16 UTILITIES AND SERVICE SYSTEMS

16.1 INTRODUCTION

The Utilities and Service Systems chapter of the EIR summarizes the setting information and identifies potential new demands resulting from the proposed project's water supply, wastewater systems, and solid waste disposal. In addition, the chapter evaluates the potential physical environmental impacts that could result from on- and off-site infrastructure improvements. Information for Utilities and Service Systems chapter was primarily drawn from the Placer County General Plan[1] and associated EIR,[2] the Dry Creek-West Placer Community Plan (DCWPCP),[3] the *California American Water Company's Northern Division Sacramento District 2015 Urban Water Management Plan* (UWMP),[4] and the *Providence Park Subdivision Preliminary Sewer Study* (see Appendix M) prepared by TSD Engineering, Inc.[5]

16.2 EXISTING ENVIRONMENTAL SETTING

The following section describes the existing utilities, including wastewater conveyance and treatment, water supply and delivery infrastructure, solid waste, and gas and electric infrastructure.

Wastewater Conveyance and Treatment

The project site is located outside of existing Placer County Sewer districts. However, the entitlements for the proposed project include a request for annexation into Placer County Service Area 28, Zone 173 for sanitary sewer service, subject to approval by the Placer County Board of Supervisors. Therefore, the following section will discuss the existing sewer services in the area, and the Placer County Sewer Service District.

Conveyance

Sewer services in the project area are provided by the Placer County Department of Public Works and Facilities, Environmental Engineering and Utilities Division. Placer County operates 44 sewer pump stations, approximately 300 miles of sewer piping, and more than 450 septic tank effluent pump systems. The existing sewer pipeline system within unincorporated areas of the County in the project vicinity are owned and maintained by Placer County Sewer Districts. However, sewer system conveyance infrastructure does not currently exist on the project site, or in the immediate vicinity of the project site.

1 Placer County. *Countywide General Plan Policy Document*. August 1994 (updated May 2013).
2 Placer County. *Countywide General Plan EIR*. July 1994.
3 Placer County. *Dry Creek-West Placer Community Plan*. May 14, 1990.
4 California American Water Company, Northern Division – Sacramento District. *2015 Urban Water Management Plan*. June 30, 2016.
5 TSD Engineering, Inc. *Providence Park Subdivision Preliminary Sewer Study*. August 30, 2016.

The DCWPCP noted that soil conditions and potential problems related to ground water pollution in the Plan area would constrain the use of private sewer systems for some development areas within the DCWPCP. In particular, the DCWPCP noted that at the time that the DCWPCP was prepared, the Placer County Environmental Health Department required that all developments with lot sizes less than seven acres must be connected to public sewer systems. As such, the DCWPCP anticipated that developments in the eastern portion of the plan area would be connected to a public sewer system, which would include conveyance infrastructure.

Treatment

Sewer treatment for the Placer County Service Area 28, Zone 173 is provided at the Dry Creek Wastewater Treatment Plant (Dry Creek WWTP), which is located within the southern edge of the City of Roseville. The Dry Creek WWTP is owned by the City of Roseville and treats wastewater from areas of the City of Roseville, as well as nearby areas within unincorporated portions of Placer County, including Placer County Service Area 28, Zone 173.

Under the Dry Creek WWTP's National Pollutant Discharge Elimination System (NPDES) Permit, Number CA0079502, the WWTP has a permitted average dry weather capacity (ADWF) of 18 million gallons per day (mgd) and a peak wet-weather flow (PWWF) of 45 mgd.[6] As of 2016, the Dry Creek WWTP was operating at approximately 50 percent of the WWTP's permitted flow, with an ADWF of 9 mgd, and a PWWF under 25 mgd.[7] Of the 18 mgd of ADWF currently being treated at the Dry Creek WWTP, approximately 40 percent, or 7.2 mgd originate from unincorporated portions of Placer County, including the DCWPCP.[8]

Tertiary-level treatment at the Dry Creek WWTP consists of screening, primary clarification, aeration, secondary clarification, filtering, and disinfection. Recycled water from the Dry Creek WWTP is used to irrigate four golf courses, several area parks, and some areas of public street landscaping.[9] Treated wastewater from the Dry Creek WWTP that isn't used for irrigation purposes is discharged to Dry Creek. Residual solids from the treatment process are transported to the Western Placer Waste Management Authority sanitary landfill, or are transferred to a City-approved vendor for off-site land application.

The City of Roseville owns and operates the Dry Creek WWTP on-behalf of the City's Regional Partners, which consist of the City of Roseville, the South Placer Municipal Utility District, and portions of unincorporated Placer County. Per the Operations Agreement among the Regional Partners, upon reaching 75 percent capacity at the WWTP, capacity improvements must be initiated. As stated above, the Dry Creek WWTP currently operates at approximately 9 mgd ADWF out of a permitted capacity of 18 mgd for an available capacity of 50 percent. Although the Dry Creek WWTP currently operates below permitted capacity, buildout demand of the Dry

6 City of Roseville. *City of Roseville General Plan 2035*. August 17, 2016.
7 *Ibid*.
8 *Ibid*.
9 City of Roseville. *Dry Creek Wastewater Treatment Plant.* Available at http://www.roseville.ca.us/eu/wastewater_utility/wastewater_facilities/dry_creek_wastewater_treatment.asp. Accessed April 2017.

Creek WWTP's service area is estimated to reach approximately 21 mgd. Thus, improvements to the Dry Creek WWTP are likely to be needed prior to buildout of the Dry Creek WWTP's service area, which includes the DCWPCP area. Demand from new development is currently accommodated at the WWTP on a first-come-first-served basis. [10]

Water Supply and Delivery Infrastructure

The 110.1-acre project site is located in the DCWPCP area and water is provided by the Northern Division Sacramento District of the California American Water Company (CAL-AM). CAL-AM provides water service to over 630,000 people in 50 communities throughout California. The Sacramento District of CAL-AM's Northern Division is comprised of ten service areas, each of which contains a Public Water System (PWS). All of the PWS within CAL-AM's Northern Division are regulated by the State Water Resources Control Board's (SWRCB) Division of Drinking Water (DDW). As shown in Figure 16-1 and Figure 16-2, the proposed project site is located within the West Placer PWS.[11] On April 21, 2017, CAL-AM provided a Conditional Will Serve Letter affirming that the project site is within CAL-AM's West Placer Service Area.[12]

CAL-AM's West Placer Service Area encompasses 11,154 acres within western Placer County. The Service Area's boundaries are comprised of the City of Roseville limits to the east and the Sutter County line to the west. The Antelope Service Area bounds the West Placer Service Area to the south. Approximately 4,940 people reside in the West Placer Service Area.[13]

Water Supply

The Placer County Water Agency (PCWA) provides surface water to the West Placer Service Area. In 2016, CAL-AM and PCWA entered into a wholesale water supply agreement, which includes an agreement that PCWA will supply CAL-AM with surface water through December 2034.[14] The PCWA's estimated average year supply is presented in Table 16-1 below. A portion of the total PCWA supply presented in Table 16-1 would be directed to CAL-AM for use in supplying the West Placer Service Area.

[10] City of Roseville. *Dry Creek Wastewater Treatment Plant.* Available at http://www.roseville.ca.us/eu/wastewater_utility/wastewater_facilities/dry_creek_wastewater_treatment.asp. Accessed April 2017.

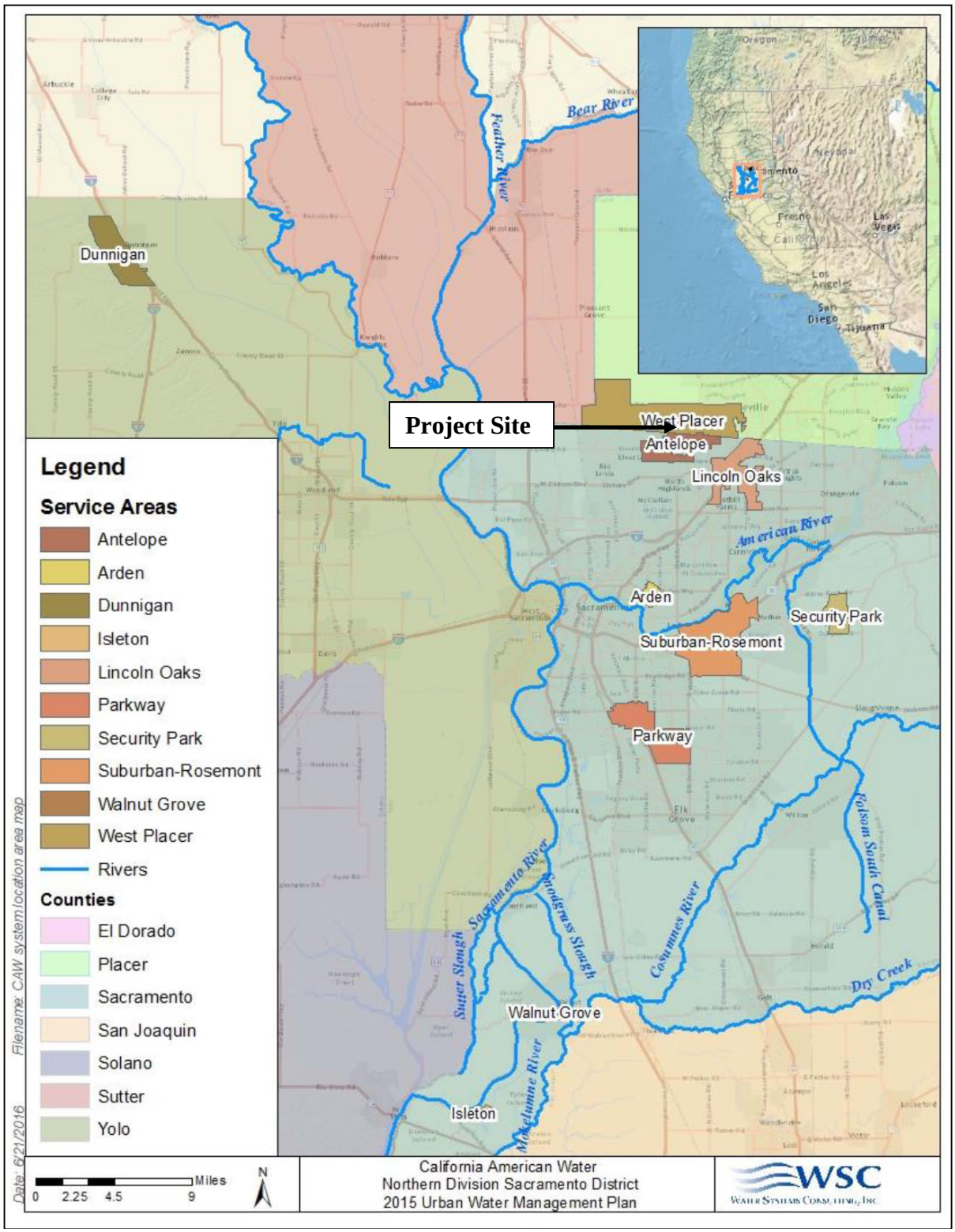
[11] California American Water Company, Northern Division – Sacramento District. *2015 Urban Water Management Plan*. June 30, 2016.

