10 UTILITIES AND SERVICE SYSTEMS

10.1 Introduction

The Utilities and Service Systems chapter of the EIR summarizes the setting information and identifies potential new demands resulting from the proposed project on water supply, wastewater systems, solid waste disposal, and gas and electric infrastructure. Information for Utilities and Service Systems chapter was primarily drawn from a Sanitary Sewer Study prepared for the proposed project by RSC Engineering, Inc. (see Appendix N),[1] the Placer County General Plan[2] the associated EIR,[3] and the Horseshoe Bar/Penryn Community Plan.[4] In addition, the chapter references information from various local service providers, including the Placer County Water Agency (PCWA), the South Placer Municipal Utility District (SPMUD), and Recology Auburn Placer (Recology).

10.2 Existing Environmental Setting

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

Water Supply

Water supply service for the proposed project area is provided by the PCWA. Per the PCWA's *2015 Urban Water Management Plan* (2015 UWMP), the PCWA was created under its own state legislation adopted in 1957 by the California State Legislature with services in water resource planning and management, retail and wholesale supply of irrigation water and drinking water, and production of hydroelectric energy[5]. The population served by PCWA represents a highly varied mix of users and user classes due to the size of the service area, which includes a broad mix of residential population densities, as well as commercial, public, and industrial water use customers.

The PCWA service area includes five zones, which all have unique water supply characteristics. The proposed project site is located within Zone 1, which is the largest of the five zones, extending from the City of Auburn to the City of Lincoln and south to the border of the City of Roseville. Within Zone 1, the project site is located within the Horseshoe Bar/Penryn subarea, which receives "Retail Treated" water (see Figure 10-1).

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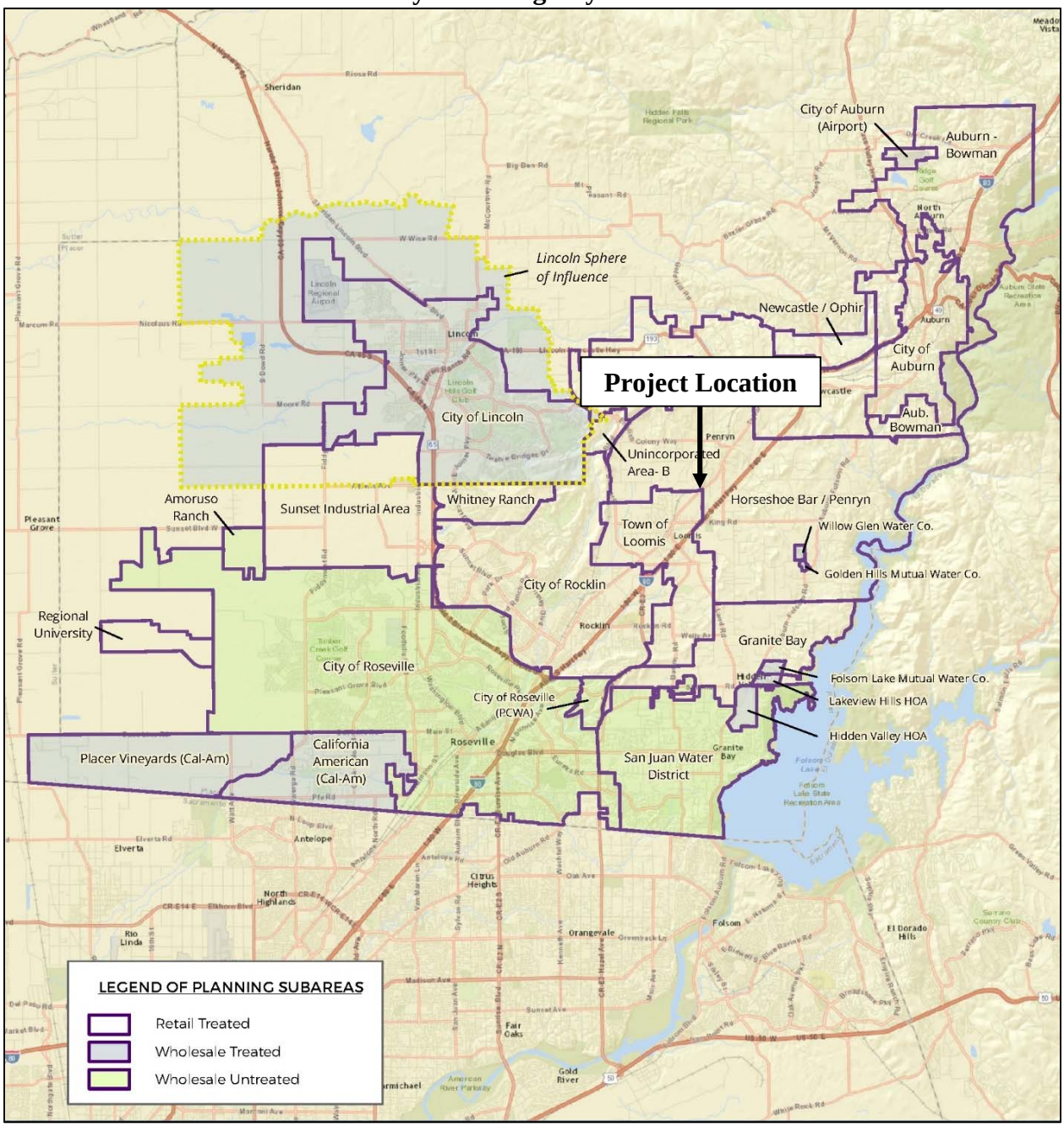
1 RSC Engineering, Inc. *United Auburn Indian Community Tribal School Sanitary Sewer Study.* October 4, 2017.
2 Placer County. *Countywide General Plan Policy Document.* August 1994 (updated May 2013).
3 Placer County. *Countywide General Plan EIR*. July 1994.
4 Placer County. *Horseshoe Bar/Penryn Community Plan*. Revised December 2005.
5 Placer County Water Agency. *2015 Urban Water Management Plan*. Adopted June 2, 2016.

Figure 10-1
Placer County Water Agency Zone 1 Subareas



Source: Placer County Water Agency, 2015 Urban Water Management Plan, Adopted 2016.

Retail Treated water is water provided directly to PCWA's municipal and industrial customers that meets all requirements for potable water use. Currently, Zone 1 Retail Treated water demands account for over 96 percent of the Retail Treated demands in the entire PCWA service area.

Table 10-1 represents estimated land-use growth and demand by the subareas defined in Figure 10-2. Because the planning horizon assumed by the land-planning authorities in the County is not always consistent (e.g. projections vary from 2030 to 2050), and some anticipated projects emerge and disappear between UWMP updates, future land-planning updates may identify growth in the Western Area not contemplated in the most recent 2015 UWMP. To accommodate this potential additional demand, the PCWA has established a placeholder of 2,000 acre-feet (af) of annual demand beginning in 2040, expanding to 4,000 af by build-out conditions.

Table 10-1
Summary of Zone 1 Retail Treated Demand by Subarea

Zone 1 Subarea	Customer Demand (af per year)		System Demand (af per year)	
	Existing	Future	Existing (10% loss)	Future (8% loss)
Upper Zone 1				
Auburn/Bowman	1,736	4,109	1,927	4,478
City of Auburn	2,615	3,510	2,903	3,826
City of Auburn (Airport)	173	480	192	523
Newcastle/Ophir	2	432	2	471
Unincorp. Area C (Newcastle)	440	2,266	488	2,470
Lower Zone 1				
Bickford Ranch	0	1,318	0	1,437
Horseshoe Bar/Penryn	669	3,448	742	3,758
Unincorp. Area B (Loomis Basin)	2	81	2	88
Town of Loomis	1,665	2,812	1,848	3,065
Granite Bay	670	763	744	832
City of Rocklin	12,551	17,378	13,932	18,942
Whitney Ranch	943	2,156	1,047	2,350
City of Roseville (PCWA)	490	624	544	681
Sunset Industrial Area	1,505	8,859	1,670	9,656
Total Zone 1				
Regional University	0	1,796	0	1,958
		Greenbelts	2,180	3,820
		Regional Buffer	0	4,000
		Other	500	1,000
		Grand Total Retail	**28,700**	**63,000**

Source: Placer County Water Agency, 2015 Urban Water Management Plan, Adopted 2016.

