
3.15 UTILITIES AND SERVICE SYSTEMS

3.15.1 INTRODUCTION

This section describes the existing utilities that serve the project site and its vicinity and potential impacts to the utility systems from the implementation of the Proposed Action under both the Base Plan and Blueprint scenario and from the implementation of the alternatives. The utilities and service systems addressed in this section include water supply, recycled water, wastewater, solid waste, electricity, and natural gas. Regulations and policies affecting the utilities and service systems in the project area are also described.

The following sources of information were used in this analysis:

- Placer Vineyards Specific Plan EIR prepared by Placer County;
- Water Supply Assessment for the Placer Vineyards Specific Plan prepared by the Placer County Water Agency (PCWA);
- Placer Vineyards Recycled Water Master Plan prepared by Brown and Caldwell;
- Western Placer Groundwater Management Plan (WPCGMP) prepared by MWH for the Cities of Roseville and Lincoln along with PCWA and the California American Water Company;
- Regional University Specific Plan EIR prepared by Placer County; and
- Sierra Vista Specific Plan EIR prepared by the City of Roseville.

3.15.2 AFFECTED ENVIRONMENT

3.15.2.1 Water

Currently the project site is not served by any municipal utility systems. As discussed in **Chapter 2.0, Proposed Action and Alternatives**, it is anticipated that the project site would be served by the PCWA. The PCWA service area is divided into five zones for the provision of treated and raw water. The project site would be annexed to Zone 1.

Existing Water Use

Groundwater resources currently serve water demand within the project site. Residential and agricultural users rely on wells, although some surface water from Dry Creek is also used for agricultural purposes. In the near term, use of groundwater will continue to support most farming operations on the project site (Placer County 2007).

The project site contains a variety of agricultural uses. Crops grown in the area include rice, pasture, strawberries, grapes, corn, and alfalfa, along with various varieties of berries and fruit. The total acreage within the project site committed to such uses is approximately 950 acres (384 hectares). Water usage can vary from as little as 1.5 acre-feet per acre to over 3.5 acre-feet per acre, depending on crops grown in any one year. Assuming 2.5 acre-feet per acre, the water demand for the agricultural activities on the project site is estimated to be approximately 2,400 acre-feet per year (afy) (296 hectare-meters per year [hmy]).

The balance of the agricultural land on the project site is non-irrigated or fallow, or is used for dry farming, with no groundwater use (Placer County 2007).

There are approximately 150 dwelling units on the project site. According to Placer County, a rough estimate of water demand for rural residential uses is 1.5 afy (0.2 hmy). Based on these assumptions, the current groundwater usage is 2,625 afy (324 hmy) with 2,400 afy (296 hmy) committed to agricultural uses (Placer County 2007).

Groundwater use in Placer County by individual homes, farms, and businesses is about 90,000 afy (11,101 hmy) (Placer County 2007). According to Placer County, some integrated use of groundwater is necessary to ensure the highest level of reliability, particularly in times of drought and for backup in emergency situations (Placer County 2007).

Surface Water Supply

PCWA has several sources of surface water supply entitlements available for use in western Placer County. The first is a surface water supply contract with Pacific Gas & Electric (PG&E) for 100,400 afy (12,384 hmy) of Yuba/Bear River water that is delivered through Pacific Gas & Electric's Drum Spaulding hydro system. This has been PCWA's primary source of supply for Zone 1 (to which the project site would be annexed) since PCWA began retailing water in 1968. The term of this contract is to 2013, but PCWA expects the contract to be renewed after the expiration of the present term. This source of water has a high reliability during normal, single-dry, and multiple-dry years (PCWA 2006a; PCWA 2006b).

PCWA's second source of surface water for consumptive use is its Middle Fork Project (MFP) water rights. The MFP reservoirs have 340,000 afy (41,938 hmy) of storage capacity; however, pursuant to agreements with the United States Bureau of Reclamation (BoR), PCWA is limited to a maximum consumptive use of 120,000 afy (14,802 hmy) from this source. PCWA's MFP water rights provide that this water supply may be diverted from the American River at either Auburn Reservoir or at Folsom Reservoir. Modeling indicates that this source is reliable even during a severe dry year (PCWA 2006a; PCWA 2006b).

PCWA's third source of surface water is its Central Valley Project (CVP) Municipal and Industrial water supply contract with the BoR. This contract is for 35,000 afy (4,317 hmy). This supply is subject to 25 percent deficiencies during single-dry and multiple-dry years. This water was originally to be provided to PCWA at Auburn Reservoir but the contract as amended now provides for its diversion at Folsom Reservoir or other locations mutually agreed to by the parties (PCWA 2006a; PCWA 2006b).

PCWA's most recent policy documents identify as a long-term water source a 35,000 afy (4,317 hmy) diversion at the Sacramento River in accordance with the Water Forum Agreement, dated January 2000 (PCWA 2011). Although substantial amounts of work were done on a Draft EIR/EIS for this water supply in the middle of the last decade, this work was put on hold temporarily when the real estate market slowdown occurred in 2008 and 2009. This effort will be revived when demand for the water at issue becomes more imminent as the real estate economy recovers.

The total surface water supply available to the western Placer County area (Zone 1 & Zone 5) is 255,400 afy (31,503 hmy) of permanent supply in normal years, plus 5,000 afy (617 hmy) of temporary surplus water. Out of the permanent supply, PCWA has contracted to deliver up to 25,000 afy (3,084 hmy) to the San Juan Water District for use within the Placer County portion of its service area and up to 30,000 afy (3,700 hmy) to the City of Roseville. PCWA has also contracted to deliver up to 29,000 afy (3,577 hmy) to Sacramento Suburban Water District for groundwater stabilization in the district's service area, but only when the supply is in excess of the needs of Placer County. Because of the nature of this contract with Sacramento Suburban Water District, it is not a factor in determining water availability for PCWA's service area (PCWA 2006a; PCWA 2006b).

Through December 15, 2005, PCWA had committed approximately 113,563 afy (14,008 hmy) to meet the needs of its Zone 1 & 5 customers plus the 55,000 afy (6,784 hmy) committed to Roseville and San Juan Water District. Subtracting these amounts from the Agency's entitlements leaves 86,837 afy (10,711 hmy) of surface water available in normal years for use in western Placer County to meet future demands (PCWA 2006a; PCWA 2006b).

Groundwater

Regional Groundwater

The project site is located in the North American River Groundwater Sub-basin which underlies north Sacramento, south Sutter, and west Placer Counties. The Sub-basin is a component of the larger Sacramento Valley Groundwater Basin (see **Section 3.10, Hydrology and Water Quality**). The Sub-basin is bounded by the Bear River on the north, the Feather River and Sacramento Rivers on the west, the American River on the south, and by the Sierra Nevada Range on the east. Specifically, the eastern Sub-basin boundary is a north-south line extending from the Bear River south to Folsom Reservoir. The Sub-basin encompasses approximately 548 square miles (1,419 square kilometers) (MWH 2007).

According to the PCWA's Groundwater Storage Study of the Placer County groundwater basin, the sustainable safe yield for the western Placer County portion of the Sub-basin is approximately 95,000 afy (11,718 hmy). Note that this number is not static and varies with conditions in the basin. Total groundwater usage from agricultural and urban demands in western Placer County was about 97,000 afy (11,965 hmy) in 2003 (PCWA 2006c). Under these pumping conditions, the groundwater levels at the southern end of the basin have been stable since about 1982 and the levels have risen slightly at the northern end of the basin, indicating that 97,000 afy (11,965 hmy) is also within the safe yield of the basin. These groundwater levels indicate that groundwater pumping is currently in balance with the natural groundwater recharge rate. This is attributed to the conversion of agricultural lands to urban uses over the past several decades. With the land conversions, pumping demands have decreased, especially when heavy pumping uses such as rice farming have been taken out of production. It is expected that basin pumping demands will continue to decrease over time as urban development increases in the area (City of Roseville 2010).

Placer County Water Agency Groundwater Supply

PCWA uses surface water as its primary supply, though it produces a limited amount of groundwater for use in eastern Placer County (PCWA 2011). PCWA has a single well located in the Sunset Industrial area that meets all drinking water standards but has not been used for several years due to customers' concerns regarding water quality (hardness) which can interfere with industrial use (PCWA 2006a). While PCWA does not currently produce groundwater from the North American River Groundwater Sub-basin, its water supply plans anticipate use of groundwater during dry hydrologic conditions to meet future customer demands in western Placer County (PCWA 2011).

PCWA's surface water supplies, particularly its 35,000 afy (4,317 hmy) CVP contract entitlement and its Yuba Bear 100,400 afy (12,384 hmy) contract with PG&E, will be subject to shortages in future dry years. To make up for such dry year shortfalls and for backup in the event of emergency or planned outages, PCWA is planning on developing groundwater resources as its service area expands west over the groundwater basin and into the area most likely to be served long term from the Sacramento River using PCWA's CVP contract supply. In order to ensure that there is no adverse long-term impact of such dry year groundwater use, groundwater should be managed in normal and wet years to offset the planned dry year use. The PCWA adopted the Western Placer County Groundwater Management Plan which provides a framework to coordinate groundwater management activities in the portion of the North American Sub-basin in southwestern Placer County. All of the plan participants adopted basin management objectives to manage the groundwater resources to meet backup, emergency, and peak demands without adversely affecting other groundwater uses in southwestern Placer County. The strategies set forth in the Plan are designed to maintain a safe, sustainable, and high-quality groundwater resource within the southwestern portion of the North American Sub-basin during normal and dry years (MWH 2007).

Water Treatment and Distribution

PCWA serves areas within Placer County, including the communities of Auburn, Loomis, Newcastle, Penryn, Rocklin, and Lincoln. The existing water distribution system owned by PCWA does not extend to the boundary of the project site. PCWA owns and operates four water treatment plants (WTPs) in Zones 1 and 2, two of which serve the lower portion of Zone 1: Foothill and Sunset. The Foothill and Sunset WTPs serve the western portion of Zone 1. The Foothill WTP is located east of Interstate 80 in Newcastle, south of Auburn. The Foothill WTP completed an upgrade during the summer of 2005 that increased the plant's capacity to 55 million gallons per day (mgd) (208 million liters per day [mld]). The Sunset WTP, located in Rocklin near Clover Valley Creek, has a treatment capacity of 8 mgd (20 mld). PCWA is planning to construct a new WTP in the Newcastle and Ophir area with a proposed capacity of 30 mgd (114 mld). PCWA also intends to pursue an additional 35,000 afy (4,317 hmy) capacity for a new plant near Elverta Road to treat water diverted from the Sacramento River in accordance with the Water Forum Agreement, dated January 2000 (PCWA 2011).

Recycled Water

The City of Roseville, the South Placer Municipal Utility District, and Placer County are regional partners in the South Placer Wastewater Authority that oversees policies for funding regional wastewater and recycled water infrastructure. See **Subsection 3.15.2.2, Wastewater**, below for more information about wastewater treatment. The City of Roseville owns and operates two regional wastewater treatment facilities that produce recycled water. These treatment facilities are the Dry Creek Wastewater Treatment Plant (WWTP) and the Pleasant Grove WWTP. Both plants produce recycled water that meets the State requirements (Title 22) for non-potable reuse (City of Roseville 2010).

