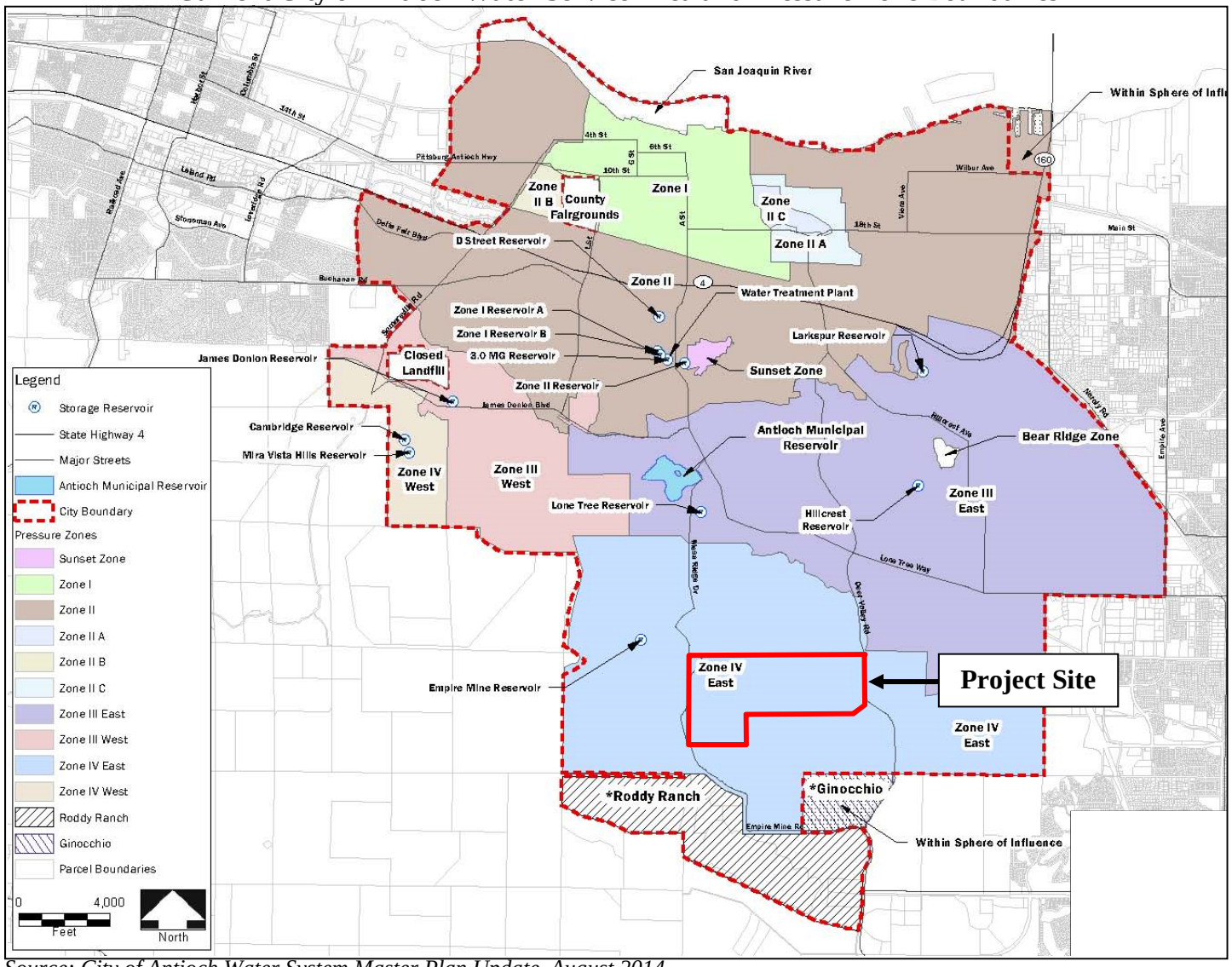
1 West Yost Associates. *Water Supply Assessment for The Ranch Project.* August 2017.
2 City of Antioch. *Water System Master Plan Update*. August 2014.
3 City of Antioch. *City of Antioch 2015 Urban Water Management Plan.* May 2016.
4 Delta Diablo. *Conveyance System Master Plan Update*. April 2010.
5 Antioch Unified School District. *Student Demographic Study, Including Projected Enrollments in the Antioch Unified School District*. August 7, 2017.

Figure 4.11-1
Current City of Antioch Water Service Area and Pressure Zone Boundaries



Source: City of Antioch Water System Master Plan Update. August 2014.

The City's service area extends from steep hilly terrain in the south and west portions of the service area to flat with a gentle slope in the northeast portion of the service area. The City's water system serves elevations from near sea level up to approximately 500 feet. Six primary pressure zones are currently required to distribute water. The project area is within Pressure Zone IV East. The principal sources of raw surface water supply are the Sacramento/San Joaquin Rivers Delta and the Contra Costa Canal (Canal). Raw water from the Canal can be stored in the Antioch Municipal Reservoir. Canal water, purchased from the Contra Costa Water District (CCWD), is pumped from Victoria Canal, Rock Slough, and Old River in the western Delta and stored in the Los Vaqueros Reservoir.

Water Demand

The Water Supply Assessment describes the City's projected water demand through 2040 (see Table 4.11-1). The water demand projections provided are based on population and employment projections and the Senate Bill (SB) x7-7 per capita water demand targets adopted by the City. Units are presented in millions of gallons (MG).

Table 4.11-1
City of Antioch Historical and Projected Total Water Use (in MG)

Sectors	Actual 2015	2020	2025	2030	2035	2040
Single Family Residential	2,768	4,051	4,181	4,323	4,477	4,637
Multi-Family Residential	405	593	612	633	655	679
Commercial	300	440	454	469	486	503
Industrial	85	125	129	133	138	143
Institutional/Governmental	178	260	269	278	287	298
Landscape	465	681	703	727	753	780
Other	69	18	18	19	20	20
Total Water Deliveries	**4,270**	**6,168**	**6,366**	**6,582**	**6,816**	**7,060**
Unaccounted-for System Losses	222	362	374	387	400	415
Total Potable Water	**4,492**	**6,530**	**6,740**	**6,969**	**7,216**	**7,475**
Landscape Irrigation (Raw Water)	29	29	29	29	29	29
Recycled Water	79	326	489	489	489	489
Grand Total Water Use	**4,600**	**6,885**	**7,258**	**7,487**	**7,734**	**7,993**

Source: West Yost Associates, 2017.

Water Supply

The following discussion provides a summary of the City's existing water supplies, as well as current and projected water availability.

Purchased/Imported Water and Surface Water

The City of Antioch is within the CCWD service area and purchases Central Valley Project (CVP) water pumped from the Sacramento/San Joaquin Rivers Delta by CCWD. The CCWD has a contract with the U.S. Bureau of Reclamation (USBR) for 195,000 acre-feet per year (AFY) of CVP water. In May 2005, CCWD renewed their water service contract with the USBR for a period

of 40 years through February 2045. The City and CCWD have a contractual arrangement allowing the City to obtain such quantity of water as is necessary to meet 100 percent of the City's needs, subject to rationing restrictions in the event of drought or other extraordinary circumstances. CCWD's future supply projections indicate adequate availability of surface water sources delivered through the contract with the USBR, other available sources, and short-term purchases under normal conditions. As of 2015, the City's water system relies entirely on surface water.

In 2015, approximately nine percent of the City's water was obtained from the City's intakes on the Sacramento/San Joaquin Rivers Delta. The City does not have quantity limitation on the appropriation from the Sacramento/San Joaquin Rivers Delta, provided the water is put to beneficial use, which includes water diverted to the 240-MG Antioch Municipal Reservoir. Surface water is conveyed to the City's water treatment plant, treated, and sent through the City's potable water distribution system. Approximately four percent of the City's total water supply in 2015 was water stored in the City's Municipal Reservoir from previous years. Such water was originally obtained from a combination of CCWD and the City's intakes on the Sacramento/San Joaquin Rivers Delta.

Recycled Water

Delta Diablo is responsible for treating and discharging treated water for the City of Antioch, as well as other local communities. In 2007, The City of Antioch and Delta Diablo approved the Antioch Urban Reuse Project to provide recycled water to irrigation users in Antioch. In 2015, approximately two percent of the City's total water supply was provided by Delta Diablo. The City currently uses recycled water to irrigate four City parks and portions of the Lone Tree Golf Course. Due to limitations on the legal beneficial uses of recycled water, recycled water use is not projected to increase beyond 489 million gallons per year (MGY) through the year 2040. Per the City's 2015 UWMP, new developments are currently being required to install recycled water facilities as part of required improvements.

Water Supply Availability

The City of Antioch's current and projected water supplies are shown in Table 4.11-2 below.

Table 4.11-2
City of Antioch Normal Year Water Supplies – Current and Projected, AFY[1]

Supply Sources	Additional Detail	Actual 2015	2020	2025	2030	2035	2040
Purchased or Imported	CCWD	3,915	4,099	4,309	4,538	4,785	5,044
Surface Water	San Joaquin River Intake	409	2,460	2,460	2,460	2,460	2,460
Recycled Water	Delta Diablo	79	326	489	489	489	489
Supply from Storage	City Municipal Reservoir	197	--	--	--	--	--
	Total	**4,600**	**6,885**	**7,258**	**7,487**	**7,734**	**7,993**

Note: Supply from Storage (Municipal Reservoir) was collected from raw water supplies in previous years and used for consumption in 2015.

Source: City of Antioch, 2015 Urban Water Management Plan, May 2016.

The water supply reliability goal adopted by CCWD's Board of Directors is to meet at least 85 percent of demand during drought conditions and 100 percent of demand in normal years. The remaining 15 percent during drought conditions would be met by a combination of short-term water purchases and a voluntary short-term conservation program. The projected water supplies from CCWD are not anticipated to incur supply deficits in normal years due to CCWD's long-term conservation program, current CVP contract supply, and long-term water transfer agreement with East Contra Costa Irrigation District. CCWD's currently available and planned supplies are sufficient to meet their reliability goals and estimated water demands during normal, single dry and the first two years of a multi-year drought. In later years, supply shortfalls may occur in the second and third year of a multi-year drought. Supply reliability tables provided by CCWD are included in CCWD's 2015 UWMP. The maximum amount of short-term conservation expected by CCWD is 15 percent of supply.

The City typically ceases diverting water from the Sacramento/San Joaquin Rivers Delta when the chloride concentration of the water exceeds 250 milligrams per liter (mg/l). Such high chloride levels occur occasionally during dry years. The City ceased diversion in 1976/1977, and pumped only an average of seven days per year between 1986 and March 1991. Per the City's 2015 UWMP, the City has assumed pumping from the Sacramento/San Joaquin Rivers Delta would be available in normal and wetter precipitation years, during a single-year drought, and in the first year of a multiple-year drought, but would not be available in the second and third years of a multiple year drought. In addition, the City assumed that recycled water will be available under all hydrologic conditions. A summary of the City's projected water supply during Normal, Single Dry, and Multiple-Dry Years is shown in Table 4.11-3.

Table 4.11-3
Summary of Projected Water Supply During Hydrologic Normal, Single-Dry, and Multiple-Dry Years for City of Antioch (in MG)

Hydrologic Condition	2020	2025	2030	2035	2040
Normal Year	6,885	7,258	7,487	7,734	7,993
Single Dry Year[1]	6,885	7,258	7,487	7,734	7,993
Multiple-Dry Year – First Year[2]	6,885	7,258	7,487	7,734	7,993
Multiple-Dry Year – Second Year[2]	6,885	7,258	7,487	7,734	7,543
Multiple-Dry Year – Third Year[2]	6,229	6,581	6,787	6,865	6,867

[1] CCWD anticipates no supply shortfalls in a single-year drought. City assumes all local water supplies and intakes would be available in a single dry year.

[2] CCWD anticipates the following supply shortfalls in a three-year drought scenario: 2020 (0%, 0%,10%), 2025 (0%,0%,10%), 2030 (0%,0%,10%), 2035 (0%,2%,12%), 2040 (0%,6%,15%). City assumes the Municipal Reservoir and the Delta intakes would be available only in the first year of a multi-year drought. Recycled water is assumed to be available under all hydrologic conditions.

Source: West Yost Associates, 2017.

Water Treatment Plant

The City of Antioch Water Treatment Plant (WTP) is located at 401 Putnam Street in the City of Antioch. The WTP treats raw water and delivers safe potable water to residential, industrial, commercial, and irrigation customers. The pipelines from the Contra Costa Canal to the WTP have

a capacity over 60 million gallons per day (MGD), well above the maximum predicted future water demand.[6] The California Department of Public Health (CDPH) requires that river water must be first pumped to the municipal reservoir before going to the WTP. The WTP has a maximum capacity of approximately 38 MGD. Treated water flows into two 1.0-MG clearwells before entering the distribution system.