As shown in Tables 7-1 through 7-3 in the 2015 UWMP, PCWA has sufficient water supplies to accommodate projected demand within the PCWA service area, including Zone 1, during average year, single dry year, and multiple dry year conditions. Any potential shortfall in supply that may occur in Zone 1 in a dry year may be addressed through groundwater production. Groundwater may be produced by overlying users and/or appropriators to meet demands. In addition to groundwater, PCWA has various demand management mechanisms to address supply shortages.

Water Delivery Infrastructure

PCWA has an expansive and complex potable water system with eight treatment plants and over 30 storage tanks. Water for Zone 1 is delivered by contract through the Pacific Gas and Electric Company's (PG&E) Drum-Spaulding hydroelectric system and also comes from PCWA's Middle-Fork American River project. Within Lower Zone 1, which includes the proposed project site, water treatment is provided by the Foothill and Sunset Water Treatment Plants, which have capacities of 58 million gallons per day (mgd) and eight mgd, respectively.

Water delivery infrastructure within the Zone 1 service area includes 16 storage tanks with approximately 49 million gallons of storage capacity and 496 miles of treated water pipe. Currently, an existing 24-inch water supply main maintained by PCWA is located in Taylor Road to the north of the proposed project site. In addition, the PCWA currently supplies raw water to the on-site pond by way of the PCWA's Red Ravine irrigation canal located north of the project site. The existing on-site buildings are not connected to the PCWA's potable water delivery infrastructure. In the past, potable water for the site was supplied by an on-site well.

Wastewater Conveyance and Treatment

The project site is located outside of the existing SPMUD boundary. However, the entitlements for the proposed project include a request for annexation into the SPMUD service area, subject to approval by the Placer County Local Agency Formation Commission (Placer County LAFCo). Therefore, the following section will discuss the existing SPMUD facilities in the project area. It should be noted that the project site is currently located within the SPMUD sphere of influence (SOI).

Conveyance

The SPMUD operates a large sewage collection system that collects wastewater from the City of Rocklin, the Town of Loomis, and several unincorporated areas within the County, such as Penryn.[6] As of 2015, SPMUD provided sewer collection services to over 21,000 connections, serving an equivalent population of approximately 75,000.[7] The SPMUD is a regional partner in the South Placer Wastewater Authority (SPWA), which was created to oversee policy for funding regional wastewater and recycled water infrastructure.

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6 Placer County. *Horseshoe Bar/Penryn Community Plan* [pg. 29]. Revised December 2005.

7 South Placer Municipal Utility District. *About Us: History.* Available at: http://spmud.ca.gov/about-us/history/. Accessed November 2017.

Currently, the SPMUD maintains a six-inch sanitary sewer line located to the west of the project site within the Lemos Ranch subdivision. A manhole associated with the sewer line is located adjacent to the project site's western boundary, within a paved driveway between two single-family residential lots (see Figure 10-2, '014-028'). The proposed project site does not contain any existing SPMUD-maintained sewer lines. However, the site currently contains a septic tank associated with the existing on-site buildings.

Treatment

Per the South Placer Regional Wastewater and Recycled Water Systems Evaluation, wastewater collected by SPMUD is transported to the Dry Creek Wastewater Treatment Plant (WWTP) and the Pleasant Grove WWTP, which are both located within the City of Roseville.[8] The proposed project would be served solely by the Dry Creek WWTP.

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. Under the Dry Creek WWTP's National Pollutant Discharge Elimination System (NPDES) Permit, Number CA0079502, the WWTP has a permitted average dry weather flow (ADWF) of 18 mgd and a peak wet-weather flow (PWWF) of 45 mgd.[9] 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.[10] 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 Horseshoe Bar/Penryn Community Plan area.[11]

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.[12] 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.

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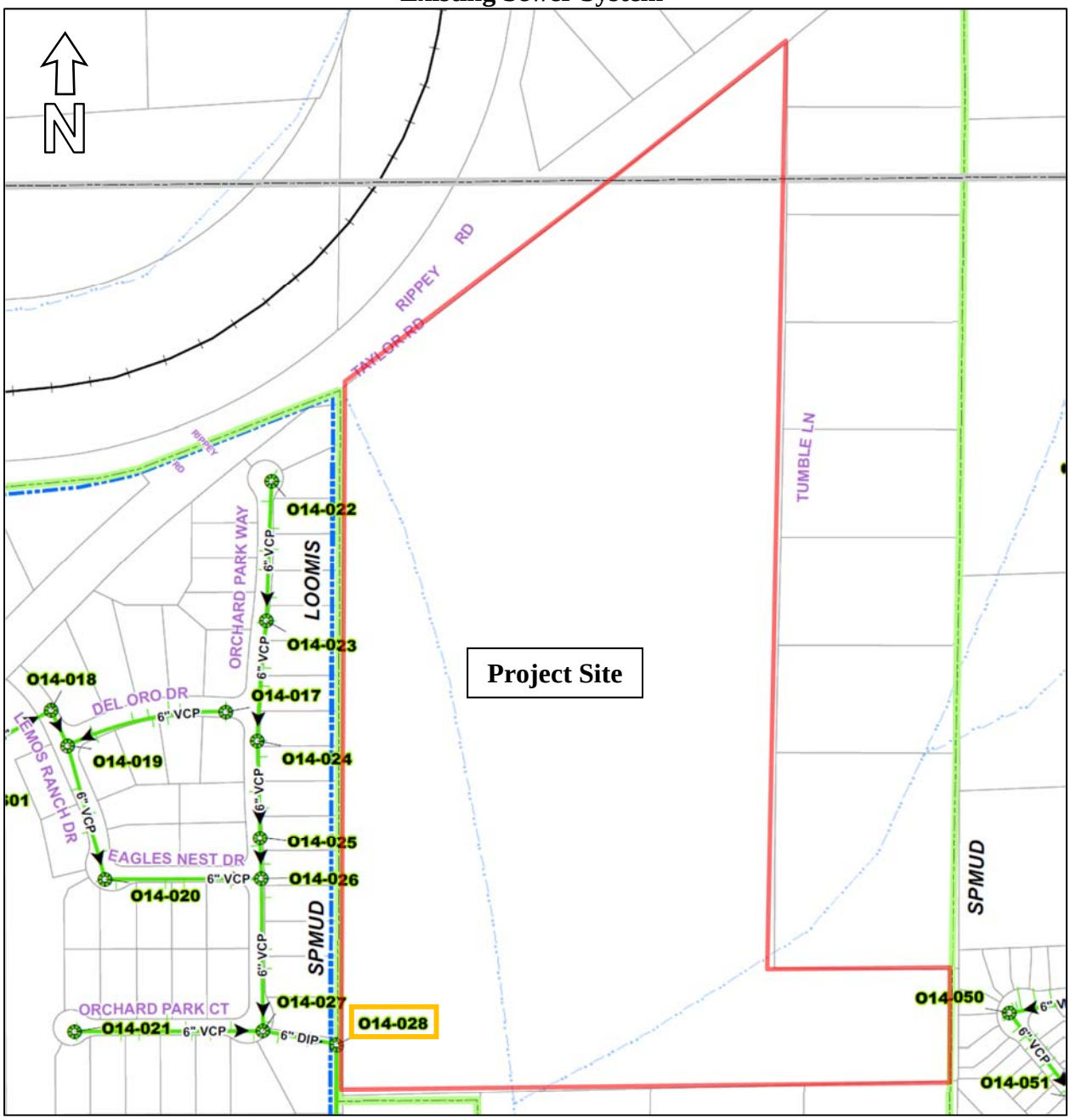
8 South Placer Wastewater Authority. *South Placer Regional Wastewater and Recycled Water Systems Evaluation, Updated Final Report*. December 2009.
9 City of Roseville. *City of Roseville General Plan 2035*. August 17, 2016.
10 *Ibid*.
11 *Ibid*.
12 City of Roseville. *2015 Urban Water Management Plan* [pg. 6-7]. May 2016.

