13 PUBLIC UTILITIES

INTRODUCTION

This section addresses the potential impacts of the project on existing infrastructure and service systems and whether sufficient capacity is available to meet the project's service demand for its utilities. The utilities and service systems discussed in this section include water supply, energy resources, wastewater, and solid waste. The project's consistency with adopted goals and ordinances is also discussed. The following analysis is based in part on information obtained from the County of Sacramento General Plan, 2020 SRCSD Master Plan, Barrett Ranch East Sanitary Sewer Study, SASD 2010 Capacity Plan, and the Barrett Ranch East Water Supply Assessment, and correspondence from agency staff. The Sanity Sewer Study and Water Supply Assessment are included in Appendices H and I, respectively, of this EIR.

The project site is located within the following public service districts:

Solid Waste:	Sacramento County Waste Management and Recycling
Energy Services	Sacramento Municipal Utility District
Sewer Service	Sacramento Area Sewer District
Water Service	Sacramento Suburban Water District

ENVIRONMENTAL SETTING

SOLID WASTE SERVICES

The Project area is provided with solid waste collection service by the Sacramento County Department of Waste Management and Recycling, which provides weekly garbage collection, biweekly green waste collection and mixed recycling services, and an annual neighborhood cleanup service in the project area. The Department also operates the Kiefer Landfill, located near Kiefer Boulevard and Grant Line Road, which is the primary municipal solid waste disposal facility in Sacramento County. The 660 acre Kiefer Landfill is a Class III facility; it accepts wastes that consist of chemically and biologically decomposable material that will not significantly affect groundwater quality. No hazardous materials are allowed in this facility. The planned capacity of the recently expanded Kiefer Landfill is sufficient to accommodate projected disposal needs through approximately 2050, depending on the rate of waste flow.

ENERGY SERVICES

Energy service to the project site is provided by the Sacramento Municipal Utility District (SMUD). SMUD generates, transmits, and distributes electric power to a 900-square mile service area that includes Sacramento County and a small portion of Placer

County. SMUD gets its electricity from diverse and competitively priced resources, including: hydro generation; cogeneration plants; advanced and renewable technologies such as wind, solar, and biomass/landfill gas power; and power purchased on the wholesale market.

SEWER SERVICES

Sewer service to the project site is provided by Sacramento Regional County Sanitation District (Regional San) and the Sacramento Area Sewer District's (SASD). The approved Sphere of Influence (SOI) for Regional San and SASD in Sacramento County is the area officially designated for its future service planning effort. This area corresponds to the General Plan's Urban Services Boundary (USB), with the exception of the areas served by the Cities of Sacramento (portions), the Folsom sewer system and Rancho Murieta, Rio Cosumnes Correctional Center, the City of West Sacramento, and the Delta communities of Courtland and Walnut Grove.

WATER SUPPLY

Twenty-eight water purveyors supply water to customers within Sacramento County. The project is located within the Sacramento Suburban Water District. The District serves a population of approximately 170,600 in Sacramento County. The District is split into two service areas, the North Service Area (NSA) and the South Service Area (SSA). The proposed Barrett Ranch East Plan is located entirely within the NSA. Sacramento Suburban Water District's water source is served by 82 active groundwater wells, 39 of which provide water in the NSA. These wells are supplemented by surface water in the NSA. Surface water is purchased through agreements from the Placer County Water Agency and wheeled through Folsom Dam and treated at San Juan Water District's (SJWD) Peterson Treatment Plant. Water is delivered through SJWD's Cooperative Transmission Pipeline and the District's Antelope Pipeline into the NSA. The District owns 59 million gallons per day (MGD) capacity in the Cooperative Pipeline and owns the Antelope Transmission Pipeline.

REGULATORY SETTING

2030 SACRAMENTO COUNTY GENERAL PLAN

In order to assure adequate service levels and adequate funding for those services, the Sacramento County General Plan includes the following policies:

LU-65. Levels of service shall be consistent with policies in this Plan, or where none are applicable, shall use Federal and State environmental standards and commonly accepted industry norms and standards as guidelines.

LU-66. Assure service availability, adequacy, and funding at each stage of the development process for all public services for the life of the project consistent with the intent of the adopted Public Facilities Financing Plan and accompanying Phasing Plan.

SOLID WASTE SERVICES

FEDERAL REGULATIONS

RESOURCE CONSERVATION AND RECOVERY ACT (RCRA)

The Resource Conservation and Recovery Act (RCRA) was enacted in 1976 to protect human health and the environment from potential hazards of waste disposal, to conserve energy and natural resources, to reduce the amount of waste generated, and to ensure that wastes are managed in an environmentally sound manner (EHSO, 2009). Under RCRA, the United States Environmental Protection Agency (US EPA) has the authority to control hazardous wastes from the "cradle to grave". This includes the generation, transportation, treatment, storage and disposal of hazardous wastes (US EPA, 2009). RCRA also sets a framework for the management of non-hazardous solid wastes. In 1986, amendments to RCRA enabled the US EPA to address underground storage tanks storing petroleum and other hazardous substances.

RCRA authorizes states to develop and enforce their own waste management programs. State programs must be approved and authorized by the US EPA.

STATE REGULATIONS

CALIFORNIA INTEGRATED WASTE MANAGEMENT ACT AND CALRECYCLE

Regulations for solid waste disposal in California began with the enactment of the Solid Waste Management and Resource Recovery Act of 1972. This statute created the Solid Waste Management Board, giving it authority related to solid waste handling, disposal and reclamation.

The Integrated Waste Management Act of 1989 is the result of two pieces of legislation, AB 939 and SB 1322, which created the California Integrated Waste Management Board (which has been renamed CalRecycle). The Integrated Waste Management Act mandated a goal of 25 percent diversion of each city's and county's waste from disposal by 1995 and 50 percent diversion in 2000, with a process to ensure environmentally safe disposal of waste that could not be diverted. CalRecycle plays a central role of promoting achievement of the waste diversion as mandated by the Act (Cal EPA, 2009).

CalRecycle is the State agency designated to oversee, manage, and track California's 92 million tons of waste generated each year. They provide grants and loans to help California cities, counties, businesses and organizations meet the State's waste reduction, reuse and recycling goals. CalRecycle promotes a sustainable environment where these resources are not wasted, but can be reused or recycled. In addition to many programs and incentives, the Board promotes the use of new technologies for the practice of diverting California's resources away from landfills (CalRecycle, 2009). The Board is responsible for ensuring that State waste management programs are primarily carried out through local enforcement agencies (LEAs). The California Water Resources Control Board and the Central Valley Regional Water Quality Control Board

also regulate waste disposal (the latter actually regulated solid waste prior to CalRecycle).

As reported in the CalRecycle 2008 Annual Report, California has exceeded the goals mandated by the Integrated Waste Management Act of 1989 by diverting 58 percent of its waste stream. This accomplishment is in part due to successful partnership between State government, local government, and the solid waste industry in California.