Projections for the use of recycled water at buildout of both WWTPs are estimated at 4,500 afy (555 hmy) (approximately 4 mgd [15 mld]). Recycled water for the Proposed Action would be provided from the Dry Creek WWTP initially, and then from the Pleasant Grove WWTP over the long-term (Placer County 2007).

3.15.2.2 Wastewater

Wastewater service to the residences located in the northwest corner of the project site is currently provided through individual on-site wastewater disposal systems. No wastewater infrastructure is located within the project site.

Sewer services in Placer County are provided by the Placer County Facilities Services Department, Special Districts Division. This division maintains sewer lines, cleans sewers, and operates and maintains wastewater treatment plants operated by Placer County (Placer County 2007). Placer County is a participant in the South Placer Wastewater Authority (SPWA), along with South Placer Municipal Utility District and the City of Roseville. The SPWA oversees policy for funding regional wastewater infrastructure.

As noted above, the City of Roseville owns and operates two regional wastewater treatment facilities on behalf of the regional partners. These facilities include the Dry Creek WWTP, located along Dry Creek, in the southwest portion of the City of Roseville, and the Pleasant Grove WWTP, is located in the northwest portion of the City of Roseville, south of the Roseville Energy Park.

Only a portion of the project site (890 acres [360 hectares]), referred to as Shed B, is located within the South Placer Wastewater Authority regional service area. The rest of the project site (4,340 acres [1,756 hectares]), referred to as Shed A, is located outside the service area.

There are two options being considered to provide wastewater service to the project site. Under the first option, Shed A would be annexed to the SPWA regional service area and the entire project site would be served by the Dry Creek WWTP. The Dry Creek WWTP currently treats approximately 10.36 mgd (39.22 mld) average dry weather flow (ADWF) (Placer County 2007). The WWTP provides tertiary-level treatment and produces recycled water that meets Title 22 regulations for full, unrestricted use. The WWTP is presently authorized to discharge treated effluent into Dry Creek under the National Pollutant Discharge Elimination System (NPDES) Permit No. CA0079502 adopted on June 12, 2008. Under this permit the Dry Creek WWTP can discharge an ADWF of 18 mgd (68 mld).

Under the second option, the Sacramento Regional County Sanitation District (SRCSD) would provide wastewater service to Shed A. Service would be provided through SRCSD's Northwest Interceptor system in central Rio Linda via one of two optional trunk lines extending south from the project site. Under this scenario, wastewater from Shed A would be treated at the Sacramento Regional Wastewater Treatment Plant (SRWTP). The average flow to the SRWTP is 165 mgd (625 mld) ADWF (Placer County 2007). The SRWTP provides secondary treatment using an activated sludge process. The SRWTP is presently authorized to discharge treated effluent into the Sacramento River under the NPDES Permit No. CA0077682 adopted on December 9, 2010. Currently there are plans to expand capacity at the SRWTP to 218 mgd (825 mld).

3.15.2.3 Solid Waste

Solid waste generated in Placer County is collected and hauled by the Auburn-Placer Disposal Service from County Franchise Areas One and Four, which include the western and southern portions of Placer County. Solid waste is hauled to the 39.9-acre Western Placer Waste Management Authority's Materials Recovery Facility (MRF) at the southeast corner of Athens Avenue and Fiddymont Road in Lincoln, approximately 7 miles from the project site (Placer County 2007).

The MRF currently receives approximately 1,082 tons (982 metric tons) of solid waste per weekday (281,300 tons [255,191 metric tons] per year), including solid waste that is brought to buy back centers located throughout the County. However, the MRF is currently permitted by the Placer County Solid Waste Local Enforcement Agency (LEA) to receive 1,750 tons (1,587 metric tons) per day (TPD). Approximately 11.9 percent of municipal solid waste (including bio-solids) and 86.7 percent of construction debris is hauled directly to the landfill because it is unsuitable for processing. Approximately 36.9 percent of the solid waste that is processed at this facility is diverted for recycling (Placer County 2007).

Unrecyclable solid waste received at the MRF is disposed of at the adjacent Western Regional Landfill, which has a disposal area of 231 acres. An additional 465 acres for landfill expansion are located west of the current site, but is not permitted for landfill use by the LEA at this time. In addition to municipal solid waste from the MRF, the landfill directly accepts sewage sludge and other materials. The landfill is permitted to accept about 3,800 cubic yards [2,905 cubic meters] per day, or 1,364,000 cubic yards [1,042,853 cubic meters] per year (1,900 tons [1,723 metric tons] per day or 682,000 tons [618,700 metric tons] per year). In 2008, the landfill received approximately 1,076 tons (976 metric tons) per weekday (279,233 tons [253,264 metric tons] per year) (City of Roseville 2010).

The total site capacity of Western Regional Sanitary Landfill is 36,350,000 cubic yards [27,791,569 cubic meters]. As of June, 2009, the remaining net site capacity was approximately 25,438,634 cubic yards [19,449,231 cubic meters] of refuse. The estimated landfill closure date is 2042, based on the current permitted configuration, and assumed waste growth rates. The estimated closure date and service life of the landfill is predicated upon current growth, economic conditions, and landfill capacity projections (City of Roseville 2010).

3.15.2.4 Electricity and Natural Gas

Electricity

Electrical service in the vicinity of the project site is currently provided by PG&E and the Sacramento Municipal Utility District (SMUD). A majority of the project site is currently served by PG&E; however, SMUD serves a 63-acre (257-hectare) area in the southeast portion of the project site (Placer County 2007).

PG&E has two substations near the project site. The Catlett Substation, located on Field Road east of Natomas Road, feeds a circuit located on Pleasant Grove Road in Sutter County to the west. The Pleasant Grove Substation, on Industrial Boulevard approximately 0.25 mile (0.4 kilometer) north of Sunset Boulevard, feeds the circuit on the corner of Fiddymont Road and Baseline Road (Placer County 2007).

The SMUD Black Eagle-Crystal Ridge Substation is located near the project site, 0.5 mile (0.8 kilometer) east of Watt Avenue, north of Center High School. It is fed by a 96 kV transmission line that extends along PFE Road from the tower line easement between Cook Riolo Road and Walerga Road (Placer County 2007).

The project site is traversed by three 230 kV transmission lines located within easement corridors. These easements and facilities are owned by PG&E, SMUD and the Western Area Power Administration (WAPA). SMUD and PG&E operate 12 kV distribution lines, which generally exist along roadway alignments and provide service to existing customers (Placer County 2007).

Natural Gas

There is no natural gas service within the Specific Plan area. Natural gas service in the vicinity of the project site is currently provided by PG&E. The closest existing natural gas facility is a 24-inch (61-centimeter)-diameter gas transmission line located on the northwest corner of Fiddymont and Baseline Road (Placer County 2007).

3.15.3 REGULATORY FRAMEWORK – APPLICABLE LAWS, REGULATIONS, PLANS, AND POLICIES

3.15.3.1 Water Laws, Regulations, Plans and Policies

Federal

Federal/State Coordinated Operations Agreement

The CVP is operated by the BoR and the State Water Project (SWP) is operated by the California Department of Water Resources (DWR). The CVP and SWP rely on the Sacramento River and the Delta as common conveyance facilities. DWR's primary storage facility is Oroville Dam on the Feather River. Reservoir releases and Delta exports must be coordinated so that both the CVP and SWP are able to retain their portion of the shared water and also jointly share in the obligations to protect beneficial uses. The CVP and SWP operate under a Coordinated Operations Agreement (COA).

The COA defines the rights and responsibilities of the CVP and SWP regarding water needs of the Sacramento River system and Delta and includes obligations for in-basin uses, accounting, and real-time coordination of water obligations of the two projects. A CVP/SWP apportionment of 75/25 is implemented to meet in-basin needs under balanced Delta conditions, and a 55/45 ratio is in effect for excess flow conditions. The COA contains considerable flexibility in the manner with which Delta conditions in the form of flow standards, water quality standards, and export restrictions are met.

The operation of CVP/SWP is described in a document known as the Operations Criteria and Plan (OCAP). As updated in 2004, the OCAP provides a detailed description of the coordinated operations of the CVP and SWP based on historical data and serves as a starting point for planning project operations in the future. Under the federal Endangered Species Act (ESA), the United States Fish and Wildlife Service (USFWS) produced a formal Biological Opinion analyzing the impact of OCAP implementation on ESA-listed species (including the delta smelt)(USFWS 2005). In effect, the ESA authorizes USFWS to require changes to the OCAP for the protection of the delta smelt and other federally listed species.

In 2005, USFWS issued a Biological Opinion for OCAP, and concluded that CVP/SWP operations did not jeopardize delta smelt populations (USFWS File Number 1-1-05-F-0055). However, that opinion was invalidated by a federal court (*Natural Resources Defense Council v. Kempthorne 2007*). USFWS was ultimately ordered to revise its Biological Opinion. The court also severely restricted CVP and SWP pumping in the Delta pending the USFWS's completion of the new Biological Opinion (*Natural Resources Defense Council v. Kempthorne 2007*). Those restrictions took effect in December 2007.

In December 2008, USFWS released a new Biological Opinion, which concluded that CVP and SWP operations would jeopardize the continued existence of Endangered delta smelt (USFWS 2008). USFWS further detailed a "reasonable and prudent alternative" to the proposed OCAP protocol that would, according to USFWS, protect the delta smelt and its habitat from the adverse effects of pumping operations.

The "Reasonable and Prudent Alternative" would restrict Delta pumping operations and would thus limit deliveries of water to CVP/SWP contractors south of the Delta. In June 2009 the National Marine Fisheries Service (NMFS) of the National Oceanic and Atmospheric Administration (NOAA) also released a jeopardy Biological Opinion (BO) on the revised OCAP that it would jeopardize the continued existence of several Threatened and Endangered species under the jurisdiction of NMFS and requested changes to protect ESA listed species including Endangered Sacramento River winter-run Chinook salmon, Threatened Central Valley spring-run Chinook salmon, Threatened Central Valley steelhead, and Threatened Southern Distinct Population Segment (DPS) of North American green sturgeon and Southern Resident killer whales (NMFS 2009). The Reasonable and Prudent Alternative developed in connection with this BO would restrict Delta pumping operations, impose Shasta Reservoir storage targets to achieve water temperature requirements in the Sacramento River below Keswick Dam, impose lower American River flow standards, require modified Delta Cross Channel operations, and limit reverse Old and Middle River (OMR) flows.