Wastewater Collection and Treatment

The City maintains and owns the local sewage collection system and is responsible for the collection and conveyance of wastewater to the Delta Diablo Wastewater Treatment Plant (WWTP). Delta Diablo owns and operates the regional interceptors and wastewater treatment plant. The project site is located within the Delta Diablo service area. The regional conveyance facilities transport wastewater to the WWTP located at 2500 Pittsburg-Antioch Highway, Antioch. After secondary treatment, the effluent would either be discharged through a deep-water outfall to New York Slough, or further processed through the Delta Diablo's Recycled Water Facility (RWF) to tertiary Title 22 recycled water standards and distributed for reuse.

An EIR for the expansion of the WWTP capacity to an average dry weather flow of 22.7 MGD was completed in April 1988. However, the current WWTP National Pollutant Discharge Elimination System (NPDES) Permit limits average dry weather flow to 19.5 MGD.[7] The average daily flow influent to the treatment plant is 12.4 MGD.[8] Sewage flow to the plant does not fluctuate seasonally, as sewer and storm water systems are separate.[9] Funds for future plant expansion are collected by the City on behalf of Delta Diablo from sewer connection fees.

Solid Waste

Republic Services provides solid waste collection, disposal, recycling, and yard waste services to the City, including the proposed project site. Solid waste and recyclables from the City are taken to the Contra Costa Transfer and Recovery Station in Martinez. Solid waste is transferred from the Transfer and Recovery Station to the Keller Canyon Landfill in Pittsburg. The Keller Canyon Landfill site is 1,399 acres, 244 of which comprise the actual current disposal acreage. The landfill is permitted to accept 3,500 tons of waste per day and has a total estimated permitted capacity of approximately 75 million cubic yards, with only approximately 12 million cubic yards (16 percent of total capacity) used to date.[10]

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6 City of Antioch. *City of Antioch 2010 Urban Water Management Plan* [pg. 2-4]. June 27, 2011.

7 San Francisco Bay Regional Water Quality Control Board. *Order No. R2-2014-0030, NPDES No. CA00.8547.* Adopted August 13, 2014.

8 Delta Diablo. *Quick Facts*. Available at: https://www.deltadiablo.org/about-us/organization/quick-facts. Accessed March 2018.

9 City of Antioch. *Antioch General Plan Update EIR* [pg. 4.12-2]. July 2003.

10 California Department of Resources Recycling and Recovery (CalRecycle). *Solid Waste Information System.* Available at: www.calrecycle.ca.gov/SWFacilities/. Accessed February 2017.

Fire Protection

The entirety of the proposed project site is currently within the service boundaries of the Contra Costa County Fire Protection District (CCCFPD). The CCCFPD boundaries encompass the central and northern portions of Contra Costa County, extending from the City of Antioch in the east to the eastern border of the City of Richmond in the west, and as far south as the northern border of the City of Moraga. The CCCFPD has a boundary area of approximately 257 square miles. The CCCFPD provides fire suppression (structural, vehicle, and vegetation fires) and prevention, Advanced Life Support (ALS) for medical emergencies, rescue, dispatch, initial hazardous materials response, fire inspection, plan review, and education.

The CCCFPD has four fire stations within the City of Antioch that could provide fire protection services to the project site. The station numbers, addresses, and distances to the project site are shown in Table 4.11-4.

Table 4.11-4
CCCFPD Fire Stations

Station Number	Address	Distance to Project Site
Station 81	315 W. 10th Street, Antioch	4.5 miles
Station 82	196 Bluerock Drive, Antioch	1.8 miles
Station 83	2717 Gentrytown Drive, Antioch	4.9 miles
Station 88	4288 Folsom Drive, Antioch	3.8 miles

Source: Google Maps, 2017.

In 2016, the CCFPD succeeded in responding to emergency and non-emergency calls in five minutes or less for 90 percent of all calls received. In addition, the CCCFPD's ambulance response time was reduced by 51 seconds relative to 2015.[11]

The Insurance Service Office (ISO), an advisory organization, classifies fire service in communities from 1 to 10, indicating the general adequacy of coverage. Communities with the best systems for water distribution, fire department facilities, equipment and personnel and fire alarms and communications, receive a rating of one. CCCFPD has a current ISO rating of 3.[12]

Law Enforcement

The Antioch Police Department (PD) is responsible for providing law enforcement services within the City of Antioch. The Antioch PD operates out of the police headquarters at 300 L Street, and is currently staffed with 103 sworn and 35 non-sworn employees.[13]

[11] Contra Costa County Fire Protection District. *Fire Chief's Message.* Available at: http://www.cccfpd.org/chiefs-message.php. Accessed July 2017.

[12] Contra Costa County Fire Protection District. *Directory*. Available at: http://www.cccfpd.org/directory.php. Accessed July 2017.

[13] City of Antioch. *About APD*. Available at: http://www.ci.antioch.ca.us/CityGov/Police/about_apd.htm. Accessed February 2018.

The Antioch PD consists of the following two divisions:

- *Field Services Division*: The Field Services Division responds to calls for service, and patrols the City to detect and deter criminal activity. This Division consists of the following bureaus: Patrol; Community Policing; Traffic; Communications; and Resources, Education, Apprehension, and Prevention (REAP) officers assigned to schools.
- *Support Services Division*: The Support Services Division augments patrol functions through administrative and clerical support; provides detectives to investigate person, property, and narcotics offenses; and provides services related to the care, control, and protection of animals at the City-operated animal shelter. This Division consists of the following bureaus: Investigations; Narcotics; Records; Administration; and Animal Services.

According to the Antioch General Plan EIR, population growth has created an increased demand for police-related services, and consequently a need for additional Antioch PD staff. The City of Antioch General Plan establishes a goal for the Antioch PD staffing ratio to be between 1.20 to 1.50 officers per 1,000 residents.[14] Per the City's Housing Element, the City of Antioch had a population of 106,455 in 2014. Thus, the current Antioch PD staffing ratio is approximately 1.0 per 1,000 residents.

Antioch PD divides the City into six beats, or patrol zones, by geographical area. The project site is served by Beat 5. The Antioch Police Department assigns a priority number to every call for service. Calls are classified in the following manner:

- *Priority 1:* designates in-progress crimes or life-threatening situations.
- *Priority 2:* designates calls that demand immediate attention, but are not crimes in progress or life-threatening.
- *Priority 3:* designates those calls that do not require immediate response and could be dealt with as soon as is practical.

Per General Plan Objective 3.5.3.1, the City of Antioch sets a response time goal of between seven and eight minutes from the time a call is received to the time an Antioch PD officer arrives.

Schools

The proposed project site is located within the Antioch Unified School District (AUSD). As of 2014, the AUSD serves thirteen K-5 schools, one K-8 school, four 6-8 schools, two comprehensive high schools (9-12), two continuation high schools, Dozier-Libbey Medical High School, and two alternative schools (Bridges and Prospects High).[15] In addition, the AUSD serves two charter schools (Antioch Charter Academy and Antioch Charter Academy II).

[14] City of Antioch. *City of Antioch General Plan EIR [pg. 4.11-1]*. July 2003.
[15] Antioch Unified School District. *Developer Fee Justification Document for Residential, Commercial, and Industrial Development Projects.* July 2014.

According to a recent Student Demographic Study, the AUSD has experienced a wide range of enrollment gains and losses since 1993; however, the most likely scenario for the near future is a relatively modest reduction in overall enrollment.[16] Table 4.11-5 below provides a summary of enrollment and capacity data for the AUSD. As of 2009, the AUSD had 21 classrooms less than the total number of classrooms required to accommodate elementary school enrollment for the 2018-19 school year. Surplus classrooms were available to accommodate both middle and high schools.[17]

Table 4.11-5
AUSD Actual and Projected Enrollments, 2016 to 2021

Period	Total Enrollment by Grade Group			Totals (TK-13)
	TK-5	6-8	9-13	
Actual: October 5, 2016	7,591	3,730	5,386	16,707
Projected: October 1, 2017	7,516	3,684	5,387	16,587
Projected: October 1, 2018	7,285	3,723	5,295	16,303
Projected: October 1, 2019	7,261	3,746	5,166	16,173
Projected: October 1, 2020	7,329	3,645	5,179	16,153
Projected: October 1, 2021	7,373	3,557	5,182	16,112

Notes:

- Figures include AUSD-attending TK-13 "SDC" (Special Education) students but exclude all charter school, "NPS" (Non-Public-School) and preschool SDC students that may be included in some State reports of the district enrollment.
- The forecast includes the impact of a Rocketship charter school that is assumed to be opening as a K-2 program for the 2018-19 school year prior to evolving into a K-5 program at a later point in time.

Sources:
AUSD, Student Demographic Study, Including Projected Enrollments in the Antioch Unified School District, 2017.
City of Antioch, Hillcrest Area Specific Plan, 2008.

Parks and Recreation

Antioch's Recreation Department manages the operation of the City's parks and recreational facilities, while the Parks Division provides maintenance of parks in the City. Nearly all of the City's parks have barbeque pits, picnic tables, restrooms, turf landscaping, and youth play areas. Park amenities distributed throughout the City include softball, baseball, and soccer fields; horseshoe pits; volleyball, basketball, and tennis courts; tot lots; trails; and exercise courses. According to the Antioch General Plan, the City plans to build parks within the Sand Creek Focus Area of the General Plan, which is currently undeveloped.[18]

Special-Use Facilities.

The City of Antioch has several special-use facilities, including the Antioch Municipal Marina located at the foot of L Street in downtown Antioch. Facilities at the Marina consist of a fishing pier, municipal boat ramp, and marina clubhouse. The Marina is located adjacent to and shares

[16] Antioch Unified School District. *Student Demographic Study, Including Projected Enrollments in the Antioch Unified School District* [pg. 2]. August 7, 2017
[17] Antioch Unified School District. *Master Plan Workshop.* February 24, 2009.
[18] City of Antioch. *City of Antioch General Plan EIR* [pg. 4.11-9]. July 2003.

some facilities with the Antioch/Oakley Regional Shoreline, which consists of seven acres fronting the San Joaquin River, north of downtown Antioch. The Shoreline has a 550-foot long fishing pier, a small beach, picnic tables, barbecues, and a 4.5-acre meadow. The Riverfront Promenade, which is also located along the San Joaquin River, is a trail facility between Barbara Price Marina Park and G Street.

The Prewett Family Water Park, also called the Antioch Water Park, is considered a special-use facility, and is available for exclusive group use (called a park "buy-out"). The multi-purpose room and poolside patio may also be rented out for events. The skate park, located adjacent to the Prewett Family Water Park, is open from dawn to dusk for in-line skating and skateboards.

The Nick Rodriquez Community Center houses a 190-seat theater used for seminars, theatrical productions, music recitals, and other special services. The Community Center also includes a large multi-purpose room which seats 220 people banquet style or 280 standing, as well as an arts and crafts room and conference room. In addition, the City of Antioch has the Lone Tree Municipal Golf Course, an 18-hole public course, the Antioch Community Center, and the Antioch Memorial Field and the Antioch Historical Museum.

Other special-use facilities are the City's Senior Citizens Center and the Lynn House Gallery. Most of the various programs for seniors are held at the Senior Citizens Center. The Lynn House Gallery is available to show local art and exhibits.

In addition, Antioch residents have access to several special use facilities located outside the city limits, including the 75-acre Contra Costa County Fairgrounds, which includes an arena, grandstand, and facilities for housing show animals. The Fairgrounds are used not only for the annual Contra Costa County Fair, but are also in use continually as the site of preschool classes, a roller rink, flea market, auto races, cultural and music events, and community league ballfields.

Regional Facilities and Trails

The East Bay Regional Park District (EBRPD) operates three facilities in the Antioch area. The largest facility, Black Diamond Regional Preserve, is a 5,386-acre open space area located approximately 0.9-mile west of the proposed project site, accessible by multiple use trails (i.e., pedestrian, bike, and equestrian trails). The Black Diamond Regional Preserve offers naturalist programs, and visitors can tour the underground mining museum and an historic cemetery.

The 775-acre Contra Loma Regional Park, adjacent to the Lone Tree Golf Course on the southern edge of the City, surrounds the Contra Loma Reservoir, and offers multiple-use trails for hiking, biking, and horseback riding. The reservoir is available for fishing, boating, sailboarding, and swimming. The Contra Loma Regional Park also provides picnic areas, horseshoe pits, and a food concession stand. In addition, the EBRPD oversees the Delta DeAnza Regional Trail. The Trail originates from Bay Point in the West Pittsburg area and runs east to a connection with the Marsh Creek Trail at East Cypress Road in Oakley.

Library Services

The Contra Costa County Library system operates 30 library facilities, funded primarily by local taxes. The City of Antioch currently has two libraries within the Contra Costa County Library system, including the GenOn Gateway Center for Learning, known as the Prewett Library, and the Antioch Public Library. The 11,000-sf Antioch Library, located at 501 West 18th Street, houses a large collection of materials including books, DVDs, and audio books.[19] The Prewett Library, which opened in January 2011, is located within the Antioch Community Center on Lone Tree Way approximately 1.5-mile northwest of the project site. The Prewett Library is an "express library" where customers can pick up their requested materials as well as browse through nearly 9,000 items including best sellers, teen books, magazines, audio books, CDs, DVDs, and materials for children. The Prewett Library houses two early literacy workstations for children and is adjacent to the Antioch Community Center's technology lab which houses 25 computers.[20] Both Antioch libraries offer free wireless internet access.