LOCAL REGULATIONS

SACRAMENTO COUNTY DEPARTMENT OF WASTE MANAGEMENT AND RECYCLING (DWMR)

The Sacramento County Department of Waste Management and Recycling (DWMR) is responsible for maintaining a waste management system for residents and businesses in the unincorporated areas of the County. The DWMR has responsibility for garbage recycling and collection services, garbage disposal and recycling facilities, and recycling programs. The DWMR oversees the waste management collection and disposal services for approximately 155,500 residential customers every week. The DWMR collects and disposes/processes 150,000 tons of trash, 75,000 tons of green waste, and 45,000 tons of recyclables each year.

SOLID WASTE ADVISORY COMMITTEE

The Solid Waste Advisory Committee (SWAC) is an advisory panel consisting of appointed representatives from each jurisdiction in Sacramento County. The SWAC is the State-mandated Local Task Force (as mandated by the California Public Resources Code Section 40950), which coordinates waste management and recycling efforts throughout the County. The SWAC advises the County Board of Supervisors, the city councils of the cities within the County, and the Sacramento Regional County Solid Waste Authority (SWA) on all matters relating to the County of Sacramento Integrated Waste Management Plan and all matters relating to integrated waste management, including public education; source reduction; recycling; composting; transformation; materials recovery/resource recovery and marketing; and the collection, transfer, processing, and disposal of refuse and recycling.

SACRAMENTO COUNTY INTEGRATED WASTE MANAGEMENT PLAN

The County of Sacramento adopted the Sacramento County Integrated Waste Management Plan in March 1996, and it was approved by CalRecycle in May 1998. The plan was re-approved as part of the mandatory 5-year review process in March of 2009. This plan consists of the following:

- Siting Element (entire county: cities and unincorporated areas)
- Summary Plan (entire county: cities and unincorporated areas)
- Source Reduction & Recycling Elements (by City, County, or Regional Agency)
- Household Hazardous Waste Elements (by City, County, or Regional Agency)
- Non-disposal Facility Elements (by City, County, or Regional Agency)

These documents are the main sources and references for solid waste facility planning in Sacramento County. The Siting Element and Summary Plan are prepared and administered by the County of Sacramento, Department of Waste Management & Recycling. The remaining documents are prepared and administered by each individual jurisdiction or regional agency.

SACRAMENTO REGIONAL SOLID WASTE AUTHORITY (SWA)

The Sacramento Regional Solid Waste Authority is a joint powers authority of Sacramento County and the City of Sacramento. SWA was formed in December 1992 to assume the responsibility for solid waste, recycling, and disposal needs for businesses and apartment complexes in the Sacramento area. The SWA regulates commercial solid waste collection by franchised haulers and offers recycling services to multi-family dwelling units. SWA is governed by a Board of Directors consisting of elected officials from the City of Sacramento and the unincorporated area of Sacramento County. The following SWA recycling ordinances apply to the unincorporated areas of the County.

SWA ORDINANCES

The SWA has adopted three recycling ordinances that target three distinct waste streams: (1) The Business Recycling Ordinance, adopted in 2007 for commercial generators who subscribe to 4 cubic yards or more of refuse service per week; (2) The Certification of C&D [Construction and Demolition] Debris Sorting Facilities Ordinance, adopted in 2008, that creates a program for mixed C&D facilities that dovetails with both City and County C&D Ordinances for builders; and (3) The Multifamily Recycling Ordinance, adopted in 2009, that requires owners of multifamily properties with over 5 units to subscribe to a recycling service for their tenants.

LOCAL ENFORCEMENT AGENCY

Local enforcement agencies (LEAs) have the primary responsibility for ensuring the correct operation and closure of solid waste facilities in the state. They also have responsibilities for guaranteeing the proper storage and transportation of solid wastes. The Sacramento County Environmental Management Department (EMD) is authorized as the LEA under Division 30 of the Public Resources Code and Title 14 of the California Code of Regulations (CCR).

SACRAMENTO COUNTY GENERAL PLAN PUBLIC FACILITIES ELEMENT

Sacramento County General Plan Policies PF-20 through PF-26 are pertinent to solid waste. These policies are intended to support the stated goal of the Solid Waste Services and Facilities Section of the General Plan which is to have a “safe, efficient and environmentally sound operation of solid waste facilities in Sacramento County.”

The majority of the policies in the General Plan pertain to service providers and not to development projects. The policies in the Public Facilities Element that support the County’s Solid Waste Services strategies and are relevant to the Project relate to fees to support adequate waste facilities and are as follows:

- PF-23. Solid waste collection, handling, recycling, composting, recovery, transfer and disposal fees shall recover all capital, operating, facility closure and maintenance costs.

- PF-24. Solid waste disposal fees and rate structures shall reflect current market rates and provide incentives for recovery.

ENERGY SERVICES

FEDERAL REGULATIONS

FEDERAL ENERGY REGULATORY COMMISSION

The Federal Energy Regulatory Commission is an independent agency that regulates the transmission and sale of electricity, natural gas, and oil; licenses and inspects hydropower projects; reviews proposals to build liquefied natural gas (LNG) terminals; and oversees related environmental matters (FERC, 2009).

STATE REGULATIONS

CALIFORNIA PUBLIC UTILITIES COMMISSION

The California Public Utilities Commission (CPUC) regulates the design, installation, and management of California's public utilities, including electric, natural gas, water, transportation, and telecommunications. The CPUC also provides consumer programs and information, such as energy efficiency, low income programs, demand response, and California solar initiative for California's energy consumers.

CALIFORNIA CODE OF REGULATIONS

New buildings constructed in California must comply with the standards contained in Title 20, Energy Building Regulations, and Title 24, California Building Standards Code. Part 6 of Title 24 contains California's Energy Efficiency Standards for Residential and Nonresidential Buildings. These regulations were established in 1978 in response to legislative mandate to reduce California's energy consumption. The standards are updated periodically to incorporate new energy efficiency technologies and methods (CEC, 2009).

WARREN-ALQUIST STATE ENERGY RESOURCES CONSERVATION AND DEVELOPMENT ACT

The Warren-Alquist Act of the Public Resources Code gives statutory authority to the California Energy Commission. Under the Warren-Alquist Act, there will be state policies for responsibility for energy resources, reduction in uses of energy, conservation of energy, and establishment of statewide goals for energy conservation. (Warren-Alquist Energy Resources Conservation and Development Act, Government Code Section 25000 *et seq*.).

LOCAL REGULATIONS

SACRAMENTO COUNTY GENERAL PLAN

The 2030 County General Plan Public Facilities Element contains numerous policies (PF-67 through PF-119), including policies related to the location of energy facilities to minimize visual intrusion, biological impacts, and land use incompatibilities for cogeneration and solar facilities as well as conventional electric facilities, policies for the identification of non-potable water availability, and the policies related to the location of transmission infrastructure.

