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 these systems from the implementation of the Proposed Action and 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:

- Sierra Vista Specific Plan EIR prepared by the City of Roseville (City of Roseville 2010a);
- City of Roseville 2025 General Plan (City of Roseville 2010b);
- Water Supply Assessment for the Sierra Vista Specific Plan by the City of Roseville (City of Roseville 2009);
- Sierra Vista Potable Water Master Plan, HydroScience Engineers, Inc., April 2009 and as amended July 2009;
- TM-1 Sierra Vista Specific Plan Water Conservation Plan, HydroScience Engineers, Inc., July 2009;
- Sierra Vista Recycled Water Master Plan, HydroScience Engineers, June 2009 and as amended July 2009;
- Bulletin 118-3, Evaluation of Ground Water Resources: Sacramento County in July 1974, prepared by the California Department of Resources;
- Placer Groundwater Management Plan by the Placer County Water Agency (PCWA 2003);
- PCWA's Integrated Water Resources Plan, Brown and Caldwell, August 2006;
- Groundwater Impact Analysis for Proposed Reasons Farm Land Retirement Plan by Montgomery Watson Harza (MWH) for the City of Roseville (City of Roseville 2003);
- 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;
- West Roseville Specific Plan EIR, February 2004;
- Water Forum Agreement EIR, November 1999; and
- Sierra Vista Specific Plan EIR Technical Memorandum: Effects of Changed Water Management Operations on Fisheries and Water Quality Impacts Previously Disclosed in the Water Forum Agreement EIR, Robertson-Bryan Inc. and HDR, October 2009.

3.15.2 AFFECTED ENVIRONMENT

The project site is not currently served by any municipal utility systems. As the project site is located within the City of Roseville, all services will be provided to the project site by the City of Roseville. With respect to Alternative 4 (southwest site), the analysis assumes that the South Placer Municipal Utility District will add the site to their service area and that the Placer County Water Agency (PCWA) will provide water.

3.15.2.1 Water

The City of Roseville would serve as the water supplier for the Proposed Action and the on-site alternatives. The City of Roseville's potable water source is Folsom Reservoir. Groundwater is not used routinely and is only occasionally used as backup supply. Recycled water is available for landscape irrigation from both the Dry Creek and the Pleasant Grove Wastewater Treatment Plants. In addition to these water supply sources, supplemental water is available to the City from other agencies through system interties. Interties are connections between existing distribution systems that can be used to deliver water between districts in the event of water treatment plant or conveyance system disruptions (City of Roseville 2009). Each of the City's water supply sources are described in detail below.

City of Roseville Surface Water Supplies

The City's water demand in 2008 was 36,559 acre-feet per year (afy) (4,509 hectare-meters per year [hmy]). The City projects that project future growth, including the Proposed Action, will increase the annual demand to 62,194 acre-feet (7,672 hmy) by 2030 (City of Roseville 2009).

The City's current surface water supply is American River water diverted from Folsom Reservoir. The City has three surface water contract entitlements for the American River, through which it can receive up to 66,000 afy (8,141 hmy). The City maintains a contract entitlement with the United States Bureau of Reclamation (BoR) for 32,000 afy (3,947 hmy) of Central Valley Project (CVP) supplies. The City's contract with PCWA allows for 10,000 afy (1,233 hmy), with options for 20,000 afy (2,467 hmy) of additional supplies, for a total of 30,000 afy (3,700 hmy) of American River Middle Fork Project water conveyed through BoR facilities at Folsom Reservoir. Lastly, the City has a current contract with San Juan Water District for 4,000 afy (493 hmy). The San Juan Water District supply is a normal or wet year supply and is served from part of San Juan Water District's contract with PCWA for 25,000 afy (3,084 hmy) of Middle Fork Project water, also served from Folsom Reservoir (City of Roseville 2009).

The American River, from which the City of Roseville draws its surface water, is one of two major tributaries of the Sacramento River. The Feather River is the second major tributary. Based on historic data from 1905 through 2003, the average annual flow in the American River at Fair Oaks (US Geological Survey [USGS] Station No. 11446500) is approximately 2.7 million afy (333,040 hmy) (City of Roseville 2010a). Folsom Reservoir is the largest reservoir in the American River basin, with a maximum storage capacity of approximately 977,000 acre-feet (120,511 hectare-meters) and a maximum depth of 466 feet (142 meters) above mean sea level (msl). The Folsom Reservoir is owned and operated by the BoR for the CVP (City of Roseville 2010a). The CVP provides water supply to meet in-basin needs and exports for areas south of the Delta. The CVP is a multipurpose project operated by BoR that stores and transfers water from the Sacramento River, San Joaquin River, and Trinity River basins to the Sacramento, San Joaquin, and Santa Clara valleys. The CVP was authorized by Congress in 1937, and operates as an integrated system to serve water supply, hydropower generation, flood control, navigation, fish and wildlife, recreation, and water quality control purposes. The CVP manages and stores approximately 9 million acre-feet (1.1 million hectare-meters) of water and annually delivers approximately 7 million acre-feet (860,000 hectare-meters) of water for agricultural, urban, and wildlife use. Of this water, about 5 million acre-feet (600,000 hectare-meters) is