[12] California American Water. *Request for Water Service – Conditional Will Serve Letter*. April 21, 2017.

[13] California American Water Company, Northern Division – Sacramento District. *2015 Urban Water Management Plan*. June 30, 2016.

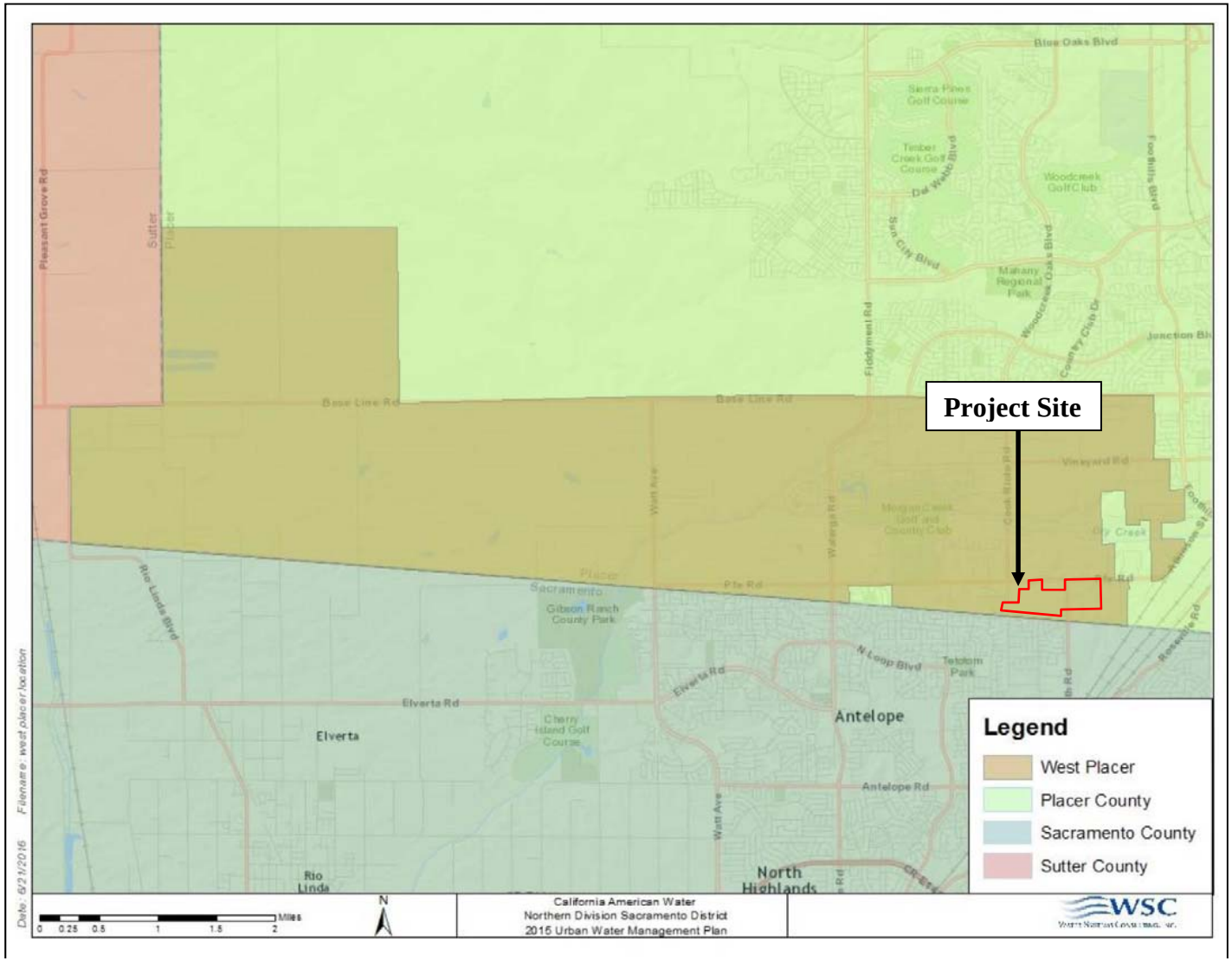
[14] Placer County Water Agency and California-American Water Company. *Agreement Between Placer County Water Agency and California American Water for Water Supply*. July 6, 2015.

Figure 16-1
CAL-AM Sacramento District Service Areas



Source: California American Water Company, Northern Division – Sacramento District. 2015 Urban Water Management Plan. June 30, 2016.

Figure 16-2
CAL-AM West Placer Service Area



Source: California American Water Company, Northern Division – Sacramento District. 2015 Urban Water Management Plan. June 30, 2016.

Table 16-1 PCWA Average Year Supply (Acre Feet per Year)				
PCWA Supply Source	**2020**	**2025**	**2030**	**2035**
Middle Fork Project	120,000	120,000	120,000	120,000
Central Valley Project	0	32,000	32,000	32,000
PG & E	110,400	110,400	110,400	110,400
Pre-1914 Appropriations	3,400	3,400	3,400	3,400
Recycled Water	0	2,500	5,000	7,000
Total	**233,800**	**268,300**	**270,800**	**272,800**
Source: California American Water Company, Northern Division – Sacramento District. 2015 Urban Water Management Plan. June 30, 2016.				

Water Demand

The Sacramento District of CAL-AM's Northern Division has estimated the demand for the West Placer Service Area, and the past and projected water demands are presented in Table 16-2. Demand estimates include projected growth for the West Placer Service Area.[15] In addition to demand estimates for the West Placer Service Area, Table 16-2 presents a comparison of the estimated water supply for the area.

Table 16-2 West Placer Service Area Supply and Demand Comparison (Acre Feet per Year)					
	2015	**2020**	**2025**	**2030**	**2035**
West Placer Service Area Demand	753	2,559	3,548	4,918	6,819
West Placer Service Area Water Supply	766	2,656	3,682	5,105	7,078
Surplus	13	97	134	187	259
Source: California American Water Company, Northern Division – Sacramento District. 2015 Urban Water Management Plan. June 30, 2016.					

As shown in Table 16-2, the Northern Division Sacramento District of CAL-AM has estimated that the PCWA water supplies to the West Placer Service Area will exceed the estimated demand from the Service Area through the year 2035. Therefore, CAL-AM is anticipated to have sufficient water supplies to meet the demands of the West Placer Service Area until at least 2035.

It should be noted that although CAL-AM anticipates PCWA supplies to the West Placer Service Area will exceed supply through the year 2035, when the agreement between PCWA and CAL-AM was initiated, PCWA agreed to provide a maximum daily demand of 2,020,983 gallons per

[15] California American Water Company, Northern Division – Sacramento District. *2015 Urban Water Management Plan*. June 30, 2016.

day and a maximum delivery rate of 1,684 gallons per minute. The agreement specified that at such time that water delivery to CAL-AM reaches 80 percent of the maximum delivery rate or daily demand, CAL-AM is required to purchase additional units of capacity. Furthermore, the agreement notes that maximum delivery rate and daily volumes may be exceeded for emergency and maintenance purposes.[16]

Water Supply Reliability

During previous single- and multiple-dry years, CAL-AM has maintained the ability to supply 100 percent of average/normal water year supply to the West Placer Service Area through distributions from the PCWA. Under existing agreements, CAL-AM anticipates that PCWA will continue to have sufficient water supplies through projected buildout conditions, including the West Placer Service Area, during a series of multiple-dry-year conditions.[17]

Although CAL-AM anticipates meeting all water demand under single- and multiple-dry years, CAL-AM maintains a Water Shortage Contingency Plan. Should water supplies be insufficient to meet average demand, CAL-AM has the authority to implement voluntary conservation measures following notification of the California Public Utilities Commission (CPUC) of the need for such measures. Should further water conservation measures be needed, CAL-AM would request authorization from the CPUC to implement mandatory conservation measures. The request for authorization to the CPUC from CAL-AM would include the percent reduction needed by CAL-AM and would specify the measures needed to achieve such reductions.[18]

Water Quality

The PCWA provides the West Placer Service Area with high quality surface water, which originates in Folsom Lake. Disinfection by-product formation and pressure variations have recently been reduced, which has improved water quality in the service area.[19]

Water Delivery Infrastructure

Water distribution in the West Placer Service Area is administered by CAL-AM.[20] Currently, an existing 24-inch water main runs east to west within PFE Road, to the north of the project site. In addition, a 36-inch water main connects to the 24-inch main in PFE Road, and runs north to south, within Antelope Road.