- PF-67. Cooperate with the serving utility in the location and design of production and distribution facilities so as to minimize visual intrusion problems in urban areas and areas of scenic and/or cultural value including the following:
    - Recreation and historic areas
    - Scenic highways
    - Landscape corridors
    - State or federal designated wild and scenic rivers
    - Visually prominent locations such as ridges, designated scenic corridors, and open viewsheds
    - Native American sacred sites
    - PF-68. Cooperate with the serving utility in the location and design of energy production and distribution facilities in a manner that is compatible with surrounding land uses by employing the following methods when appropriate to the site:
    - Visually screen facilities with topography and existing vegetation and install landscaping consistent with surrounding land use zone development standards where appropriate, except where it would adversely affect photovoltaic performance or interfere with power generating capability.
    - Provide site-compatible landscaping.
    - Minimize glare through siting, facility design, non-reflective coatings, etc.
    - Site facilities in a manner to equitably distribute their visual impacts in the immediate vicinity.
    - PF-69. Cooperate with the serving utility to minimize the potential adverse impacts of energy production and distribution facilities to environmentally sensitive areas by, when possible, avoiding siting in the following areas:
    - Wetlands
    - Permanent marshes
    - Riparian habitat
    - Vernal pools
    - Oak woodlands

- Historic and/or archaeological sites and/or districts
- PF-76. The County supports the generation and use of energy produced from renewable resources.
- PF-99. Minimize overhead wire congestion using techniques such as combining lines on poles or undergrounding.
- PF-101. Route new overhead subtransmission lines within existing transmission line corridors, along railroad tracks, or major roadways. In an effort to reduce the visual impact of new lines combine circuits on existing 69 kV power poles, wherever feasible.
- PF-107. New sub-transmission lines should be routed along road rights-of-way in dedicated private or public utility easements. When necessary, sub-transmission lines can be routed along rear property lines in dedicated easements that provide adequate access for maintenance by the utility provider. Easements shall be granted as a condition of project approval. Lines near schools shall comply with California Codes and Regulations. Disclosure of future substations, transmission, and sub-transmission lines by developers is required before property sales are made.
- PF-108. To the maximum extent possible locate distribution substations serving residential areas in adjacent commercial properties. When not feasible, these facilities should be designed in a manner to harmonize visually with the surrounding development, including the use of landscaped buffers.
- PF-118. All tentative subdivision maps should identify the location of all utility easements sufficient to accommodate existing and future needs as determined by SMUD and PG&E.

There are also multiple general plan policies which are relevant to the efficient use of energy:

- EN-16. Promote the use of passive and active solar systems in new and existing residential, commercial, and institutional buildings as well as the installation of solar swimming pool heaters and solar water and space heating systems.
- LU-28. Encourage the development of energy-efficient buildings and communities.
- LU-29. Promote voluntary participation in incentive programs to increase the use of solar photovoltaic systems in new and existing residential, commercial, institutional, and public buildings.
- LU-30. Whenever feasible, incorporate energy-efficient site design, such as proper orientation to benefit from passive solar heating and cooling, into master planning efforts.

- LU-70. Enact cost effective energy conservation performance standards consistent with USEPA Energy Star standards for new construction.
- LU-71. Reduce the energy impacts from new residential and commercial projects through investigation and implementation of energy efficiency measures during all phases of design and development.

SEWER SERVICE

FEDERAL REGULATIONS

CLEAN WATER ACT

Construction of wastewater infrastructure and facilities may have impacts (erosion and sedimentation) that would be regulated by the Clean Water Act. The 1972 amendments to the federal Clean Water Act prohibit the discharge of pollutants to navigable waters from a point source unless the discharge is authorized by a National Pollutant Discharge Elimination System (NPDES) permit. The Clean Water Act requires NPDES permits for stormwater discharges caused by general construction activity. The purpose of the NPDES program is to establish a comprehensive stormwater quality program to manage urban stormwater, reducing pollution of the environment as much as possible. The NPDES program involves characterizing the quality of receiving water, identifying harmful constituents, targeting potential sources of pollutants, and implementing a comprehensive stormwater management program. NPDES permits are issued by the Regional Water Quality Control Board.

SAFE DRINKING WATER ACT

The federal Safe Drinking Water Act established a national program to protect the quality of drinking water available from municipal and industrial water suppliers. The act establishes a program requiring compliance with national drinking water standards for contaminants that may have an adverse effect on human health. It also establishes programs to protect potable groundwater from contamination.

STATE REGULATIONS

PORTER-COLOGNE WATER QUALITY CONTROL ACT

The Porter-Cologne Act requires the California State Water Resources Control Board (State Water Resources) to adopt water quality control plans and set waste discharge requirements (WDRs) for dischargers into surface and groundwater. The Central Valley Regional Water Quality Control Board (Regional Water Board) is responsible for administering and enforcing WRDs, permits, and water quality control plans.

WATER QUALITY CONTROL PLANS

NPDES permits and Erosion Control Programs are required for the construction of infrastructure and pumping facilities. The Clean Water Act requires that water resources be protected from degradation caused by waste discharges and requires that identified beneficial uses be maintained. The Regional Water Board's Water Quality Control Plan for the Central Valley Region identifies the designated beneficial uses of

groundwater and surface water bodies and contains water quality objectives and standards established to protect those uses.

The County of Sacramento received a municipal NPDES permit for stormwater discharges from the Central Valley Regional Water Quality Control Board. Under this permit, permittees are required to develop, administer, implement, and enforce a Comprehensive Stormwater Management Program (CSWMP) in order to reduce pollutants in urban runoff to the maximum extent practicable. The CSWMP implemented by the county is a multi-faceted, dynamic program which is designed to reduce stormwater pollution to the maximum extent practicable. The CSWMP emphasizes all aspects of pollution control including but not limited to public awareness and participation, source control, regulatory restrictions, water quality monitoring, and treatment control.

The Sacramento Stormwater Management Program has developed the January 2000 Guidance Manual for On-Site Storm Water Quality Control Measures. The Guidance Manual contains the 2000/2001 Progress Report that provides general conditional language used to require development projects to incorporate erosion and sediment controls and on-site stormwater quality control measures. For public and quasi-public projects, mitigation requiring the Project to comply with the County's Land Grading and Erosion Control Ordinance is required.

In addition to construction/stormwater impacts, the Water Quality Control Plan for the basin contains specific numeric water quality objectives for bacteria, dissolved oxygen, pH, pesticides, electrical conductivity, total dissolved solids, temperature, turbidity, and trace elements, as well as numerous narrative water quality objectives, that are applicable to certain water bodies or portions of water bodies (Sacramento River). In 2002, the Regional Water Board completed review of their basin plan that resulted in amendments that: 1) update bacteria objectives for water contact recreation; 2) clearly state that a basin planning process will be used to designate or change designated beneficial uses; and 3) update language in the basin plan. The districts that move and treat wastewater effluent for Sacramento County (SRCSD and SASD) are responsible for compliance with Regional Water Board's Water Quality Control Plan's discharge requirements.

STATE WATER RESOURCES RESOLUTION NO. 68-16

The goal of State Water Resources Resolution No. 68-16 (Statement of Policy With Respect to Maintaining High Quality Waters in California") is to maintain high quality waters where they exist in the State. State Board Resolution No. 68-16 States, in part:

- "Whenever the existing quality of water is better than the quality established in policies as of the date on which such policies become effective, such existing high quality will be maintained until it has been demonstrated to the State that any change will be consistent with maximum benefit to the people of the State, will not unreasonably affect present and anticipated beneficial use of such water and will not result in water quality less than that prescribed in the policies.