DWR issued an initial response to the 2009 NMFS/NOAA BO on June 4, 2009. According to DWR, the 2009 BO "reaffirms the need for a comprehensive solution to the water and environmental conflicts in the Delta." DWR's initial estimates show the average year impacts closer to 10 percent, which could reduce Delta export on average by about 300,000 to 500,000 acre-feet (37,004 to 61,674 hectare meter), which is in addition to current pumping restrictions imposed by the 2008 BO to protect the Delta smelt. Again, in cooperation with BoR, NMFS, USFWS, and California Department of Fish and Wildlife (CDFW), DWR developed new assumptions for implementation of both the USFWS BO (December 15, 2008) and NMFS BO (June 4, 2009) in CALSIM II. As with the NMFS Biological Opinion, the USFWS Biological Opinion was also set aside by the Eastern District Court and is on appeal before the Ninth Circuit. The USFWS BO and NMFS BO assumptions are included in Appendix A of the 2009 DWR Delivery Reliability Report.

After issuance of the 2009 NMFS/NOAA BO, on August 6, 2009, the SWP Contractors filed a lawsuit against USFWS, US Department of the Interior, and the US Bureau of Reclamation challenging the 2009 BO on federal ESA grounds. According to the litigation, the BO failed to take into account the many other factors contributing to the fish population decline, and failed to consider the impacts that the 2009 BO would have on people, a requirement of the National Environmental Policy Act (NEPA). In addition, on August 28, 2009, the Coalition for a Sustainable Delta and Kern County Water Agency jointly filed suit against NMFS and USFWS challenging the 2009 BO under the federal ESA. In the fall of 2011, the Eastern District of California invalidated and remanded the 2009 BO. At the time of the writing of this document, that order was on appeal in the Ninth Circuit Court of Appeals.¹

State

SB 610 and SB 221 – Water Supply Assessments

In 2001, the California Legislature passed Senate Bill 610 (Water Code Section 10910 et seq.) and Senate Bill 221 (Water Code Section 66473.7) to improve the link between information on water supply availability and certain land use decisions made by cities and counties. SB 610 and SB 221 were companion measures which sought to promote more collaborative planning between local water suppliers and cities and counties. The PCWA prepared Water Supply Assessments for each scenario under the Proposed Action.

Water Conservation Projects Act

The State of California's requirements for water conservation are codified in the Water Conservation Projects Act of 1985 (Water Code Sections 11950-11954). As stated in Section 11952, it is the intent of the

¹ Governor Schwarzenegger and the California legislature prepared a package of bills aimed at ensuring a reliable water supply in the future, as well as restoring the Delta and other ecologically sensitive areas. The plan is composed of four policy bills and an \$11.14 billion bond. The package establishes a Delta Stewardship Council, sets water conservation policy, ensures better groundwater monitoring, and provides funds for the State Water Resources Control Board for increased enforcement of illegal water diversions. The bond will fund, with local cost-sharing, drought relief, water supply reliability, Delta sustainability, statewide water system operational improvements, conservation and watershed protection, groundwater protection, and water recycling and water conservation programs.

Legislature to encourage local agencies and private enterprise to implement potential water conservation and reclamation projects.

Safe Drinking Water Quality Regulations

The State Department of Public Health establishes "primary" and "secondary" Domestic Water Quality Standards for drinking water supplied by public water systems such as the PCWA. The standards are required by state law to meet or exceed standards adopted by the U.S. Environmental Protection Agency. Public water systems also must obtain a domestic water supply permit from Department of Public Health that must be amended to reflect changes to the water supply system. The project site would be served by the PCWA's Foothill/Sunset water supply system. The Department of Public Health issued Permit No. 010207 (P) 003 for the Foothill/Sunset water supply system on December 10, 2007.

Recycled Water Regulations

Department of Public Health regulations require that recycled water must be conveyed in a totally separate distribution system from the potable water supply.

Regional and Local

Water Forum Agreement

The Water Forum Agreement is the result of the efforts of a diverse group of community stakeholders. The stakeholder group was formed in 1994 with the goal to formulate principles for developing solutions to meet future regional water supply needs. Participants in the Water Forum Agreement have developed two coequal objectives:

- Provide a reliable and safe water supply for the region's economic health and planned development to the year 2030.
- Preserve the fishery, wildlife, recreational, and aesthetic values of the Lower American River.

The stakeholder group has developed an integrated package of actions to meet these objectives. The elements of the package are:

- Increase surface water diversions
- Actions to meet customers' needs while reducing diversion impacts on the lower American River in drier years
- An improved pattern of fishery flow releases from Folsom Reservoir
- Lower American River Habitat Management, which also addresses recreation in the lower American River
- Water conservation
- Groundwater management
- Water Forum successor efforts

Purveyor Specific Agreements have also been developed that describe in detail how each of the elements will be implemented by the respective purveyors. Purveyors included the PCWA, the City of Roseville,

San Juan Water District, as well as other regional water agencies. The Purveyor Specific Agreements are compiled into a Memorandum of Understanding that each stakeholder's authorizing body has executed. In return for signing the final Water Forum Agreement, water purveyors receive regional support for water supply projects, including site-specific infrastructure development (Water Forum 2000).

Groundwater Management Plan

The PCWA in participation with the Cities of Roseville and Lincoln completed a SB 1938 and AB 3030 compliant groundwater management plan in August 2007 (MWH 2007).

Placer County General Plan

The following is a list of goals and policies found in the Public Facilities and Services Chapter of the Placer County General Plan relating to water supply.

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.3. The County shall encourage water purveyors to require that all new water services be metered.

- Policy 4.C.4.** The County shall require that water supplies serving new development meet state water quality standards.
- Policy 4.C.5.** The County shall require that new development adjacent to bodies of water used as domestic water sources adequately mitigate potential water quality impacts on these water bodies.
- 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.
- Policy 4.C.7.** The County shall promote the use of reclaimed wastewater to offset the demand for new water supplies.
- Policy 4.C.8.** When considering formation of new water service agencies, the County shall favor systems owned and operated by a governmental entity over privately or mutually owned systems. The County will continue to authorize new privately or mutually owned systems only if system revenues and water supplies are adequate to serve existing and projected growth for the life of the system. The County shall ensure this through agreements or other mechanisms setting aside funds for long-term capital improvements and operation and maintenance.
- Policy 4.C.9.** The County shall support opportunities for groundwater users in problem areas to convert to surface water supplies.
- Policy 4.C.10.** The County shall promote the development of surface water supplies for agricultural use in the western part of the county.
- Policy 4.C.11.** The County shall protect the watersheds of all bodies of water associated with the storage and delivery of domestic water by limiting grading, construction of impervious surfaces, application of fertilizers, and development of septic systems within these watersheds.

Policy 4.C.13.

In implementation of groundwater use policies, the County will recognize the significant differences between groundwater found in bedrock or 'hard rock' formations of the foothill/mountain region and those groundwater found in the alluvial aquifers of the valley. The County should make distinctions between these water resources in its actions.

3.15.3.2 Wastewater Laws, Regulations, Plans and Policies*Federal and State***Clean Water Act NPDES Permits**

The National Pollutant Discharge Elimination System (NPDES) permit system was established by the Clean Water Act (33 USC §1251 et seq. [1972]) to regulate municipal and industrial discharges to surface waters of the U.S. The discharge of pollutants, including wastewater, to surface waters is prohibited unless an NPDES permit has been issued to allow that discharge.

The discharge of treated effluent from the Dry Creek WWTP to Dry Creek and from the SRWTP to the Sacramento River is regulated under NPDES permits issued by the Regional Water Quality Control Board (RWQCB) (NPDES No. CA0079502; NPDES No. CA0077682). The NPDES permits and the Waste Discharge Requirements (WDR) identify discharge prohibitions, effluent limitations, and monitoring and reporting requirements.

Discharge limitations in the Dry Creek WWTP and SRWTP permits define allowable effluent concentrations for flow, biological oxygen demand (BOD), total suspended matter, residual chlorine, settleable matter, total coliform, oil and grease, and pH. Limitations also encompass mineralization and toxicity to aquatic life. The provisions provide stipulations for the disposal of solid materials, and limitations on impacts to receiving waters. The permits also specify the sampling, monitoring, and reporting requirements for compliance with waste discharge regulations. The monitoring program entails sampling influent, effluent, and the receiving water. The provisions of the NPDES permits and the WDRs are enforceable through an order issued by the RWQCB or civil action.

State Porter-Cologne Water Quality Control Act

The Porter-Cologne Water Quality Control Act (Water Code Section 13020) is California's statutory authority for the protection of water quality. Under the Porter-Cologne Act, the state must adopt water quality policies, plans, and objectives that will provide protection to the state's waters for the use and enjoyment of the people of California. In California, the State Water Resources Control Board (SWRCB) has authority and responsibility for establishing policy for water quality control issues for the state. Regional authority for planning, permitting, and enforcement is delegated to the nine Regional Water Quality Control Boards (RWQCB). The Porter-Cologne Water Quality Control Act authorizes the SWRCB and RWQCB to issue NPDES permits containing waste discharge requirements, and to enforce these permits. SWRCB and RWQCB regulations implementing the Porter-Cologne Water Quality Control Act are included in Title 27 of the California Code of Regulations.

Local

Local South Placer Wastewater Authority

The South Placer Wastewater Authority is a joint powers authority formed to fund regional wastewater and recycled water facilities in southwestern Placer County for three partner agencies (the “participants”): the City of Roseville, the South Placer Municipal Utility District (SPMUD), and Placer County. The regional facilities funded by the South Placer Wastewater Authority thus far include recycled water facilities, trunk sewer lines, and two WWTPs. All three participants transmit wastewater to these WWTPs. South Placer Wastewater Authority also monitors compliance with operational criteria established in the Funding and Operations Agreements among the participants.

The Funding Agreement outlines each participant’s responsibility for debt service on South Placer Wastewater Authority’s bonds and funding of regional facilities. The Operations Agreement documents maintenance and operations responsibilities for regional facilities (primarily the WWTPs) and establishes the City of Roseville as the owner and operator of the two WWTPs on behalf of the participants.

The Operations Agreement also identifies a regional service area boundary which delineates the area served by South Placer Wastewater Authority-funded regional facilities. Projects that require wastewater treatment using South Placer Wastewater Authority-funded regional facilities – especially projects outside the existing service area boundary – require appropriate environmental analyses. The South Placer Wastewater Authority Board considers the adequacy of the environmental documentation for such projects to ensure that regional facilities needs are met. Once that review has occurred, the participants may agree to modify the service area boundary identified in the Operations Agreement.

Placer County General Plan

The following is a list of goals and policies found in the Public Facilities and Services Chapter of the Placer County General Plan relating to wastewater issues.

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.7. The County shall promote the use of reclaimed wastewater to offset the demand for new water supplies.

Sewage Collection, Treatment, and Disposal

Goal 4.D. To ensure adequate wastewater collection and treatment and the safe disposal of liquid and solid waste.

Policy 4.D.1. The County shall limit the expansion of urban communities to areas where community wastewater treatment systems can be provided.

- Policy 4.D.2.** The County shall require proponents of new development within a sewer service area to provide written certification from the service provider that either existing services are available or needed improvements will be made prior to occupancy.
- Policy 4.D.4.** The County shall promote efficient water use and reduced wastewater system demand by:
- a. Requiring water-conserving design and equipment in new construction;
 - b. Encouraging retrofitting with water-conserving devices; and,
 - c. Designing wastewater systems to minimize inflow and infiltration to the extent economically feasible.
- Policy 4.D.5.** The County shall encourage pretreatment of commercial and industrial wastes prior to their entering community collection and treatment systems.