Figure 10-2
Existing Sewer System



Source: South Placer Municipal Utility District, 2017.

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 SPMUD, 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 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 Horseshoe Bar/Penryn Community Plan area. Demand from new development is currently accommodated at the WWTP on a first-come-first-served basis.

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 Placer County 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. 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.[13] 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.

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

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.[14] 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.[15]

The MRF has a permitted processing limit of 1,750 tons per day.[16] According to Placer County, for the fiscal year 2016-2017, the average weekday tonnage received at the MRF was 1,191 tons.[17] The MRF expanded in 2007, increasing its processing capacity of municipal solid waste and construction and demolition debris to 2,200 tons per day.[18]

Gas and Electricity Infrastructure

Gas and electric service in the project area is provided by PG&E. Based in San Francisco, PG&E is the largest provider of gas and electric services in northern and central California. PG&E provides electricity to roughly 5.1 million customers and provides natural gas to nearly 4.2 million customers. A mix of generating sources, including hydropower, gas-fired steam and nuclear energy, powers the electric system. Currently, electricity for the existing on-site buildings is provided by power lines extending southward from Taylor Road. An existing two-inch natural gas line is located within Taylor Road to the northwest of the project site.

10.3 Regulatory Context

Many agencies regulate 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 public services and utilities are discussed in the Hydrology & Water Quality section of the Initial Study prepared for the proposed project, included as Appendix C to this EIR.

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

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

[16] 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.

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

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

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.

State Water Resources Control Board

The State Water Resources Control Board (SWRCB) manages all water rights and water quality issues in California under the terms of the Porter-Cologne Water Quality Control Act (1969). The California Department of Health and Safety has been granted primary enforcement responsibility for the Safe Drinking Water Act (SDWA). Title 22 of the California Administrative Code establishes DHS authority and stipulates drinking water quality and monitoring standards. These standards are equal to or more stringent than the federal standards.

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 most recent PCWA 2015 UWMP was adopted on June 2, 2016.[19]

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 relevant to utilities and service systems are applicable to the proposed project.

Placer County General Plan

The Placer County General Plan goals and policies that are applicable to the proposed project are presented below:

[19] Placer County Water Agency. *2015 Urban Water Management Plan*. Adopted June 2, 2016.

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.

Horseshoe Bar/Penryn Community Plan

Policies from the Community Development Element of the Horseshoe Bar/Penryn Community Plan that are applicable to the proposed project are presented below:

Sewage Disposal

Policy 3(a)(1) Assure that sewage disposal facilities physically meet the demands of the developing community's density while also protecting the public health and water quality from adverse effects.

Policy 3(a)(3) Strongly encourage the extension of public sewers via gravity or pressure sewer systems into areas where existing systems are known to be failing.

Policy 3(a)(4) Appropriate mitigations shall be identified and implemented as part of project approvals wherever proposed sewage disposal system densities will likely affect the public health and/or groundwater/surface water quality.

Water Supply

Policy 4(a)(1) Encourage, through allowable densities and distribution of land uses, the maximum feasible usage of treated surface water supplies rather than groundwater supplies as a basis for land development.

Placer County Water Efficient Landscape Ordinance

The Placer County Landscape Design Guidelines incorporate the County's Water Efficient Landscape Ordinance (WELO) adopted by the County in October of 2017. 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. Specifically, the WELO requires project applications to include Landscape Packages, which must 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.

SPMUD Annexation

Properties are annexed to SPMUD in two manners:

1) By **separate** annexation action processed through SPMUD (Sections 14051 and 14052 of the MUD Act); or
2) By a **concurrent** annexation action to a City or Town within the District (Sections 13911 and 13912 of the MUD Act).

All annexations must be approved by the Placer LAFCo to become effective. In addition, properties must be within the SPMUD SOI and contiguous to the existing SPMUD boundary. Properties must have a demonstrated need to be annexed into the SPMUD (i.e., development of the property is being proposed/pursued and sewer is/will be required, or property is on septic and has a need to connect to sewer). As part of the annexation process, the applicant is required to pay a SPMUD Annexation Fee, LAFCo fees, and a State Board of Equalization Filing Fee.

For separate annexations to SPMUD, such as would be required for the proposed project, the annexation process generally occurs as follows:

1) Applicant makes initial inquiry at SPMUD staff level.
2) Applicant submits written request to the District requesting initiation of the annexation and submits the following:
    a. Application Form;
    b. Annexation Fee;
    c. Legal property owner's consent for annexation;
    d. Legal description of property; and
    e. Proposed development plan/method of sewering the property.
3) Application and request is prepared/submitted to the SPMUD Board of Directors for consideration/approval of Resolution of Support.
4) Resolution of Support (Certified Copy) provided to applicant.
5) Applicant petitions LAFCo for annexation (additional processing between SPMUD and LAFCo at this time: SPMUD prepares "Narrative/Plan for Services" and tax share negotiations/letter, if pursued).
6) LAFCo acts on the annexation.
7) LAFCo Certificate of Completion is filed, and property is effectively annexed to SPMUD. The subject property must be annexed to SPMUD before connections can be made and sewer service provided.

10.4 Impacts and Mitigation Measures

The following section describes the standards of significance and methodology utilized 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 presented.

Standards of Significance

Consistent with Appendix G of the CEQA Guidelines and the County's Initial Study Checklist, a significant impact would occur if the proposed project would result in the following:

- 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.

<u>Issues Not Discussed Further</u>

As discussed in the Initial Study prepared for the proposed project (see Appendix C to the EIR), the proposed project would include the construction of on-site stormwater drainage and treatment facilities sized to appropriately manage runoff from impervious areas created as part of the project. The project would not substantially increase the rate or amount of surface runoff. Therefore, the project would not require the construction of off-site storm water drainage facilities or expansion of existing off-site facilities, the construction of which could cause significant environmental effects. In addition, the project would not include the construction of new on-site sewage systems (i.e, septic tanks). The project includes on- and off-site sewer pipe improvements to connect to the SPMUD's wastewater collection system. For the aforementioned reasons, the Initial Study (See Appendix C) prepared for the proposed project determined that development of the project would result in no impact or a less-than-significant impact related to the following, and, accordingly, such topics are not discussed further:

- 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; and
- Require or result in the construction of new on-site sewage systems.

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 by the PCWA was used to determine the availability of water supplies to serve the proposed project.

Wastewater System

A Sanitary Sewer Study was prepared for the proposed project by RSC Engineering, Inc.[20] The report was prepared to calculate the sanitary sewer flows generated from the proposed project site and to determine if sufficient capacity exists in the existing six-inch SPMUD sanitary sewer downstream of the project site to serve the project. The design criteria within the SPMUD Standard Specification and Improvement Standards for Sanitary Sewers, dated November 13, 2009, was used to determine sewage flows from the project service area.