for farms, approximately 600,000 acre-feet (74,000 hectare-meters) is for municipal and industrial uses, 800,000 acre-feet (99,000 hectare-meters) is for fish and wildlife and their habitat and 410 acre-feet (51 hectare-meters) is for state and federal wildlife refuges and wetlands (BoR 2011).

The City is a signatory to the Water Forum Agreement. The Water Forum represents diverse water, government, business, agricultural, and environmental interests in most of the County of Sacramento and the cities within the County, the City of Roseville, and western portions of Placer and El Dorado counties. The Water Forum developed a program known as the Water Forum Agreement. Elements in the Water Forum Agreement describe how the stakeholders will manage groundwater, water diversions, dry year water supplies, water conservation, and protection of the Lower American River. The City of Roseville's agreement includes a limitation on the diversion from the American River in both wet and dry years. The City agreed to limit diversions under its American River supply contracts to no more than 54,900 afy (6,770 hmy) in normal/wet years, and no more than 39,800 afy (4,910 hmy) during the driest and critically dry years. Through an agreement with San Juan Water District, the City increased its normal/wet year water supplies by an additional 4,000 afy (500 hmy), for a total normal/wet year supply of 58,900 afy (7,260 hmy) (City of Roseville 2009).

Placer County Water Agency Surface Water Supplies

The Placer County Water Agency (PCWA) was created in 1975 by a special Act of the State Legislature (Placer County Water Agency Act). This Act gives the PCWA Countywide authority with regard to water. The PCWA boundary includes 1,400 square miles (3,600 square kilometers) within Placer County. PCWA is also designated as a local agency and an independent special district encompassing all of Placer County. PCWA carries out a broad range of responsibilities, including water resource planning and management, retail and wholesale supply of irrigation water and drinking water, and production of hydroelectric energy. In addition to providing untreated surface water to the City of Roseville, PCWA is also a participating agency for the West Placer Groundwater Management Plan.

The PCWA service area is divided into five zones that provide treated and raw water. The Alternative 4 site is currently located in Zone 5, which receives only raw water supplies for agricultural uses. In order to be served with potable water, the site would need to be annexed into Zone 1, which receives potable water.

PCWA has several sources of surface water supply entitlements available for use in western Placer County. The primary source of water for Zone 1 is a surface water supply contract with PG&E for 100,400 afy (12,300 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 since PCWA began retailing water in 1968. The term of this contract is to 2013, but the contract is expected to be renewed after the expiration of the present term because any change in the available supply would negatively affect consumptive water users who currently receive PG&E water in the PCWA service area (PCWA 2011).

PCWA's second source of surface water for consumptive use is its Middle Fork Project (MFP) water rights. Pursuant to agreements with the BoR, PCWA is limited to a maximum consumptive use of 120,000 afy (15,000 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 (PCWA 2011).

PCWA's third source of surface water is its CVP municipal and industrial water supply contract with the Bureau of Reclamation (BoR). This contract is for 35,000 afy (4,300 hmy), though the PCWA used an average of 31,000 afy (3,800 hmy) in the most recent five years (PCWA 2011). The CVP supply is also subject to 25 percent deficiencies during single-dry and multiple-dry years compared to recent deliveries (PCWA 2011).

PCWA holds four pre-1914 appropriative water rights for diversion of water from various small creeks and their tributaries in western Placer County. Based on diversion records for the past 10 years, PCWA has diverted an average of 3,400 afy (419 hmy).

The total surface water supply available to the western Placer County area (Zone 1 & Zone 5) is 263,889 afy (32,550 hmy) of permanent supply in normal years, including 9,000 afy (1,110 hmy) of recycled water. Out of that permanent supply, PCWA has contracted to deliver up to 25,000 afy (3,084 hmy) to 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 (PCWA 2011). 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 during dry years.