3.15.3.3 Solid Waste Laws, Regulations, Plans and Policies

State

Assembly Bill 939

In 1989, Assembly Bill (AB 939) (Public Resources Code Section 40051) established the organization, structure, and mission of the California Integrated Waste Management Board, now known as the California Department of Resources, Recycling, and Recovery (CalRecycle). The purpose was to direct attention to the increasing waste stream and decreasing landfill capacity, and to mandate a reduction of waste being disposed. Jurisdictions were required by AB 939 to meet goals to divert 25 percent of solid waste from landfills by 1995 and 50 percent by the year 2000. Unincorporated Placer County achieved a diversion rate of 68 percent by 2006 (CalRecycle 2011).

California Universal Waste Law

This legislation went into effect in February 2006 (California Code of Regulations Title 22 Chapter 23). Universal wastes are a wide variety of hazardous wastes such as batteries, fluorescent tubes, and some electronic devices, that contain mercury, lead, cadmium, copper, or other substances hazardous to human and environmental health. Universal waste may not be discarded in solid waste landfills, but instead are recyclable and (to encourage recycling and recovery of valuable metals) can be managed under less stringent requirements than those that apply to other hazardous wastes.

*Local***Placer County General Plan**

The following is a list of goals and policies found in the Public Facilities and Services Chapter of the Placer County General Plan relating to solid waste.

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 waste collection in all new urban and suburban development.
- Policy 4.G.2.** The County shall promote maximum use of solid waste source reduction, recycling, composting, and environmentally safe transformation of wastes.
- Policy 4.G.5.** The County shall promote the siting of new solid waste collection and transfer facilities in locations as close as practical to the areas they serve.
- Policy 4.G.7.** The County shall require that all new development complies with applicable provisions of the Placer County Integrated Waste Management Plan.
- Policy 4.G.9.** The County shall encourage businesses to use recycled products in their manufacturing processes and consumers to buy recycled products.

3.15.3.4 Electricity and Natural Gas Laws, Plans and Ordinances*State*

The Proposed Action would need to comply with the California Building Energy Efficiency Standards. Title 24 of the California Code of Regulations was amended in October 2005 to include new energy efficiency standards in response to the state's energy crisis as well as AB 970, the California Energy and Reliability Act of 2000. The goal of these enactments is to improve the energy efficiency of residential and nonresidential buildings, minimize impacts during peak energy use periods, and reduce impacts on overall state energy needs.

Local

Placer County General Plan

The following is a list of goals and policies found in the Public Facilities and Services Chapter of the Placer County General Plan relating to the provision of utilities.

General Public Facilities and Services

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

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

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

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

Policy 4.A.4. The County shall require proposed new development in identified underground conversion districts and along scenic corridors to underground utility lines on and adjacent to the site of proposed development or, when this is infeasible, to contribute funding for future undergrounding.

3.15.4 SIGNIFICANCE THRESHOLDS AND ANALYSIS METHODOLOGY

3.15.4.1 Significance Thresholds

Council on Environmental Quality (CEQ) guidance requires an evaluation of a proposed action's effect on the human environment. The U.S. Army Corps of Engineers (USACE) has determined that the Proposed Action or its alternatives would have a significant effect on the human environment if it would increase demand for utilities or service systems such that the existing facilities would not have adequate capacity to serve the Proposed Action or its alternatives as well as the projected buildout of the surrounding area, and substantial expansion of the service facilities would be required.

3.15.4.2 Analysis Methodology

Water Supply

The potable water demand for the Proposed Action under both the Base Plan and Blueprint scenarios and alternatives was estimated utilizing unit water demand factors from the Environmental Impact Report prepared for the Placer Vineyard Specific Plan. These factors were applied to proposed land uses included in the Proposed Action under both scenarios and alternatives. **Table 3.15-1** presents the estimated water demand for the Proposed Action under both scenarios and alternatives.

**Table 3.15-1
Total Average Water Demand at Buildout**

Alternative	Average Water Demand (afy [hmy])	Total Maximum Day Demand (mgd [mld])
Proposed Action – Base Plan Scenario	11,723 (1,446)	23,446 (2,892)
Proposed Action – Blueprint Scenario	14,539 (1,793)	32,350 (3,990)
No Action Alternative	7,209 (889)	14,417 (1,778)
Alternatives 1 through 5 (Combined)	11,582 (1,429)	23,164 (2,857)

Source: Impact Sciences 2011

The water supply entitlements, water rights, and water service contracts held by the water suppliers were reviewed to determine the suppliers' abilities to meet the Proposed Action under both the Base Plan and Blueprint scenarios and alternatives' future demands. Water demand was evaluated against supplies under normal/wet year and drought year scenarios.

Wastewater

For wastewater treatment, the demand for treatment capacity was calculated for the Proposed Action under both the Base Plan and Blueprint scenarios and alternatives and compared to the available capacity of the Dry Creek WWTP and SRWTP. The Average Dry Weather flow that is used to evaluate treatment capacity impacts was determined utilizing unit flow factors established in the Environmental Impact Report prepared for the Placer Vineyard Specific Plan. These unit flow factors were applied to the land uses under the Proposed Action under both scenarios and alternatives to estimate the quantity of wastewater to be treated at the Dry Creek WWTP and SRWTP. **Table 3.15-2** below presents the estimated Average Dry Weather Flows for the Proposed Action under both scenarios and alternatives.

Table 3.15-2
Average Dry Weather Flow
(Million Gallons per Day [Million Liters per Year])

Alternative	Shed A Average Dry Weather Flow	Shed B Average Dry Weather Flow	Total Average Dry Weather Flow
Proposed Action – Base Plan Scenario	2.413 (9.134)	0.506 (1.915)	2.919 (11.049)
Proposed Action – Blueprint Scenario	3.396 (12.855)	0.791 (2.994)	4.187 (15.849)
No Action Alternative	1.406 (5.322)	0.377 (1.427)	1.783 (6.749)
Alternatives 1 through 5 (Combined)	2.390 (9.047)	0.525 (1.987)	2.915 (11.034)

Source: Impact Sciences 2011

Solid Waste

Demand for future solid waste disposal was calculated for the Proposed Action under both the Base Plan and Blueprint scenarios and alternatives and compared to the capacity of the Material Recovery Facility and the Regional Landfill. The amount of solid waste generated was determined utilizing waste generation rates provided by Placer County Solid Waste Management Division. The waste generation factors were applied to the land uses under the Proposed Action under both scenarios and alternatives to estimate the amount of waste requiring disposal. **Table 3.15-3** below presents the estimated solid waste for the Proposed Action under both scenarios and alternatives.

Table 3.15-3
Solid Waste Generation

Alternative	Generation (Tons per Year [Metric Tons per Year])	Generation (cubic yards per year [cubic meters per year])
Proposed Action – Base Plan Scenario	24,796 (22,495)	49,591 (37,915)
Proposed Action – Blueprint Scenario	34,770 (31,543)	69,541 (53,168)
No Action Alternative	14,843 (13,465)	29,686 (22,697)
Alternatives 1 through 5 (Combined)	25,412 (23,053)	50,823 (38,857)

Source: Impact Sciences 2011

Electricity and Natural Gas

Demand for electricity and natural gas was calculated for the Proposed Action under both the Base Plan and Blueprint scenarios and alternatives and compared to available electrical and natural gas supplies. The amount of electricity and natural gas demand was determined utilizing demand factors from the

Environmental Impact Report prepared for the Placer Vineyard Specific Plan. The demand factors were applied to the land uses under the Proposed Action under both scenarios and alternatives to estimate the amount of electrical and natural gas demand. **Table 3.15-4** below presents the estimated electrical and natural gas demand for the Proposed Action under both scenarios and alternatives.

**Table 3.15-4
Electrical and Natural Gas Demand**

Alternative	Electrical (MW per year)	Natural Gas (therms per year)
Proposed Action – Base Plan Scenario	194.1	40,002,480
Proposed Action – Blueprint Scenario	237.7	52,899,840
No Action Alternative	132.3	25,834,080
Alternatives 1 through 5 (Combined)	208.1	41,986,800

Source: Impact Sciences 2011

3.15.5 ENVIRONMENTAL CONSEQUENCES AND MITIGATION MEASURES

Impact UTIL-1 Availability of Potable Water Supplies to Meet Demand

No Action Alt. Development of the No Action Alternative would include residential, commercial, institutional, and school uses that would require water. As demonstrated by the analysis below, PCWA's water supply would be adequate to serve the No Action Alternative at buildout under both normal/wet year conditions and under drought conditions. However, the initial supply of water would be constrained by infrastructure limitations, thus resulting in a **significant** effect. Mitigation is proposed that would reduce this effect to a **less than significant** level.

As shown in **Table 3.15-1**, the USACE estimates that the No Action Alternative would demand 7,209 afy (889 hmy) at buildout based on unit water demand factors from the Environmental Impact Report prepared for the Placer Vineyards Specific Plan (PVSP) (see **Subsection 3.15.4.2**). It is anticipated that the water supply sources for the No Action Alternative would be similar to the Proposed Action. As described below, the PCWA has concluded that it has an adequate water supply to meet the anticipated buildout demands of the Proposed Action under the Base Plan and Blueprint scenarios in addition to the rest of the buildout demands currently anticipated within the PCWA's service area in western Placer County during normal, single dry and multiple dry years. As the No Action Alternative would result in fewer residential units and less commercial development than the Proposed Action, water demand under the No Action Alternative would be lower and the PCWA would be able to serve the alternative's water demand along with the demand from the buildout of its service area.

It is anticipated that both an initial and a long-term water supply plan would be required to serve the project site under the No Action Alternative.

The long-term water supply would be provided by the Sacramento River and would be delivered via a pipeline extending along Baseline Road, south to Pleasant Grove Road, west along Elverta Road, finally connecting to the Sacramento River. The environmental effects associated with the pipeline (primarily biological and cultural resources impacts, construction-phase air quality impacts, and noise impacts) are addressed throughout this EIS under the discussion of off-site infrastructure impacts.

The initial water supply would be provided through PCWA's Foothill Water Treatment Plant system and delivered to the project site through the City of Roseville's system via a cooperative agreement between PCWA and the City of Roseville. This initial system would consist of an extension of the existing pipeline in Baseline Road near Fiddyment Road to the northeast corner of the project site. The environmental effects associated with the extension of the pipeline (primarily biological and cultural resources impacts, construction-phase air quality impacts, and noise impacts) are addressed throughout this EIS under the discussion of off-site infrastructure impacts.