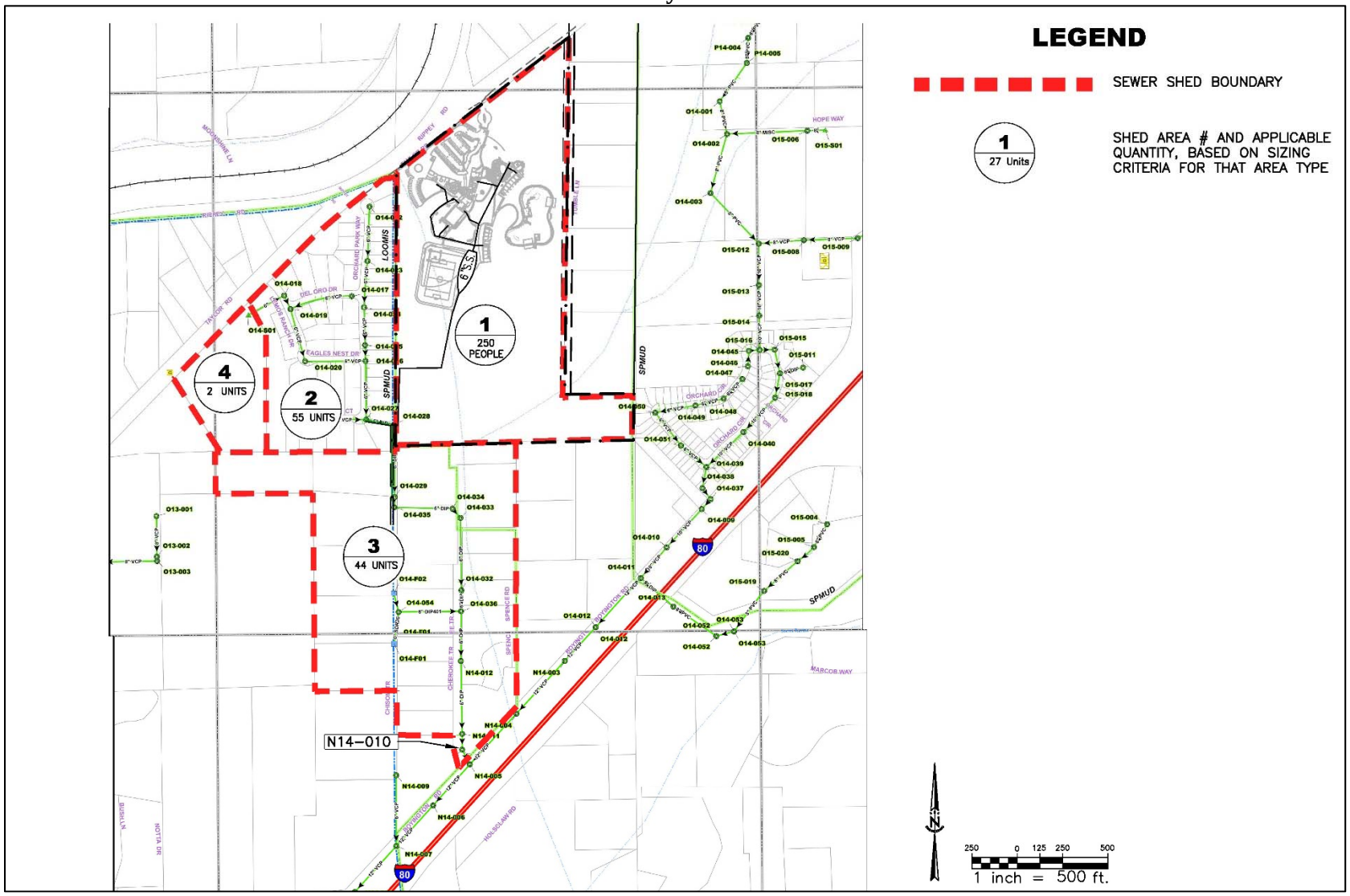
The Sanitary Sewer Study prepared for the proposed project defines four "sheds", including the project site, that would be affected by the proposed development (see Figure 10-3). Existing sewer infrastructure associated with each of the three off-site sheds is described below. Shed 1, which includes the project site, does not contain any SPMUD-maintained sewer lines.

Shed 2: Existing Lemos Ranch Subdivision

The existing Lemos Ranch subdivision, located west of the proposed project site, consists of 55 single-family detached residential units and is currently served by a six-inch sanitary sewer line. As noted previously, a manhole associated with the sewer line is located adjacent to the project site's western boundary, within a paved driveway between two single-family residential lots (see Figure 10-2, '014-028').

[20] RSC Engineering, Inc. *United Auburn Indian Community Tribal School Sanitary Sewer Study.* October 4, 2017.

Figure 10-3
Sewer Study Shed Areas



Source: RSC Engineering, Inc., 2017.

Shed 3: Existing Residential South

To the south of the proposed project site, 22 residential lots are currently served by SPMUD. In accordance with current law, each of the residential lots is allowed two units. Thus, for the purposes of this analysis, two units per lot were assumed, resulting in 44 single-family detached residential units. The area is currently being served by a six-inch sanitary sewer line.

Shed 4: Existing Lot West of Lemos Ranch

Currently, a six-inch sewer line is stubbed to the north end of a 6.3-acre lot located to the west of the Lemos Ranch subdivision. The lot is zoned general commercial and is currently developed with a single-family detached home with a detached garage and a separate structure used for fruit and vegetable sales.

Project 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.

10-1 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.*

The proposed project would require annexation into the SPMUD for the provision of sewer services, subject to approval by Placer County LAFCo. As part of the annexation process, the project applicant would be required to pay various annexation fees to SPMUD and Placer County LAFCo. It should be noted that the project site is currently located within the SPMUD SOI and is contiguous with the existing SPMUD service area boundary. In addition, the project site contains an existing septic tank, and connection to SPMUD's sewer system would be required in order to develop the proposed project. Upon completion of the annexation process, as well as construction of various proposed sewer collection system improvements, SPMUD would provide sewer service to the proposed project site, as indicated by a will-serve letter provided by SPMUD on August 18, 2017.[21] The proposed improvements are discussed in detail under Impact 10-2 below.

As discussed above, wastewater from the project site would be treated at the Dry Creek WWTP, which is located within the City of Roseville.[22] Based on SPMUD sewer flow standards for an elementary school development (25 gallons/capita/day) and a population estimate of 250 persons, the Sanitary Sewer study prepared for the proposed project by RSC Engineering, Inc. determined that the project would add an ADWF of approximately 0.006 mgd of wastewater to the SPMUD's sewer collection system (250 people X 25

[21] South Placer Municipal Utility District. *Loomis 45 – UAIC Property, APN 043-013-010*. August 18, 2017.

[22] South Placer Wastewater Authority. *South Placer Regional Wastewater and Recycled Water Systems Evaluation, Updated Final Report*. December 2009.

gallons per day = 6,250 gallons per day). It should be noted that the proposed project would typically employ approximately 43 staff members, and the school and Tribal Education Center facilities would accommodate 130 students, resulting in a total service population of approximately 171. However, a service population estimate of 250 persons was used to account for special events and to ensure flows used in the calculations would be higher than normal, daily use.

As of 2016, the Dry Creek WWTP was operating at approximately 50 percent of the plant's permitted flow, with an ADWF of 9 mgd, and a PWWF under 25 mgd.[23] The 0.006 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. Prohibitions and/or restrictions on the Dry Creek WWTP's capacity that would impact SPMUD's ability to accept new applications for sewer service do not exist.[24]

Considering that adequate capacity exists at the Dry Creek WWTP, wastewater treatment service could be provided to the proposed project without resulting in the exceedance of wastewater treatment requirements established by the RWQCB. Furthermore, upon completion of the proposed sewer system improvements and annexation of the project site into the SPMUD, adequate sewer service would be available to serve the proposed project. Thus, a ***less-than-significant*** impact would occur.