Electricity and Natural Gas

The Pacific Gas and Electric Company (PG&E) provides electricity and natural gas service to customers in the City of Antioch. The project site is located within PG&E's Delta Distribution Planning Area, which covers the southern and eastern portions of Antioch. The City is not served by a single set of facilities; rather, electricity distribution facilities are located throughout the Delta Distribution Planning Area. On October 31, 2008 PG&E completed construction of a new distribution substation in Antioch, located approximately one-half mile south of the Hillcrest Avenue/Prewett Ranch Drive intersection.[21] The Antioch substation improves the reliability and safety of electric services to southern Antioch.

4.11.3 REGULATORY CONTEXT

The following section includes a summary review of regulatory controls pertaining to public services, recreation, and utilities, including federal, State, and local laws and ordinances.

Federal Regulations

The following are the federal environmental laws and policies relevant to public services and utilities.

[19] Contra Costa County Library. *About Antioch Library.* Available at: http://ccclib.org/locations/antioch.html. Accessed March 9, 2015.

[20] Contra Costa County Library. *About GenOn Gateway for Learning (Prewett Library).* Available at: http://ccclib.org/locations/prewett.html. Accessed March 9, 2015.

[21] State of California Public Utilities. *Pacific Gas & Electric Company's Delta DPA Capacity Increase Substation Project*. Available at: http://www.cpuc.ca.gov/environment/info/aspen/deltasub/deltasub.htm. Accessed July 2017.

Federal Water Pollution Control Act

The federal Water Pollution Control Act (33 U.S.C. 1251 et seq.), otherwise known as the Clean Water Act (CWA), sets forth national goals that waters shall be "fishable, swimmable" waters (CWA Section 101 (a)(2)). To enforce the goals of the CWA, the U.S. Environmental Protection Agency (USEPA) established the NPDES program. NPDES is a national program for regulating and administering permits for discharges to receiving waters, including non-point sources. Under Section 1251 (b) of the CWA, Congress and the USEPA must recognize and preserve the primary responsibilities and rights of states concerning the reduction of pollution in water resources.

Safe Drinking Water Act

The federal Safe Drinking Water Act (SDWA), which was enacted in 1974, gives the USEPA the authority to set standards for contaminants in drinking water supplies. The USEPA was required to establish primary regulations for the control of contaminants that affected public health and secondary regulations for compounds that affect the taste, odor, and aesthetics of drinking water. Accordingly, the EPA set a maximum contaminant level or treatment technique for each of the 83 contaminants in drinking water listed in the SDWA. Under the provisions of SDWA, the California Department of Public Health (DPH) has the primary enforcement responsibility. Title 22 of the California Code of Regulations establishes DPH authority, and stipulates State drinking water quality and monitoring standards.

State Regulations

The following are the State environmental laws and policies relevant to public services, recreation, and utilities.

Senate Bill 610

The California Water Code requires coordination between land use lead agencies and public water purveyors. The purpose of this coordination is to ensure that prudent water supply planning has been conducted and that planned water supplies are adequate to meet both current demands and the demands of planned development.

Water Code Sections 10910 – 10915 (inclusive), sometimes referred to as SB 610, require land use lead agencies: 1) to identify the responsible public water purveyor for a proposed development project, and 2) to request from the responsible purveyor, a "Water Supply Assessment" (WSA). The purposes of the WSA are (a) to describe the sufficiency of the purveyors' water supplies to satisfy the water demands of the proposed development project, while still meeting the current and projected water demands of customers, and, (b) in the absence of a currently sufficient supply, to describe the purveyor's plans for acquiring additional water. Water Code Sections 10910-10915 delineate the specific information that must be included in the WSA.

According to CEQA Guidelines Section 15155, a "water-demand project" means:

(A) A residential development of more than 500 dwelling units.

(B) (B) A shopping center or business establishment employing more than 1,000 persons or having more than 500,000 square feet of floor space.

(C) (C) A commercial office building employing more than 1,000 persons or having more than 250,000 square feet of floor space.

(D) (D) A hotel or motel, or both, having more than 500 rooms.

(E) (E) An industrial, manufacturing, or processing plant, or industrial park planned to house more than 1,000 persons, occupying more than 40 acres of land, or having more than 650,000 square feet of floor area.

(F) (F) A mixed-use project that includes one or more of the projects specified in subdivisions (a)(1)(A), (a)(1)(B), (a)(1)(C), (a)(1)(D), (a)(1)(E), and (a)(1)(G) of this section.

(G) (G) A project that would demand an amount of water equivalent to, or greater than, the amount of water required by a 500 dwelling unit project.

(H) (H) For public water systems with fewer than 5,000 service connections, a project that meets the following criteria:

1. A proposed residential, business, commercial, hotel or motel, or industrial development that would account for an increase of 10 percent or more in the number of a public water system's existing service connections; or
2. A mixed-use project that would demand an amount of water equivalent to, or greater than, the amount of water required by residential development that would represent an increase of 10 percent or more in the number of the public water system's existing service connections.

The proposed project meets criterion (A).

Senate Bill X7-7

The Water Conservation Act of 2009, commonly known as SB X7-7, requires all water suppliers to increase water use efficiency. The legislation divides water conservation into two sectors, urban water conservation and agricultural water conservation. SB X7-7 also requires that the DWR, in consultation with other State agencies, develop a single standardized water use reporting form, which would be used by both urban and agricultural water agencies. For the urban water conservation sector, SB X7-7 sets an overall goal of reducing per capita urban water use by 20 percent by December 31, 2020. The State intends to make incremental progress towards the overall goal by reducing per capita water use by at least 10 percent by December 31, 2015. Other requirements of SB X7-7 include, but are not limited to, the following:

- An urban retail water supplier shall include in its water management plan the baseline daily per capita water use, water use target, interim water use target, and compliance daily per capita water use. The DWR, through a public process and in consultation with the California Urban Water Conservation Council, shall develop technical methodologies and criteria for consistent implementation of this requirement;
- The DWR shall adopt regulations for implementation of the provisions relating to process water;
- A Commercial, Institutional, Industrial (CII) task force is to be established that would develop and implement urban best management practices for statewide water savings; and
- Effective 2016, urban retail water suppliers who do not meet the water conservation requirements established by SB X7-7 are not eligible for State water grants or loans.

Urban Water Management Planning Act

California Water Code Section 10610 et seq. applies to all public water systems that provide municipal water to more than 3,000 customers, or that supply at least 3,000 AFY of potable water. The public water suppliers are each required to prepare an Urban Water Management Plan (UWMP). UWMPs represent key water supply planning documents for municipalities and water purveyors in California, and often form the basis of Water Supply Assessments prepared for individual projects. The City of Antioch adopted its current UWMP in 2016.

Proposition 1A/Senate Bill 50

Proposition 1A/Senate Bill (SB) 50 (Chapter 407, Statutes of 1998) is a school construction measure authorizing the expenditure of State bonds totaling $9.2 billion through 2002, primarily for modernization and rehabilitation of older school facilities and construction of new school facilities. $2.5 billion is for higher education facilities and $6.7 billion is for K-12 facilities. Proposition 1A/SB 50 implemented significant fee reforms by amending the laws governing developer fees and school mitigation, including the following:

- Establishes the base (statutory) amount (indexed for inflation) of allowable developer fees at $1.93 per square foot for residential construction and $0.31 per square foot for commercial construction.
- Prohibits school districts, cities, and counties from imposing school impact mitigation fees or other requirements in excess of or in addition to those provided in the statute.
- Suspended for a period of at least eight years a series of court decisions allowing cities and counties to deny or condition development approvals on grounds of inadequate school facilities when acting on certain types of entitlements.

Proposition 1A/SB 50 prohibits local agencies from using the inadequacy of school facilities as a basis for denying or conditioning approvals of any "[…] legislative or adjudicative act […] involving […] the planning, use, or development of real property." (Government Code 65996[b]) Additionally, a local agency cannot require participation in a Mello-Roos for school facilities; however, the statutory fee is reduced by the amount of any voluntary participation in a Mello-Roos.

Satisfaction of the Proposition 1A/SB 50 statutory requirements by a developer is deemed to be "full and complete mitigation." The law identifies certain circumstances under which the statutory fee can be exceeded, including preparation and adoption of a "needs analysis," eligibility for State funding, and satisfaction of two of four requirements (post-January 1, 2000) identified in the law including year-round enrollment, general obligation bond measure on the ballot over the last four years that received 50 percent plus one of the votes cast, 20 percent of the classes in portable classrooms, or specified outstanding debt. Assuming a district qualifies for exceeding the statutory fee, the law establishes ultimate fee caps of 50 percent of costs where the State makes a 50 percent match, or 100 percent of costs where the State match is unavailable. District certification of payment of the applicable fee is required before the city or county can issue the building permit.

Proposition 55

Proposition 55 is a school construction measure passed in 2004 authorizing the sale of approximately $12.3 billion in bonds to fund qualified K-12 education facilities to relieve overcrowding and to repair older schools. Funds target areas of the greatest need and must be spent according to strict accountability measures. These bonds would be used only for eligible projects. Approximately ten billion dollars would be allocated to K-12 schools, with the remaining 2.3 billion allocated to higher education facilities.

Department of Education Standards

The California Department of Education published the Guide to School Site Analysis and Development to establish a valid technique for determining acreage for new school development. Rather than assigning a strict student/acreage ratio, this guide provides flexible formulas that permit each district to tailor its ratios as necessary to accommodate its individual conditions. The Department of Education also recommends that a site utilization study be prepared for the site, based on these formulas.

Quimby Act

California Government Code Section 66477, Subdivision Map Act, referred to as the Quimby Act, permits local jurisdictions to require the dedication of land and/or the payment of in-lieu fees solely for park and recreation purposes. The required dedication and/or fee are based upon the residential density, parkland cost, and other factors. Land dedication and fees collected pursuant to the Quimby Act may be used for acquisition, improvement, and expansion of park, playground, and recreational facilities or the development of public school grounds.

Consistent with the requirements of the Quimby Act, Standard 3.5.7.2 in the City of Antioch General Plan and Section 9-4.1004 of the Antioch Municipal Code set a standard of five acres of parks and open space per 1,000 residents.[22] The City of Antioch receives land for parks through land dedications or purchases funded through fee collection. The Antioch Municipal Code requires either a dedication of land at the rate of 0.015 acres per single-family unit, or payment of $1,050 per/unit. In addition, a payment of the adopted Community Park Fee is required.

[22] City of Antioch. *General Plan* [pg. 3-12]. Updated November 24, 2003.

Local Regulations

The following are the local environmental laws and policies relevant to public services, recreation, and utilities.

City of Antioch General Plan

The City of Antioch General Plan objectives, standards, and policies relating to public services, recreation, and utilities that are applicable to the proposed project are presented below:

Objective 3.5.1.1 Ensure that community centers provide sufficient space to conduct civic meetings, recreational programs, and social activities to meet the needs of Antioch residents.

Standard 3.5.1.2 Maintain a minimum of 750 square feet of community center space per 1,000 population.

Objective 3.5.2.1 Maintain competent and efficient fire prevention and emergency fire, medical, and hazardous materials response services with first responder capability in order to minimize risks to life and property.

Standard 3.5.2.2 Prior to approval of discretionary development projects, require written verification from the Contra Costa County Fire Protection District that a five minute response time (including three minute running time) can be maintained for 80 percent of emergency fire, medical, and hazardous materials calls on a citywide response area basis.

Objective 3.5.3.1 Maintain an active police force, while developing programs and police facilities that are designed to enhance public safety and protect the citizens of Antioch by providing an average response time to emergency calls of between seven and eight minutes from the time the call is received to the time an officer arrives.

Standard 3.5.3.2 Maintain a force level within a range of 1.2 to 1.5 officers, including community service officers assigned to community policing and prisoner custody details, per 1,000 population. The ratio of community service officers assigned to community policing and prisoner custody details to sworn officers shall not exceed 20 percent of the total number of sworn officers.

Objective 3.5.4.1 Maintain a water system that is capable of meeting the daily and peak demands of Antioch residents and businesses, including the provision of adequate fire flows and storage for drought and emergency conditions.

Standard 3.5.4.2 Adequate fire flow as established by the Contra Costa County Fire District, along with sufficient storage for emergency and drought situations and to maintain adequate service pressures.

Objective 3.5.5.1 A wastewater collection, treatment, and disposal system that is capable of meeting the daily and peak demands of Antioch residents and businesses.

Standard 3.5.5.2 Prior to approval of discretionary development projects, require written verification from the Delta Diablo Sanitation District that the proposed project will not cause the rated capacity of treatment facilities to be exceeded during normal or peak flows.