Regional Groundwater

The project and alternative sites are 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 DWR Bulletin 118-3, the Sub-basin is composed of several systems of water-bearing deposits. The upper unconfined aquifer system consists of the Riverbank and Turlock Lake/Laguna formations and the lower semi-confined aquifer system consists primarily of the Mehrten formation. These two systems constitute the major water producing aquifers in the region (MWH 2007). The upper aquifer system extends to depths ranging from 1,000 to 1,500 feet (305 to 457 meters) below sea level. The quality of water from the upper system is typically good. Water extracted from the lower aquifer system contains low concentrations of iron, manganese, and arsenic, though is typically poor in quality because it is high in salinity (MWH 2007).

Historically, the upper aquifer system has been pumped for agricultural use, and the lower, semi-confined portion of the aquifer has been used for urban water supply (City of Roseville 2010a). 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 (Placer County Water Agency 2006). 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 2010a).

Under natural conditions, groundwater recharge results from infiltration of precipitation (rain and snow). The rate and quantity of water reaching the saturation zone depends on factors that include the amount and duration of precipitation, soil type, moisture content of the soil, and vertical permeability of the unsaturated zone (City of Roseville 2010a). Soils containing hardpan occupy over half the valley on the east side of the Sacramento River (which includes the project site) and these hardpans severely restrict downward movement of water. Groundwater recharge to the Sub-basin system therefore occurs mostly where extensive sand and gravel deposits exist, particularly along the Feather, Bear, American, and Sacramento River channels. Other sources of recharge within the area include deep percolation associated with applied irrigation water and precipitation, as well as from smaller streams that bisect the region (i.e., Auburn Ravine and Coon Creek). The US Geologic Survey (USGS) estimates that 1.6 percent of the total natural recharge in the Sacramento Valley basin can be attributed to the Placer County sub-basin area.

City of Roseville Groundwater Supply

The City of Roseville plans to use groundwater for short-term back-up supply during dry years. The Water Forum Agreement recognizes the City's extraction of up to 6,600 afy (814 hmy) of groundwater during the drier and driest[1] hydrologic years (Water Forum 2000). The City is also investigating a program for aquifer storage and recovery (ASR) that would increase the basin's reliability (City of Roseville 2009). The ASR program would allow the City to store potable water in the aquifer for use when needed. Under the program, the City would be allowed to inject surface water into the aquifer during wet years or during the rainy season. During drought conditions, the City would be able to pump stored groundwater if backup supplies are needed (City of Roseville 2009).

The City has been working with the Central Valley Regional Water Quality Control Board and other state agencies in piloting its ASR program for the last several years. This has included the injection of potable water taken from the City's distribution system into the aquifer and subsequent extraction and delivery to City water customers. Prior to this pilot program for ASR, the last time the City relied on groundwater was

1 As it applies to the City of Roseville's portion of the Water Forum Agreement, "drier years" are years when the projected March through November Unimpaired Inflow to Folsom Reservoir is less than 950,000 acre feet and greater than or equal to 400,000 acre-feet. The Water Forum Agreement defines "driest years" as years when the projected March through November Unimpaired Inflow to Folsom Reservoir is less than 400,000 acre-feet.

during drought conditions experienced in 1991 (City of Roseville 2009). The City certified the EIR for the ASR project and has approved the project (City of Roseville 2012).

In addition, the City of Roseville worked with the City of Lincoln, the Placer County Water Agency, and the California American Water Company to complete the Western Placer Groundwater Management Plan (GMP). The GMP was prepared in an effort to maintain a safe, sustainable, and high-quality groundwater resource to meet backup, emergency, and peak demands within a zone of the North American River Groundwater Sub-basin (City of Roseville 2009).

The City's current groundwater well facilities are capable of delivering approximately 12,000 afy (1,480 hmy) of water supply if run full time, which is the equivalent of approximately 33 acre-feet (4 hectares- meter) per day. Note that these wells are maintained primarily for back-up water supply and to improve water supply reliability during drought and emergency conditions. The City anticipates it will construct additional wells to support its ASR program, if approved. If these new wells are built, the City's groundwater facilities would allow for delivery of up to 73 acre-feet (9 hectares-meter) per day or 27,500 afy (3,392 hmy) if run on a continuous basis (City of Roseville 2009). Because the City uses groundwater for backup conditions such as drought, it is expected that the wells would not be run on a continuous basis but would more likely be run on a short term or intermittent basis to supplement water supply needs (City of Roseville 2010a).

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 customer concerns regarding water quality (hardness) which can interfere with industrial use (PCWA 2005). While PCWA does not currently produce groundwater from the North American 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).