Mitigation Measure(s)
None required.

10-2 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, the impact is *less than significant*.

Water and wastewater infrastructure improvements included in the proposed project are discussed below and shown in Figure 10-4 through Figure 10-8 below.

Water Conveyance Infrastructure

Potable water supply service would be provided by the PCWA by way of new 12-inch lateral connections to the PCWA's existing 24-inch water supply main located in Taylor Road. The on-site pond would be used to irrigate the property, as has been done historically. The proposed project would not impact the function of the PCWA ditch feeding the pond.

[23] City of Roseville. *City of Roseville General Plan 2035* [pg. VII-37]. August 2016.
[24] South Placer Municipal Utility District. *Loomis 45 – UAIC Property, APN 043-013-010-000.* August 18, 2017.

Figure 10-4
Proposed Utility Improvements (1 of 5)

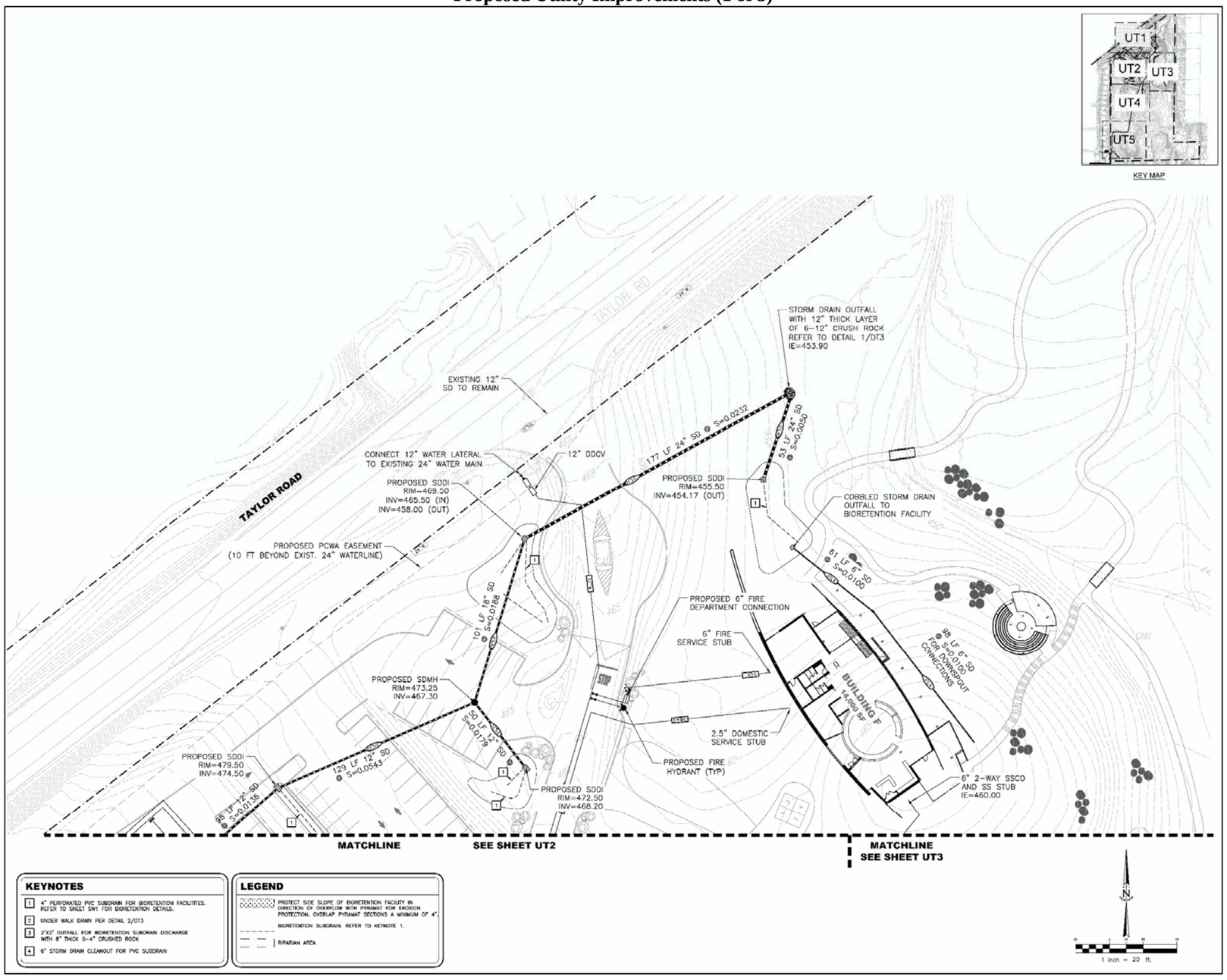


Figure 10-5
Proposed Utility Improvements (2 of 5)

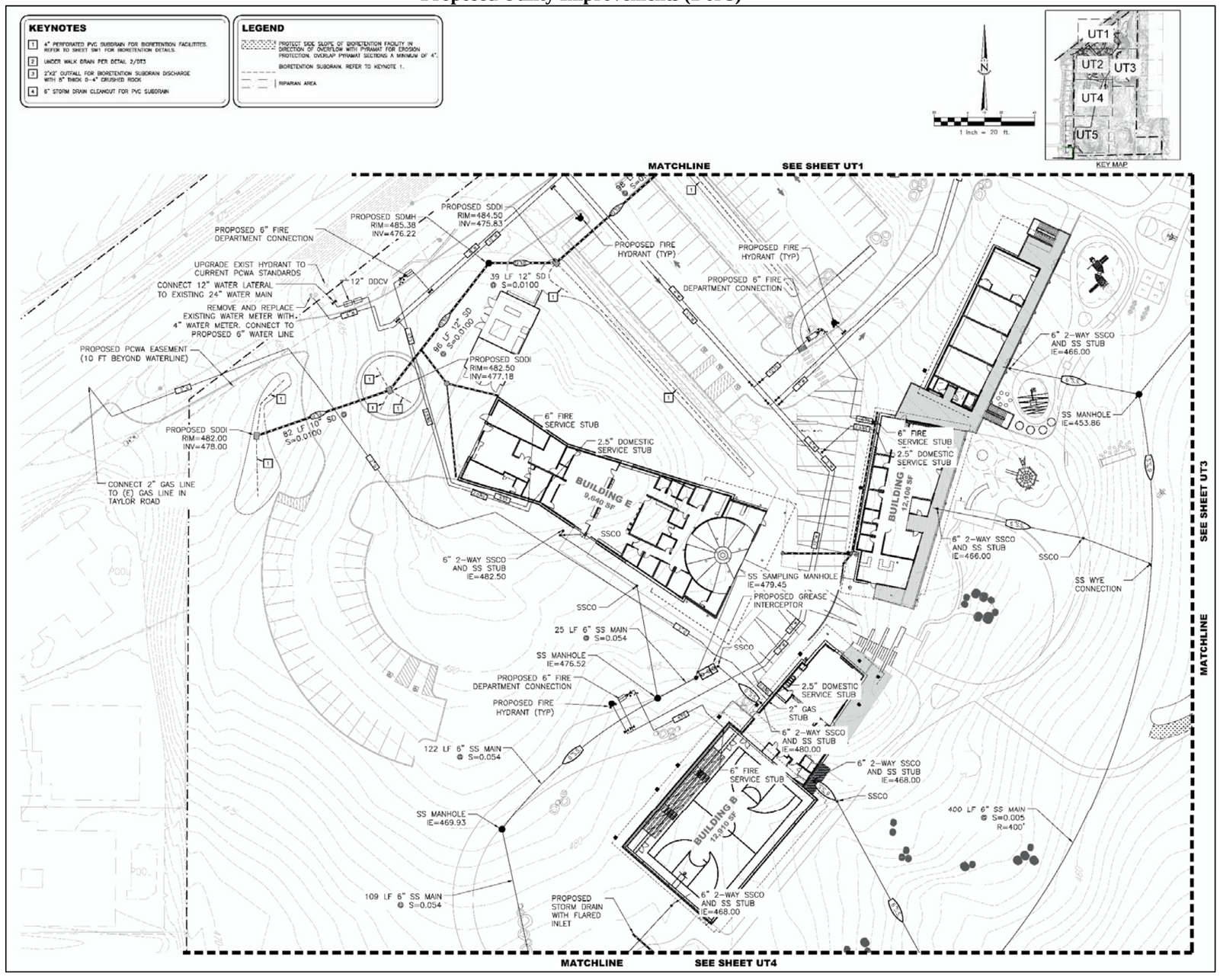


Figure 10-6
Proposed Utility Improvements (3 of 5)