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16 Placer County Water Agency and California-American Water Company. *Agreement Between Placer County Water Agency and California American Water for Water Supply*. July 6, 2015.

17 California American Water Company, Northern Division – Sacramento District. *2015 Urban Water Management Plan*. June 30, 2016.

18 *Ibid*.

19 California American Water Company, Northern Division – Sacramento District. *2015 Urban Water Management Plan*. June 30, 2016.

20 Placer County Water Agency and California-American Water Company. *Agreement Between Placer County Water Agency and California American Water for Water Supply*. July 6, 2015.

Solid Waste

Solid waste collection services in Western Placer County are provided by private companies under contract with the Western Placer Waste Management Authority (WPWMA). In the project area, Recology provides residential and commercial garbage service, debris box service and recycling to residents, and yard waste.

The WPWMA is a regional agency established in 1978 through a Joint Exercise of Powers Agreement between the County of Placer and the cities of Roseville, Rocklin, and Lincoln to acquire, own, operate, and maintain a sanitary landfill site and all related improvements.

The WPWMA designed and built a Material Recovery Facility (MRF) to divert solid waste from being disposed at the landfill. A majority of the solid waste collected in western Placer County is first processed at the WPWMA MRF. The MRF recovers, processes, and markets recyclable materials from the waste stream. The MRF also processes source separated wood waste and green waste and accepts separated recyclables, including electronics and other universal wastes (e.g. batteries and fluorescent lamps), at the recycling drop-off and buy-back center. The compost portion of the MRF has an annual processing capacity of 82,000 tons (averaged over the year and does not account for seasonal peaks). The MRF is permitted to have up to 75,000 cubic yards (approximately 37,500 tons) of compost material at the facility at any one time.

Residual waste from the MRF is transported to the Western Regional Sanitary Landfill (WRSL). The landfill is specified as a Class II/Class III non-hazardous site. Hazardous waste from households and Conditionally Exempt Small Quantity Generators is accepted at the Permanent Household Hazardous Waste Collection Facility (PHHWCF), located next to the MRF. Recovered materials are sold throughout the world, helping to conserve natural resources. Non-recyclable materials are sent to the landfill for disposal. The current space available, together with recovery efforts by the MRF, will delay the WRSL from reaching capacity.[21] The WPWMA owns and oversees the operations of the WRSL, MRF, compost facility, and PHHWCF, which are located near SR 65, between Roseville and Lincoln, at the corner of Athens Avenue and Fiddyment Road. A private firm, under contract to WPWMA, manages the day-to-day operation of the facilities.

Permit Limits and Site Constraints

The 320-acre WRSL is permitted to accept 1,900 tons per day and 624 vehicles per day; and currently receives an average of 1,077 tons per weekday.[22] The WRSL has a permitted design capacity of 36,350,000 cubic yards and, as of December 2017, has a remaining capacity of 24,468,271 cubic yards. Under current land use and development conditions, the WRSL has a permitted lifespan extending to 2058.[23]

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[21] Western Placer Waste Management Authority. *About WPWMA*. Available at: http://www.wpwma.com/about-wpwma/. Accessed on November 1, 2016.

[22] Western Placer Waste Management Authority. *Comment Letter: Lincoln Meadows Draft Environmental Impact Report*. December 11, 2017.

[23] Placer County Department of Facility Services, Environmental Engineering Division (Solid Waste). *EIR Guidance Document*. July 2014.

The MRF has a permitted processing limit of 2,200 tons per day.[24] According to Placer County, for the fiscal year 2016-2017, the average weekday tonnage received at the MRF was 1,191 tons.[25] The MRF expanded in 2007, increasing its processing capacity of municipal solid waste and construction and demolition debris to 2,200 tons per day.[26]

Gas and Electricity Infrastructure

Electricity and natural gas service in the project area is provided by Pacific Gas & Electric (PG&E).

Natural Gas Service

PG&E is one of the largest providers of natural gas throughout Placer County. PG&E is a San Francisco based, private company, publicly regulated by the California Public Utilities Commission and provides electricity and natural gas to the majority of Northern California. PG&E has ample resources to meet a wide range of projected growth; however, when the time comes, additional improvements to the facilities may be required to meet future growth demands.

A gas pipeline easement runs north and south through the project site. A series of valves for the pipeline within the easement are exposed throughout the project site. The easement is located within the Haight property, and continues along the common boundary of the Pruett (west) and Ogg parcels. The easement varies in width between 10 and 30 feet and the pipeline diameter ranges from 12 to 16 inches.

Electricity Service

PG&E began serving the electricity demands of the Sierra foothill area and San Francisco in the 1850s and was incorporated in 1905. Since the inception of PG&E, PG&E has grown to be one of the largest combined natural gas and electric service provider in the nation. Approximately 16 million residents of California live within PG&E's 70,000 square mile service area in northern and central California. To serve this area, PG&E owns 106,681 miles of electric distribution lines and 18,466 miles of interconnected transmission lines. Electricity is provided from PG&E-owned sources, and additional electricity supplies are purchased. Thus, PG&E relies on a variety of electricity sources including hydropower, natural-gas-fired generators, nuclear, and renewable energy sources.[27]

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[24] California Department of Resources Recycling and Recovery (CalRecycle). *Western Placer Waste Mgmt Authority MRF (31-AA-0001)*. Available at http://www.calrecycle.ca.gov/SWFacilities/Directory/31-AA-0001/. Accessed December 2017.

[25] Western Placer Waste Management Authority. *Comment Letter: Lincoln Meadows Draft Environmental Impact Report*. December 11, 2017.

[26] Placer County Department of Facility Services, Environmental Engineering Division (Solid Waste). *EIR Guidance Document*. July 2014.

[27] Pacific Gas & Electric. *Company Profile*. Available at: https://www.pge.com/en_US/about-pge/company-information/profile/profile.page. Accessed April 2018.

Currently, power lines exist along the south side of PFE Road, along the east side of Antelope Road, and along the east side of Cook Riolo Road. Additional power line infrastructure connects to existing structures throughout the project site.

16.3 Regulatory Context

Many agencies regulate public services and utilities. The following discussion contains a summary review of regulatory controls pertaining to utilities and service systems, including federal, State, and local laws and ordinances.

Federal Regulations

The federal environmental laws and policies relevant to utilities and service systems are primarily related to water quality, which is addressed in Chapter 10, Hydrology and Water Quality, of this EIR.

State Regulations

The following are the State environmental laws and policies relevant to utilities and service systems.

California Green Building Code

The California Building Code (CBC) contains standards that regulate the method of use, properties, performance, or types of materials used in the construction, alteration, improvement, repair, or rehabilitation of a building or other improvement to real property. The CBC is adopted every three years by the Building Standards Commission (BSC). The 2016 California Green Building Standards Code, otherwise known as the CALGreen Code, is the most recent version of the Code. In addition to the new State-wide mandates, CALGreen encourages local governments to adopt more stringent voluntary provisions, known as Tier 1 and Tier 2 provisions, to further reduce air pollutant emissions, improve energy efficiency, and conserve natural resources. If a local government adopts one of the tiers, the provisions become mandates for all new construction within that jurisdiction. The most significant features of the CALGreen Code related to public services and utilities include the following:

- Mandatory reduction in indoor water use, through the use of high-efficiency toilets, faucet aerators and other fixtures;
- Diversion of 50 percent of construction waste from landfills, increasing voluntarily to 65 and 75 percent for new homes; and
- Mandatory use of low-pollutant emitting interior finish materials such as paints, carpet, vinyl flooring, and particle board.

Assembly Bill 1881

Assembly Bill (AB) 1881, the Water Conservation in Landscaping Act of 2006 required the Department of Water Resources (DWR) to update the Model Efficient Landscape Ordinance. Furthermore, AB 1881 required local agencies to adopt the updated model ordinance or an equivalent ordinance by January 1, 2010. If local jurisdictions failed to adopt the updated model ordinance or an equivalent by January 1, 2010, the DWR's updated model ordinance would automatically be adopted by statute. Placer County adopted its Water Efficient Landscape Ordinance (WELO) in October 2017.

Senate Bill 610 and Senate Bill 221

In 2001, the California Legislature enacted two pieces of legislation relevant to environmental review focused on the water consumption associated with large development projects. Senate Bill (SB) 610 (Chapter 643, Statutes of 2001; Section 21151.9 of the Public Resources Code (PRC) and Section 10910 et seq. of the Water Code) requires the preparation of water supply assessments (WSAs) for large developments. Government Code section 66473.7(a)(1) requires an affirmative written verification of sufficient water supply. SB 221 is designed as a "fail-safe" mechanism to ensure that collaboration on finding the needed water supplies to serve a new large subdivision occurs early in the planning process.

As stated in CEQA Guidelines Section 15155, which reflects SB 610 requirements, any residential development exceeding 500 dwelling units is considered a "water-demand project" and is required to prepare a WSA. The proposed project includes 308 dwelling units, which is below the threshold established by SB 610. Thus, a WSA is not required to be prepared for the proposed project.

Urban Water Management Planning Act

In 1983, the California Legislature enacted the Urban Water Management Planning Act (Water Code Sections 10610 – 10656). The Act requires that every urban water supplier that provides water to 3,000 or more customers, or that provides over 3,000 acre-feet of water annually shall prepare and adopt an UWMP within a year of becoming an urban water supplier and update the plan at least once every five years. The Act specifies the content that is to be included in an UWMP, and states that urban water suppliers should make every effort to ensure the appropriate level of reliability in its water service sufficient to meet the needs of its various categories of customers during normal, dry, and multiple-dry years. The Act also states that the management of urban water demands and the efficient use of water shall be actively pursued to protect both the people of the State and their water resources. The Northern Division Sacramento District of CAL-AM prepared a UWMP in 2015.[28]

[28] California American Water Company, Northern Division – Sacramento District. *2015 Urban Water Management Plan*. June 30, 2016.