- Any activity which produces or may produce a waste or increased volume or concentration of waste and which discharges or proposes to discharge to existing high quality waters will be required to meet waste discharge requirements which will result in the best practicable treatment or control of the discharge necessary to assure that (a) a pollution or nuisance will not occur and (b) the highest water quality consistent with maximum benefit to the people of the State will be maintained."

The State Water Resources has interpreted Resolution No. 68-16 to incorporate the federal anti-degradation policy, which is applicable if a discharge that began after November 28, 1975 will lower existing surface water quality.

WATER RECLAMATION REGULATIONS

Wastewater reclamation in California is regulated under Title 22, Division 4, of the California Code of Regulations. The intent of these regulations is to ensure protection of public health associated with the use of reclaimed water. The regulations establish acceptable levels of constituents in reclaimed water for a range of uses and prescribe means for assurance of reliability in the production of reclaimed water. The California Department of Health Services (DHS) has jurisdiction over the distribution of reclaimed wastewater and the enforcement of Title 22 regulations. The Regional Water Board is responsible for issuing waste discharge requirements (including discharge prohibitions, monitoring, and reporting programs).

LOCAL REGULATIONS

SACRAMENTO COUNTY GENERAL PLAN

The 2030 Sacramento County General Plan contains policies and implementation measures which pertain to the provision of wastewater collection and treatment. The Public Facilities Element policies PF-6 through PF-19 pertain to sewer services, but not all of these are applicable to the Project. There is also one policy from the Land Use Element which is applicable to the Project.

- LU-73. Sewer and water treatment and delivery systems shall not provide for greater capacity than that authorized by the General Plan.
- PF-6. Interceptor, trunk lines, and flow attenuation facilities shall operate within their capacity limits without overflowing.
- PF-7. Although sewer infrastructure will be planned for full urbanization consistent with the Land Use Element, an actual commitment of additional sewer system capacity will be made only when the land use jurisdiction approves development to connect and use the system.
- PF-8. Do not permit development which would cause sewage flows into the trunk or interceptor system to exceed their capacity.
- PF-9. Design trunk and interceptor systems to accommodate flows generated by full urban development at urban densities within the ultimate

service area. System design may take into consideration land that cannot be developed for urban uses due to long-term circumstances including but not limited to conservation easements, floodplains, public recreation areas, etc. This could include phased construction where deferred capital costs are appropriate.

- PF-10. Development along corridors identified by the Sanitation Districts in their Master Plans as locations of future sewerage conveyance facilities shall incorporate appropriate easements as a condition of approval.
- PF-11. The County shall not support extension of the regional interceptor system to areas within the County which are beyond the Urban Service Boundary. This shall not prohibit the County from supporting the extension of the regional interceptor system to areas outside the USB which are being proposed for annexation to a city.
- PF-13. Public sewer systems shall not extend service into agricultural-residential areas outside the urban policy area unless the Environmental Health Department determines that there exists significant environmental or health risks created by private disposal systems serving existing development and no feasible alternatives exist to public sewer service.
- PF-14. Independent community sewer systems shall not be established for new development.
- PF-15. Support CSD-1 and SRCSD policies to fund new trunk and interceptor capital costs through connection fees for new development.
- PF-16. Support SRCSD policy to fully fund treatment plant operation through monthly service charges to system users. Fund treatment plant expansion and upgrades and existing trunk and interceptor replacements or improvements through connection fees or other revenue sources.
- PF-18. New development projects which require extension or modification of the trunk or interceptor sewer systems shall be consistent with sewer facility plans and shall participate in established funding mechanisms. The County should discourage development projects that are not consistent with sewer master plans or that rely upon interim sewer facilities, particularly if the costs of those interim facilities may fall on ratepayers. Prior to approval of a specific Commercial Corridor redevelopment project which requires extension or modification of the trunk or interceptor sewer systems, a sewer study and financing mechanism shall be prepared and considered along with the proposed Corridor redevelopment project, in consultation with the Sacramento Area Sewer District.
- PF-19. Extension or modification of trunk or interceptor sewer systems that are required for new developments shall be consistent with sewer facility plans and shall participate in an established funding mechanism. New development that will generate wastewater for treatment at the SRWTP shall not be approved if treatment capacity at the SRWTP is not sufficient to allow

treatment and disposal of wastewater in compliance with the SRWTP's NPDES Permit.

WATER SERVICE

FEDERAL REGULATIONS

UNITED STATES BUREAU OF RECLAMATION

The Bureau of Reclamation is part of the United States Department of the Interior and is responsible for the development and conservation of much of the water resources in the western United States. The Bureau operates Folsom Dam, Nimbus Dam, and the Folsom South Canal. While the original purpose of the Bureau was to provide for the reclamation of arid and semiarid lands in the west, the agency's current mission covers a wider range of interrelated functions. These functions include providing municipal and industrial water supplies through the Central Valley Project; generating hydroelectric power; providing irrigation water for agriculture; improving water quality, flood control, and river navigation; providing river regulation and control and fish/wildlife enhancement; offering water-based recreation opportunities; and conducting research on a variety of water-related topics.

UNITED STATES GEOLOGICAL SURVEY

The United States Geological Survey (USGS) National Water Use Information Program is responsible for compiling and disseminating the nation's water use data. The USGS works in cooperation with federal, state, and local environmental agencies to collect water use information at the local level.

STATE REGULATIONS

DEPARTMENT OF WATER RESOURCES

The Department of Water Resources (DWR) is responsible for the preparation of the California Water Plan, management of the State Water Project, protection, and restoration of the Sacramento-San Joaquin River Delta, regulation of dams, provision of flood protection, and other functions related to surface water and groundwater resources. Other functions include helping water agencies prepare their Urban Water Management Plans and reviewing such plans to ensure that they comply with the related Urban Water Management Planning Act.

WATER RESOURCES CONTROL BOARD

The Water Resources Control Board (State Water Resources) was established in 1967 to administer state water rights and water quality functions. State Water Resources and its nine regional water quality control boards administer water rights and enforce pollution control standards. State Water Resources is responsible for the granting of water right permits and licenses through an appropriation process following public hearings and appropriate environmental review by applicants and responsible agencies. In granting water right permits and licenses, the WRCB must consider all beneficial uses, including water for downstream human and environmental uses.

CENTRAL VALLEY REGIONAL WATER QUALITY CONTROL BOARD

The Central Valley Regional Water Quality Control Board (Regional Water Board) is responsible for the preparation and implementation of basin water quality plans consistent with the Clean Water Act and enforcement of those plans to ensure that local water quality is protected. The Regional Water Board may become involved in water supply programs as a responsible agency with respect to Project impacts on downstream beneficial uses.

CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE

The California Department of Fish and Wildlife (Fish and Wildlife) is a responsible agency with respect to the review of water right applications and is responsible for issuing lake and streambed alteration permits for new water supply projects. Fish and Wildlife often helps establish in stream flows to maintain habitat below a project.

LOCAL REGULATIONS AND WATER SUPPLY PLANNING/BACKGROUND

SACRAMENTO COUNTY

The 2030 Sacramento County General Plan contains policies and implementation measures which pertain to the provision of water supply. The following policies are applicable to the proposed Project.