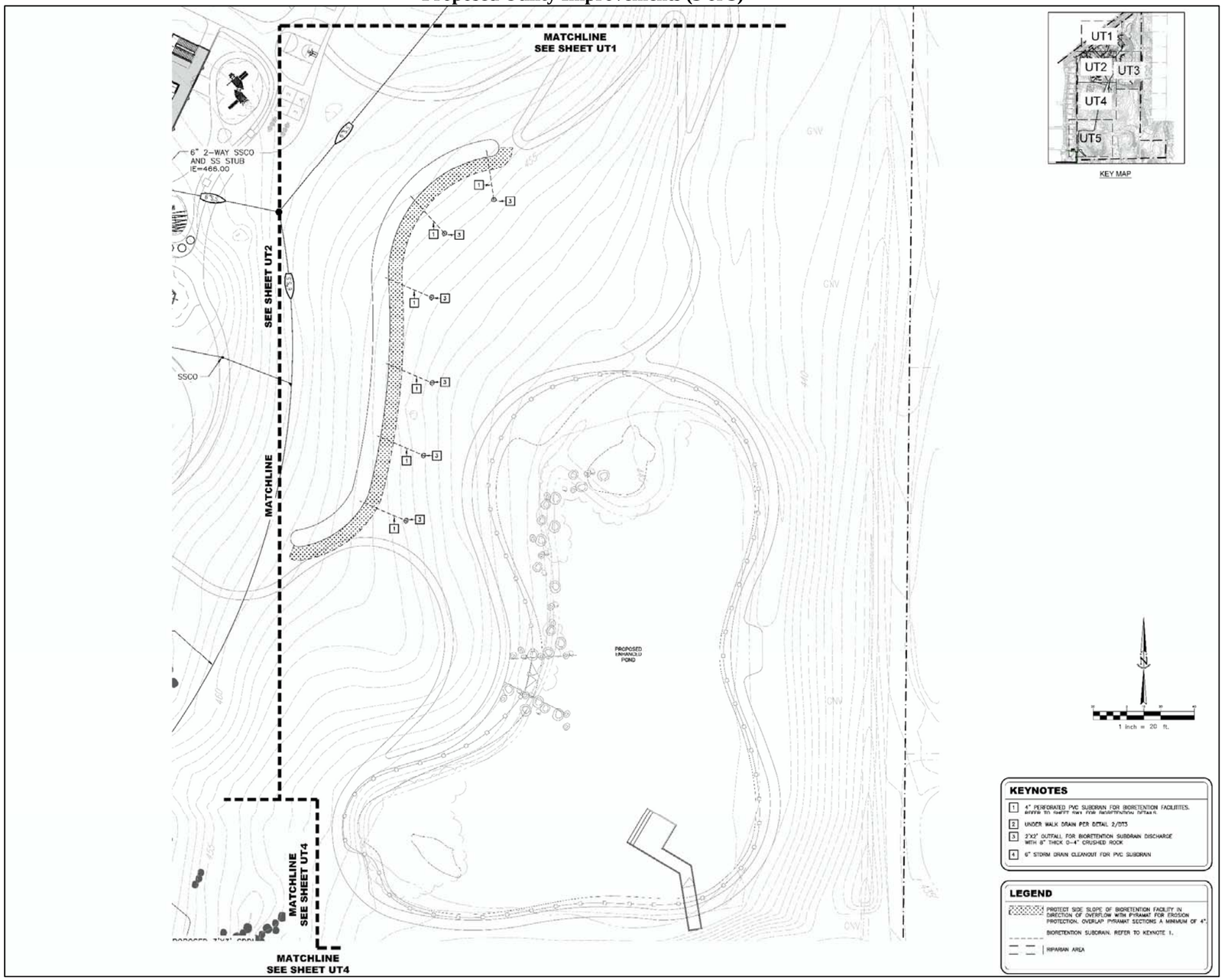


Figure 10-7
Proposed Utility Improvements (4 of 5)