The initial water supply for the No Action Alternative would need to be conveyed from the Foothill Water Treatment Plant through the City of Roseville system and would serve only a portion of the development proposed under the No Action Alternative. The PCWA estimates that it has 8.15 mgd of unallocated capacity from this source. Assuming a demand of 1,150 gallons per day (4,353 liters per day) per dwelling unit, this remaining capacity could serve approximately 7,000 dwelling units on a first come first serve basis. There are several projects in the vicinity of the project site that would also be served by the PCWA's unallocated capacity in the City of Roseville's system. In the event that these known projects were to rely solely on this supply, the 8.15 mgd (30.85 mld) of unallocated capacity would be greatly exceeded.

An additional, complementary scenario is also under consideration by the PCWA for conveying PCWA's American River water to the project site via a new pipeline from the future Ophir Water Treatment Plant. Given the uncertainty described above and the fact that continued development of the project site could generate demand for water that exceeds the supply provided by the initial water supply, a secondary water supply would be used that would deliver an additional 6,000 afy (740 hmy) to the project site. This would occur through: (1) an extension of the existing San Juan Cooperative Pipeline and Northridge Transmission Pipeline (Cooperative Transmission Pipeline) that terminates at Antelope and Walerga Road, west along Antelope Road and north to Watt Avenue into the project site; or (2) a pipeline within PFE Road from Cook Riolo Road to Watt Avenue extending north to the project site. Because a number of actions must occur in order to secure these water supplies, including multi-party agreements, treatment plant improvements, and the extension of an existing pipeline and the

construction of a new pipeline to the project site, the effect related to water supply would be **significant**.

PVSP EIR Mitigation Measures 4.11.7-1a through **4.11.7-1c** would address this effect. The USACE assumes that Placer County would impose the same mitigation measures on the No Action Alternative to address this effect. **PVSP EIR Mitigation Measure 4.11.7-1a** would require the Applicants to ensure an adequate supply of water is available to serve future development, **PVSP EIR Mitigation Measure 4.11.7-1b** would require the Applicants to comply with PCWA water conservation strategies, and **PVSP EIR Mitigation Measure 4.11.7-1c** would require the Applicants to ensure enough conveyance capacity is available in the City of Roseville system to serve future development. The USACE finds that the mitigation measures described above would fully mitigate the effect of the No Action Alternative to a **less than significant** level.

**Proposed
Action (Base
Plan and
Blueprint
Scenarios)**

As demonstrated by the analysis presented below, the PCWA's water supply would be adequate to serve the Proposed Action under the Base Plan and Blueprint scenarios at buildout under both normal/wet year conditions and under drought conditions. However, the initial supply of water would be constrained by infrastructure limitations, thus resulting in a **significant** effect. Mitigation is proposed that would reduce this effect to a **less than significant** level.

As shown in **Table 3.15-1**, the USACE estimates that water demand under the Proposed Action is expected to range from 11,723 afy (1,446 hmy) to 14,539 afy (1,793 hmy) at buildout based on unit water demand factors from the Environmental Impact Report prepared for the PVSP (see **Subsection 3.15.4.2**). Potable water for the project site would be provided by the PCWA. The PCWA has indicated that through the integrated use of existing surface water entitlements, recycled water, demand reduction measures, and groundwater use, that it has an adequate water supply to meet the anticipated buildout demands of the Proposed Action under the Base Plan and Blueprint scenarios in addition to the rest of the buildout demands currently anticipated within the PCWA's service area in western Placer County during normal, single-dry and multiple-dry years (PCWA 2006a; PCWA 2006b).

The initial and a long-term water supply plans under the Proposed Action would be the same as described above for the No Action Alternative. Similar constraints regarding the City of Roseville's water distribution system under the initial water supply plan would occur under the Proposed Action, and this supply and infrastructure limitation would result in a **significant** effect based on the significance criteria listed above and for the same reasons presented for the No Action Alternative. In addition, similar to the No Action Alternative, continued development of the Proposed Action may require a secondary water supply as discussed above if the long-term water supply infrastructure is not completed in a timely manner. As a number of actions must occur in order to complete these water supply improvements, the effect would be **significant** based on

the significance criteria listed above and for the same reasons presented for the No Action Alternative.

PVSP EIR Mitigation Measures 4.11.7-1a through **4.11.7-1c** would address this effect. These measures were adopted by Placer County at the time of PVSP approval and will be enforced by the County. The County determined that these mitigation measures would reduce the effect on water supply under the Base Plan and Blueprint scenarios to a less than significant level (Placer County 2007). The USACE agrees with the conclusion in the PVSP EIR and finds that the effect would be reduced to **less than significant** after mitigation.

**Alts. 1
through 5**

As with the No Action Alternative and the Proposed Action, the PCWA's water supply would be adequate to serve all Alternatives 1 through 5 individually or combined at buildout under both normal/wet year conditions and under drought conditions. However, the initial supply of water would be constrained by infrastructure limitations, thus resulting in a **significant** effect. Mitigation is proposed that would reduce this effect to a **less than significant** level.

Alternatives 1 through 5 differ from the Proposed Action in that they place additional acreage in open space. However, none of the alternatives individually or combined reduce the amount of residential development proposed on the site, although Alternative 2 would change the nature of the non-residential development on the site. As shown in **Table 3.15-1**, the USACE estimates that Alternatives 1 through 5 combined would demand 11,582 afy (1,429 hmy) at buildout based on unit water demand factors from the Environmental Impact Report prepared for the PVSP (see **Subsection 3.15.4.2**)

As the implementation of Alternatives 1 through 5 combined would demand roughly the same amount of water as the Proposed Action, an adequate water supply is anticipated to meet the demands of each alternative during normal, single dry and multiple dry years. In addition, the same water distribution constraints and secondary supply issues under the No Action Alternative and the Proposed Action would occur under the selection of any of the alternatives, thus resulting in **significant** effects.

PVSP EIR Mitigation Measures 4.11.7-1a through **4.11-1c** would address the effects of Alternatives 1 through 5 on water supply. The USACE assumes that Placer County would impose the same mitigation measures on Alternatives 1 through 5 to address this effect. The USACE finds that the mitigation measures described above would fully mitigate the effect to a **less than significant** level.

PVSP EIR Mitigation Measure 4.11.7-1a: Water Supply*(Applicability – Proposed Action and All Alternatives)*

PVSP EIR Mitigation Measure 4.11.7-1a would require the Applicants to ensure an adequate supply of water is available to serve future development. The full mitigation measure text is available in Appendix 3.0.

PVSP EIR Mitigation Measure 4.11.7-1b: Conservation Strategies*(Applicability – Proposed Action and All Alternatives)*

PVSP EIR Mitigation Measure 4.11.7-1b would require the applicant to comply with PCWA water conservation strategies. The full mitigation measure text is available in Appendix 3.0.

PVSP EIR Mitigation Measure 4.11.7-1c: Conveyance Capacity*(Applicability – Proposed Action and All Alternatives)*

PVSP EIR Mitigation Measure 4.11.7-1c would require the applicant to ensure enough conveyance capacity is available in the City of Roseville system to serve future development. The full mitigation measure text is available in Appendix 3.0.

Impact UTIL-2 Availability of Recycled Water Supplies to Meet Demand

No Action Alt. The No Action Alternative would demand recycled water for use in parks, schools, publicly landscaped areas, and the landscaping associated with commercial, business professional, light industrial and multi-family uses.

The recycled water demand under the No Action Alternative was not estimated but due to the smaller scale of development under this alternative, it would likely be lower than the 1.41 mgd (5.34 mld) estimated for the Proposed Action (see below). Due to the high demand for recycled water by the developments in western Placer County, the City of Roseville, which operates the Dry Creek and Pleasant Grove WWTP, has determined that the available recycled water supply committed to a major specific plan is based on the average daily dry weather wastewater flow generated by the project. The recycled water demand on an average day in July under the Proposed Action would be 3.5 mgd (13.2 mld). As demands under the No Action Alternative would be lower than under the Proposed Action, the recycled water demand on an average day in July under this alternative would be less than 3.5 mgd (13.2 mld). The USACE estimates that the No Action Alternative would have a projected recycled water supply of 2.8 mgd (10.6 mld) at buildout This leaves a deficit of approximately 0.7 mgd [2.6 mld] when compared to July average day recycled water demand of 3.5 mgd (13.2 mld). Based on the supply formula used by the City of Roseville, the No Action Alternative would have a projected recycled water supply of 2.8 mgd (10.6 mld).

The above calculations assume that all of the project site would be served by the Dry Creek WWTP. In the event wastewater from the western 4,340 acres (1,756 hectares) is

directed to SRCSD for wastewater service, the flows to Dry Creek WWTP would be significantly reduced to 0.38 mgd (1.43 mld) under the No Action Alternative. In the absence of a recycled water supply for this area, potable water would be supplied by the PCWA. As discussed above under **Impact UTIL-1**, PCWA's water supply would be adequate to serve the project. Therefore, the effect related to availability of recycled water would be **less than significant**. Mitigation is not required.

Recycled water would be initially provided by the Dry Creek WWTP and ultimately by the Pleasant Grove WWTP. This would require the No Action Alternative to connect the project site to an existing 24-inch (61-centimeter) gravity recycled water line constructed as part of the Dry Creek West Placer Community Facilities District #1. The pipeline currently terminates south of Dry Creek on the east side of Walerga Road. The No Action Alternative would extend the line in a northerly direction along Walerga Road to Baseline Road where it would turn west to the project site. In the future, as the project site and its vicinity is built out, a recycled water line will be constructed from the Pleasant Grove WWTP to serve the project site and other areas. The future recycled water line would be extended westward from Pleasant Grove WWTP along Phillip Road to the alignment of Watt Avenue, and then south to Baseline Road where it would tie into other recycled water infrastructure. The Pleasant Grove WWTP supply would supplement and/or ultimately replace the Dry Creek WWTP supply. The environmental effects associated with the installation of these recycled water pipelines (primarily biological and cultural resources impacts, construction-phase air quality impacts, and noise impacts) are addressed in other sections of this EIS under the discussion of off-site infrastructure impacts.

**Proposed
Action (Base
Plan and
Blueprint
Scenarios)**

The average daily recycled water demand under the Proposed Action would be 1.41 mgd (5.34 mld) and the recycled water demand on an average day in July under the Proposed Action would be 3.5 mgd (13.2 mld) (Brown and Caldwell 2006). As stated above, the City of Roseville, which operates the Dry Creek and Pleasant Grove WWTP, has determined that the recycled water supply to the project site will be based on the amount of wastewater it generates on an average day in July. Using the City's methodology, the projected recycled water supply is 2.8 mgd (10.6 mld) (Brown and Caldwell 2006). If the projected recycled water supply is compared to the July average day recycled water demand of 3.5 mgd (13.2 mld), there would be a deficit of 0.7 mgd [2.6 mld] under the Proposed Action.

Similar to the No Action Alternative, if wastewater generated on the western 4,340 acres (1,756 hectares) of the project site is directed to the SRCSD for treatment, then recycled water would not be provided to this area. In the absence of a recycled water supply for this area, potable water would be supplied by the PCWA. As discussed above under **Impact UTIL-1**, PCWA's water supply would be adequate to serve the project. Therefore, the effect related to availability of recycled water would be **less than**

significant. Mitigation is not required.