- AG-27. The County shall actively encourage groundwater recharge, water conservation and water recycling by both agricultural and urban water users.
- CO-1. Support conjunctive use water supply for development.
- CO-7. Support the Water Forum Agreement Groundwater Management Element. Prior to approving any new development water supply plan shall be approved that demonstrates consistency with an adopted groundwater management plan.
- CO-8. Applicants proposing developments in areas with significant groundwater recharge characteristics shall evaluate the impact of said development on groundwater recharge and quality. This evaluation should recognize criteria defined in any broader County-wide determination and/or evaluation of groundwater recharge areas.
- CO-9. Developments in areas with significant contamination shall utilize remediated groundwater as part of their water supply when feasible.
- CO-13. Support the WFA Conservation Element and the California Urban Water Conservation Council Best Management Practices for Water Conservation.
- CO-14. Support the use of recycled wastewater to meet non-potable water demands where financially feasible.
- CO-16. Ensure developments are consistent with the County Water Efficient Landscape Ordinance, which shall be updated as needed to conform to state law.

- CO-22. Support water management practices that are responsive to the impacts of Global Climate Change such as groundwater banking and other water storage projects.
- CO-23 Development approval shall be subject to a finding regarding its impact on valuable water-supported ecosystems.
- CO-34. Development applications shall be subject to compliance with applicable sections of the California Water Code and Government Code to determine the availability of an adequate and reliable water supply through the Water Supply Assessment and Written Verification processes.
- CO-35. New development that will generate additional water demand shall not be approved and building permits shall not be issued if sufficient water supply is not available, as demonstrated by Water Supply Assessment and Written Verification processes.
- CO-36. Water supply entitlements will be granted on a first come first serve basis to optimize the use of available water supplies.
- LU-73. Sewer and water treatment and delivery systems shall not provide for greater capacity than that authorized by the General Plan.
- PF-2. Municipal and industrial development within the Urban Service Boundary but outside of existing water purveyors' service areas shall be served by either annexation to an existing public agency providing water service or by creation or extension of a benefit zone of the SCWA.
- PF-4. Connector fees for new development shall cover the fair share of costs to acquire and distribute surface water to the urban area.
- PF-5. New treatment facilities and all facility operations shall be funded by beneficiaries.

LEGISLATION

URBAN WATER MANAGEMENT PLANNING ACT

Pursuant to California Water Code Sections 10610-10657, as last amended by Senate Bill 318 in 2004, the Urban Water Management Planning Act requires all urban water suppliers with more than 3,000 service connections or water use of more than 3,000 AFA to submit an Urban Water Management Plan (UWMP) to the California Department of Water Resources every 5 years and update the plan on or before December 31 in years ending in 5 and 0. SB 318 is the 18th amendment to the original bill requiring a UWMP, which was initially enacted in 1983. Amendments to SB 318 have focused on ensuring that the UWMP emphasizes and addresses drought contingency planning, water demand management, reclamation, and groundwater resources.

SENATE BILL 610

SB 610 became effective January 1, 2002. The purpose of SB 610 is to strengthen the process by which local agencies determine the adequacy and sufficiency of current and

future water supplies to meet current and future demands. SB 610 amended the California Public Resources Code to incorporate Water Code requirements within the CEQA process for certain types of projects (described below). SB 610 also amended the water code to broaden the types of information included in a UWMP. SB 610 consists of two primary components, the UWMP and the Water Supply Assessment (WSA) (Water Code Sections 10910-10915).

WATER CODE SECTION 10910

Water Code Section 10910 et seq. defines the projects for which the preparation of a Water Supply Assessment (WSA) is required as well as the lead agency's responsibilities related to the WSA. The Water Code also clarifies the roles and responsibilities of the lead agency under CEQA and of the water supplier with respect to describing current and future supplies compared to current and future demands. A WSA is required for:

- A proposed residential development of more than 500 dwelling units;
- A proposed shopping center or business establishment employing more than 1,000 persons or having more than 250,000 square feet of floor space;
- A proposed hotel or motel, or both, having more than 500 rooms;
- A proposed industrial, manufacturing, or processing plant, or industrial park planned to house more than 1,000 persons, occupying more than 40 acres of land, or having more than 650,000 square feet of floor area;
- A mixed use development that includes one or more of the uses described above;
- A development that would demand a volume of water equivalent to or greater than the volume of water required by a 500-dwelling unit project; and
- For lead agencies with fewer than 5,000 water service connections, any new development that would increase the number of water service connections in the service area by 10% or more.
- Under Section 10910 of the Water Code, the lead agency must identify the affected water supplier and ask the supplier whether the new demands associated with the project are included in the supplier's UWMP. If the UWMP includes the demands, it may be incorporated by reference in the WSA. If there is no public water system to serve the project, the lead agency must prepare the WSA.

SENATE BILL 221

SB 221 requires a city or county to include as a condition of approval of any tentative map, parcel map, or development agreement for certain residential subdivisions a requirement that a "sufficient water supply" be available. Proof of a sufficient water supply must be based on a written verification from the public water system that would serve the development.

CALIFORNIA SAFE DRINKING WATER ACT

The California Safe Drinking Water Act (CA SOWA; California Health and Safety Code 4010 – 4039.6) authorizes the California Department of Public Health (CDPH) to establish maximum contaminants levels (MCLs) that are at least as stringent as those required by the US EPA under the SDWA. The CDPH has established MCLs for contaminants that may occur in public water systems, including all the substances for which federal MCLs exist, and may have adverse health effects. Operators of public water systems in California are required to meet federal and state drinking water standards.

SIGNIFICANCE CRITERIA

The criteria used to evaluate the significance of public services impacts resulting from the proposed Project were developed based on CEQA Guidelines and on professional standards. Impacts of the proposed Project on utilities were considered significant if implementing the Project would:

1. Result in service by a landfill with insufficient permitted capacity to accommodate the Project's solid waste disposal needs;
2. Result in non-compliance with federal, state, and local statutes and regulations related to solid waste.
3. Result in a service demand that cannot be met by existing or reasonably foreseeable future service capacity.
4. Require the construction of new or the expansion of existing utility facilities that could potentially cause significant construction-related environmental effects.
5. Result in inefficient, wasteful, and unnecessary consumption of energy.

IMPACTS AND ANALYSIS

IMPACT: SOLID WASTE SERVICES

LEVEL OF IMPACT: LESS THAN SIGNIFICANT

Various public agencies and private companies provide solid waste management services in the County of Sacramento. Solid waste generated on-site would be collected and transported by a private contractor. Site-generated solid waste would be disposed of at one of several Class III landfills located within Sacramento County. As illustrated in **Table PU-1:** , based on California Integrated Waste Management's (CIWMB) solid waste generation factors, the proposed project would generate approximately 5,858 lbs. of solid waste per day or 1,069 tons per year.

Table PU-1: Barrett Ranch East Solid Waste Generation

1. Land Use	Units	Generation Rate	Lbs./Day
Commercial/Retail	37,450 sq. ft.	2.5 lbs./1,000 sq.ft./day	93.7 lbs./day
Residential			
Single-Family	498 Units	10 lbs./du/day	4,980 lbs./day
Multi-Family	196 Units	4 lbs./du/day	784 lbs./day

There would be no solid waste generation resulting from demolition activities on the project site as the single-family residential structure previously on the property has been demolished and removed.