Objective 3.5.7.1 A system of park, recreational, and open space lands of sufficient size and in the appropriate locations, including provision of a range of recreational facilities, to serve the needs of Antioch residents of all ages.

Standard 3.5.7.2 Provide five acres of improved public and/or private neighborhood parks and public community parkland per 1,000 population, including appropriate recreational facilities.

Objective 3.5.8.1 Provision of schools in locations that are readily accessible to student populations, along with sufficient facilities to provide educational services without overcrowding.

Standard 3.5.8.2 Require new development to provide necessary funding and/or capital improvements to mitigate projected impacts on school facilities, as determined by the responsible school district.

Policy 4.4.6.7b (ii) Development of an appropriate level of pedestrian and bicycle circulation throughout the community is to be provided, including pathways connecting the residential neighborhoods, as well as non-residential and recreational components of the community. Sand Creek Focus Area development should also provide recreational trail systems for jogging and bicycling, including areas for hiking and mountain biking. Trails along Sand Creek and Horse Valley Creek shall be designed so as to avoid impacting sensitive plant and amphibian habitats, as well as water quality.

Objective 8.3.1 Provide public and cultural facilities supportive of a high level of community activities, and facilitating conduct of the daily operations of municipal government.

Policy 8.3.2.d Work with the Contra Costa Library System to achieve and maintain facilities and titles consistent with the standards of the American Library Association.

Objective 8.4.1 Ensure a water system capable of providing high quality water to existing and future residences, businesses, institutions, recreational facilities, and other uses within the City of Antioch during peak use conditions, with sufficient water in storage reservoirs for emergency and fire protection needs.

Policy 8.4.2.a As part of the design of water systems, provide adequate pumping and storage capacity for both drought and emergency conditions, as well as the ability to provide fire flows required by the Contra Costa County Fire Protection District.

Policy 8.4.2.b Ensure that adequate infrastructure is in place and operational prior to occupancy or new development, such that (1) new development will not negatively impact the performance of water facilities serving existing developed areas, and (2) the performance standards set forth in the Growth Management Element will continue to be met.

Objective 8.5.1 Ensure a wastewater collection, treatment, and disposal system capable of providing sewer services to existing and future residences, businesses, institutions, recreational facilities, and other uses within the City of Antioch during peak use conditions.

Policy 8.5.2.a As part of the design of sewer systems, provide adequate capacity for average and peak conditions.

Policy 8.5.2.b Ensure that adequate infrastructure is in place and operational prior to occupancy of new development, such that new development will (1) not negatively impact the performance of sewer facilities serving existing developed areas, and (2) the performance standards set forth in the Growth Management Element will continue to be met.

Objective 8.6.1 Reduce the amount of solid waste requiring disposal at landfills, enhancing the potential for recycling of the City's solid wastes.

Policy 8.6.2.j The City shall require all development projects to coordinate with appropriate departments and/or agencies to ensure that there is adequate waste disposal capacity to meet the waste disposal requirements of the project, and the City shall recommend that all development projects incorporate measures to promote waste reduction, reuse, recycling, and composting.

Objective 8.8.1 Cooperate with the Antioch Unified School District, Brentwood School District, and the Liberty Union High School District to facilitate the acquisition of sites and the construction of school facilities such that all school age children have access to uncrowded school facilities providing superior educational opportunities.

Policy 8.8.2.b Coordinate the planning efforts of the City and local school districts by:

- Locating school facilities to facilitate the primary educational purpose of the facility and allow for safe pedestrian, bicycle, and vehicular access, including the provision of traffic calming measures, where appropriate, in the vicinity of schools;
- Maximizing the joint use of facilities by the City and local school district (including, joint school/park sites and, where feasible, joint use of athletic fields, community meeting facilities, and provision of child and senior care facilities) by developing joint funding for such facilities through a combination of school district and City sources, provided that City contributions to joint facilities are consistent with the availability of such joint facilities to meet non-school recreational and other community needs;
- Designing attractive facilities that can also serve as neighborhood and community gathering places, and contribute to neighborhood identity and pride;
- Requiring reasonable reservation of appropriate locations for development of new schools as part of new development; and
- Regularly exchanging information on (1) the status of development review and construction, (2) the capacity of area schools, (3) the status of site acquisitions by the districts, and (4) applicable student generation factors by type of development.

Policy 8.8.2.c Require new development to pay all legally established fees or participate in land-based financing districts established by local school districts for the acquisition and development of school sites with adequate, permanent classroom space, as required by the local school district.

Policy 8.8.2.e Provide incentives in the City's residential growth management program for the provision of developer assistance to local school districts beyond nominally required mitigation fees. The objective of such incentive is that the combination of required feed and incentives provide a full contribution proportional to the needs of the proposed development for all school-related facilities to serve the proposed project.

Objective 8.9.1 Maintain a system of parks, specialized recreational facilities, and natural open spaces of sufficient size and variety and in the appropriate locations to serve the needs of Antioch residents of all ages.

Policy 8.9.2.a Provide a comprehensive system of recreation and park facilities and services needed by various segments of the City's population – including specific age groups, persons with special physical requirements, and groups interested in specific recreational activities – and make these facilities and services easily accessible and affordable to all users.

Policy 8.9.2.b Provide a range of public parklands for use by the community including the following.

- Neighborhood Park: A park or playground generally five to ten acres in size primarily developed to meet the recreational needs of citizens living within 0.5 to one mile.
- Joint School/Park: A neighborhood park development, improved, and maintained on or adjacent to school grounds by the City. Joint school/park facilities are utilized jointly by students and residents from the surrounding neighborhoods. Since school facilities are only available for use by the general public when school is not in session, only half of the total acreage is to be applied to the City's park standard.
- Community Park: A larger park or facility developed to meet the park and recreational needs

of those living or working within a three to five mile radius. Community parks generally range in size from 10 to 60 acres.

- Regional Park: A park having a wide range of improvements not usually found in neighborhood or community parks, and designed to meet recreational needs of an entire regional population. Regional parks are generally over 100 acres and serve a population within a 30-minute driving time. Regional parks are generally provided by County and State agencies, and are therefore not included in local park standards.
- Specialized Recreation Areas: These include recreational areas of facilities devoted to specific activities or uses. Examples include linear parks (trails), sports and ball field complexes, swimming pools, river access and viewing areas, bicycle facilities, and riverfront trail and sitting areas, and marinas and boat launch facilities.

The facilities identified above, with the exception of regional parks devoted to preserving the natural environment, generally require relatively flat land. Areas over 10 percent slope will be reviewed by the City prior to dedication to determine the extent to which they serve the intended purposes of the park and to which dedication of such sloping lands will therefore be credited against the applicable performance standards of the Growth Management Element.

Policy 8.9.2.c Maintain a minimum size for neighborhood parks of five acres or more, unless there is a specific need for a smaller facility.

Policy 8.9.2.e Provide passive and active elements within neighborhood and community parks to meet the needs of citizens of all ages and interests, and thereby ensuring that the needs for lands for athletics and team sports is an equal to the provision of tranquil settings for picnicking, walking, and relaxation.

Policy 8.9.2.f Develop athletic field complexes and specialized recreation areas to accommodate the growing community needs for such facilities.

Policy 8.9.2.g Encourage the preservation of significant natural features and development of landscaped parkways and trail systems in new development in addition to required park development.

Policy 8.9.2.m Locate new park facilities so that they are highly visible from adjacent streets and neighborhoods to increase safety and enhance visual quality.

Policy 8.9.2.n Require the provision of private play space for children in small lot single family subdivisions and attached residential development.

Objective 8.10.1 Provision of an adequate number of fire stations, along with fire fighting personnel and equipment to protect Antioch residents and businesses.

Policy 8.10.1.a Work with the Contra Costa County Fire Protection District to provide high quality fire protection services to area residents and businesses. The City's role should include, but not be limited to:

- Determining the appropriateness of station location sites;
- Enforcement of building codes to reduce fire hazards;
- Collection of mitigation fees established by the fire district to construct needed additional stations within the Antioch Planning Area.
- Support the District in providing funding for personnel costs to staff stations within the City;
- Support the District in establishing fees that are adequate to mitigate the impacts of new development and income to support operation of new stations whose construction is financed with development fees; and
- Requiring reasonable reservation of appropriate sites for new fire stations as part of new development.

Policy 8.10.1.d Involve the Fire Protection District in the development review process by referring development requests to the Fire District for review and comment.

Objective 8.11.1 Reduce the risk of crime and provide security to Antioch residents and businesses though maintenance of an adequate force of police personnel,

physical planning strategies, and a high level of public awareness and support for crime prevention.

Policy 8.11.1.a Provide an adequate police force meeting the performance standards for police services set forth in the Growth Management Element.

Policy 8.11.1.b Provide sufficient facilities and staffing to ensure the safety of the citizens of Antioch by:

- Providing expedient response to emergency calls.
- Maintaining an efficient well-trained and adequately equipped force of police personnel.
- Providing neighborhood watch and crime prevention programs, and attempting to improve the participation of individual neighborhoods and businesses.
- Continuing to provide a variety of programs within the Police Department (e.g., traffic crime prevention, REACH, narcotics, investigations) to meet the needs of an active community.

Policy 8.11.1.c Provide basic requirements and incentives for the provision of design features in new development to reduce the potential for crime.

- Provide well-lighted and visible streets and street names, entrances, addresses, recreation areas, and parking areas.
- Limit access into and between buildings to reduce escape routes and undetected entry is made difficult.
- Provide landscaping which permits surveillance of open areas and entryways, and does not create places for concealment.
- Within multi-family and non-residential developments, design access systems to allow emergency vehicle access around buildings to the greatest extent possible.
- Within multi-family and non-residential developments, eliminate the potential for access to roofs by pallets, flag poles, etc.

Policy 8.11.1.d Involve the Antioch Police Department in the development review process by referring development

requests to the Police Department for review and comment.

Objective 8.13.1 Ensure that the expansion of public facilities occurs in an equitable manner such that new development pays for all of the infrastructure and public facilities required to support the development without impacting levels of service provided to existing residents and businesses.

Policy 8.13.2.a Place the ultimate responsibility on the sponsor of proposed development projects for ensuring that the services and facilities needed to support the project and maintains applicable performance standards in the Growth Management Element are available at the time they are needed.

Policy 8.9.2.b Require that new development:

- Participate in a land-based financing district, construct, and/or pay for the new onsite capital improvements required to meet the applicable performance standards of the Growth Management Element;
- Be phased so as to ensure the services and capital facilities used by the new development meet the applicable performance standards of the Growth Management Element; and
- Ensure that, in the event public services or off-site capital facilities do not meet the applicable performance standards of the Growth Management Element prior to approval of the project, the level of service provided to existing development will not be further impacted by new development.

Policy 8.9.2.d Where permitted by law, require that special assessments for single-family residential development be paid off at the time of the initial sale of homes to individuals.

Policy 8.9.2.e Continue to apply existing policies and regulations precluding City financial assistance for any on-site capital improvements required by new development.

Policy 8.9.2.f As part of new development proposals, determine whether any service level deficiencies might result, and place needed conditions on the proposed development to ensure that:

- Service level standards will continue to be met, and
- New development will not result in any substantial, short- or long-term reduction in the level of municipal services provided by the City to existing developed areas.

Objective 10.3.1 Maintain, preserve and acquire open space and its associated natural resources by providing parks for active and passive recreation, trails, and by preserving natural, scenic, and other open space resources.

Policy 10.3.1.a Establish a comprehensive system of open space that is available to the public, including facilities for organized recreation; active informal play; recreational travel along formal, natural, and riverfront trails; passive recreation; and enjoyment of the natural environment.

Policy 10.3.1.b Implement the design standards of the Community Image and Design Element so as to maintain views of the San Joaquin River, Mount Diablo and its foothills, Black Diamond Mines Regional Preserve and other scenic features, and protect the natural character of Antioch's hillside areas as set forth in the Community Image and Design Element.

Policy 10.3.1.d Where significant natural features are present (e.g., ridgelines, natural creeks and other significant habitat areas, rock outcrops, and other significant or unusual landscape features), require new development to incorporate natural open space areas into project design. Require dedication to a public agency or dedication of a conservation easement, preparation of maintenance plans, and provision of appropriate long-term management and maintenance of such open space areas.

Policy 10.3.1.e Require proposed development projects containing significant natural resources (e.g. sensitive or unusual habitats, special-status species, habitat linkages, steep slopes, cultural resources, wildland fire hazards, etc.) to prepare Resource Management Plans to provide for their protection or preservation consistent with the provisions of the Antioch General Plan, other local requirements, and the provisions of State and Federal law. The purpose of the Resource Management Plan is to look beyond the legal status of species at the time the plan is prepared, and provide a long-term plan for conservation and management of the natural communities found onsite.

Resource Management Plans shall accomplish the following.