California Integrated Waste Management Act - Assembly Bill 939

To minimize the amount of solid waste that must be disposed of by transformation (i.e., recycling) and land disposal, the State Legislature passed the California Integrated Waste Management Act of 1989 (AB 939), effective January 1990. According to AB 939, all cities and counties are required to divert 25 percent of all solid waste from landfill facilities by January 1, 1995, and 50 percent by January 1, 2000. Solid waste plans are required to explain how each city's AB 939 plan will be integrated within the respective county plan. The plans must promote (in order of priority) source reduction, recycling and composting, and environmentally safe transformation and land disposal. Cities and counties that do not meet this mandate are subject to $10,000-per-day fines.

Senate Bill 1016

In 2007, SB 1016 amended portions of AB 939, which allows the California Integrated Waste Management Board (CIWMB) to use per capita disposal as an indicator in evaluating compliance with the requirements of AB 939. Jurisdictions track and report their per capita disposal rates to CalRecycle.

Local Regulations

The following local goals and policies are applicable to the proposed project.

Placer County General Plan

The following applicable goals and policies related to utilities and service systems are from the Placer County General Plan.

General Public Facilities and Services

Goal 4.A To ensure the timely development of public facilities and the maintenance of specified service levels for these facilities.

Policy 4.A.1 Where new development requires the construction of new public facilities, the new development shall fund its fair share of the construction. The County shall require dedication of land within newly developing areas for public facilities, where necessary.

Policy 4.A.2 The County shall ensure through the development review process that adequate public facilities and services are available to serve new development. The County shall not approve new development where existing facilities are inadequate unless the following conditions are met:

a. The applicant can demonstrate that all necessary public facilities will be installed or adequately financed (through fees or other means);
b. The facilities improvements are consistent with applicable facility plans approved by the County or with agency plans where the County is a participant; and,

c. The facilities improvements are designed and built to the current standards of the agency providing service.

Policy 4.A.3 The County shall require that new urban development is planned and developed according to urban facility standards.

Water Supply and Delivery

Goal 4.C To ensure the availability of an adequate and safe water supply and the maintenance of high quality water in water bodies and aquifers used as sources of domestic supply.

Policy 4.C.1 The County shall require proponents of new development to demonstrate the availability of a long-term, reliable water supply. The County shall require written certification from the service provider that either existing services are available or needed improvements will be made prior to occupancy. Where the County will approve groundwater as the domestic water source, test wells, appropriate testing, and/or report(s) from qualified professionals will be required substantiating the long-term availability of suitable groundwater.

Policy 4.C.2 The County shall approve new development based on the following guidelines for water supply:

a. Urban and suburban development should rely on public water systems using surface supply.
b. Rural communities should rely on public water systems. In cases where parcels are larger than those defined as suburban and no public water system exists or can be extended to the property, individual wells may be permitted.
c. Agricultural areas should rely on public water systems where available, otherwise individual water wells are acceptable.

Policy 4.C.6 The County shall promote efficient water use and reduced water demand by:

a. Requiring water-conserving design and equipment in new construction;
b. Encouraging water-conserving landscaping and other conservation measures;
c. Encouraging retrofitting existing development with water-conserving devices; and,
d. Encouraging water-conserving agricultural irrigation practices.

Sewage Conveyance, Treatment, and Disposal

Goal 4.D The County shall require wastewater conveyance and treatment facilities that are sufficient to serve the Placer County General Plan proposed density of residential, commercial, and public/institutional uses in a way which protects the public and environment from adverse water quality or health impacts.

Policy 4.D.2 The County shall require developments outside of an existing sewer service area and needing new connections to public conveyance and treatment facilities to be annexed into the sewer service area providing service.

Policy 4.D.4 The County shall require developments needing new connections to construct wastewater conveyance facilities which are sized and located to provide sewer service based on permitted densities and applicable sewer shed area. Wastewater conveyance systems shall be designed for gravity flow. Where gravity conveyance systems are not feasible, the agency providing service may approve pumping service where a site specific engineering analysis demonstrates the long-term cost effectiveness of pumped facilities.

Policy 4.D.5 The County shall require developments needing new connections to pay their fair share of the cost for future public wastewater facilities which support development based on the Placer County General Plan. The fair share will be based on the demand for these facilities attributable to the new development.

Policy 4.D.6 The County shall promote efficient water use and reduced wastewater system demand by:

a. Requiring water-conserving design and equipment in new construction as required in California law (AB 1881);
b. Encouraging retrofitting with water-conserving devices; and
c. Designing wastewater systems to minimize inflow and infiltration.

Policy 4.D.9 The County shall promote functional consolidation of wastewater facilities.

Policy 4.D.10 The County shall require all public wastewater facilities to be designed and built to the current standards of the agency providing service.

Landfills, Transfer Stations, and Solid Waste Recycling

Goal 4.G To ensure the safe and efficient disposal or recycling of solid waste generated in Placer County.

Policy 4.G.1 The County shall require all new urban/suburban development, excluding rural development, to include provisions for solid waste collection.

Policy 4.G.7 The County shall require that all new development complies with applicable provisions of the Placer County Integrated Waste Management Plan.

<u>Placer County Water Efficient Landscape Ordinance</u>

The Placer County Landscape Design Guidelines incorporate the County's Water Efficient Landscape Ordinance (WELO). The County's WELO established water efficiency requirements for developments throughout the County based on the amount of landscaped areas included in proposed projects, and whether the project involves new development or renovation type activities.

Water use efficiency in the WELO is to be achieved through the use of drought tolerant plantings, and proper landscaping, as well as specific requirements for irrigation systems. The specific requirements for water use efficiency in landscaping would be confirmed during design reviews for proposed projects. Specifically, the WELO requires applications to include Landscape Packages, which would present water budgets, soil management reports, grading plans, landscape design plans, irrigation plans and other information related to the overall design of landscaping within projects.

DCWPCP

The following are the applicable goals and policies related to utilities and service systems from the DCWPCP.

Public Services

Goal 5 Insure that the rate of development shall not exceed the capacity of county, community, special districts (including school districts), and utility companies to provide all needed public services in a timely, orderly, and economically feasible manner.

Policy 1 Coordination of city, county, and district public works planning and land use planning are essential. A major problem is to design major water, sewer and road extensions, intended to serve urban areas, in such a way that they do not also serve intervening non-urban areas, and thereby encourage their urbanization.

Policy 5 Ensure that adequate services will be available for proposed development before granting approvals.

Policy 6 The County or other public entity should be responsible to operate sewer, water and major drainage services, not a developer or private landholder.

Public Services: Sewage Disposal

Goal To provide sewage disposal facilities which will serve the Dry Creek-West Placer Area's proposed density of residential, commercial, industrial, and public uses in a way which protects the public from adverse water quality or health impacts.

Policy 1 Require all new commercial, industrial, institutional, and residential subdivisions to install and connect to a public sewer system.

Community Development: Community Design

Policy 18 Utility lines shall be installed underground to ensure minimum disruption to the environment and as little disturbance as possible to vegetation, particularly in scenic corridors.

16.4 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 utilities and service systems. In addition, 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 and the County's Initial Study Checklist, the effects of a project are evaluated to determine if they would result in a significant adverse impact on the environment. For the purposes of this EIR, an impact is considered significant if the proposed project would:

- 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;
- Require or result in the construction of new on-site sewage systems;
- Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects;
- Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed;
- Require sewer service that may not be available by the area's waste water treatment provider;
- Result in significant adverse impacts related to project energy requirements; or
- Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs in compliance with all applicable laws.

Impacts related to storm drainage facilities are addressed in Chapter 10, Hydrology and Water Quality, of this EIR.

Method of Analysis

Determinations of the significance of the proposed project's impacts were made based on the project's modifications to existing or planned utilities, and the ability of the existing utilities to accommodate the proposed project, using the above significance criteria.

Water Supply

The 2015 UWMP prepared for CAL-AM was used to determine the adequacy of existing water supplies for the proposed project.

Wastewater System

TSD Engineering, Inc. prepared a sewer study for the proposed project, titled *Providence Park Subdivision Preliminary Sewer Study* (see Appendix M). The sewer study includes wastewater generation estimates, as well as an assessment of the proposed sewer lift station. As required by the County, the sewer study includes an analysis of the adequacy of the proposed sewer lift station to serve buildout of the sewer shed area encompassing the project site. The sewer shed area encompassing the project site includes areas south of Dry Creek, east of Cook Riolo Road, north of the Sacramento County line, and west of the Roseville City limits.

Solid Waste

Solid waste generation from the proposed project was estimated and considered with respect to the anticipated capacity at the solid waste facilities that would serve the proposed project. Sources of solid waste generation for the proposed project include demolition waste, vegetation removed during site preparation, construction material waste, and operational waste from proposed residences and landscape maintenance. The solid waste analysis of this chapter is based on solid waste calculations performed using information from the U.S. EPA's report, *Estimating 2003 Building-Related Construction and Demolition Materials Amounts*,[29] as well as CalRecycle operational solid waste generation rates.

Natural Gas and Electricity

The natural gas and electricity demand of the proposed project were estimated using the California Emissions Estimator Model (CalEEMod) version 2016.3.2 software. As discussed in further depth in Chapter 5, Air Quality, of this EIR, CalEEMod provides a standardized platform for the estimation of air quality emissions within California. To calculate air quality emissions, CalEEMod estimates the amount of natural gas and electricity that operation of a proposed project would demand. CalEEMod outputs are included as Appendix C to this EIR.

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.