The location of recycled water conveyance infrastructure connecting the Dry Creek WWTP under the Proposed Action would remain the same as described above for the No Action Alternative. The environmental effects associated with the installation of these recycled water pipelines (primarily biological and cultural resources impacts, construction-phase air quality impacts, and noise impacts) are addressed in other sections of this EIS under the discussion of off-site infrastructure impacts.

**Alts. 1
through 5**

Alternatives 1 through 5 differ from the Proposed Action in that they place additional acreage in open space. As explained above, none of the alternatives would appreciably reduce the amount of land that would be converted to urban uses on the project site or reduce the density of development on the project site and thereby the amount of water demanded.

The average daily recycled water demand and the recycled water demand on an average day in July for Alternatives 1 through 5 combined would be the same as the Proposed Action (1.41 mgd [5.34 mld] and 3.5 mgd [13.2 mld], respectively). The USACE estimates that Alternatives 1 through 5 combined would generate the same amount of wastewater as the Proposed Action. Based on the supply formula used by the City of Roseville, Alternative 1 through 5 combined would have a project recycled water supply of 2.8 mgd (10.6 mld).

Similar to the No Action Alternative and Proposed Action, if wastewater generated on the western 4,340 acres (1,756 hectares) of the project site is directed to the SRCSD for treatment, then recycled water would not be provided to this area. In the absence of a recycled water supply for this area, potable water would be supplied by the PCWA. As discussed above under **Impact UTIL-1**, PCWA's water supply would be adequate to serve the project. Therefore, the effect related to availability of recycled water would be **less than significant.** Mitigation is not required.

The location of recycled water conveyance infrastructure connecting the Dry Creek WWTP under Alternatives 1 through 5 combined would remain the same as the No Action Alternative and Proposed Action. The environmental effects associated with the installation of these recycled water pipelines (primarily biological and cultural resources impacts, construction-phase air quality impacts, and noise impacts) are addressed in other sections of this EIS under the discussion of off-site infrastructure impacts.

Impact UTIL-3 Capacity for Wastewater Treatment Facilities to Meet Demand

No Action Alt. The Dry Creek WWTP would receive and treat wastewater effluent from the project site under the No Action Alternative. However, treatment of the majority of the wastewater effluent generated on the project site at the SRWTP is another option. As demonstrated by the analysis below, neither treatment plants have the treatment capacity to serve the No Action Alternative at buildout along with other anticipated development in each plant's service area, thus resulting in a **significant** effect. Mitigation is proposed that would reduce this effect to a **less than significant** level.

Dry Creek WWTP

As shown in **Table 3.15-2**, the USACE estimates that the No Action Alternative would generate an ADWF of 1.78 mgd (6.74 mld) at buildout based on unit flow factors established in the Environmental Impact Report prepared for the PVSP (see **Subsection 3.15.4.2**). The eastern 890 acres (360 hectares) (Shed B) of the project site is located within the service area of the Dry Creek WWTP. The planned flow for this area is 0.37 mgd (1.40 mld). The projected total flow at buildout under the No Action Alternative for Shed B would be 0.38 mgd (1.43 mld). As the additional flow is approximately equal to the planned flow for the area, no conflict with current planning efforts for the WWTP would occur and this effect would be **less than significant**.

Flows from Shed B would be directed to an off-site trunk sewer line connection point at its southerly boundary, and then cross Dry Creek (using jack and bore construction methods) and be carried by a gravity sewer trunk line to a lift station. From the lift station, wastewater flows would be carried in a 12-inch (30-centimeter)- diameter force main, to be installed along the south side of Dry Creek, to an existing force main located approximately 1,400 feet (427 meters) east of Walerga Road. The environmental effects associated with the installation of this wastewater utility corridor (primarily biological and cultural resources impacts, construction-phase air quality impacts, and noise impacts) are addressed in other sections of this EIS under the discussion of off-site infrastructure impacts.

Although the western 4,340 acres (1,756 hectares) (Shed A) is not within the SPWA service area, all wastewater flows from the project site would be directed toward the Dry Creek WWTP. Shed A would connect to the Dry Creek WWTP by way of two 16 to 20 inch (41 to 51 centimeter) diameter force main pipelines in the same utility corridor. The corridor would extend from the project site southerly along the alignment of Watt Avenue, then easterly along the alignment of PFE Road and northerly to the plant by way of one of two proposed alignments. The primary alignment would proceed northerly to the plant on the easterly segment of Hilltop Circle through the Roseville Corporation Yard (there is also an alternative alignment just east of the City of Roseville Corporation Yard). An alternative alignment will leave PFE Road at Cook Riolo Road,

turning easterly to the Dry Creek WWTP just north of Dry Creek. This latter alternative alignment could, however, physically impede the northerly expansion of the Dry Creek WWTP. The environmental effects associated with the installation of this wastewater utility corridor (primarily biological and cultural resources impacts, construction-phase air quality impacts, and noise impacts) are addressed in other sections of this EIS under the discussion of off-site infrastructure impacts.

The "Ultimate SPWA Service Area," which includes the project site, will generate a cumulative ADWF of 42.7 mgd (161.6 mld). Of this amount, 19.3 mgd (73.1 mld) would flow to the Dry Creek WWTP (Placer County 2007). This exceeds the current constructed capacity of 18 mgd (68 mld), but is within the planned capacity of 24 mgd (91 mld). At buildout, the No Action Alternative will contribute 1.78 mgd (6.74 mld) of projected flow.

The Dry Creek WWTP would need to be expanded to accommodate the additional flows, and the current NPDES waste discharge requirements would need to be amended. This is a potentially **significant** effect.

Sacramento Regional County Sanitation District

An option for the collection and treatment of wastewater from Shed A would be to send wastewater to the SRCSD for treatment at the SRWTP. The utility corridor to the SRWTP would extend from the project site to the south, following the alignment of Sorrento Road to the SRCSD Upper Northwest Interceptor at a point in Elkhorn Boulevard. An alternative corridor would also extend south from the project site following the alignment of Elwyn Avenue, west along Elverta Road and finally south along the alignment of West 6th Street to the SRCSD Upper Northwest Interceptor at a point in Elkhorn Boulevard. The environmental effects associated with the installation of this wastewater utility corridor (primarily biological and cultural resources impacts, construction-phase air quality impacts, and noise impacts) are addressed throughout this EIS.

The projected total flow at buildout for Shed A under the No Action Alternative would be 1.41 mgd (5.32 mld). The project site has not been included in formal planning and projections for the future of the SRWTP, and the magnitude of the effect is difficult to determine, but it is clear that the effect will be **significant** in terms of planning effort, design, construction, and maintenance.

PVSP EIR Mitigation Measures 4.11.6-2a through **4.11.6-2c** would address this effect. The USACE assumes that Placer County would impose the same mitigation measures on the No Action Alternative to address this effect. **PVSP EIR Mitigation Measure 4.11.6-2a** would ensure that written verification from the service provider is obtained and that capacity exists to serve the future development, **PVSP EIR Mitigation Measure 4.11.6-2b** would require that future development make financial commitments to

construct additional wastewater treatment capacity and that additional environmental review under state law that may be required for plant modifications and/or expansion be completed, and **PVSP EIR Mitigation Measure 4.11.6-2c** would ensure that all necessary permits are in place to discharge additional treated effluent. The USACE finds that the mitigation measures described above would fully mitigate the effect of the No Action Alternative to a **less than significant** level.

**Proposed
Action (Base
Plan and
Blueprint
Scenarios)**

Neither the Dry Creek WWTP nor the SRWTP would have the treatment capacity to serve the Proposed Action under the Base Plan and Blueprint scenarios at buildout along with other anticipated development in each plant's service area, resulting in a **significant** effect. Mitigation is proposed that would reduce this effect to a **less than significant** level.

Dry Creek WWTP

The USACE estimates that the Proposed Action would generate an ADWF ranging from 2.92 mgd (11.05 mld) to 4.19 mgd (15.86 mld) at buildout (**Table 3.15-2**), based on unit flow factors established in the Environmental Impact Report prepared for the PVSP (see **Subsection 3.15.4.2**). As discussed above, the planned flow for Shed B is 0.37 mgd (1.40 mld). The projected total flow at buildout under the Proposed Action for Shed B would range from 0.51 mgd (1.93 mld) to 0.79 mgd (2.99 mld). The additional flow would conflict with current planning efforts for the WWTP and is considered a potentially significant effect. However, the WWTP may have the capacity to serve this additional flow from Shed B because actual flows within the SPWA service area have been less than projected due to a 27 percent reduction in flow factors for residential units and a 20 percent overall reduction in development densities (RMC 2005). In addition, the treatment plant is currently constructed to treat 18 mgd (68 mld), but can be expanded to treat 24 mgd (91 mld) (Placer County 2007).

The addition of flows from Shed A under the Proposed Action would also result in the need to expand the Dry Creek WWTP, and the current NPDES waste discharge requirements would need to be amended. This is a potentially **significant** effect. **PVSP EIR Mitigation Measures 4.11.6-2a** through **4.11.6-2c** would address the effect.

The size and location of wastewater conveyance infrastructure connecting Sheds A and B to the Dry Creek WWTP under the Proposed Action would remain the same as the No Action Alternative. The environmental effects associated with the installation of this wastewater utility corridor (primarily biological and cultural resources impacts, construction-phase air quality impacts, and noise impacts) are addressed throughout this EIS under the discussion of off-site infrastructure impacts.

Sacramento Regional County Sanitation District

Similar to the No Action Alternative, an option exists under the Proposed Action to

collect and treat wastewater from Shed A at the SRWTP. The alignment of wastewater conveyance infrastructure connecting Shed A to the SRWTP under the Proposed Action would remain the same as the No Action Alternative. The projected total flow at buildout under the Proposed Action for Shed A would range from 2.41 mgd (9.12 mld) to 3.40 mgd (12.87 mld), and as the project site has not been included in formal planning and projections for the future of the SRWTP, the additional amount represents a potentially **significant** effect. **PVSP EIR Mitigation Measures 4.11.6-2a through 4.11.6-2c** would address this effect.

The alignment of wastewater conveyance infrastructure connecting Shed A to the SRWTP under the Proposed Action would remain the same as under the No Action Alternative. The environmental effects associated with the installation of this wastewater utility corridor (primarily biological and cultural resources impacts, construction-phase air quality impacts, and noise impacts) are addressed throughout this EIS under the discussion of off-site infrastructure impacts.

PVSP EIR Mitigation Measures 4.11.6-2a through 4.11.6-2c would be implemented to address the effect of the Proposed Action on wastewater capacity at either the Dry Creek WWTP or SRWTP. These measures were adopted by Placer County at the time of project approval and will be enforced by the County. The County determined that these mitigation measures would reduce the effect of the PVSP to a less than significant level (Placer County 2007). The USACE agrees with the conclusion in the PVSP EIR and finds that the effect would be reduced to **less than significant** after mitigation.