- Determine the significance of the resources that are found onsite and their relationship to resources in the surrounding area, including protected open space areas, habitat linkages and wildlife movement corridors;
- Define areas that are to be maintained in long-term open space based on the significance of onsite resources and their relationship to resources in the surrounding area; and
- Establish mechanisms to ensure the long term protection and management of lands retained in open space.

Policy 10.3.1.f Encourage public access to creek corridors through the establishment of trails adjacent to riparian resources, while maintaining adequate buffers between creeks and trails to protect sensitive habitats, special-status species and water quality to the maximum extent feasible.

Policy 10.3.1.g Where feasible, incorporate preserve and protect significant existing natural features as part of the design of new development projects rather than removing them. Where preservation of natural features is not feasible, introduce natural elements into project design. Impacts to significant natural features that cannot be preserved or reintroduced into the project design on-site shall be mitigated off-site.

Objective 10.5.1 Minimize the impacts of development located adjacent to natural areas, preserved in open space, and protected environmental resources.

Policy 10.5.1.a Minimize the number and extent of locations where residential, commercial, industrial, and public facilities land use designations abut lands designated for open space and protected resource areas (e.g., lands with conservation easements or set aside as mitigation for development impacts). Where such land use relationships cannot be avoided, use buffers and compatible uses to buffer and protect open space and protected resources from the adverse effects of residential, commercial, industrial and public facilities development.

Policy 10.5.1.b Ensure that the design of development proposed along a boundary with open space or protected resources provides sufficient protection and buffering for the open space and protected resources. The provision of buffers and transitions to achieve compatibility shall occur as part of the proposed development.

Policy 10.5.1.c In designing buffer areas, the following criteria shall be considered and provided for (when applicable) within the buffer areas to avoid or mitigate significant impacts.

- Fire Safety: How will development affect the risk of fire on adjacent open space and resource areas? How would development affect or be affected by existing fire abatement practices on adjacent open space and resource areas, including livestock grazing, prescribed fire, plant pest management, mowing, disking, ecological restoration and other practices?
- Public Safety: How will development adjacent to open space or resource areas increase the risk of vandalism, trespass, and theft in adjacent open space and resource areas?
- Public Access Management: How will development adjacent to public open space and resource areas affect the maintenance of existing public facilities, such as roads, trails, fences, gates and restrooms? How might development adjacent to open space or resource areas facilitate illegal public access?
- Buffer Management: How can appropriate management of lands that are set aside as buffers between development and open space or resource areas be ensured?

Antioch Municipal Code

The City of Antioch Municipal Code sections relating to public services, recreation, and utilities that are applicable to the proposed project are presented below:

Section 9-4.1004 Standards and Formula for the Dedication of Land.

Per Section 9-4.1004 of the Antioch Municipal Code, the proportion of a subdivision to be dedicated or the amount of fees to be paid in lieu thereof, or a combination of both, must be determined based on the average number of persons per dwelling unit and the City's standard of

five acres of dedicated land per 1,000 persons. Table 4.11-6 below summarizes the City's dedication standards.

Table 4.11-6
City Standards and Formula for the Dedication of Park and Recreational Lands

Unit Category	Average Person Per Dwelling Unit	Average Requirement Per Dwelling Units
Single-Family, Detached	3.0	0.015
Single-Family, Attached	2.2	0.011
Duplexes	1.9	0.0095
Multi-Family	1.9	0.0095

Source: Antioch Municipal Code, 2017.

Section 9-4.1005 Fee Determination.

A. *Formula determination.* The Council finds that the fees established by § 9-4.1007 of this article represents the value of the land prescribed for dedication in § 9-4.1004 of this article.

B. *Fees in lieu of land; 50 parcels or less.* If the proposed subdivision contains 50 parcels or less, the subdivider shall pay the fee established by § 9-4.1007 of this article, rather than having to dedicate land; except that when a condominium project, stock cooperative, or community apartment project, as those terms are defined in Cal. Civil Code §§ 4105, 4125 and 4190, exceeds 50 dwelling units, dedication of land may be required, at the option of the city.

C. *Use of money*. The moneys collected pursuant to the provisions of this article shall be used only for the purpose of developing new or rehabilitating existing park or recreation facilities to serve a subdivision.

Section 9-4.1006 Criteria for Requiring Both the Dedication of Land and The Payment of Fees.

A. When only a portion of the land to be subdivided is proposed in the Park and Recreation Element of the General Plan as the site for a park, such portion shall be dedicated for park purposes. The value of such dedication shall be a credit against the fees required for any additional land which would have been required to be dedicated pursuant to § 9-4.1004 of this article.

B. When a major part of the park or recreational site has already been acquired by the city, and only a small portion of land is needed from the subdivision to complete the site, such remaining portion shall be dedicated, and the value of such dedication shall be a credit against the fees which otherwise would have been required to be paid. Fees collected shall be used for the improvement of the existing park and recreational facility or for the improvement of other parks and recreational facilities serving the subdivision.

Section 9-4.1007 Amount of Fees in Lieu of Land Dedications.

The Council finds that the average land value for improved residential land is $100,000 per acre. Therefore, the amount of fees required to be paid in lieu of land dedication shall be the following amounts (Table 4.11-7):

Table 4.11-7
City of Antioch In-Lieu Fees

Type of Unit	Fee Per Dwelling Unit
Single-Family Detached	$1,500
Single-Family, Attached	$1,100
Duplexes	$950
Multi-Family	$950
Mobile Home	$950

Source: Antioch Municipal Code, 2017.

Section 9-4.1008 Determination of the Dedication of Land or the Payment of Fees.

Whether the City accepts the dedication of land or elects to require the payment of a fee in lieu thereof, or a combination of both, shall be determined by the consideration of the following:

A. The Environmental Resource and Land Use Elements of the General Plan;

B. Any adopted Specific Plan for the area;

C. The topography, geology, access, and location of land in the subdivision available for dedication;

D. The size and shape of the subdivision and the land available for dedication;

E. The feasibility of dedication;

F. The compatibility of dedication with the General Plan and Specific Plan, if any; and

G. The availability of previously acquired park property. The determination of the City as to whether land shall be dedicated or whether a fee shall be charged, or a combination thereof, shall be final and conclusive.

Section 9-4.1009 Credit for Improvements.

If the subdivider provides park and recreational improvements to the dedicated land, the value of the improvements, together with any equipment located thereon, shall be a credit against the payment of fees or dedication of land required by this article.

Section 9-4.1010 Credit for Private Recreation Improvements.

A. Planned developments and real estate developments, as defined in Cal. Bus. and Prof. Code § 11003, respectively, shall be eligible to receive a credit, as determined in this section, against the amount of land required to be dedicated, or the amount of the fee imposed, for the value of private open space within the development which is usable for active recreational uses.

B. Park and recreational uses shall include land and facilities for the activity of recreational community gardening, which activity consists of the cultivation by persons other than, or in addition to, the owner of such land, of plant materials not for sale.

C. Credit shall be computed on an acre-for-acre basis. A minimum of two acres of contiguous private open space or private recreational facilities shall be provided before any credit shall be given. A maximum credit of six and three-fourths acres shall be allowable for such private open space or private recreational facilities.

D. To be eligible for credit for private recreation improvements, the following standards shall be met:

1. That yards, court areas, setbacks, and other open areas required to be maintained by the zoning and building laws and regulations shall not be included in the computation of such private open space;

2. That the private ownership and maintenance of the open space is adequately provided for by recorded written agreement, conveyance, or restrictions;

3. That the use of the private open space is restricted for park and recreational purposes by recorded covenant which runs with the land in favor of the future owners of the property and which cannot be defeated or eliminated without the consent of the city or its successor;

4. That the proposed private open space is reasonably adaptable for use for park and recreational purposes, taking into consideration such factors as size, shape, topography, geology, access, and location;

5. That the facilities proposed for open space are in substantial accordance with the provisions of the Park and Recreation Element of the General Plan of the City; and

6. That the open space for which credit is given is a minimum of two acres and provides a minimum of four of the following Local Park Basic Elements or a combination of such and other recreational improvements which will meet the specific recreation park needs of the future residents of the area. The following table (Table 4.11-8) represents the minimum acreage required before credit will be given for a particular element and the maximum credit which will be allowed for each element, though the element may encompass a larger area:

Table 4.11-8 City of Antioch Private Recreation Improvements Credit		
Criteria List	**Acres**	
	Minimum	**Maximum**
Children's Play Apparatus Areas	0.50	0.75
Family Picnic Areas	0.25	0.75
Landscape Park-like and Quiet Area	0.50	1.00
Game Court Areas	0.25	0.50
Turf Playfields	10.00	3.00
Swimming Pools with Adjacent Deck and Lawn Areas	0.25	0.50
Recreation Center Buildings	0.15	0.25
Source: Antioch Municipal Code, 2017.		

E. In smaller developments where less than two acres of contiguous private open space or recreational facilities are provided, credit shall be granted on an acre-for-acre basis for the space or facilities so provided.

F. Before credit is given, the Parks and Recreation Commission shall make written findings that the standards set forth in this section are met and shall report the same to the Planning Commission which shall in turn recommend to the Council.

Section 9-4.1011 Procedure.

A. At the time of the review of the tentative subdivision map, the Parks and Recreation Commission shall determine, after a report and recommendation from the City Engineer/Director of Public Works pursuant to the provisions of § 9-4.1008 of this article, the land to be dedicated and/or the fees to be paid by the subdivider. The recommendation by the City Engineer/Director of Public Works and the action of the Parks and Recreation Commission shall be forwarded to the Planning Commission and shall include the following:

1. The amount of land required; or

2. That a fee be charged in lieu of land; or

3. That land and a fee be required; and/or

4. That a stated amount of credit be given for private recreation facilities or unique natural and special features and the like;

5. The location of the park land to be dedicated or the use of the in-lieu fees; and

6. The approximate time when the development of the park and recreation facility shall commence.

B. Such action shall be reviewed by the Planning Commission for recommendation to the Council, which shall then make the final determination. In making its determination, the Council shall be guided by the same standards set forth in this article where applicable.

C. At the time of the filing of the final subdivision map, the subdivider shall dedicate the land and/or pay the fees as previously determined by the City.

D. Open space covenants for private park or recreational facilities shall be submitted to the city prior to the approval of the final subdivision map and shall be recorded.

Section 9-4.1012 Schedule of Development and Commitment of Funds.

The City shall develop a schedule specifying how, when, and where it will use the land or fees, or both, to develop park or recreational facilities to serve the residents of the subdivision. Any fees collected under this article shall be committed within five years after the payment of such fees or the issuance of building permits on one-half of the lots created by the subdivision, whichever occurs later. If such fees are not committed, they shall be distributed and paid to the then record owners of the subdivision in the same proportion that the size of their lot bears to the total area of all lots within the subdivision.

Section 9-4.1014 Fees to be Placed in the Park Fee Trust Fund.

Fees received by the City pursuant to this article shall be deposited in a separate Park Fee Trust Fund. Moneys in said fund, including interest earned and accrued on such moneys, shall be expended solely for the purposes described in division (C) of § 9-4.1005 of this article. The Council shall receive a report at least annually on the fee and interest income, expenditures, and status of the Park Fee Trust Fund.

4.11.4 IMPACTS AND MITIGATION MEASURES

The following section describes the standards of significance and methodology used to analyze and determine the proposed project's potential impacts related to public services, recreation, and utilities. A discussion of the project's impacts, as well as mitigation measures where necessary, is also presented.

Standards of Significance

Consistent with Appendix G of the CEQA Guidelines a public services, recreation, and utilities impact may be considered to be significant if any potential effects of the following conditions, or potential thereof, would result with the proposed project's implementation:

- Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board;
- Require or result in the construction of new water or wastewater delivery, collection or treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects;

- Result in insufficient water supply available to serve the project from existing entitlements and resources, or new or expanded entitlements needed;
- Require sewer service that may not be available by the area's wastewater treatment provider;
- Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs in compliance with all applicable laws;
- Increase the demand for additional law enforcement or fire protection services beyond the ability of the existing departments to provide adequate service such that new or physically altered facilities would be required, the construction of which could cause significant effects;
- Increase the total number of students beyond the capacity of local school districts such that new or physically altered facilities would be required, the construction of which could cause significant effects;
- Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated;
- Include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment; or
- Increase the demand for additional governmental services, including library, electricity, and natural gas services such that new or physically altered facilities would be required, the construction of which could cause significant effects.

Method of Analysis

The Public Services, Recreation, and Utilities chapter identifies any impacts of the proposed project on the existing public services, recreational resources, and/or utilities that could occur if the project as currently proposed is approved and implemented. The standards of significance listed above were used to delineate the significance of any potential impacts associated with the proposed project.

Data sources used to assess water and wastewater utilities within the City included a Water Supply Assessment prepared for the proposed project by West Yost Associates, the *City of Antioch Water System Master Plan Update*, the City's 2015 UWMP, and the *Conveyance System Master Plan Update*. Data sources related to police and fire protection services included the CCCFPD and Antioch Police Department websites, and the City's General Plan EIR. School data was derived from a recent Student Demographic Study prepared by the AUSD.