16-1 Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board or require sewer service that may not be available by the area's waste water treatment provider. Based on the analysis below, the impact is *less than significant.*

As discussed above, wastewater from the project site would be treated at the Dry Creek WWTP, which is operated by the City of Roseville.

[29] U.S. Environmental Protection Agency. *Estimating 2003 Building-Related Construction and Demolition Materials Amounts.* 2009.

The Preliminary Sewer Study prepared for the proposed project by TSD Engineering, Inc. used the wastewater generation rate of 380 gallons per day per equivalent dwelling unit (gpd/EDU) ADWF, from Placer County's *Southeast Area Sewer Master Plan*.[30] Using the 380 gpd/EDU rate results in an estimated ADWF of 117,040 gpd (0.117 mgd) of wastewater generated during operation of the 308 proposed residential units. As of 2016, the Dry Creek WWTP was operating at 50 percent capacity, with a remaining capacity of 9 mgd ADWF.[31] The 0.117 mgd of ADWF anticipated during operation of the proposed project would be well within the available capacity at the Dry Creek WWTP; therefore, the Dry Creek WWTP currently has adequate capacity to serve the project's projected demand in addition to the WWTP's existing commitments.

The Preliminary Sewer Study prepared for the proposed project analyzed the PWWF for buildout of the project area using wet-weather peaking factors from the *Southeast Area Sewer Master Plan*. The wet-weather peaking factors were derived from a peaking factor curve, and ranged from 2.8 to 3.5.[32] To provide a conservative analysis for the proposed project, the highest peaking factor used in the Preliminary Sewer Study is used to estimate the PWWF for the proposed project. Thus, the 0.117 mgd of ADWF would result in a PWWF of 0.410 mgd (0.117 x 3.5 = 0.410 mgd). The Dry Creek WWTP has a PWWF capacity of 45 mgd, but currently receives 25 mgd of PWWF. Therefore, the Dry Creek WWTP currently operates with a capacity of 20 mgd of PWWF.[33] The conservatively estimated 0.410 mgd of PWWF generated by operation of the proposed project could be accommodated by the existing capacity at the Dry Creek WWTP.

The Dry Creek WWTP discharges tertiary treated effluent to Dry Creek under an existing NPDES permit. The NPDES permit includes Waste Discharge Requirements, which include stringent effluent limitations for ammonia, aluminum, cadmium, carbon tetrachloride, cyanide, dibromochloromethane, dichlorobromomethane, iron, manganese, mercury, total chlorine residual, and zinc. Dry Creek WWTP is currently in compliance with all existing permitting, and, thus, effluent meets the RWQCB requirements within the NPDES permit. By permitting the Dry Creek WWTP for a maximum ADWF of 18 mgd and a PWWF of 45 mgd, the RWQCB has determined that the Dry Creek WWTP can treat the foregoing volume of wastewater without exceeding the NPDES discharge requirements. Considering that the Dry Creek WWTP has adequate capacity to serve the ADWF and the PWWF of the proposed project, in addition to the provider's existing commitments, the proposed project would not result in the Dry Creek WWTP exceeding permitted capacity or the RWQCB's treatment requirements. Therefore, the proposed project would not exceed wastewater treatment requirements of the applicable RWQCB or require sewer service that may not be available by the area's wastewater treatment provider, and a ***less-than-significant*** impact would result.

[30] Placer County Department of Facility Services, Environmental Division. *Southeast Area Sewer Plan*. 2009.
[31] City of Roseville. *City of Roseville General Plan 2035*. August 17, 2016.
[32] TSD Engineering, Inc. *Providence Park Subdivision Preliminary Sewer Study*. August 30, 2016.
[33] City of Roseville. *City of Roseville General Plan 2035*. August 17, 2016.

Mitigation Measure(s)
None required.

16-2 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. Based on the analysis below and with implementation of mitigation, the impact is *less than significant.*

The proposed project includes both water and wastewater infrastructure to serve the proposed residences.

Water Conveyance Infrastructure

As shown in Figure 16-3, water would be conveyed to the project site through the existing 36-inch and 24-inch water mains located in Antelope Road and PFE Road, respectively. One connection to the existing 24-inch water main within PFE Road would be made through an eight-inch pipe in the West Village area. Additionally, three connections would be made to the 36-inch water main within Antelope Road.

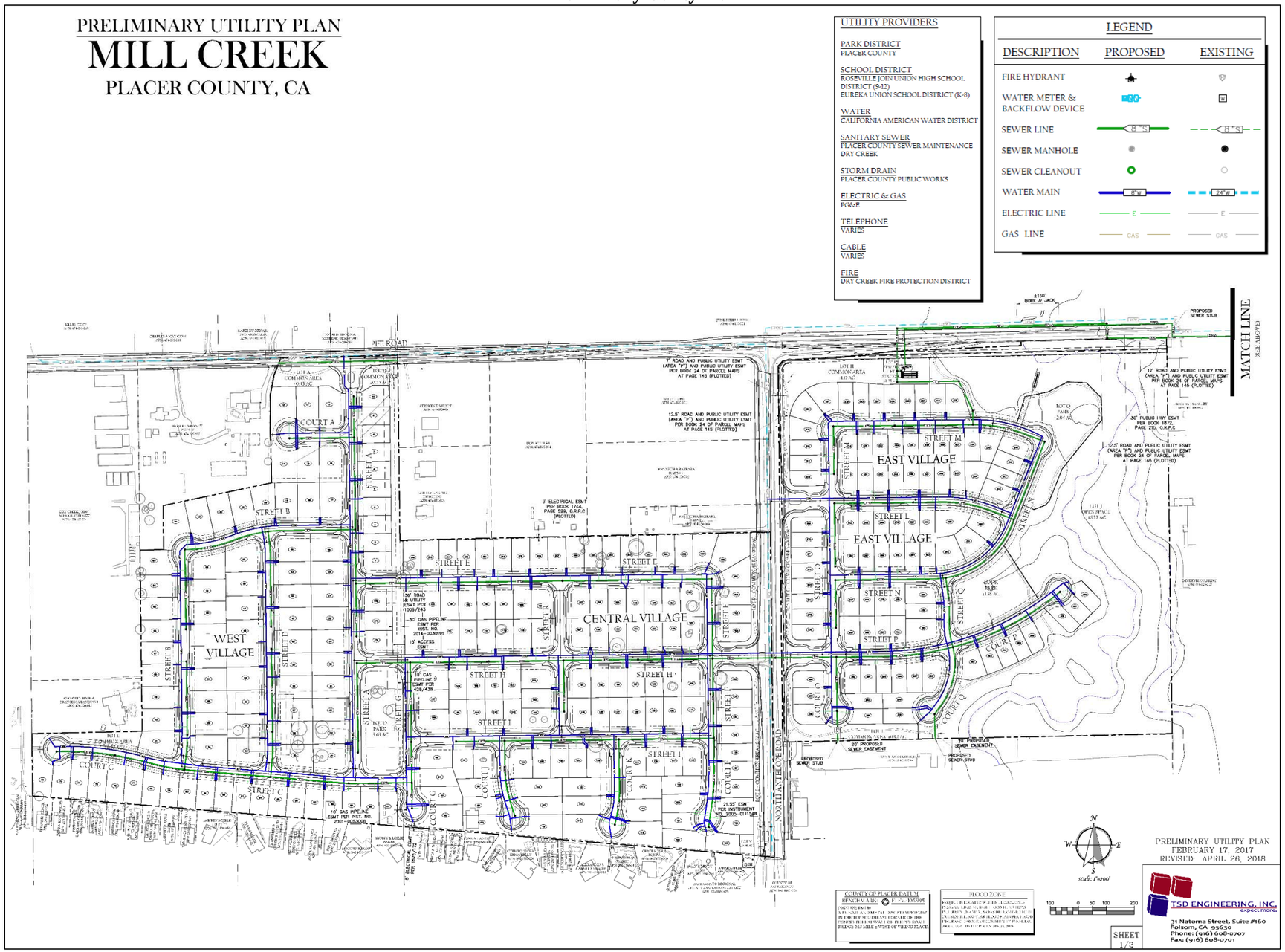
The connections to the water main within Antelope Road would be made through eight-inch pipes. The eight-inch pipes would be routed through the internal street network, and all 308 units would be connected to the internal water infrastructure. The existing 24-inch and 36-inch water main infrastructure would be sufficiently sized to accommodate the increased demand from the proposed project, and the project would not require the construction of new or expanded water conveyance infrastructure.

The proposed on-site water conveyance infrastructure would be designed to meet standard residential fire flow requirements. The looped water system throughout the site would include residential hook-ups as well as hydrant connections, and each unit connection would provide fire flows necessary for a residential fire sprinkler system in addition to the domestic water service.

Water conveyance infrastructure needed for the proposed project would be constructed on-site, and construction of such infrastructure would be financed by the project applicant. The proposed project would not involve any off-site improvements related to water conveyance that could have the potential to result in off-site environmental effects.

In order to ensure that maintenance and upgrades to water conveyance infrastructure are properly financed, CAL-AM charges customers for capacity based on the required meter size and the following five additional components, as described in Agency Rules Section 40901: (1) a treatment component, to cover the capital costs for treatment plants, clearwell storage, and facilities for delivering untreated water to treatment plants; (2) a storage component, to cover the capital costs of distribution to storage facilities; (3) a transmission component, to cover the costs of regional transmission facilities; (4) a planning component, to cover the costs of regional planning efforts; and (5) a groundwater component, to cover

Figure 16-3
Preliminary Utility Plan



the capital costs for the installation of wells and related appurtenances to provide drought and emergency water supplies. The proposed project would be required to pay all relevant CAL-AM fees, which would help to ensure that CAL-AM would maintain sufficient capacity and infrastructure to serve the proposed project.[34]

Wastewater Conveyance

As shown in Figure 16-3, sewer infrastructure does not currently exist within the project site. The proposed project would include installation of sewer system infrastructure, both within the project site and off-site, including along the length of the project frontage of PFE Road, in order to connect to the Dry Creek WWTP, which is located less than a half mile north of the project site. In addition to sewer improvements designed to serve the project, the proposed project would include the extension of a gravity sewer line from the proposed lift station to the eastern property boundary at PFE Road in order to provide a connection point for potential future development east of the project site.