The Sacramento County Integrated Waste Management Plan provides for adequate waste disposal capacity to serve existing and anticipated development until the year 2030. The Kiefer (KLF) Landfill (the nearest large landfill) is a Class III solid waste facility located in eastern Sacramento County. The permitted disposal and fill footprint is 660 acres, and the solid waste facility permit allows for 744 vehicles per day and 10,815 total tons of refuse per day. The landfill opened for business in 1967, and as of today, 30 million cubic yards has been placed at the KLF. The total permitted capacity for the site is 117.4 million cubic yards. Based on projected waste flows there is an estimated 65 years of capacity remaining.[1] There is more than sufficient capacity to handle the solid waste generated by the project.

MITIGATION MEASURE

None required.

IMPACT: ENERGY SERVICES

LEVEL OF IMPACT: LESS THAN SIGNIFICANT

Energy services provided to the project will be provided by the Sacramento Municipal Utilities District (SMUD). No new substation(s) or 69 kilovolt (kV) lines are proposed or planned in the Barrett Ranch East development as the estimated load for the proposed project is 4.5 megawatts. SMUD is able to provide service within the capacity of its existing infrastructure. An existing overhead 12 kV line will be undergrounded as part of the future road improvement work along Don Julio Boulevard.

In response to the Notice of Preparation for this DEIR, the SMUD requested the following be addressed by the project:

- Overhead and or underground transmission and distribution line easements

[1] Sacramento County Department of Waste Management & Recycling, SWANA 2012, available at https://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=1&ved=0ahUKEwj_2ojk6ebMAhUH4IMKHTSRANsQFgggMAA&url=http%3A%2F%2Fwww.wmr.saccounty.net%2FDocuments%2FSWANA%2520Award%2520App.pdf&usg=AFQjCNGhdPg8LBHyGt29obBMXZ7sSCkXBg

- Electrical load needs/requirements
- Energy Efficiency
- Utility line routing
- Climate Change

These and other concerns will be addressed through project design and construction, and will be coordinated between the project developer and the SMUD. The issue of climate change is addressed in the Greenhouse Gases section of this document.

The SMUD currently operates and maintains 230 kV transmission and 69kV distribution lines within a 100-foot easement located on the eastern side of the project site. The proposed construction of residential properties north of Poker lane and east of Street 9 presents a potential access concern for SMUD. In addition, the project design and/or construction could impact use of SMUD transmission line easements. The SMUD seeks to maintain their transmission line easements and prevent encroachment by unauthorized features of the project and, therefore have recommended conditions to require that the applicant coordinated with SMUD prior to work within the onsite easement. Implementation of the project will not require construction of new facilities or the expansion of existing facilities. Physical impacts associated with the minor extension of service within the project site are assumed in the impact analyses of the relevant chapters within this EIR. The project will not result in inefficient, wasteful, or unnecessary consumption of energy. Impacts are less than significant.

MITIGATION MEASURE

None required.

IMPACT: SEWER SERVICE

LEVEL OF IMPACT: LESS THAN SIGNIFICANT

A Sanitary Sewer Study for Barrett Ranch East was prepared for the project (Appendix H**).** According to this report, the project will utilize three of the six existing sanitary sewer pipe stubs that were previously approved and constructed as part of the Barrett Ranch West development on the west. The three points of connections (POC's) to service the project have adequate depth and capacity to accommodate the project at full buildout.[2] The sewer study was prepared to demonstrate to the Sacramento Area Sewer District (SASD) that the downstream sewer network has adequate capacity to provide sanitary sewer service to the Barrett Ranch East project through a gravity network of pipelines. This sewer study was based on SASD's Standards and Specifications (July 24, 2013).

The Barrett Ranch East project area is currently an undeveloped infill property so there is no existing sanitary sewer flow. The Barrett Ranch East project would have a total of 918 equivalent single-family dwellings (ESD's) and will generate a total flow of 0.712

[2] Mackay & Somps Civil Engineers, *Sanitary Sewer Study for Barrett Ranch East*, November 7, 2014.

million gallons per day (MGD), Peak Wet Weather Flow (PWWF). No pump station or interim facilities are anticipated. The calculated flows for the original project proposed in the study area (See **Table PU-2**) were determined to be within the total shed area capacity with no proposed sewer shed shifts required.

Table PU-2: Barrett Ranch East[1] Calculated Sewer Flows

Land Use Designation	Calculated Acres	Calculated ESD	Peak Wet Weather Flow (mgd)
Single-Family Residential	**94.94**	**582**	**0.454**
Multi-Family Residential	**10.30**	**198**	**0.136**
Parks	**7.13**	**43**	**0.38**
Open Space/Landscape	**8.59**	**52**	**0.046**
Commercial	**7.14**	**43**	**0.038**
TOTAL	**128.1**	**918**	**0.712 mgd**

[1]Calculations are provided for an earlier iteration of proposed project. The current development proposal includes an overall reduction in development density on the project site, reducing sewer flow rates from that depicted in Table UTIL-2.

The study determined that the project complies with the latest SASD Master Plan and concluded that it is possible to provide gravity sewer service to the project. The study further concluded that interim sewer facilities will not be required to serve the project. Also, in comparing the allocated ESD's from the approved Barrett Ranch Sanitary Sewer Study, dated April 21, 2004, with the project calculated ESD's, there are minor differences which are negligible as demonstrated in the study. Nonetheless, the analysis shows ample capacity within the existing pipes to handle the additional flows.

The Sacramento Area Sewer District approved the Barrett Ranch Sewer Study on December 2, 2014, concurred with the study's findings and found that it met their requirements.

MITIGATION MEASURE

None required.

IMPACT: WATER SERVICE

LEVEL OF IMPACT: LESS THAN SIGNIFICANT

A Water Supply Assessment (WSA) was prepared for the proposed project and is include in Appendix I. The analysis contains data and analysis that conforms with the requirements of State Senate Bill 610, which amended Water Code Section 10910, et seq. Moreover, the study documents the adequacy of the water supply to serve the project over the next 20 years under average year, single dry year, and multiple dry year conditions. In addition to water supply, it also addresses water demand and water infrastructure needed to serve the proposed land uses. It should be noted that this WSA was prepared for a prior iteration of the proposed project, which included 692 dwelling

units and approximately 56,000 square feet of retail/commercial and office space.[3] The current project includes 498 single-family residences, up to 196 multi-family residences, and 37,450 square feet of retail/commercial space.

URBAN WATER MANAGEMENT PLAN (UWMP)

The project is located within the Sacramento Suburban Water District (District) North Service Area. Section 10912(c) of the California Water Code defines a "public water system" as a system for the provision of piped water to the public for human consumption that has or will have 3,000 or more service connections. All urban water suppliers as defined in Water Code Section 10617 (including whole-sales), either publicly or privately owned, providing water for municipal purposes either directly or indirectly to more than 3,000 customers or supplying more than 3,000 acre-feet per year (af/y) are required to prepare an Urban Water Management Plan (UWMP). The District supplies approximately 36,387 (year 2010) acre-feet (AF) of water annually to a population of approximately 170,600, and it is therefore subject to this requirement. The District has an adopted UWMP dated May 2010. Additionally, the District has a Water System Master Plan (Master Plan), which was adopted by the District's Board of Directors on July 20, 2009. The WSA relied upon information from the Districts' UWMP and Master Plan for its analysis of water supply and demand for the project.