Project-Specific Impacts and Mitigation Measures

The following discussion of impacts is based on the implementation of the proposed project in comparison with the standards of significance identified above. As discussed in Chapter 3, Project Description, of this EIR, two development scenarios for the proposed project are currently being considered: a Multi-Generational Plan and a Traditional Plan. The following discussion of impacts is based on implementation of either of the development scenarios. Where impacts would be similar under both of the development scenarios, the discussion of impacts presented below is

applicable for both scenarios. However, where impacts would differ between the two development scenarios, the impacts are discussed separately for each scenario, or the most conservative number is analyzed. It should be noted that while potential impacts related to both development scenarios are analyzed, ultimately, only one development scenario would be constructed.

4.11-1 Result in insufficient water supply. Based on the analysis below, the impact is *less than significant.*

Multi-Generational Plan and Traditional Plan

The water system for the proposed project would be designed to integrate with existing transmission mains and would complete a looped connection through the proposed project site. An approximately 16-inch primary water line would lie within Sand Creek Road and would connect to the existing City water main at the current terminus of Dallas Ranch Road to the north of the site. A second point of connection would be located at the existing 20-inch water main in Deer Valley Road at the future intersection with the extension of Sand Creek Road. Other major streets throughout the proposed project site would contain approximately eight to 12-inch water lines. Depending on the phasing of development in the Sand Creek Focus Area, the proposed project may require the construction of a 2.5-million-gallon water tank and/or a booster pump station. Such a tank would be situated to the northwest of the project site, and the booster pump station would be located next to the existing Dozier-Libbey Medical High School east of the site.

Buildout of the Sand Creek Focus Area, including the proposed project site, is accounted for in the City's *Water System Master Plan Update*, which provides a detailed analysis of the City's water distribution system. The *Water System Master Plan Update* included the preparation of a Capital Improvement Program (CIP) that includes improvements necessary to provide safe and reliable water delivery throughout the City based on projected growth and associated increases in demand on the City's distribution system. As discussed in Chapter 4.9, Land Use and Planning/Population and Housing, of this EIR, the proposed project would be consistent with the City's policies related to growth within the Sand Creek Focus Area, including the 4,000-unit cap specified by General Plan Policy 4.4.6.7b (k). Therefore, the proposed project would be consistent with the type and intensity of development previously anticipated for the project site, and, thus, the water distribution system improvements planned for in the *Water System Master Plan Update* and associated CIP, as well as the infrastructure improvements included in the proposed project, would be capable of accommodating the increased demand for water supplies associated with buildout of the proposed project.

According to the WSA prepared specifically for the proposed project, the projected water demand for the proposed project is based on the City's water demand factors for single-family residences and active adult residences that were documented in the City's 2015 UWMP, and an estimate of the required irrigation demand based on the City's Water Efficient Landscape Ordinance. Single-family dwelling unit potable water demand was projected to be 350 gallons per day per dwelling unit (gpd/DU) from 2020 through 2040. The proposed project's projected water demand is shown in Table 4.11-9.

Table 4.11-9
Projected Potable Water Demand

Component	Projected Annual Potable Water Demand (MGY)	
	Multi-Generational Plan	Traditional Plan
Proposed Project	183	176
Unaccounted-for Water[1]	11	10
Total Water Demand	**193**	**186**

[1] Based on 5.5 percent of total water production, per 2015 UWMP.

Source: West Yost Associates, 2017.

As indicated in the table, the total projected annual water demand for the proposed project is approximately 193 MGY under the Multi-Generational Plan and approximately 186 MGY under the Traditional Plan, assuming an unaccounted-for water value of 5.5 percent of total water produced. Because the 193 MGY projected demand for the Multi-Generational Plan is greater than the 186 MGY projected demand for the Traditional Plan, for the purpose of this EIR, the water demand of the Multi-Generational Plan will be used to demonstrate water supply sufficiency in order to provide a conservative estimate.

As discussed in 4.9, Land Use and Planning/Population and Housing, of this EIR, the proposed project would generate between 3,582 and 4,117 new residents. Although the proposed project is not specifically identified in the City's 2015 UWMP, the Sand Creek Focus Area is included, and the City's growth projections (an additional 16,302 people from 2015 to 2040) and water demand projections (an additional 3,393 MGY from 2015 to 2040) accommodate the proposed project's estimated population of up to approximately 4,117 people and projected water demand of 193 MGY. Furthermore, per the WSA, the City will have sufficient water supply to meet customer's needs through 2040 for average precipitation years (see Table 4.11-10).

It should be noted that a supply deficit is projected during the third year of a multi-year drought; the supply deficit would be approximately 16 percent of total supply in 2040. However, the deficit would be closed by the City's short-term water demand reduction measures.

Specifically, the City has a Water Shortage Contingency Plan in place that includes progressive stages of action that the City will take to reduce demand so that demand does not outpace supply. The Plan is designed to ensure that actions will be taken to reduce demands during a potential deficit, so that demand does not outpace supply. The Water Shortage Contingency Plan includes four different stages of action, which are designed to achieve reductions in demand of up to 50 percent when necessary. The Water Shortage Contingency Plan would be implemented during future multiple-year drought scenarios to ensure that cumulative demands, including demand from the proposed project, are met.

Based on the above, implementation of the City's Water Shortage Contingency Plan would result in demand reductions of up to 50 percent, which would eliminate the 16 percent supply deficit projected for the third year of a multi-year drought. Therefore, the City's

current and projected potable water supplies are sufficient to meet the City's current and projected future potable water demands, including those future water demands associated with either the Multi-Generational or Traditional Plan, to the year 2040 under all hydrologic conditions. As a result, the proposed project would have a ***less-than-significant*** impact related to water supply.

Mitigation Measure(s)
None required.

Table 4.11-10
City of Antioch Water Supply and Demand Comparison[1]

		2020	2025	2030	2035	2040
Supply and Demand Comparison – Normal Year						
Supply Totals, AFY		6,885	7,258	7,487	7,734	7,993
Demand Totals, AFY		6,885	7,258	7,487	7,734	7,993
Difference, AFY		0	0	0	0	0
Difference as % of Supply		0%	0%	0%	0%	0%
Difference as % of Demand		0%	0%	0%	0%	0%
Supply and Demand Comparison – Single Dry Year						
Supply Totals, AFY		6,885	7,258	7,487	7,734	7,993
Demand Totals, AFY		6,885	7,258	7,487	7,734	7,993
Difference, AFY		0	0	0	0	0
Difference as % of Supply		0%	0%	0%	0%	0%
Difference as % of Demand		0%	0%	0%	0%	0%
Supply and Demand Comparison – Multiple-Dry Year Events						
Multiple-Dry Year First Year Supply	Supply Totals, AFY	6,885	7,258	7,487	7,734	7,993
	Demand Totals, AFY	6,885	7,258	7,487	7,734	7,993
	Difference, AFY	0	0	0	0	0
	Difference as % of Supply	0%	0%	0%	0%	0%
	Difference as % of Demand	0%	0%	0%	0%	0%
Multiple-Dry Year Second Year Supply	Supply Totals, AFY	6,885	7,258	7,487	7,589	7,543
	Demand Totals, AFY	6,885	7,258	7,487	7,734	7,993
	Difference, AFY	0	0	0	-145	-450
	Difference as % of Supply	0%	0%	0%	-2%	-6%
	Difference as % of Demand	0%	0%	0%	-2%	-6%
Multiple-Dry Year Third Year Supply	Supply Totals, AFY	6,229	6,581	6,787	6,865	6,867
	Demand Totals, AFY	6,885	7,258	7,487	7,734	7,993
	Difference, AFY	-656	-677	-700	-869	-1,126
	Difference as % of Supply	-11%	-10%	-10%	-13%	-16%
	Difference as % of Demand	-10%	-9%	-9%	-11%	-14%

Source: West Yost Associates, 2017.

4.11-2 Result in inadequate wastewater capacity or the construction of new wastewater delivery, collection or treatment facilities, or expansion of existing facilities, which could cause significant environmental effects. Based on the analysis below, the impact is *less than significant.*

Multi-Generational and Traditional Plans

The proposed project would include the construction of between 1,137 and 1,307 residential units and a five-acre Village Center area capable of accommodating up to 54,000 sf of commercial, office, and retail space. Development of the project would require extension of new wastewater infrastructure, while long-term operations associated with the project would increase demand on existing wastewater services.

Wastewater Treatment Capacity

Delta Diablo uses a wastewater generation rate of 200 gallons per day per residential unit. At this rate, the residential component of the proposed project would generate between 227,400 and 261,400 gallons of wastewater per day (0.261 MGD). Based on the commercial wastewater generation rate of 1,000 gallons per day per acre presented in the General Plan EIR, the proposed five-acre Village Center Area would generate approximately 5,000 gallons of wastewater per day (0.005 MGD). As described above, the NPDES permit for the WWTP allows an average dry weather flow of 19.5 MGD.

The average daily flow at the WWTP is 12.4 MGD. With the addition of the 0.261 MGD of wastewater generated by operation of the residential component of the proposed project, and the 0.005 MGD generated by the Village Center area, the total flows at the WWTP would be approximately 12.67 MGD, which is well below the maximum permitted capacity of 19.5 MGD. As a result, the WWTP would not exceed capacity with the implementation of the proposed project. Prior to approval of the proposed project, the project applicant would be required to receive written verification from Delta Diablo that the project would not cause the rated capacity of any Delta Diablo treatment facilities to be exceeded during normal or peak flows. Furthermore, buildout of the Sand Creek Focus Area, including the proposed project site, has been previously anticipated by the City. Per the General Plan EIR, a less-than-significant impact to wastewater facilities would occur with implementation of General Plan policies.

Wastewater Conveyance

The proposed project would include the installation of a 12-inch sewer main, as well as a number of smaller eight-inch sewer lines throughout proposed project site. The connection point for the 12-inch sewer main would be located approximately 1.5 miles east of the project site in Heidorn Ranch Road. An off-site extension of the existing 18- to 24-inch sewer line would be required to provide the proposed project with sewer service. All onsite and offsite sewer improvements would be constructed within the public ROW.

In October 2014, the City completed a *Wastewater Collection System Master Plan*, which provides a comprehensive analysis of the wastewater collection system to support the City's ongoing efforts to upgrade sewer infrastructure.[23] The master planning effort included a detailed assessment of the trunk sewer system based upon flow monitoring, rainfall records, and the development of a hydraulic model for both existing and General Plan estimated expansion of the City service area. Based on capacity deficiencies identified for both existing and future conditions, the *Wastewater Collection System Master Plan* developed a list of capital improvement projects that would address the deficiencies. The *Wastewater Collection System Master Plan* does not identify any projected capacity deficiencies within the vicinity of the existing sewer line at Heidorn Ranch Road.

As discussed previously, the proposed project would be consistent with the type and intensity of development anticipated for the project site in the City's General Plan. The *Wastewater Collection System Master Plan* accounts for future development occurring under the General Plan, including the proposed project. Therefore, the City's existing wastewater collection system, along with the proposed infrastructure improvements, would be capable of handling increases in wastewater generation associated with buildout of the proposed project. Furthermore, the project applicant would be required to pay the City's Sewer Connection Fees, which fund ongoing maintenance and operation of the City's sewer system. In addition, future residents and businesses within the project site would be required to pay monthly sewer service fees to the City.[24]

Impacts to Biological Resources and other resource areas caused by the expansion of wastewater infrastructure are analyzed in the applicable chapters of this EIR, including Air Quality and Greenhouse Gas Emissions (Chapter 4.3), Biological Resources (Chapter 4.4), Cultural Resources (Chapter 4.5), Geology, Soils, and Mineral Resources (Chapter 4.6), Hazards and Hazardous Materials (Chapter 4.7), and Noise (Chapter 4.10).

Conclusion

As discussed above, the Delta Diablo WWTP would have adequate capacity to treat wastewater flows generated by the proposed project, and the project would include the construction of necessary wastewater infrastructure to serve the entirety of the project site. With payment of the City's required Sewer Connection Fees and monthly sewer service fees, the proposed project would have a ***less-than-significant*** impact on wastewater services.

Mitigation Measure(s)
None required.

[23] City of Antioch. *Wastewater Collection System Master Plan, Final Report.* October 2014.
[24] City of Antioch. *Master Fee Schedule.* Effective July 1, 2017.

4.11-3 Result in inadequate solid waste capacity to accommodate the project's solid waste dsiposal needs in compliance with applicable laws. Based on the analysis below, the impact is *less than significant.*

Multi-Generational and Traditional Plans

Republic Services would provide solid waste collection, disposal, recycling, and yard waste services to the proposed project site. As discussed previously, solid waste and recyclables from the City are taken to the Contra Costa Transfer and Recovery Station in Martinez. Solid waste is transferred from the Transfer and Recovery Station to the Keller Canyon Landfill in Pittsburg. The Keller Canyon Landfill site is 1,399 acres, 244 of which comprise the actual current disposal acreage. The landfill is permitted to accept 3,500 tons of waste per day and has a total estimated permitted capacity of approximately 75 million cubic yards, with only approximately 12 million cubic yards (16 percent of total capacity) used to date.[25] Solid waste generation associated with construction and operation of the proposed project is discussed below and compared to current capacity of the Keller Canyon Landfill.