On-site sewer infrastructure would consist of six-inch and eight-inch sewer lines. The sewer lines would be laid within the proposed internal roadways, with individual connections for each proposed lot. All sewer lines within the proposed project would gravity flow to a single eight-inch sewer line, which would route wastewater to a proposed on-site sewer lift station. A previous sewer study contemplated that this sewer shed area would be served by a lift station located closer to Dry Creek, north of the proposed project site on a property currently under a Williamson Act contract.[35] However, the lift station location that is currently proposed is located approximately 600 feet east of the intersection of PFE Road and Antelope Road. The proposed location was evaluated as part of a Preliminary Sewer Study prepared for the proposed project and was determined to be adequately located and sized to serve the sewer shed area including the project site. The sewer lift station would be designed pursuant to the requirements presented in Placer County's *Pump Station Design Manual*.[36]

The proposed sewer lift station would be set at an elevation of approximately 110 feet above sea level, and would extend to a maximum depth of 88 feet above sea level. Although the proposed project only includes development of the project site, the DCWPCP anticipated development of the surrounding project area. Therefore, the sewer lift station included in the proposed project would be designed to convey wastewater flows from the built-out sewer shed area, which includes areas south of Dry Creek, east of Cook Riolo Road, north of the Sacramento County line and west of the Roseville City limits. Please refer to Section 17.5, Growth-Inducing Impacts of the Proposed Project, within Chapter 17 of this EIR for a discussion of the sizing of the sewer lift station to accommodate the sewer shed area.

[34] Placer County Water Agency and California-American Water Company. *Agreement Between Placer County Water Agency and California American Water for Water Supply*. July 6, 2015.
[35] The Spink Corporation. *Dry Creek West Placer County CFD Sewer Study*. July 26, 2000.
[36] Placer County Environmental Engineering. *Pump Station Design Manual*. June 30, 2016.

The proposed sewer lift station would convey wastewater from the project site and shed area through a force main, east within PFE Road. Four potential alignments were initially considered to deliver wastewater from the project site to the Dry Creek WWTP. Following initial consideration of four alignments (see Figure 16-4), alignment Alternative 1 and Alternative 3 were dismissed. Figure 16-5 presents the two potential alignments, alignment Alternative 2 and Alternative 4, under consideration for the proposed project.

As shown in Figure 16-5, Alternative 2 would direct the proposed force main north, from PFE Road into a private driveway, which is located approximately 780 feet east of the eastern side of Hilltop Circle. A 2,500-foot easement would be established from the intersection of the private driveway and PFE Road, heading north, towards the WWTP. The proposed force main would be routed from PFE Road, within the easement, to a direct point of connection at the Dry Creek WWTP. The pipe's alignment would require a bore and jack crossing under Dry Creek.

Rather than leaving PFE Road at the private driveway along PFE Road, Alternative 4 would continue an additional 3,450 feet within PFE Road, which turns into Atkinson Road. Under this alternative, the proposed force main would be suspended under the Atkinson Road bridge over Dry Creek. After crossing the bridge, the proposed force main would connect to an existing City of Roseville 33-inch transmission main located just west of the bridge, on the north side of Dry Creek.

Although two alternatives are currently under consideration, only one alternative would be implemented as part of the proposed project. Nevertheless, because the preferred alternative has not been finalized, the potential environmental impacts from either potential alignment have been considered throughout this EIR. For example, see Chapter 6 for potential impacts related to off-site biological resources and Chapter 7 for potential impacts related to off-site cultural resources.

In both alignment alternatives, wastewater from the project site, as well as the surrounding wastewater shed area, would be directed through the proposed on-site sewer lift station into a proposed force main. The wastewater shed area to be served by the proposed lift station includes the project site and areas to the north of the project site, anticipated for future residential development under the DCWPCP, as well as some of the commercial and industrial parcels to the east of the project site. At buildout, the shed area is estimated to generate a wet-weather flow of approximately 0.75 mgd.[37]

For Alternative 2, the new force main leading from the lift station through a future easement would deliver wastewater directly to the Dry Creek WWTP and would be sized to provide adequate capacity to convey up to 0.75 mgd wet-weather flow of wastewater from the proposed project site, and surrounding shed, to the Dry Creek WWTP.

[37] TSD Engineering, Inc. *Providence Park Subdivision Preliminary Sewer Study*. August 30, 2016.

Figure 16-4
Mill Creek Off-Site Wastewater Alignment Alternatives

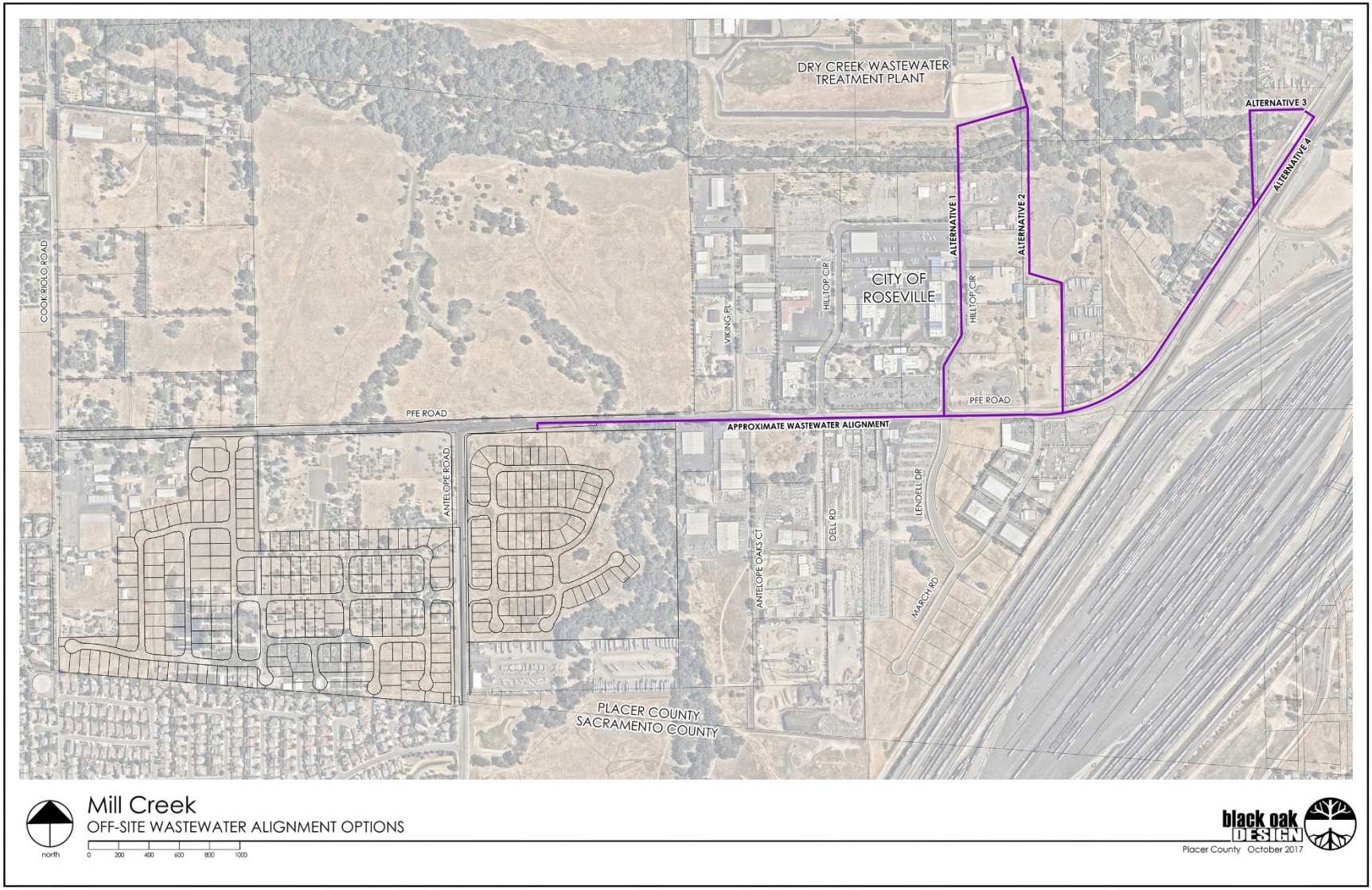
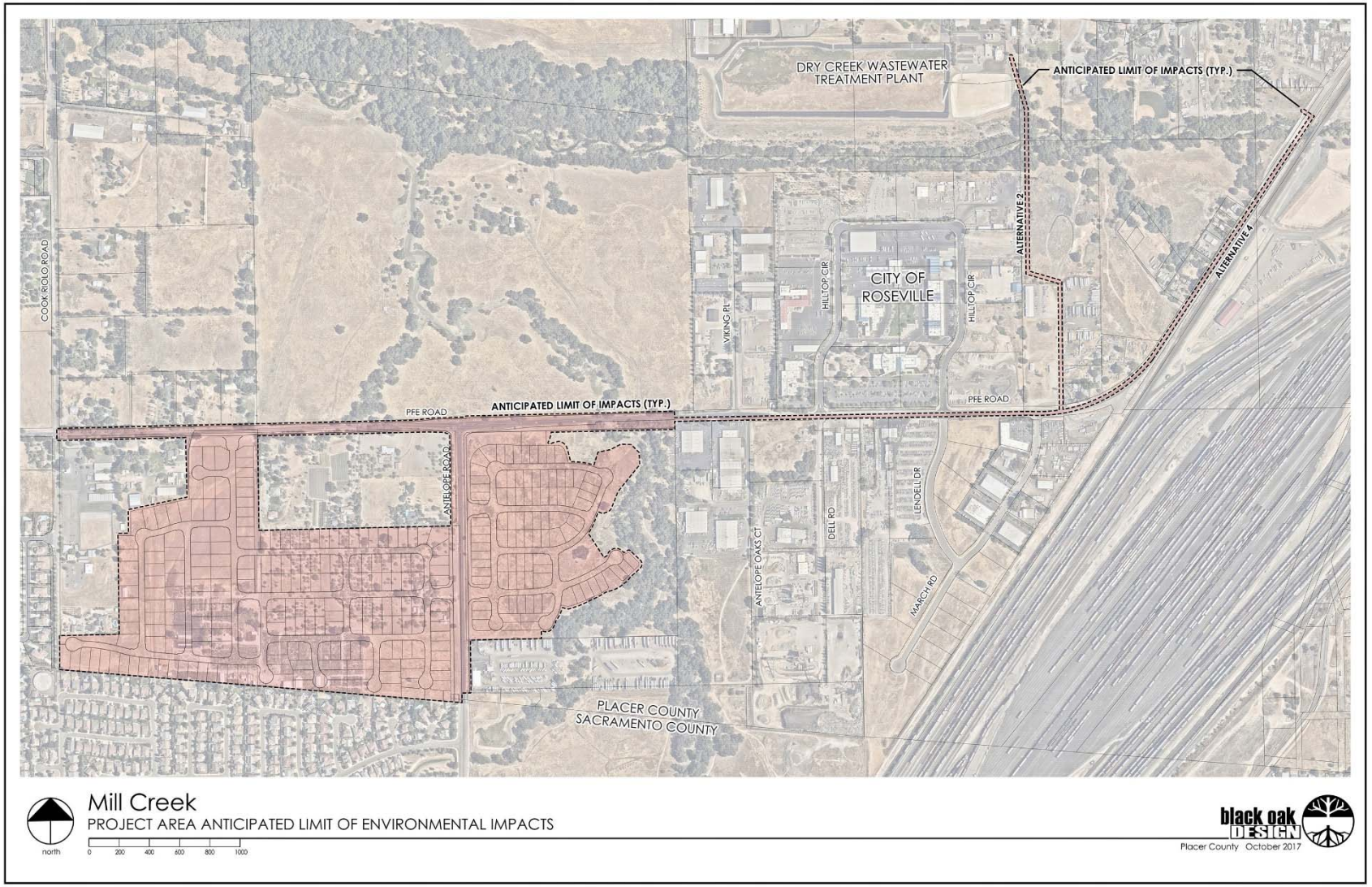