The proposed Barrett Ranch East Plan lies entirely within the boundaries of the District's North Service Area. The Barrett Ranch East Plan with other infill and redevelopment in the District's NSA will increase projected 2030 water demands by 595 acre-feet per year (AFA) above estimated year 2010 levels (approximately a 1.5% increase). This relies on information from the District's 2010 UWMP. Additionally, the WSA utilizes information from the District's Water System Master Plan, which was adopted by the District's Board of Directors on July 20, 2009.

The County of Sacramento has identified the District as the responsible public water system for the project. The District serves a population of approximately 170,600 in Sacramento County. The District is split into two service areas, the North Service Area (NSA) and the South Service Area (SSA). The proposed Barrett Ranch East Plan is located entirely within the NSA. Sacramento Suburban Water District's water source is served by 82 active groundwater wells, 39 of which provide water in the NSA. These wells are supplemented by surface water in the NSA. Surface water is purchased through agreements from the Placer County Water Agency and wheeled through Folsom Dam and treated at San Juan Water District's (SJWD) Peterson Treatment Plant. Water is delivered through SJWD's Cooperative Transmission Pipeline and the District's Antelope Pipeline into the NSA. The District owns 59 million gallons per day (MGD) capacity in the Cooperative Pipeline and owns the Antelope Transmission Pipeline.

WATER DEMAND

[3] Water Supply Assessment, Barrett Ranch East, Page 8. October 2014.

The current 2010 UWMP for the District was crafted based on the development projections provided within the certified Final Environmental Impact Report (FEIR) for the Sacramento County 2030 General Plan. The FEIR reported that the projected annual water demand for the District's NSA for the year 2030 would be increased by 595 AFA over 2010 levels. This projected water demand was based on assumed land use planning for the NSA.

The District is able to estimate a water demand for the proposed project based on the previous proposed land use plan for the project. Using the information from the UWMP, an estimated calculation of the proposed water demands (based on the previous "conceptual land use plan" for Barrett Ranch) is shown in **Table PU-3.**

Table PU-3: Estimated Water Demand – Barrett Ranch

Land Use[1]						
Zoning	**Acres**	**Units**	**Density/SF**	**gpd/DU[2]**	**gpd/AC[3]**	**AFA**
RD-5	36.1	170	5 du/ac	700		133
RD-7	59.4	326	7 du/ac	500		183
RD20	2.1	26	20 du/ac	300		9
RD25	8.4	170	25 du/ac	300		57
SC[4]	6.4		56,600 SF		3,460	5
Park	7.8				5,250	46
OS	7.9				5,250	47
Roads	25.2					0
Totals	**153.3**	**692**			**Estimated Total**	**480**

[1]Proposed land use table for Barrett Ranch (Previous Project)
[2]Calculated gpd/DU from 2010 UWMP
[3]Calculated gpd/AC from 2010 UWMP
[4]Revised land use plan designation is GC and LC

Based on the above calculations, the estimated projected annual water demand for the previously proposed Barrett Ranch is approximately 480 AFA, which is within the scope of the estimated future increase in demand of 595 AFA for the NSA. The currently proposed project's development intensity is reduced from that analyzed in the WSA. Hence, water demand for the currently proposed project would be less than that shown in **Table PU-3** above.

Table PU-4 shows the 2010 UWMP estimated water demands for the District:

Table PU-4: SSWD Past, Current, and Projected Water Demand (AFA)

	2005	2010	2015	2020	2025	2030	2050
Total Water Demand	41,615	38,015	39,669	40,491	41,331	42,190	58,571

Note: The District has also prepared an updated Water Master Plan (Master Plan), adopted in July 2009. The assumptions of demand from 2005 to 2025 in table WS-3 are estimated using the projected growth factors based on SACOG's blue print. The 2050 demand is estimated from the adopted Regional Blueprint preferred vision, which may not take into consideration the same growth factors as use in 2005 to 2025. The additional usage assumptions used for the Master Plan is consistent with that projected for the proposed Sacramento County General Plan (2030 update), which included commercial corridors, other infill and redevelopment and potential new growth areas. According to District staff, the District should have an adequate groundwater supply to meet the new demand without adversely affecting the groundwater pumping limitation imposed by the Water Forum Agreement.

Current water supplies in the District's NSA are delivered through approximately 39 active deep groundwater wells. The District has no surface water supply entitlements or surface water rights in its NSA, though contract surface water is available. Contract surface water is available from the Placer County Water Agency (PCWA) through its Middle Fork Project. The District has in place agreements to purchase up to 29,000 AF of surface water from PCWA. The minimum take or pay quantity is 12,000 AF. Available PCWA water is restricted based on the unimpaired inflow into Folsom Lake. Currently the District can take surface water if the inflow is above 1,600,000 AF as calculated by the Department of Water Resources (DWR). Should the inflow be less than the limit, the District is not allowed to take surface water and must rely on groundwater supplies.

The District has a contract agreement with Placer County Water Agency to purchase up to 29,000 Acre-Feet (AF) with a 12,000 AF annual minimum of surface water from their Middle Fork Project. The District has also received annual Warren Act Contracts from The United States Bureau of Reclamation (Bureau) for the Conveyance of Non-Project Water through Bureau facilities into SJWD's Peterson Treatment Plant near Folsom Reservoir. The District also has a contract agreement with SJWD for treatment of the surface water wheeled into Folsom Reservoir; however, the treatment capacity is shoulder capacity and is only available when the plant is not operating at full capacity. The treated water is conveyed through the San Juan Cooperative Transmission Pipeline of which the District owns a 59 million gallon per day (MGD) capacity and through the District-owned Antelope Pipeline and delivered into the NSA. The District also has 82 deep groundwater production wells – 39 in the NSA – to deliver groundwater when surface water or treatment capacity is not available.

Water supply for the District is derived from both active groundwater wells and surface water when available; thus, the proposed Barrett Ranch East Plan water demands will ultimately be met by groundwater or a combination of groundwater and surface water. Each of the water supplies utilized within the system are discussed below.

Use of Groundwater

The District currently exercises, and will continue to exercise, their rights as groundwater appropriators to extract groundwater from the Sacramento Valley Groundwater Basin. The District when formed was primarily a groundwater system and the existing groundwater wells are sufficient to handle the water requirement for the District's service area. As noted above, there are 82 active groundwater wells in the District, 39 of which provide water in the NSA. Total groundwater pumping capacity is approximately 92,480 gallons per minute (gpm) from all 82 active water wells. Due to conjunctive use efforts since 1998, the District has filed annual "Cessation or Reduction in the Extraction of Groundwater" statements to the State Water Resources Control Board on the quantity of groundwater that has been banked through the use of surface water in lieu of groundwater usage. From 2000 through 2013, the District has banked approximately 191,000 acre-feet of groundwater, which is available for use.