Construction Waste

The U.S. EPA's report, *Construction of Building-Related Construction and Demolition Debris in the United States*, was used to estimate the amount of waste that would be generated by construction activities. The EPA estimates that nonresidential construction generates an average of 3.89 pounds per square foot (lbs/sf), while residential construction generates an average of 8,112 lbs/unit.[26] The proposed project would include the construction of between 1,137 and 1,307 residential units and a Village Center area capable of accommodating up to 54,000 sf of commercial, office, and retail space. Construction of the proposed residences would generate between approximately 9,223,344 and 10,602,384 lbs, or between 4,612 and 5,301 tons, of solid waste. Construction of the Village Center area would generate an estimated 210,060 lbs, or 105 tons, of solid waste. Thus, the proposed project would generate a total of approximately 4,717 to 5,406 tons of solid waste during construction activities.

The construction and demolition debris estimate presented above represents a conservative analysis of the maximum potential waste production from the construction and demolition process. The CALGreen Code requires at least 65 percent diversion of construction and demolition waste for projects permitted after January 1, 2017. As such, a minimum of 3,066 tons of waste would be diverted away from landfill disposal during construction. Considering the applicable CALGreen Code requirements, future construction of the proposed project would be anticipated to contribute approximately 1,650 to 1,892 tons of waste. It should be noted that construction waste generation would be a one-time occurrence, and would be distributed over the duration of the construction phase.

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[25] California Department of Resources Recycling and Recovery (CalRecycle). *Solid Waste Information System*. Available at: www.calrecycle.ca.gov/SWFacilities/. Accessed February 2017.

[26] U.S. Environmental Protection Agency, Municipal and Industrial Solid Waste Division Office of Solid Waste. *Construction of Building-Related Construction and Demolition Debris in the United States*. June 1998.

Operational Waste

As discussed in Chapter 4.9, Land Use and Planning/Population and Housing, of this EIR, the proposed project would accommodate between approximately 3,582 and 4,117 new residents (given a ratio of 3.15 persons per household). Per the most recently available California Department of Resources Recycling and Recovery (CalRecycle) data, the 2015 per capita/resident disposal rate in the City of Antioch was 3.0 lbs/day per resident.[27] Accordingly, the residential component of the project would generate an estimated 10,746 to 12,351 lbs/day of solid waste, or between approximately 1,961 and 2,254 tons per year. In addition, based on a conservative solid waste generation rate of five lbs/1,000 sf-day, the proposed Village Center area would generate an estimated 270 lbs/day, or approximately 49 tons per year. Overall, at full buildout, the proposed project would generate a total of 2,231 to 2,524 tons of solid waste per year.

Conclusion

Based on the above, the proposed project would generate approximately 1,650 to 1,892 tons of solid waste during construction and a total of approximately 2,231 to 2,524 tons of solid waste per year during operation. Given that only 16 percent of the Keller Canyon Landfill is currently being used, the substantial amount of available capacity remaining of 63 million cubic yards would be sufficient to serve the project's solid waste disposal needs. Furthermore, during operation, the daily solid waste generation associated with the project (6.11 to 6.92 tons per day) would be approximately 0.19 percent of the Keller Canyon Landfill's permitted daily throughput of 3,500 tons.[28] As a result, a ***less-than-significant*** impact related to solid waste would occur as a result of the proposed project.

Mitigation Measure(s)
None required.

4.11-4 Result in the need to construct new fire protection facilities. Based on the analysis below, the impact is *less than significant*.

Multi-Generational and Traditional Plans

The proposed project site is located within the jurisdiction of the CCCFPD. As noted above, buildout of the proposed project would result in the development of approximately 1,137 and 1,307 residential units and would introduce an estimated 3,582 to 4,117 new residents to the City of Antioch. In addition, the project would include a Village Center area capable of accommodating up to 54,000 sf of commercial, office, and retail space. As a result of the added population and commercial development, CCCFPD would experience an increase in demand for fire protection and emergency medical services.

[27] CalRecycle. *Jurisdiction Diversion/Disposal Rate Summary* (2007-Current). Available at: http://www.calrecycle.ca.gov/LGCentral/reports/diversionprogram/JurisdictionDiversionPost2006.aspx. Accessed March 10, 2015.

[28] California Department of Resources Recycling and Recovery (CalRecycle). *Solid Waste Information System.* Available at: www.calrecycle.ca.gov/SWFacilities/. Accessed February 2017.

As discussed previously, the CCCFPD has four fire stations within the City of Antioch that could provide fire protection services to the project site. The nearest station (Station 82) is located at 196 Bluerock Drive, approximately 1.8 miles north of the project site.[29] In 2016, the CCFPD achieved a response time of five minutes or less for 90 percent of all emergency and non-emergency calls received. In addition, the CCCFPD's ambulance response time was reduced by 51 seconds relative to 2015.[30] The CCCFPD has an ISO rating of 3.[31]

The proposed development plans include dedication of a two-acre site for a future fire station located to the east of Homestead Park, across from the proposed Village Center area. The fire station facility would not be constructed as part of the proposed project, but would be the responsibility of the CCCFPD. The impacts associated with the construction of a future fire station have been analyzed throughout this EIR. The CCCFPD has expressed concern related to the availability of adequate funds to support construction and operation of the facility and funding of the facility is currently the subject of ongoing discussions between the City and the CCCFPD. However, how and when such a facility is funded is not the subject of CEQA – only the impacts of the construction of such facilities fall within the purview of CEQA.

In *Goleta Union School District v. Regents of University of California* (1995) 37 Cal.App.4th 1025, the court held that the need for additional fire protection service is not an environmental impact that CEQA requires a project to mitigate. The decision was reaffirmed in *City of Hayward v. Board of Trustees of the California State University* (2012) Cal.App.4th, 2012 WL 2832858 (cert. for pub. 6/28/12) when the court also found that mitigation was not necessary to address the need for additional fire protection services due to the potential increase in response time caused by the increase in population under the project. The court noted that, under the California Constitution, the obligation to provide adequate fire and emergency medical services fell to the city. Furthermore, in *City of Hayward v. Board of Trustees of the California State University*, the court cited CEQA Guidelines § 15382 and *Goleta Union School District v. Regents of University of California*, in holding that the need for additional fire protection service is not an environmental impact that CEQA requires a project to mitigate. Furthermore, the court found that the potential dangers associated with delayed response times do not mandate a finding of significance under CEQA Guidelines § 15065(a)(4).

Based on the above, issues related to increases in demand for fire protection services are not covered by CEQA. Furthermore, Fire Protection Facilities Fees for the CCCFPD are collected by the City's Building Inspection Services Division at the time of application for a building permit, consistent with Chapter 7 of the Antioch Municipal Code. The fees are charged on a per unit or per square foot basis, depending on the development type. Payment of the fees by the project applicant would ensure that the project provides a fair-share

[29] Leach, Ted, Fire Inspector, Contra Costa County Fire Protection District. Personal communication with Raney Planning & Management, Inc. December 5, 2012.

[30] Contra Costa County Fire Protection District. *Fire Chief's Message.* Available at: http://www.cccfpd.org/chiefs-message.php. Accessed July 2017.

[31] Contra Costa County Fire Protection District. *Directory*. Available at: http://www.cccfpd.org/directory.php. Accessed July 2017.

contribution towards construction of future CCCFPD fire protection facilities. Furthermore, all future development within the project site would be subject to the most recent version of the California Fire Code, which requires installation of smoke alarms, carbon monoxide alarms, and fire sprinklers in all new residential structures. The inclusion of such features would help to minimize risks of fire on-site and associated public safety hazards.[32] The CCCFPD and the City's Building Inspection Services Division would review all future building plans to ensure compliance with applicable code requirements.

As noted previously, impacts associated with the construction of a future fire station on the project site have been analyzed throughout this EIR and will be fully mitigated. Therefore, a ***less-than-significant*** impact would occur.

Mitigation Measure(s)
None required.

4.11-5 Result in the construction of new law enforcement facilities, the construction of which could cause a significant impact. Based on the analysis below, the impact is *less than significant.*

Multi-Generational and Traditional Plans

As discussed previously, the Antioch PD is responsible for providing law enforcement services within the City of Antioch, and would continue to provide law enforcement services to the proposed project site after implementation of the proposed project. Buildout of the proposed project would result in the development of approximately 1,137 and 1,307 residential units and would introduce an estimated 3,582 to 4,117 new residents to the City of Antioch. In addition, the project would include a Village Center area capable of accommodating up to 54,000 sf of commercial, office, and retail space. As a result of the added population and commercial development, the Antioch PD would experience an increase in demand for police services within Beat 5.

Standard 3.5.3.2 in the City's General Plan requires the Antioch PD to maintain a staffing ratio of approximately 1.20 to 1.50 officers per 1,000 residents. However, the current Antioch PD staffing ratio is approximately 1.0, which is substandard. In order to offset demands on the Antioch PD, the project applicant would be required to pay Development Impact Fees for police facilities consistent with Section 9-3.50 of the City's Municipal Code. The proposed project would include annexation of the project site into a Community Facilities District (CFD) for financing police services and pay an associated annual tax of $445 per unit.

The proposed project would be adequately served by existing Antioch PD facilities. Further, while the payment of the aforementioned Development Impact Fees would help

[32] California Department of Forestry and Fire Protection, Office of the State Fire Marshal. *Residential Fire Sprinkler and California Codes*. Available at: http://osfm.fire.ca.gov/codedevelopment/residentialsprinklerandcacodes. Accessed February 2017.

to fund construction of future facilities, construction of new police service facilities is not required or proposed at this time. Therefore, the project would have a ***less-than-significant*** impact related to the need for new or physically altered police protection facilities, the construction of which could cause significant environmental impacts.

Mitigation Measure(s)
None required.

4.11-6 Result in inadequate school capacity requiring the construction of new school facilities. Based on the analysis below, the impact is *less than significant.*

The proposed project would result in the development of approximately 1,137 and 1,307 residential units, and, thus, would increase demand for school services within the AUSD attendance area. While the Multi-Generational Plan would include a larger number of residential units, 500 of the total units would be age-restricted, and, thus, would not house school-age children. Therefore, the following analysis focuses on the student generation associated with buildout of the Traditional Plan, rather than the Multi-Generational Plan, in order to provide a conservative analysis. Any potential school capacity impacts identified for the Traditional Plan would be greater than what would occur under the Multi-Generational Plan.

Traditional Plan

Based on the student yield rate provided in the Developer Fee Justification Document published by the AUSD, the proposed project would be estimated to generate a maximum of 762 new students across K-12 grade levels (see Table 4.11-11).

Table 4.11-11
Student Generation Due to Proposed Project

Grade Level	Student Generation Factor per Household	Number of Residential Units[1]	# of New Students
K-5	0.31	1,137	352
6-8	0.15	1,137	171
9-12	0.21	1,137	239
		Total	**762**

[1] Assumes maximum number of single-family residential dwelling units (Traditional Plan).

Source: Antioch Unified School District, Developer Fee Justification Document for Residential, Commercial, and Industrial Development Projects – Level 1, July 2014.

Table 4.11-12 below provides a summary of projected AUSD enrollment for 2020, the first year the proposed project is anticipated to be operational. As shown in the table, the maximum number of new students that could be generated by the proposed project would be relatively minor relative to 2020 projected enrollment. Given that the AUSD has recently experienced an enrollment decline, the proposed project is not anticipated to

exceed the ASUD's available capacity.[33] Furthermore, the project applicant would be required to pay school impact fees prior to the receipt of building permits for future development. School impact fees may be used by the AUSD to fund the acquisition of new school sites and/or the construction of new school facilities. Proposition 1A/SB 50 prohibits local agencies from using the inadequacy of school facilities as a basis for denying or conditioning approvals of any "[…] legislative or adjudicative act…involving …the planning, use, or development of real property" (Government Code 65996(b)). Satisfaction of the Proposition 1A/SB 50 statutory requirements by a developer is deemed to be "full and complete mitigation."

Table 4.11-12
Projected AUSD Enrollment

Grade Level[1]	2020 Projected Enrollment	Students Added by Project	Total Enrollment
TK-5[3]	7,373	352	7,725
6-8	3,557	171	3,728
9-13	5,182	239	5,421
Total	**16,112**	**762**	**16,874**

[1] Figures include AUSD-attending TK-13 "SDC" (Special Education) students but exclude all charter school, "NPS" (Non-Public-School) and preschool SDC students that may be included in some State reports of the district enrollment.

[3] The forecast includes the impact of a Rocketship charter school that is assumed to be opening as a K-2 program for the 2018-19 school year prior to evolving into a K-5 program at a later point in time.