Figure 16-5
Potential Off-Site Sewer Alignments



For Alternative 4, a new six- or eight-inch force main would be extended from the lift station east along PFE Road to connect to an existing City of Roseville 33-inch transmission main. The City of Roseville's 33-inch transmission main has approximately 1 mgd of remaining wet-weather flow capacity.[38] As stated above, wet-weather flows from the built-out sewer shed served by the proposed sewer lift station and being directed into the force main, are anticipated to equal approximately 0.75 mgd. Considering the anticipated wet-weather flow that would be generated by the project and the existing capacity within the City of Roseville's 33-inch transmission main, adequate conveyance capacity is available to accommodate the Atkinson Road alignment.

Although adequate transmission capacity would exist under either alignment alternative discussed above, the project site is not currently included in the County's wastewater Community Service Area 28, Zone 173. In order for Placer County to obtain ownership of the proposed sewer system and provide maintenance of the proposed infrastructure, the project site and off-site improvement areas must be annexed into Community Service Area 28, Zone 173. Such an annexation would require approval by the Placer County Board of Supervisors. Upon approval of the annexation, the proposed project would be subject to the County's sewer connection fees. The County's sewer connection fees are currently approximately $9,100 per equivalent dwelling unit. $7,600 of each connection fee would be distributed to the City of Roseville for ongoing and future upgrades to the Dry Creek WWTP. The County receives approximately $1,500 of each connection fee, which is used for system upgrades and ongoing maintenance.

Conclusion

Adequate water conveyance infrastructure would be provided within the project site, and off-site water conveyance infrastructure would not be required. Two potential alignments are currently proposed to transport wastewater from a proposed on-site sewer lift station to the Dry Creek WWTP. Both alignments under consideration would provide adequate capacity to meet the needs of the project site and buildout of the sewer shed area. The proposed project would be subject to water connection fees through CAL-AM, as well as the County's sewer connection fee. Funds from the required fees would be used for maintenance and upkeep of the water and wastewater systems. With development of the proposed project, other expansions to the water or wastewater infrastructure in the project area would not be required. However, if the proposed project is not annexed into the Community Service Area 28, Zone 173, ownership of the proposed on-site and off-site sewer system would not be held by the County, and ongoing maintenance and operation of the proposed systems would not be ensured by the County. Thus, the proposed project could result in a ***significant*** impact.

Mitigation Measure(s)

Implementation of the following mitigation measure would reduce the above impact to a *less-than-significant* level.

[38] City of Roseville. *City of Roseville Sewer Model Update Final Report.* June 2017.

16-2 *Prior to approval of Improvement Plans for the proposed project, the project applicant shall provide proof that the proposed project site has been annexed into County Service Area 28, Zone 173.*

16-3 Require or result in the construction of new on-site sewage systems. Based on the analysis below, the impact is *less than significant.*

As discussed above, wastewater generated at the proposed project site would be treated at the Dry Creek WWTP. Consequently, the proposed project would not include the construction of any on-site sewage treatment systems, such as septic tanks. Conveyance of wastewater from the project site to the Dry Creek WWTP would require construction of a sewer lift station within the project site and an associated off-site force main. The sewer lift station would be designed pursuant to the requirements presented in Placer County's *Pump Station Design Manual*.[39] The on-site sewer lift station would facilitate conveyance of project wastewater to the Dry Creek WWTP. Therefore, the proposed project would not result in the construction of new on-site sewage treatment systems and a ***less-than-significant*** impact would result.

Mitigation Measure(s)
None required.

16-4 Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed. Based on the analysis below, the impact is *less than significant.*

The proposed project would include development of 308 single-family homes, three public parks, and multiple streets for internal circulation. The total development would require domestic and irrigation water, which would be supplied by the local water supplier: CAL-AM. The project is anticipated to be fully operational by the year 2020. CAL-AM has established a per capita per day water usage target of 173 gallons per capita per day (gcpd).[40] Based on the year 2020 per capita per day water usage target for CAL-AM customers of 173 gcpd, and the project's estimated population of 958 residents, the project would be anticipated to have a daily project-wide demand of approximately 165,734 gcpd, which equates to approximately 60.49 million gallons per year or 185.65 afy.[41]

As shown in Table 16-2, demand in the West Placer Service Area is anticipated to increase from 753 afy to 2,559 afy between 2015 and 2020. Thus, demand is anticipated to increase by approximately 1,806 afy by 2020, as compared to 2015 demand. Table 16-2 demonstrates that the anticipated growth in demand could be accommodated by available supplies, with an annual surplus of at least 97 afy.[42]

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39 Placer County Environmental Engineering. *Pump Station Design Manual*. June 30, 2016.
40 California American Water Company, Northern Division – Sacramento District. *2015 Urban Water Management Plan*. June 30, 2016.
41 *Ibid*.
42 California American Water Company, Northern Division – Sacramento District. *2015 Urban Water Management Plan*. June 30, 2016.

Demand estimates for future development within the West Placer Service Area are based off of growth estimates for the region and service area, including buildout estimates from the DCWPCP. The DCWPCP anticipated that the project site would be developed for residential and employment type land uses. Both residential and employment type land uses require water, thus, development of the site was anticipated to increase water demand within the DCWPCP and West Placer Service Area. Table 16-3 presents the anticipated water demand that would be generated from build-out of the project site under existing DCWPCP land use designations and the water demand that would be generated from buildout of the project site under the proposed project.

Table 16-3
Project Site Buildout Water Demand

Scenario	Land Use	Size	Demand Rate	Water Demand (gpd)
Build-Out of Existing DCWPCP	Office and Industrial	50.9 acres	2,228 gpd/ac	113,405
	Residential	97 Units[1]	173 gcpd[2]	52,246
Total Water Demand Under Build-Out of DCWPCP				*165,651*
Build-out of Proposed Project	Residential	308 Units	173 gcpd	165,734

[1] Unit number estimated based on build-out of 48.5 acres of Low Density Residential built-out at 2 units/acre (48.5 acres x 2 units/acre = 97 units)

[2] Based on 3.11 persons per household rate, as used for the proposed project, 97 units would result in 302 residents (3.11 persons per household x 97 units = 302 residents)

Sources:

- California American Water Company, Northern Division – Sacramento District. *2015 Urban Water Management Plan*. June 30, 2016.
- *Placer County Water Agency. Integrated Water Resources Plan [page 5-7]. August 2006.*

As shown in Table 16-3, buildout of the project site under existing DCWPCP land use designations or the proposed project would result in a similar water demand. However, the proposed project would result in an increased water demand of approximately 83 gpd, which would equate to approximately 30,295 gallons per year or 0.09 afy. A difference of 0.09 afy per year would not be considered a significant increase in demand from what has already been anticipated for the project site. As discussed above, CAL-AM anticipates a minimum annual surplus of 97 afy in 2020, with surpluses increasing through 2035. Therefore, while the proposed project would result in a slightly higher water demand than what has been anticipated for the project site, the potential increase in demand would be easily accommodated by CAL-AM's anticipated surplus in 2020 and beyond.