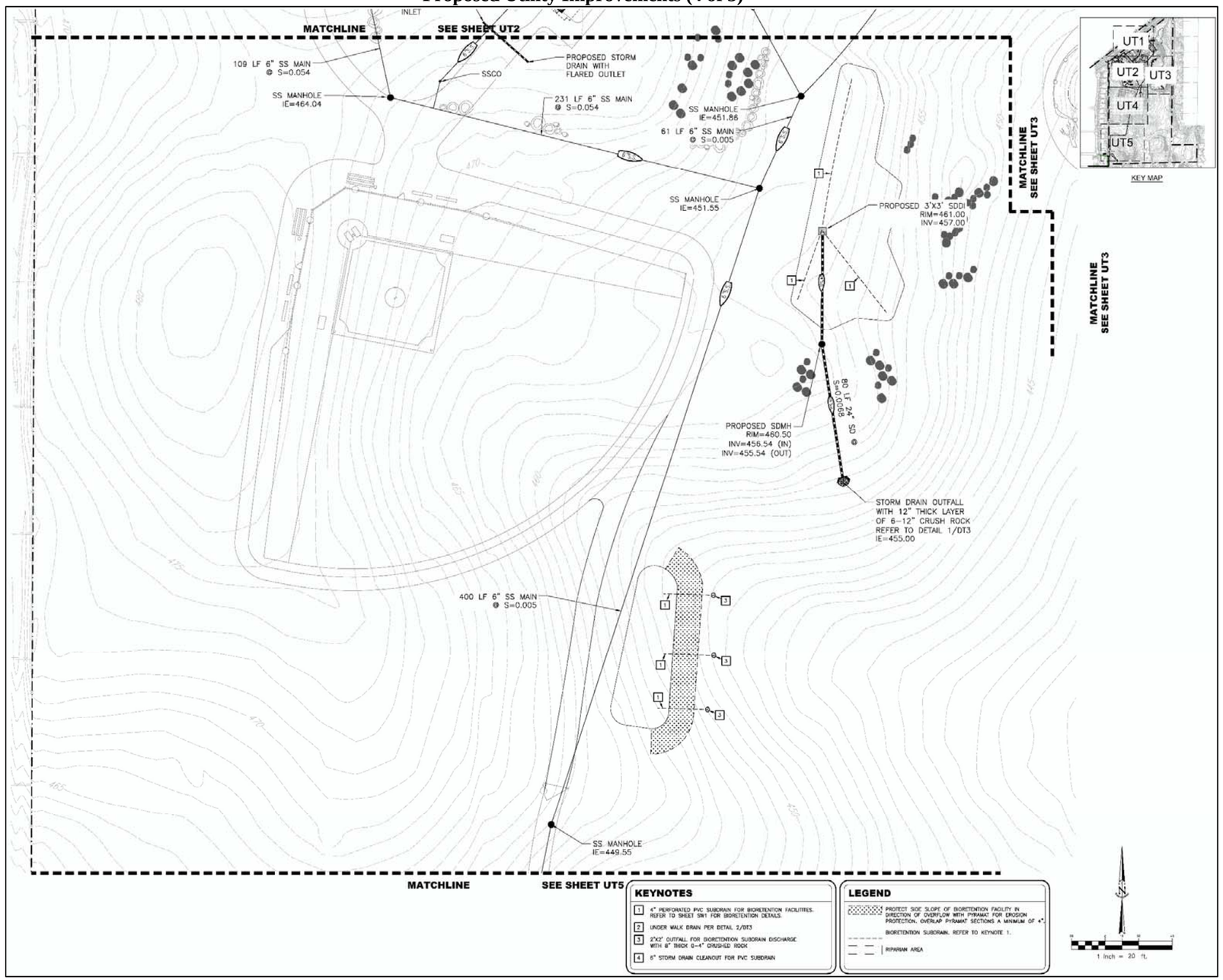
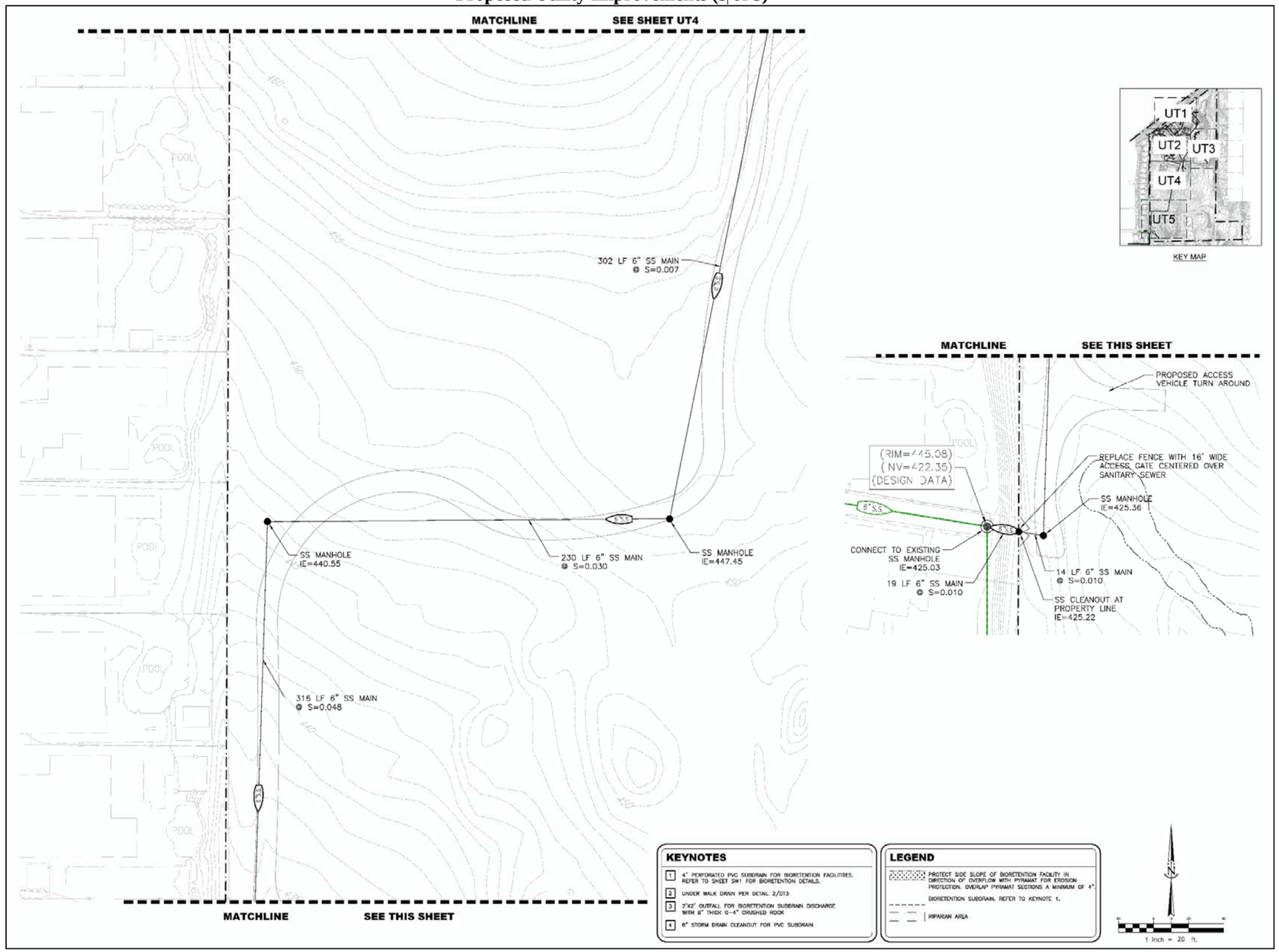


Figure 10-8
Proposed Utility Improvements (5 of 5)



According to a letter issued by the PCWA on November 23, 2016, existing water supply service to the site has been historically overused, and the four-quarter-inch water meter would require upsizing in order to serve the project.[25] Based on a maximum combined flow rate of less than 320 gpm for the proposed project, the three-quarter-inch water meter would need to be replaced with a three-inch meter. In order to obtain water supply service, the project applicant would be required to enter into a facilities agreement with the PCWA to provide for on- and off-site pipelines or other facilities that are needed to supply water for domestic and fire protection services, and pay all fees and charges that are required by the PCWA, including Water Connection Charges.[26]

Consistent with PCWA requirements, a 10-foot easement would be provided along the project frontage at Taylor Road, adjacent to the existing 24-inch water main. From the proposed connection to the PCWA's existing 24-inch water supply main located in Taylor Road, new water supply lines would be extended throughout the northern portion of the project site to provide water to the proposed buildings. In addition, the project would include construction of fire flow lines and fire hydrants consistent with all applicable requirements of the Placer County Code, including Section 15.04.510, which incorporates by adoption the most recent 2016 California Fire Code. Six-inch fires service stubs would be provided at each of the buildings.

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. Potential impacts related to the construction of on-site water conveyance infrastructure are discussed and addressed throughout this EIR.

Wastewater Conveyance

The proposed project would require annexation into the SPMUD for the provision of sewer service. On-site sewer conveyance would be provided by a proposed six-inch sewer line that would extend south from the proposed buildings, paralleling a proposed 12-foot access road. The proposed sewer line would connect to the SPMUD's existing six-inch sanitary sewer main located to the southwest corner of the site within the driveway of an adjacent private property (APN 043-240-019) (see Figure 10-8). The off-site improvements would occur within an existing 15-foot public sewer easement. As part of the proposed project, the sewer easement would be extended approximately 10.5 feet to the project site boundary. All proposed on-site sewer lines would be six inches.

Upon development of the proposed project, wastewater from the project site shed (Shed 1), as well as the other three sheds (Sheds 2, 3, and 4) would be routed through a single six-

[25] Placer County Water Agency. *Water Availability for UAIC Tribal School (PLN16-00335), APN 0430013-010.* November 23, 2016.

[26] Placer County Water Agency. *Water Availability for UAIC Tribal School (PLN16-00335), APN 043-013-010.* November 23, 2016.

inch sewer line (see Figure 10-3, 'N14-010'). Generally, SPMUD's allowable capacity for six-inch sanitary sewer pipes is 0.220 mgd.

It should be noted that Shed 4 is currently developed with a single-family detached home, a garage, and a separate structure for fruit and vegetable sales. However, the property within the shed is zoned general commercial. If the property were to be redeveloped per the current zoning as a commercial development, the existing six-inch sewer lines within both Sheds 2 and 4 would not be adequate. However, based on the existing sewer infrastructure in the area, the Sanitary Sewer Study assumed two residential units for Shed 4 (to account for the existing house and fruit sales structure), and that alternative sewer service would be required if the property were to be redeveloped as a commercial project in the future.