**Alts. 1
through 5**

As demonstrated by the analysis below, both the Dry Creek WWTP and the SRWTP would not have the treatment capacity to serve Alternatives 1 through 5 individually or combined at buildout along with other anticipated development in each plant's service area, thus resulting in a **significant** effect. Mitigation is proposed that would reduce this effect to a **less than significant** level.

As explained above, Alternatives 1 through 5 differ from the Proposed Action in that they place additional acreage in open space but none of the alternatives appreciably reduce (between 0.05 and 1 percent) the amount of land that would be converted to urban uses on the project site or the level of development on the project site and thereby the amount of wastewater generated.

Dry Creek WWTP

As shown in **Table 3.15-2**, the USACE estimates that development under Alternatives 1 through 5 individually or combined would generate an ADWF of 2.92 mgd (11.05 mld) at buildout based on unit flow factors established in the Environmental Impact Report prepared for the PVSP (see **Subsection 3.15.4.2**) with 0.53 million gallons (2 million liters) generated within Shed B and 2.39 million gallons (9.05 million liters) generated within Shed A. The amount of wastewater generated within Shed B by the development

of these alternatives combined would exceed the amount of planned flow for this area. The additional flow under Alternatives 1 through 5 individually or combined would conflict with current planning efforts for Shed B and represents a potentially significant effect. Similarly, the addition of flows from Shed A under these alternatives would also result in the need to expand the Dry Creek WWTP, and the current NPDES waste discharge requirements would need to be amended. This is a potentially **significant** effect. **PVSP EIR Mitigation Measures 4.11.6-2a** through **4.11.6-2c** would address these effects.

The size and location of wastewater conveyance infrastructure connecting Sheds A and B to the Dry Creek WWTP under these alternatives combined would remain the same as the No Action Alternative and Proposed Action. The environmental effects associated with the installation of this wastewater utility corridor (primarily biological and cultural resources impacts, construction-phase air quality impacts, and noise impacts) are addressed throughout this EIS under the discussion of off-site infrastructure impacts.

Sacramento Regional County Sanitation District

Similar to the No Action Alternative and Proposed Action, an option exists under Alternatives 1 through 5 individually or combined to collect and treat wastewater from Shed A at the SRWTP. The projected total flow at buildout under Alternatives 1 through 5 combined for Shed A is 2.39 mgd (9.05 mld), and as the project site has not been included in formal planning and projections for the future of the SRWTP, the additional amount represents a potentially **significant** effect.

The alignment of wastewater conveyance infrastructure connecting Shed A to the SRWTP under Alternatives 1 through 5 combined would remain the same as the No Project Alternative and Proposed Action under the Base Plan scenario. The environmental effects associated with the installation of this wastewater utility corridor (primarily biological and cultural resources impacts, construction-phase air quality impacts, and noise impacts) are addressed throughout this EIS under the discussion of off-site infrastructure impacts.

PVSP EIR Mitigation Measures 4.11.6-2a through **4.11.6-2c** would be implemented to address the effect of Alternatives 1 through 5 individually or combined on wastewater capacity at either the Dry Creek WWTP or SRWTP. The USACE assumes that Placer County would impose the same mitigation measures on Alternatives 1 through 5 individually or combined to address this effect. The USACE finds that the mitigation measures described above would fully mitigate the effect to **less than significant**.

PVSP EIR Mitigation Measure 4.11.6-2a: Capacity Verification*(Applicability – Proposed Action and All Alternatives)*

PVSP EIR Mitigation Measure 4.11.6-2a would ensure that written verification from the service provider is obtained and that capacity exists to serve the future development. The full mitigation measure text is available in Appendix 3.0.

PVSP EIR Mitigation Measure 4.11.6-2b: Financial Participation*(Applicability – Proposed Action and All Alternatives)*

PVSP EIR Mitigation Measure 4.11.6-2b would require that future development make financial commitments to construct additional wastewater treatment capacity and that additional environmental review under state law that may be required for plant modifications and/or expansion be completed. The full mitigation measure text is available in Appendix 3.0.

PVSP EIR Mitigation Measure 4.11.6-2c: Discharge Permits*(Applicability – Proposed Action and All Alternatives)*

PVSP EIR Mitigation Measure 4.11.6-2c would ensure that all necessary permits are in place to discharge additional treated effluent. The full mitigation measure text is available in Appendix 3.0.

Impact UTIL-4 Increased Demand for Solid Waste Services

No Action Alt. The direct contribution of solid waste generated by the No Project Alternative to the volume of solid waste currently accepted at the MRF and regional landfill will exceed County standards. Mitigation would partially mitigate these effects, but not to less than significant. Residual **significant** effects would remain after mitigation.

As shown in **Table 3.15-3**, the USACE estimates that buildout of the No Action Alternative would generate 14,843 tons (13,465 metric tons) of solid waste per year based on waste generation rates provided by the Placer County Solid Waste Management Division (see **Subsection 3.15.4.2**). Of this amount, 11.9 percent will go directly to the regional landfill while the remaining 88.1 percent will go to the MRF for processing. Of the amount directed to the MRF, 36.9 percent will be diverted for recycling and 63.1 percent will be sent to the regional landfill. Overall, 10,018 tons (9,088 metric tons) of solid waste per year will be sent to the regional landfill.

The MRF processes a total of 281,300 tons (255,191 metric tons) of solid waste annually while the regional landfill accepts a total of 275,600 tons (250,020 metric tons) of solid waste annually. The amount of solid waste directed by the No Action Alternative to the MRF represents 4.6 percent of the facility's currently accepted tonnage while the amount of solid waste generated by the No Action Alternative for disposal into the regional landfill represents 3.6 percent of the facility's currently accepted annual tonnage.

Placer County has indicated that any project that contributes solid waste that constitutes 3 percent or more of currently accepted tonnages at the MRF and regional landfill should be considered to have a significant impact on those facilities (Placer County 2007). Based on this standard, the contribution of the No Action Alternative to the volumes of solid waste currently accepted at the MRF and regional landfill would exceed 3 percent per year and would result in a **significant** effect.

PVSP EIR Mitigation Measures 4.11.5-1a through **4.11.5-1d** would address this effect. **PVSP EIR Mitigation Measure 4.11.5-1a** would require that contractors provide on-site separation of construction debris, **PVSP EIR Mitigation Measure 4.11.5-1b** would require that projects in the Specific Plan area contribute a fair share toward the expansion of the MRF and regional landfill, **PVSP EIR Mitigation Measure 4.11.5-1c** would require that a source-separated green waste program be implemented within the Specific Plan area, and **PVSP EIR Mitigation Measure 4.11.5-1d** would require that the applicants provide a plan for the development and continuous operation and maintenance of recycling centers within the Specific Plan area. The USACE assumes that Placer County would impose these mitigation measures on the No Action Alternative to address this effect. The mitigation measures described above would not mitigate the effects of the No Action Alternative to less than significant. The USACE finds that residual **significant** effects would remain after mitigation.

**Proposed
Action (Base
Plan and
Blueprint
Scenarios)**

The direct contribution of solid waste generated by the Proposed Action to the volume of solid waste currently accepted at the MRF and regional landfill will exceed County standards. Mitigation would partially mitigate these effects, but not to less than significant. Residual **significant** effects would remain after mitigation.

As shown in **Table 3.15-3**, the USACE estimates that buildout of the Proposed Action would generate between 24,796 tons (22,495 metric tons) and 34,770 tons (31,543 metric tons) of solid waste per year based on waste generation rates provided by the Placer County Solid Waste Management Division (see **Subsection 3.15.4.2**). Of these amounts, 11.9 percent will go directly to the regional landfill while the remaining 88.1 percent will go to the MRF for processing. Of the amount directed to the MRF, 36.9 percent will be diverted for recycling and 63.1 percent will be sent to the regional landfill. Overall, between 16,735 tons (15,182 metric tons) and 23,467 tons (21,289 metric tons) of solid waste per year will be sent to the regional landfill.

As discussed above, the MRF processes a total of 281,300 tons (255,191 metric tons) of solid waste annually while the regional landfill accepts a total of 275,600 tons (250, metric tons) of solid waste annually. The amount of solid waste directed by the Proposed Action to the MRF represents between 7.8 percent and 10.9 percent of the facility's currently accepted tonnage while the amount of solid waste disposed by the Proposed Action into the regional landfill represents between 6.1 percent and 8.5 percent of the facility's currently accepted tonnage. Based on the Placer County

standard described above, the direct contribution of the Proposed Action to the volumes of solid waste currently accepted at the MRF and regional landfill would exceed 3 percent per year and would result in a **significant** effect.

PVSP EIR Mitigation Measures 4.11.5-1a through **4.11.5-1d** would be implemented to address this effect. These measures were adopted by Placer County at the time of project approval and will be enforced by the County. The County determined that while these measures would lessen the impacts of the PVSP on the MRF and regional landfill, they would not reduce the effects to these facilities to less than significant (Placer County 2007). The USACE agrees with the conclusion in the PVSP EIR and finds that residual **significant** effects would remain after mitigation.

**Alts. 1
through 5**

The direct contribution of solid waste generated by Alternatives 1 through 5 individually or combined to the volume of solid waste currently accepted at the MRF and regional landfill will exceed County standards. Mitigation would partially mitigate these effects, but not to less than significant. Residual **significant** effects would remain after mitigation.

As shown in **Table 3.15-3**, the USACE estimates that buildout of Alternatives 1 through 5 combined would generate 25,412 tons (23,053 metric tons) of solid waste per year based on waste generation rates provided by the Placer County Solid Waste Management Division (see **Subsection 3.15.4.2**). Of this amount, 11.9 percent would go directly to the regional landfill while the remaining 88.1 percent would go to the MRF for processing. Of the amount directed to the MRF, 36.9 percent would be diverted for recycling and 63.1 percent would be sent to the regional landfill. Overall, 17,151 tons (15,559 metric tons) of solid waste per year would be sent to the regional landfill.

The amount of solid waste directed by Alternatives 1 through 5 combined to the MRF represents 8.0 percent of the facility's currently accepted tonnage while the amount of solid waste generated under Alternatives 1 through 5 combined that would require disposal at the regional landfill represents 6.2 percent of the facility's currently accepted tonnage. Based on the Placer County standard, the direct contribution of Alternatives 1 through 5 combined to the volumes of solid waste currently accepted at the MRF and regional landfill would exceed 3 percent per year and would result in a **significant** effect.

PVSP EIR Mitigation Measures 4.11.5-1a through **4.11.5-1d** would address the effect of Alternatives 1 through 5 on the MRF and regional landfill. The USACE assumes that Placer County would impose the same mitigation measures on Alternatives 1 through 5 individually or combined to address this effect. The mitigation measures would not mitigate the effects of Alternatives 1 through 5 to a less than significant level. The USACE finds that residual **significant** effects would remain after mitigation.

PVSP EIR Mitigation Measure 4.11.5-1a: Construction Debris*(Applicability – Proposed Action and All Alternatives)*

PVSP EIR Mitigation Measure 4.11.5-1a would require that contractors provide on-site separation of construction debris. The full mitigation measure text is available in Appendix 3.0.