In addition to the water consumed by occupation of the residential units within the proposed project, the proposed landscaped areas and three proposed park areas would require irrigation water. The Placer County Landscape Design Guidelines provide

recommendations and requirements for new landscaping within the county,[43] which are compliant with the State's Water Conservation in Landscaping Act, and the County's WELO.[44] New developments with landscaped areas equal to or greater than 500 square feet (sf) must comply with the County's water efficient landscaping requirements; the proposed project would include approximately 380,000 sf of landscaped or park areas, and, thus, is subject to the County's water efficient landscaping requirements.

Requirements for establishing water efficient landscaping include the use of compost and mulch, installation of climate adapted plants, restrictions on turf areas, and requirements for irrigation systems. Compliance with the County's WELO would be ensured during the design review process through submission of a landscape package to the County for review and approval. The landscape package would include water budget calculations, a soil management report, landscape design plan, irrigation design plan, and other documents related to the proposed landscaping, irrigation, and grading plans. Compliance with the County's WELO would ensure that irrigation water consumption is minimized and occurs in compliance with the County's standards.

With respect to the preliminary landscape plans provided at this time, the proposed project would include landscaping along internal roadways, within proposed park areas, and within residential lots. Preliminary landscaping designs for roadway and park areas have been drafted in compliance with the County's WELO, through the use of plant species with low to moderate water demands. The only species selected with high water demands are the grass species to be used in portions of the proposed park and select species to be used in the bioretention planters throughout the project site. High water demand for plants chosen for use in bioretention planters would be met through directed stormwater flows and water efficient subsurface irrigation. Proposed parks have been designed with integrated turf, hardscapes, and other landscaping. The use of hardscapes and other landscaping allows for the reduction of turf throughout the proposed park areas, which would limit the amount of irrigation water needed for turf within the project site.

Fire Flow Water Demand

While adequate water supplies exist for the proposed project, the maximum daily water demand from operation of the proposed project must also be considered to ensure that adequate fire flows would be available for fire protection activity. The proposed project is anticipated to experience a maximum daily flow of 0.8 gallons per minute (gpm) from each residential unit. Comparatively, the maximum anticipated fire flow demands would be approximately 1,500 gpm. The proposed water system is required to be designed sufficient to provide a pressure of 20 pounds per square inch. The adequacy of the proposed water system design would be verified during improvement plan checks by the County. In

[43] Placer County Planning Services Division. *Placer County Landscaping Design Guidelines*. Adopted May 7, 2013.

[44] Placer County. *Water Efficient Landscape Ordinance*. Available at: https://www.placer.ca.gov/departments/communitydevelopment/cdranews/2017/august/waterefficientlandscapeordinance. Accessed November 2017.

addition, the agreement between PCWA and CAL-AM specifies that maximum daily demands and maximum demand rates may be exceeded under emergency situations, including fire flows.[45] Therefore, the proposed water system would provide adequate fire flow, and sufficient water supplies would be available through CAL-AM and PCWA, to meet the proposed project's fire flow demands.

Conclusion

Based on the above analysis and water conservation measures as required in the County's standards, expansion of existing or construction of new water facilities, or new entitlements to serve the proposed development would not be necessary. Therefore, the proposed project would result in a ***less-than-significant*** impact related to water supply and conveyance facilities.

Mitigation Measure(s)
None required.

16-5 Result in significant adverse impacts related to project energy requirements. Based on the analysis below, the impact is *less than significant.*

Development of the proposed project would increase demand for electricity and natural gas services in order to serve the 308 proposed residences. It should be noted that a discussion of energy conservation is included in Chapter 17, Cumulative Impacts and Other CEQA Sections, within this EIR.

According to the CalEEMod results for the proposed project, at full buildout, the project could be expected to result in an electricity demand of 2,600,680 kilowatt-hours (kWh) per year or 2.6 gigawatt-hours (GWh) per year. According to the California Energy Consumption Data Management System, in 2015, Placer County reported total electricity consumption for residential uses of 1,365.82 GWh.[46] Therefore, the proposed project would result in a 0.19 percent increase in the current electricity consumption for Placer County. In addition, according to the CalEEMod results for the proposed project, at full buildout, the project could be expected to result in consumption of natural gas of approximately 79,570.8 therms per year. According to the California Energy Consumption Data Management System, in 2015, Placer County reported total gas consumption for residential uses of 57.08 million therms.[47] Therefore, the proposed project would result in a minor 0.14 percent increase in the current gas consumption for Placer County.

The project applicant would be responsible for funding the installation of necessary on-site gas and electricity infrastructure to serve the project. The proposed project would represent

[45] Placer County Water Agency and California-American Water Company. *Agreement Between Placer County Water Agency and California American Water for Water Supply*. July 6, 2015.

[46] California Energy Consumption Data Management System. *Electricity Consumption by County*. Available at: http://ecdms.energy.ca.gov/elecbycounty.aspx. Accessed November 2017.

[47] California Energy Consumption Data Management System. *Gas Consumption by County*. Available at: http://ecdms.energy.ca.gov/gasbycounty.aspx. Accessed November 2017.

a minor increase in gas and electricity consumption within the County, and the increase in demand resulting from implementation of the proposed project would have a ***less-than-significant*** impact to gas and electricity facilities.

Mitigation Measure(s)
None required.

16-6 Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs in compliance with all applicable laws. Based on the analysis below, the impact is *less than significant.*

Most solid waste collected in unincorporated Placer County is delivered to the WPWMA MRF where waste is processed, recyclables are recovered, and residuals are disposed. The proposed project would generate solid waste associated with demolition and construction activities as well as from future residents of the proposed development. Construction debris would be disposed of in accordance with applicable federal, State, and local regulations and standards. Solid waste collection services would be provided by Recology Auburn Placer and the WRSL and MRF.

As described above, the 320-acre WRSL has a remaining capacity of 24,468,271 cubic yards,[48] a maximum daily throughput of 1,900 tons, and a permitted lifespan extending to 2058.[49] The MRF has a permitted processing limit of 2,200 tons per day and 1,014 vehicles per day. The average weekday tonnage received at the MRF for 2016/2017 was 1,191 tons, which is 1,009 tons per day less than the permitted amount.[50] Considering the remaining daily capacity at the MRF is 1,009 tons, the MRF has a remaining annual capacity of at least 368,285 tons.

The proposed project consists of the demolition of existing residences and ancillary structures, and subsequent development of 308 residential units. The demolition and construction activity would generate debris, which could create a short-term impact on solid waste disposal, while the future residents of the property would generate residential wastes over the long-term life of the project.

The U.S. EPA's report, *Estimating 2003 Building-Related Construction and Demolition Materials Amounts*, was used to estimate the amount of waste that would be generated by construction activities. Per the report, residential construction activities generate an average of 4.39 lbs/sf of waste.[51] The proposed project is anticipated to include construction of 308 residential units; however, the total building square footage of the

[48] Western Placer Waste Management Authority. *Comment Letter: Lincoln Meadows Draft Environmental Impact Report*. December 11, 2017.

[49] Western Placer Waste Management Authority. *About WPWMA*. Available at http://www.wpwma.com/about-wpwma/. Accessed March 2017.

[50] Placer County Department of Facility Services, Environmental Engineering Division (Solid Waste). *EIR Guidance Document*. July 2014

[51] U.S. Environmental Protection Agency. *Estimating 2003 Building-Related Construction and Demolition Materials Amounts.* 2009.

future units is currently unknown. Therefore, for analysis purposes, each unit was conservatively estimated to include 2,500 sf of building space. Assuming a buildout of 308 units with 2,500 sf of building space, the proposed project would result in a total buildout square footage of 770,000, construction of which would produce 3,380,300 lbs (1,690 tons) of construction waste (308 units x 2,500 sf x 4.39 lbs/sf = 3,380,300 lbs). Prior to construction of the proposed residences, the project would include demolition of the on-site structures, which would result in the generation of approximately five tons of waste. Thus, a total of 1,695 tons of construction and demolition waste would be generated by the proposed project.

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 1,101.8 tons of waste would be diverted away from landfill disposal during construction and demolition. Considering the applicable CALGreen Code requirements, buildout of the proposed project would be anticipated to produce 588.2 tons of waste. Construction and demolition waste generation represents a short-term increase in waste generation. The WRSL is permitted to accept 1,900 tons/day or 693,500 tons per year. Therefore, waste from construction and demolition associated with the project would equal approximately 0.08 percent of the WRSL's total annual permitted capacity. A contribution of 0.08 percent of the WRSL's total annual permitted capacity would not be considered a substantial amount of waste, and the WRSL has adequate capacity to accept such waste.

During operation of the project, the future residents would produce solid waste that would be collected by the Recology and transferred to the WRSL. Based on an average waste generation rates for single-family residential development of 10.2 pounds per unit per day,[52] and the 308 units included in the proposed project, operation of the proposed project would be expected to produce approximately 3,141.6 pounds of solid waste daily and 573.3 tons of solid waste annually. The project's anticipated daily and annual waste production would represent approximately 0.08 percent of the WRSL's daily permitted capacity. Therefore, the project would not be considered to contribute significant amounts of waste to the WRSL, and the WRSL has sufficient capacity to handle the increase in waste generation resulting from the project.

Thus, solid waste generated from the construction and operation of the proposed project would not exceed the permitted capacity of the WRSL and MRF; as a result, the proposed project would be served by a landfill with adequate capacity and a ***less-than-significant*** impact would result.

Mitigation Measure(s)
None required.

[52] California Department of Resources Recycling and Recovery. *Estimated Solid Waste Generation Rates*. Available at: https://www2.calrecycle.ca.gov/WasteCharacterization/General/Rates. Accessed December 2017.