Use of Surface Water

Surface water is available to the District's NSA through a contract with the Placer County Water Agency (PCWA) in the amount of up to 29,000 AFA (agreement signed in 1999 with the former Northridge Water District, which consolidated with the former Arcade Water District in February 2002 to become the Sacramento Suburban Water District). PCWA provides raw surface water through its Middle Fork Project delivered via Folsom Reservoir and treated through facilities at SJWD's Peterson Water Treatment Plant. Water is then conveyed through the SJWD Cooperative Transmission Pipeline and the District's Antelope Pipeline into the NSA. This surface water supply is not a permanent water source for the District. The surface water supply is a supplemental supply for the District, which is only available during wet years. During dry years the District relies solely on its groundwater wells for water supply. Surface water availability is contingent on the availability of flow acknowledged by PCWA to be available each year and the classification of the type of water per Department of Water Resources (DWR) Bulletin 120 – Water Conditions in California. When PCWA has determined that surface water is available and acknowledged by the Water Forum of wet year conditions, the District will take as much surface water as possible and supplement demand with groundwater. The PCWA agreement has a "take or pay" clause, which requires the District to pay for the available surface water even if it is not taken.

In the first ten years of the PCWA agreement, surface water was available if the unimpaired flow into Folsom Lake was greater than 950,000 acre-feet, which according to past records was approximately 9 out 10 years. Starting in 2010 through the term of the agreement, the surface water supply is only available during wet years (Water Forum – Purveyor Specific Agreement (PSA)), which quantifies that the unimpaired inflow into Folsom must be greater than 1,600,000 acre-feet. According to past DWR records, this only occurs approximately 6 out 10 years. In 2012 and 2013, the District did not receive any surface water through the PCWA agreement due to the unimpaired inflow into Folsom being less than the 1,600,000 acre-feet. The PCWA agreement includes a condition that at build out of PCWA's service area, which is anticipated to occur after 2024, the surface water supply would be reduced to 12,000 AFA.

WATER SUPPLY INFRASTRUCTURE

The District's Regulations Governing Water Service requires the payment of connection fees for water service. As new development occurs, connection fees would be assessed and collected. New facilities would be the responsibility of the developers for installation as a condition of water service. Some facilities as required (groundwater production infrastructure improvements) may be installed by the District through funds collected for Capital Improvements as designated in the Master Plan or from potential eligible grants as they become available. The District has moved into a pay-as-you-go program for financing Capital Improvements; therefore, debt financing would not be a considered option. Impacts of new infrastructure are addressed in various sections of this DEIR. Where construction infringes on creeks or wetlands, a Streambed Alteration Agreement from California Department of Fish and Game and a Clean Water Act Section 401 and 404 permits may be required from the Central Valley Regional Water Quality Control Board and the United States Army Corps of Engineers. Standard County of Sacramento plan review and encroachment permits will be required prior to installation or upgrade of any new facilities connected to the water system. The District will also require review of all plans to connect into the water system. Water facilities connected to the water system must be in accordance to District's current Regulations Governing Water Service and constructed per the District's Technical Specifications and Standard Details.

As discussed in the District's Master Plan, the District will be looking at opportunities to secure future potential well sites for replacement sources for aging infrastructure, such as groundwater wells. Based on the location and influence of existing surrounding wells, the District would be looking at a future well site within the Barrett Ranch project area. A proposed well site would be approximately 10,000 square feet in size, would be located in an isolated area away from residential housing units, preferably in a public park or commercial area. With this in mind, the District will seek a potential well site as development plans are developed for the Barrett Ranch East project area. The District will request and purchase property for a potential well site(s) pending the scheduling of development in the Barrett Ranch East project area.

ANALYSIS OF IMPACTS

The water demands of the project will be met with groundwater or a combination of groundwater and surface water supplies. During wet year conditions, surface water supplies will be the main source with demand supplemented by groundwater. During dry conditions, when surface water is not available, groundwater would be the main source of supply.

The District currently serves the entire Barrett Ranch East project site. The District's UWMP has calculated future water demands based on development intensities consistent with the proposed project. With the previously-proposed land use plan for the Barrett Ranch, the District determined that the project would require approximately 480 AFA at buildout. The currently proposed project's development intensity has been reduced, and remains consistent with projected future demands per the 2010 UWMP. Based on the proposed demand, the District has sufficient water supplies to serve the

proposed zoning and land use of the area and the project will not result in the construction of additional facilities. Impacts are less than significant.

MITIGATION MEASURE

None required.

COMMERCIAL PROJECT ALTERNATIVE

IMPACT: SOLID WASTE SERVICES

LEVEL OF IMPACT: LESS THAN SIGNIFICANT

As illustrated in **Table PU-5**, based on CIWMB solid waste generation factors, the proposed project would generate approximately 5,175 lbs. of solid waste per day or 945 tons per year.

Table PU-5: Barrett Ranch East Solid Waste Generation

1. Land Use	Units	Generation Rate	Lbs./Day
Commercial/Retail	78,000 sq. ft.	2.5 lbs./1,000 sq.ft./day	195 lbs./day
Single-Family	498 Units	10 lbs./du/day	4980 lbs./day

The Sacramento County Integrated Waste Management Plan provides for adequate waste disposal capacity to serve existing and anticipated development until the year 2030. As of today 30 million cubic yards has been placed at the KLF. The total permitted capacity for the site is 117.4 million cubic yards. Based on projected waste flows there is an estimated 65 years of capacity remaining. There is sufficient capacity to handle the solid waste generated by the project.

MITIGATION MEASURE

None required.

IMPACT: ENERGY SERVICES

LEVEL OF IMPACT: LESS THAN SIGNIFICANT

SMUD's existing infrastructure is sufficient to provide energy services for the Commercial Alternative, similar to that described in the Preferred Project discussion. Impacts are less than significant.

MITIGATION MEASURE

None required.

IMPACT: SEWER SERVICE

LEVEL OF IMPACT: LESS THAN SIGNIFICANT

The Commercial Alternative would result in a reduction in multi-family acreage and an increase in commercial acreage. Sewer flows are calculated using an ESD of 6 for commercial land use zones and an ESD of 15 for multi-family zones. Because the commercial zoning has a lower ESD than the multi-family zoning designation, the overall peak weather flow would be reduced. As with the preferred project, commercial alternative complies with the SASD Master Plan and it is possible to provide gravity sewer service to this project alternative. Interim sewer facilities will not be required to serve this alternative and there is capacity within the existing pipes to handle the additional flows anticipated from the increase in commercial acreage.

MITIGATION MEASURE

None required.

IMPACT: WATER SERVICE

LEVEL OF IMPACT: LESS THAN SIGNIFICANT

The Commercial Alternative would increase the amount of commercial development within the project area, while decreasing the amount of multifamily. Because the unit water demand factor for commercial uses is lower than the demand factor for residential uses, the expected water demand for the Commercial Alternative will be less than the demand for preferred project. As discussed for the preferred project, the water demands of the project can be met with the District's current supplies and additional water supplies are not needed in order to meet the demands of the project. Impacts are *less than significant*.

Though the District has sufficient water supply to serve the project, the District has identified a need to update its aging infrastructure. Based on the location of the project site, the District will be looking to purchase a property within Barrett Ranch East as a future well site.

MITIGATION MEASURE

See PU-1.