Per the Sanitary Sewer Study, accounting for existing development within Sheds 2, 3, and 4, as well as the future development of an additional 22 single-family homes within Shed 3 to account for buildout per Shed 3's current zoning designation, the combined peak flow from Sheds 1 through 4 would be approximately 0.173 mgd, which would be below the allowable/remaining capacity within the downstream six-inch sewer pipe of 0.220 mgd. Thus, the existing six-inch sanitary sewer line downstream of the proposed project site has adequate capacity to serve the proposed project, as well as existing and future development within the other three sheds.

Conclusion

Adequate water delivery infrastructure would be provided within the project site, and off-site water delivery infrastructure would not be required. In order to connect to existing SPMUD sewer infrastructure, off-site improvements would be required. However, such improvements would comply with all applicable SPMUD Standard Specifications, be funded by the project applicant, and would occur within a paved area that has been subject to previous disturbance. The proposed sewer system improvements would provide adequate capacity to meet the needs of the project without upsizing of downstream infrastructure.

With development of the proposed project, other expansions to the water or wastewater infrastructure in the project area would not be required, and the proposed project would result in a ***less-than-significant*** impact related to the need for the construction of new water or wastewater treatment or conveyance infrastructure.

Mitigation Measure(s)
None required.

10-3 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*.

Water supplies for the proposed project would be provided by Zone 1 of the PCWA. Per the PCWA's 2015 UWMP, the PCWA has sufficient water supplies through projected buildout conditions during average years, single dry year, and multiple dry year conditions. Any potential shortfall in supply that may occur in Zone 1 under build-out conditions in a dry year may be addressed through groundwater production. In addition, to accommodate potential additional demand created by future development not accounted for within the 2015 UWMP, the PCWA has established a placeholder of 2,000 af of annual demand beginning in 2040, expanding to 4,000 af by build-out conditions.

Per the 2015 UWMP, PCWA uses a future demand factor of 0.85 af/unit per year for residential lots greater than 90,000 square feet (sf) within Lower Zone 1.[27] As such, buildout of the 45-acre project site at the maximum allowable intensity per the site's current land use designation (Rural Residential) and zoning designation (Residential-Agriculture, Minimum Lot Area 100,000 sf) could result in an annual water demand of approximately 16.15 af (19 units X 0.85 af/unit per year). The proposed project would be considered a municipal land use, which, based on the PCWA's calculated future demand factor of 1.15 af/account per year for municipal land uses, would result in a substantially lower annual water demand. Consequently, the increase in water demand associated with the proposed project would be within the range that has been previously anticipated by the County and accounted for in the 2015 UWMP for buildout of the project site. Therefore, adequate water supplies exist to serve buildout of the PCWA service area, including the proposed project site.

Furthermore, the project would be subject to the water efficiency requirements within the County's WELO. 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 ensure that irrigation water consumption is minimized and occurs in compliance with the County's standards. According to preliminary landscaping water use calculations, the proposed project would have an estimated total water use (ETWU) approximately 30 percent lower than the maximum allowed water allowance (MAWA) for the project based on the total area of landscaped areas proposed.

<u>Conclusion</u>

Based on the above, adequate water supplies exist to serve buildout of the PCWA service area, including the proposed project, from existing entitlements and resources. In addition, the project would comply with all applicable water efficiency requirements, including the County's WELO. Therefore, the proposed project would result in a ***less-than-significant*** impact related to water supply.

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27 Placer County Water Agency. *2015 Urban Water Management Plan* [Table 4-6]. Adopted June 2, 2016.

Mitigation Measure(s)
None required.

10-4 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*.

Solid waste collection services for the proposed project would be provided by Recology. Most solid waste collected in unincorporated Placer County is delivered to the WPWMA MRF facility, where waste is processed, recyclables are recovered, and residuals are disposed. The proposed project would generate solid waste associated with demolition of approximately 11,432 square feet (sf) of existing structures, construction of approximately 52,500 sf of new structures, and future operations associated with the proposed school facilities.

As discussed previously, the 320-acre WRSL has a remaining capacity of 24,468,271 cubic yards,[28] a maximum daily throughput of 1,900 tons, and a permitted lifespan extending to 2058.[29] 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.[30] 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 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 demolition and construction activities. Per the report, demolition of non-residential structures generates an average of 158 pounds per sf (lbs/sf) of waste, while non-residential construction activities generate an average of 4.34 lbs/sf of waste.[31] As such, the proposed project would generate approximately 1,806,256 lbs of waste during demolition activities (11,432 sf X 158 lbs/sf) and 227,850 lbs of waste during construction activities (52,500 sf X 4.34 lbs/sf). Thus, a total of 2,034,106 lbs 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 1,322,169 lbs of waste would be diverted away from landfill disposal during construction

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

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

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

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

and demolition. Considering the applicable CALGreen Code requirements, the proposed project would be anticipated to contribute approximately 711,937 lbs, or 355.97 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 0.05 percent of the WRSL's total annual permitted capacity. A contribution of 0.05 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, students, staff members, and guests would produce solid waste that would be collected by the Recology and transferred to the WRSL. Based on a conservative average waste generation rate of 0.007 lbs/sf per day for school facilities, provided by CalRecycle, the project would be expected to produce approximately 367.5 lbs of solid waste per day and 67 tons of solid waste annually. The project's anticipated daily and annual waste production would represent approximately 0.1 percent of the WRSL's daily and annual 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. Furthermore, Recology has issued a will-serve letter indicating that the firm would provide weekly solid waste collection service for the project.[32] Therefore, 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.

10-5 Gas and electricity facilities. 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. According to the CalEEMod results for the proposed project, at full buildout, the project could be expected to result in an electricity demand of 296,100 kilowatt-hours (kWh) per year or 0.2961 gigawatt-hours (GWh) per year. According to the California Energy Consumption Data Management System, in 2016, Placer County reported total electricity consumption of 2,938.5 million kWh (GWh).[33] Therefore, the proposed project would result in a 0.01 percent increase in 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 4,972.9

[32] Recology Auburn Placer. *RE: 3141 Taylor Road*. February 8, 2017.
[33] California Energy Consumption Data Management System. *Electricity Consumption by County*. Available at: http://ecdms.energy.ca.gov/elecbycounty.aspx. Accessed on November 2017.

therms per year. According to the California Energy Consumption Data Management System, in 2016, Placer County reported total gas consumption of 84.07 million therms.[34] Therefore, the proposed project would result in a minor 0.0059 percent increase in gas consumption for Placer County. It should be noted that the energy consumption estimations presented above do not include the proposed project's anticipated inclusion of energy efficiency measures beyond the current California Building Energy Efficiency Standards. Thus, energy consumption related to operation of the proposed project would likely be less than the estimated energy consumption presented above.

Currently, electricity for the existing on-site buildings is provided by power lines extending southward from Taylor Road. An existing two-inch natural gas line is located within Taylor Road to the northwest of the project site, from which a new gas line would be extended into the project site to provide natural gas to the proposed buildings. Overall, connections to the existing natural gas and electric infrastructure would be typical of other development in the area and would not require substantial modification of existing services. Given that the site is located within a developed area with existing electricity and natural gas infrastructure, the proposed project would not require new electricity/natural gas facilities, or expansion of existing facilities, the construction of which could cause significant environmental effects.

As a result, because the proposed project would increase the gas and electric consumption on such a minor level, and the project applicant would be responsible for funding the installation of the necessary on-site gas and electricity infrastructure to serve the project, the proposed project would have a ***less-than-significant*** impact to gas and electricity facilities.

Mitigation Measure(s)
None required.

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