Sources:
AUSD, Student Demographic Study, Including Projected Enrollments in the Antioch Unified School District, 2017.
City of Antioch, Hillcrest Area Specific Plan, 2008.

Conclusion

Given that students generated by the proposed project would not exceed the AUSD's current capacity, and new school facilities are not proposed to be constructed as part of the proposed project, the project would have a ***less-than-significant*** impact.

Mitigation Measure(s)
None required.

[33] Antioch Unified School District. *Student Demographic Study, Including Projected Enrollments in the Antioch Unified School District*. August 7, 2017.

4.11-7 Result in inadequate or substantial deterioration of parks and recreation facilities causing the need to construct new or expand existing facilities, the construction of which could cause significant impacts. Based on the analysis below, the impact is *less than significant.*

Open space, trails, and park facilities that would be included in the Multi-Generational and Traditional Plans are discussed below and analyzed in the context of existing City standards related to dedication of parkland.

Open Space and Trails – Multi-Generational and Traditional Plans

The proposed project would preserve the existing Sand Creek corridor, as well as various hills and ridgeline areas in the northwestern and southwestern portions of the project site, as open space. The total open space and open space trail areas would comprise approximately 35.3 percent of the total project site under the proposed Multi-Generational Plan, and 36.2 percent under the Traditional Plan. A comprehensive trail system would be provided along Sand Creek and throughout the project site. The trail system would connect the proposed neighborhood areas to each other and to nearby parks, ridgeline areas, trailhead staging areas, and the proposed mixed-use Village Center area. A pedestrian bridge would be provided across Sand Creek in order to provide pedestrian connectivity between the north and south development areas. A trail would connect the proposed on-site staging area to the East Bay Regional Park system located west of the project site (see Figure 4.11-2).

Parks – Multi-Generational and Traditional Plans

The proposed project would include five neighborhood parks, ranging from 1.5 to 6 acres, as well as numerous pocket parks that would generally be smaller than one acre. A total of approximately 17.5 acres of park would be provided under the Traditional Plan, while approximately 22 acres of parks would be provided under the Multi-Generational Plan, in addition to the open space areas noted above.

Within the north development area, the proposed project would include a six-acre park (north neighborhood park) with a children's play area, a lawn area for active sports, and an open, landscaped area on top of a small knoll that would provide views of the surrounding area. In addition, the project would include construction of a five-acre, 100-foot wide, linear parkway adjacent to the east side of the north neighborhood park. The linear parkway would provide a trail linkage for the full length of the north development area. The linear parkway would contain native ornamental plants, demonstration garden, open lawns, an open swale, and multi-use trails.

A 2.5-acre park (Homestead Park) would be located between the two Medium Density (MD) neighborhoods along Sand Creek Road. Homestead Park would be situated at the site of the existing on-site grazing operation, would overlook Sand Creek and would provide trail access to the Sand Creek trail system for residents of the northern development area.

Figure 4.11-2
Proposed Trail Network

Conclusion

Consistent with the requirements of the Quimby Act, Standard 3.5.7.2 in the City of Antioch General Plan and Section 9-4.1004 of the Antioch Municipal Code set a standard of five acres of parks and open space per 1,000 residents.[34] The City of Antioch receives land for parks through land dedications or purchases funded through fee collection.

The Antioch Municipal Code requires a dedication of parkland at the rate of 0.015 acres per single-family unit and 0.095 acre per multi-family unit. Alternatively, fees may be paid in lieu of parkland dedication at a rate of $1,500 for single-family detached units, $1,100 for single-family attached units, and $950 for duplexes and multi-family units. As noted above, the proposed project would include approximately 17.5 and 22 acres of park under the Traditional Plan and Multi-Generational Plans, respectively. Impacts of park development have been analyzed throughout this EIR in the applicable resource area chapters, including Biological Resources (Chapter 4.4), Cultural Resources (Chapter 4.5), Noise (Chapter 4.7), and others. To the extent impacts could occur in the resources areas, mitigation is required and would be implemented in accordance with the Mitigation Monitoring and Reporting Plan. Therefore, a ***less-than-significant*** impact would occur relative to deterioration or expansion of existing, and/or the construction of new, parks and recreation facilities.

Mitigation Measure(s)
None required.

4.11-8 Result in inadequate library services requiring the construction of new library facilities. Based on the analysis below, the impact is *less than significant.*

The population growth associated with the proposed project would increase the demand on library services for the City of Antioch. The Contra Costa County Library system is funded primarily by local taxes. The project would substantially increase the number of houses paying taxes, and, thus, would generate additional revenue for the library system. The additional revenue is anticipated to provide funding for the Contra Costa County Library system to plan and purchase additional volumes, or to expand staff or facilities as part of long-term library planning. However, new library facilities are not proposed as part of the project, and a ***less-than-significant*** impact would occur related to the construction of new library facilities.

Mitigation Measure(s)
None required.

[34] City of Antioch. *General Plan* [pg. 3-12]. Updated November 24, 2003.

4.11-9 Result in inadequate electricity and natural gas services requiring the construction of new facilities. Based on the analysis below, the impact is *less than significant*.

Electricity to the project site would be provided by PG&E. All electricity infrastructure would be located underground, and would tie-in to existing infrastructure located at the terminus of Dallas Ranch Road and an existing substation located approximately one-half mile south of the existing Hillcrest Avenue/Prewett Ranch Drive intersection. Natural gas service would also be provided by PG&E by way of a joint trench that would accommodate all of the gas facilities within the proposed project site. An existing four- to six-inch transmission main runs along Deer Valley Road, and another four- to six-inch transmission main runs down the middle of Dallas Ranch Road. Each of these mains would be extended into the proposed project site.

Multi-Generational Plan

Electricity and natural gas demand associated with the proposed project were estimated using California Emissions Estimator Model (CalEEMod). CalEEMod uses data collected during the Residential Appliance Saturation Survey (RASS) conducted by the California Energy Commission to develop energy intensity values (electricity and natural gas usage) for residential buildings,[35] and data from the California Commercial End Use Survey (CEUS) to develop energy intensity values for non-residential buildings.[36]

Operational energy use associated with the Multi-Generational based on CalEEMod outputs is summarized in Table 4.11-13 below. Electricity use is presented in gigawatt hours (GWh). As shown in the table, buildout of the Multi-Generational Plan would result in a 0.0012 percent increase in the current electricity consumption for the County and a relatively modest 0.0004 percent increase in the natural gas consumption for the County.

Table 4.11-13
Operational Electricity and Natural Gas Use – Multi-Generational Plan

Resource Type	Multi-Generational Plan[1]	Countywide Consumption in 2015	Project Percent of Countywide Consumption
Electricity Use	11.305 GWh/yr	9,391 GWh[2]	0.0012
Natural Gas Use	0.382143 million therms/yr	1,087 million therms[3]	0.0004

Source:
1 *CalEEMod, October 2017 (see Appendix C).*
2 *California Energy Consumption Data Management System. Electricity Consumption by County. Available at: http://ecdms.energy.ca.gov/elecbycounty.aspx. Accessed December 29, 2016.*
3 *California Energy Consumption Data Management System. Gas Consumption by County. Available at: http://ecdms.energy.ca.gov/gasbycounty.aspx. Accessed December 29, 2016.*

35 DNV GL. *RASS Reporting Center*. Available at: https://webtools.dnvgl.com/rass2009/. Accessed October 2017.
36 California Energy Commission. *California Commercial End-Use Survey Results*. Available at: http://capabilities.itron.com/CeusWeb/Chart.aspx. Accessed October 2017.

Traditional Plan

Operational energy use associated with the Traditional Plan based on CalEEMod outputs is summarized in Table 4.11-14 below. As shown in the table, buildout of the Traditional Plan would result in a 0.0011 percent increase in the current electricity consumption for the County and a 0.0003 percent increase in the current natural gas consumption for the County.

Table 4.11-14
Operational Electricity and Natural Gas Use – Traditional Plan

Resource Type	Traditional Plan	Countywide Consumption in 2015	Project Percent of Countywide Consumption
Electricity Use	9.929 GWh/yr	9,391 GWh	0.0011
Natural Gas Use	0.332732 million therms/yr	1,087 million therms	0.0003

Source:
1 *CalEEMod, October 2017 (see Appendix C).*
2 *California Energy Consumption Data Management System. Electricity Consumption by County. Available at: http://ecdms.energy.ca.gov/elecbycounty.aspx. Accessed on December 29, 2016.*
3 *California Energy Consumption Data Management System. Gas Consumption by County. Available at: http://ecdms.energy.ca.gov/gasbycounty.aspx. Accessed on December 29, 2016.*

Conclusion

Considering the above, while the operation of the proposed project would result in only a minor increase in gas and electricity consumption, new electrical and gas infrastructure would be required for the proposed project.

Development of the project would occur in a location that is near to existing electricity and gas service infrastructure. As mentioned above, the PG&E substation located to the southwest of the project site provides reliability and safety of electric services within the project area. The project applicant would be responsible for funding the installation of any necessary on-site gas and electricity infrastructure for the project, and such infrastructure would be installed in coordination with PG&E's planning staff. All impacts associated with the installation of pipeline and other infrastructure are analyzed under the applicable resource in question throughout this EIR and mitigated accordingly. Therefore, a ***less-than-significant*** impact would occur.

Mitigation Measure(s)
None required.

Cumulative Impacts and Mitigation Measures

The following discussion of impacts is based on the implementation of the proposed project in combination with other proposed and pending projects in the region. Other proposed and pending projects in the region under the cumulative context would include buildout of the City's General

Plan, as well as development of the most recent planned land uses within the vicinity of the project site.

4.11-10 Cumulative impacts on public services and utilities. Based on the analysis below, the cumulative impact is *less than significant*.

Multi-Generational and Traditional Plans

As discussed previously, City-wide supplies are projected to be sufficient to meet future City-wide demands through 2040 for average precipitation years (see Table 4.11-10) per the WSA prepared for the project. Given that the WSA provided a cumulative analysis, City water supplies are sufficient to meet the City's current and projected future water demands, including future demands associated with the proposed project and other cumulative development in the City, to the year 2040. As a result, the proposed project, combined with other buildout within the City, would have a less-than-significant cumulative impact on water supply.

Per the City's General Plan EIR, buildout of the General Plan planning area, which includes the proposed project site, would have a less-than-significant impact to public services. As discussed above, the proposed project would not require the construction of new police, fire, school, or library facilities. In addition, the proposed project would entail the construction of parks and trails to ensure that degradation to other nearby parks, and any impacts of constructing parks and trails would be mitigated as discussed throughout the other chapters of this EIR related to the applicable resource area. Therefore, the proposed project, in combination with existing and planned development throughout the City of Antioch, would have a less-than-significant cumulative impact to public services and recreation.

As discussed previously, the WWTP would not exceed capacity with the implementation of the proposed project. Buildout of the Sand Creek Focus Area, including the proposed project site, has been previously anticipated by the City. Per the General Plan EIR, a less-than-significant impact to wastewater facilities would occur with implementation of General Plan policies. Furthermore, prior to approval of the proposed project, the project applicant would be required to receive written verification from Delta Diablo that the project would not cause the rated capacity of any Delta Diablo treatment facilities to be exceeded during normal or peak flows. Therefore, the project's incremental increase in wastewater generation has been anticipated and would not represent a cumulatively considerable increase in the demand for wastewater treatment services.

With regard to solid waste, the City's General Plan EIR determined that with implementation of applicable General Plan policies, the Keller Canyon Landfill would have adequate permitted capacity to accommodate buildout of the City of Antioch, as well as projected growth within Contra Costa County. As noted above, only 16 percent of the Keller Canyon Landfill is currently being used, and the substantial amount of available capacity remaining of 63 million cubic yards would be sufficient to serve the project's solid waste disposal needs, in addition to the needs of cumulative development in the project

region. Furthermore, during operation, the daily solid waste generation associated with the project (6.11 to 6.92 tons per day) would be approximately 0.19 percent of the Keller Canyon Landfill's permitted daily throughput of 3,500 tons. In 2016, Keller Canyon Landfill received a total of 788,412 tons of waste, or approximately 2,160 tons per day.[37] Thus, adequate daily throughput capacity is available at the landfill to accept solid waste generated by the proposed project in addition to waste generated by existing development in the region. In addition, a considerable amount of surplus daily throughput capacity is available to accommodate future development.

Based on the above, the City's General Plan EIR concluded that buildout of the City of Antioch, including the proposed project site, would result in a less-than-significant impact to public services, recreation, and utilities with implementation of all applicable regulations, General Plan policies, and prescribed mitigation measures. Given that the proposed project would not result in impacts to any of the above issue areas, buildout of the project would result in a ***less-than-significant*** cumulative impact.

Mitigation Measure(s)
None required.

[37] California Department of Resources Recycling and Recovery (CalRecycle). *Solid Waste Information System.* Available at: www.calrecycle.ca.gov/SWFacilities/. Accessed February 2017.