PVSP EIR Mitigation Measure 4.11.5-1b: Fair Share Payment for Expansion of Solid Waste Facilities*(Applicability – Proposed Action and All Alternatives)*

PVSP EIR Mitigation Measure 4.11.5-1b would require that projects in the Specific Plan area contribute a fair share toward the expansion of the MRF and regional landfill. The full mitigation measure text is available in Appendix 3.0.

PVSP EIR Mitigation Measure 4.11.5-1c: Greenwaste Program*(Applicability – Proposed Action and All Alternatives)*

PVSP EIR Mitigation Measure 4.11.5-1c would require that a source-separated greenwaste program be implemented within the Specific Plan area. The full mitigation measure text is available in Appendix 3.0.

PVSP EIR Mitigation Measure 4.11.5-2d: Recycling Centers*(Applicability – Proposed Action and All Alternatives)*

PVSP EIR Mitigation Measure 4.11.5-2d would require that the applicants provide a plan for the development and continuous operation and maintenance of recycling centers within the Specific Plan area. The full mitigation measure text is available in Appendix 3.0.

Impact UTIL-5 Increased Demand for Electricity, Natural Gas and Telecommunications

No Action Alt. Development of the No Action Alternative would result in a demand for electrical, natural gas and telecommunications services. As demonstrated by the analysis presented below, the existing electrical and natural gas supply would be adequate to serve the No Action Alternative. However, adequate electrical and natural gas infrastructure may not be in place to serve development contemplated under this alternative, thus resulting in a **significant** effect. Mitigation is proposed that would reduce this effect to **less than significant**. Adequate telecommunications infrastructure would be in place to serve the project site, and the effect would be **less than significant**.

Electricity

The development and implementation of the No Action Alternative would add land uses to the project site that would increase the demand for electrical services. As indicated in **Table 3.15-4**, the USACE estimates that electrical consumption under the No Action Alternative would be 132 MV at full buildout based on demand factors from the Environmental Impact Report prepared for the PVSP (see **Subsection 3.15.4.2**). As

discussed below, both PG&E and SMUD indicate that they have the ability to supply the Proposed Action with necessary electricity. As the demand under the No Action Alternative would be lower than under the Proposed Action, adequate supply would be available to serve development contemplated under this alternative.

Extensions of existing electrical facilities by both PG&E and SMUD are necessary to provide adequate electrical service to support the demands of the No Action Alternative. Potential environmental effects that could occur as a result of extending existing electrical facilities to the project site are addressed in other sections of this EIS under the discussion of off-site infrastructure improvement impacts.

The No Action Alternative would require that all units be built to Title 24 standards. While there is adequate electrical supply to serve the No Action Alternative, adequate infrastructure may not be in place to serve the project site. This is a **significant** effect.

To the extent that increased electricity usage from the No Action Alternative indirectly results in environmental effects due to fossil fuel consumption associated with power generation, such effects are addressed in **Section 3.5, Climate Change**.

Natural Gas

The development and implementation of the No Action Alternative would add land uses that would increase the demand for natural gas services. As indicated in **Table 3.15-4**, the USACE estimates that natural gas consumption under the No Action Alternative would 25,834,080 therms at full buildout based on demand factors from the Environmental Impact Report prepared for the PVSP (see **Subsection 3.15.4.2**). As discussed below, PG&E has indicated that it has the ability to supply the Proposed Action with necessary natural gas. As the demand under the No Action Alternative would be lower than under the Proposed Action, adequate supply would be available to serve development contemplated under this alternative.

In order to provide natural gas service to the project site, new gas distribution feeder mains, regulator stations, and distribution and transmission lines will be needed. Potential environmental effects that could occur as a result of constructing the on-site natural gas distribution system to serve development under the No Action Alternative (primarily biological and cultural resources impacts, construction-phase air quality impacts, and noise impacts) are addressed throughout this EIS under the discussion of off-site infrastructure improvement impacts.

The No Action Alternative would require that all units be built to Title 24 standards. While adequate natural gas supply is available to serve the No Action Alternative, adequate infrastructure may not be in place to serve the project site. This is a **significant** effect.

To the extent that increased natural gas usage contributes to climate change, such effects are addressed in **Section 3.5, Climate Change**.

Telecommunications

The development of the project site under the No Action Alternative will create an increased demand for cable television and telephone services. These additional services would be provided by private telecommunications companies and would be funded through developer fees and future customer billing. In addition, the telecommunications companies would be given the opportunity to review and comment on any proposed development requiring new service. All phone and cable lines would be installed in roadway rights-of-way, so there would not be any environmental effects beyond the construction effects identified in this EIS. Therefore, effects associated with the demand for cable television and telephone services would be **less than significant**.

PVSP EIR Mitigation Measures 4.11.10-1a and **4.11.5-1b** would address the effect of the No Action Alternative on electrical and natural gas infrastructure. **PVSP EIR Mitigation Measure 4.11.10-1a** would require the applicants and subsequent developers to work closely with PG&E and SMUD to ensure that development of electrical and natural gas infrastructure with the capacity to service the entire project site is located and provided concurrently with roadway construction while **PVSP EIR Mitigation Measure 4.11.5-1b** would require the implementation of energy efficiency measures. The USACE assumes that Placer County would impose these mitigation measures on the No Action Alternative to address this effect. The USACE finds that the mitigation measures described above would fully mitigate the effect to **less than significant**.

Proposed Action (Base Plan and Blueprint Scenarios)

Existing electrical and natural gas supply would be adequate to serve the Proposed Action. However, adequate electrical and natural gas infrastructure may not be in place to serve development contemplated under the Proposed Action, thus resulting in a **significant** effect. Mitigation is proposed that would reduce this effect to **less than significant**. Adequate telecommunications infrastructure would be in place to serve the Proposed Action, and the effect would be **less than significant**.

The Proposed Action would result in the demand for electricity, gas, and telecommunications. As indicated in **Table 3.15-4**, the USACE estimates that electrical consumption for the project site would range from 194 megawatts (MW) to 238 MW at full buildout based on demand factors from the Environmental Impact Report prepared for the PVSP (see **Subsection 3.15.4.2**). Both PG&E and SMUD indicate that they have the ability to supply the necessary electricity to the project site (Placer County 2007). In addition, as shown in **Table 3.15-4**, the USACE estimates that natural gas consumption for the project site would range from 40,002,480 therms per year to 52,899,840 therms per year at full buildout based on demand factors from the Environmental Impact Report prepared for the PVSP (see **Subsection 3.15.4.2**). PG&E has indicated that it has

the ability to supply the necessary natural gas to the project site (Placer County 2007). However, adequate electrical and natural gas infrastructure necessary to support the Proposed Action may not be in place to serve the project site, thus resulting in a **significant** effect. Adequate telecommunications infrastructure would be in place to serve the project site, and the effect would be **less than significant**.

Potential environmental effects that could occur as a result of constructing the on-site electrical, natural gas, and telecommunications distribution system to serve development under the Proposed Action (primarily biological and cultural resources impacts, construction-phase air quality impacts, and noise impacts) are addressed throughout this EIS under the discussion of off-site infrastructure impacts.

PVSP EIR Mitigation Measures 4.11.10-1a and 4.11.5-1b would be implemented to address the effect of the Proposed Action on electrical and natural gas infrastructure. These measures were adopted by Placer County at the time of project approval and will be enforced by the County. The County determined that these mitigation measures would reduce the effect of the PVSP to less than significant (Placer County 2007). The USACE agrees with the conclusion in the PVSP EIR and finds that the effect would be reduced to **less than significant** after mitigation.

**Alts. 1
through 5**

Alternatives 1 through 5 combined would result in the demand for electricity, gas, and telecommunications. As indicated in **Table 3.15-4**, the USACE estimates that electrical consumption under these alternatives combined would be 208 MV at full buildout while natural gas consumption under these alternatives combined would be 41,986,800 therms at full buildout based demand factors from the Environmental Impact Report prepared for the PVSP (see **Subsection 3.15.4.2**). Alternatives 1 through 5 combined would demand roughly the same amount of gas and electricity as the Proposed Action-, and thus adequate supply would be available to serve development contemplated under these alternatives combined. However, adequate electrical and natural gas infrastructure necessary to support Alternatives 1 through 5 may not be in place to serve the project site, thus resulting in a **significant** effect. Adequate telecommunications infrastructure would be in place to serve the project site, and the effect would be **less than significant**.

Potential environmental effects that could occur as result of constructing the on-site electrical, natural gas, and telecommunications distribution system to serve development under Alternatives 1 through 5 combined (primarily biological and cultural resources impacts, construction-phase air quality impacts, and noise impacts) are addressed throughout this EIS under the discussion of off-site infrastructure impacts.

PVSP EIR Mitigation Measures 4.11.10-1a and 4.11.5-1b would address the effect of Alternatives 1 through 5 individually or combined on electrical and natural gas

infrastructure. The USACE assumes that Placer County would impose the same mitigation measures on Alternatives 1 through 5 individually or combined to address this effect. The USACE finds that the mitigation measures described above would fully mitigate the effect to **less than significant**.

PVSP EIR Mitigation Measure 4.11.10-1a: Infrastructure Capacity

(Applicability – Proposed Action and All Alternatives)

PVSP EIR Mitigation Measure 4.11.10-1a would require the applicants and subsequent developers to work closely with PG&E and SMUD to ensure that development of electrical and natural gas infrastructure with the capacity to service the entire project site is located and provided concurrently with roadway construction. The full mitigation measure text is available in Appendix 3.0.

PVSP EIR Mitigation Measure 4.11.5-1b: Energy Efficiency Measures

(Applicability – Proposed Action and All Alternatives)

PVSP EIR Mitigation Measure 4.11.5-1b would require the implementation of energy efficiency measures. The full mitigation measure text is available in Appendix 3.0.

Impact UTIL-6 Indirect Effects on Utilities from Off-Site Infrastructure Not Constructed as Part of the Project

<p>No Action Alt., Proposed Action (Base Plan and Blueprint Scenarios), and Alts. 1 through 5</p>	<p>The construction and operation of off-site water pipeline infrastructure by the Placer County Water Agency (PCWA) which may be used by the No Action Alternative, Proposed Action, and Alternatives 1 through 5, would result in less than significant effects to utilities.</p> <p>Construction activities associated with off-site water pipelines such as additional truck traffic could interfere with solid waste collection. However, construction would be temporary and the project would be subject to standard County and state traffic control and access procedures. No other effects would result from the construction and operation of the pipelines. The effect on utilities from the water pipeline project would be less than significant.</p>
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3.15.6 RESIDUAL SIGNIFICANT IMPACTS

A **significant** effect would occur under the Proposed Action and all alternatives with respect to **Impact UTIL-2** as no feasible mitigation is available, and residual **significant** effects would remain under the Proposed Action and all alternatives for **Impact UTIL-4** after mitigation. All of the other effects would either be **less than significant** or would be reduced to **less than significant** by the proposed mitigation.

3.15.7 REFERENCES

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