City of Roseville Water Treatment and Distribution

The City's water distribution system includes raw (untreated) water facilities to deliver surface water supplies to the City's water treatment plant (WTP) and the potable water facilities that deliver potable water to City water customers (City of Roseville 2010a). In addition to the potable water system, the City also operates a recycled water distribution system that is described in subsection **Recycled Water** below.

Raw Water Facilities

Raw water facilities consist of both infrastructure owned and operated by the BoR and infrastructure owned and operated by the City of Roseville. BoR facilities include an 84-inch (213-cm) intake pipeline and pumping plant. The pumping plant has sufficient capacity for San Juan Water District, City of Roseville, and portions of the City of Folsom. The City of Roseville's pumping capacity limits are 150 cubic feet (4 cubic meters) per second (96.9 million gallons per day [mgd] [366.8 million liters per day (mld)]). Once through the pumping station, water is conveyed through an 84- inch (213- cm) pipeline to the "Hinkel Y" where the flows to San Juan Water District and Roseville are split. Raw water for Roseville then flows through parallel raw water pipelines to the City's WTP (City of Roseville 2010a).

Water Treatment Plant

The City of Roseville operates a 100-mgd WTP, located on Barton Road in the Granite Bay community of Placer County. Raw water treatment consists of these primary processes: flocculation/sedimentation, clarification, filtration, and disinfection. Following these processes, the treated water is fluoridated prior to distribution to City water customers. Peak demands of 58 mgd (220,000 cubic-meters-per day [cmd]) were experienced at the WTP in July of 2006 (City of Roseville 2010a).

Potable Water Facilities

The City's potable water supply system is composed of pipes, storage facilities, booster pumping stations, groundwater wells, and pressure regulating stations. Distribution piping in the City ranges from as large as 66-inch (168-cm) diameter to as small as 4-inch (10-cm) diameter. The City has six storage tanks with a combined total storage capacity of 31 million gallons (mg) (117,000 cubic meters). Water storage is necessary in order to manage flow fluctuations on a daily basis, and to maintain sufficient storage to address emergency needs such as water main breaks and high water needs such as firefighting activities. The City currently has two pumping stations, with plans for a third to serve customers in the western portion of the City near the project site (City of Roseville 2010a).

Placer County Water Agency 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 Alternative 4 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 has a capacity of 55 mgd (208,000 cmd). PCWA is in the final phases of

completing a small WTP improvement project at the Foothill WTP that will result in an additional 3 mgd of capacity (Smith 2012). The Sunset WTP, located in Rocklin near Clover Valley Creek, has a treatment capacity of 8 mgd (30,000 cmd). PCWA is planning to construct a new WTP in the Newcastle and Ophir areas with a proposed capacity of 30 mgd (114,000 cmd). PCWA is also investigating an additional 35,000 afy (4,317 hmy) capacity (for PCWA service area) Sacramento River WTP near Elverta Road (Placer County 2007).

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 **Affected Environment – Wastewater** for more information about wastewater treatment. The City 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 2010a). The regional recycled water system currently delivers approximately 3,000 afy (370 hmy) of recycled water to parks, streetscapes, and golf course customers. Of this amount, approximately 2,040 afy (252 hmy) are for non-industrial customers located within the City of Roseville. The City anticipates expanding the recycled water system to deliver approximately 3,825 afy (472 hmy) to customers within City limits to meet demands from growth under the general plan (City of Roseville 2009). Recycled water for the Proposed Action would be provided from the Pleasant Grove WWTP. Recycled water is used to supplement City water supply needs and is used as irrigation water for parks, golf courses, landscape medians, and corridors and for industrial cooling at the Roseville Energy Park (City of Roseville 2010a).

Water Supply Reliability

Water supply is vulnerable to seasonal and climatic shortages, which affect snowpack and river flows. The snowpack from the Sierra Nevadas provides as much as 65 percent of California's water supply, including the Sacramento and American Rivers, by accumulating snow during the winter and releasing it slowly during springs and summers. Warmer temperatures will cause snow to melt faster and earlier, making it more difficult to store and use. It is anticipated that less snowpack will be available for use in the future. Climate change is also expected to result in more variable weather patterns throughout California. More variability can lead to longer and more severe droughts (California Department of Water Resources 2011).

The City of Roseville has firm surface water contract amounts to ensure that proper supplies are maintained for the residences and businesses relying on its water supply. The City estimates that during normal/wet years, the City of Roseville has sufficient surface water to meet its customers' needs through buildout of the current General Plan (City of Roseville 2006). This is based on a continued commitment to regional planning for water supplies, ongoing conservation efforts, and additional recycled water use for landscaping. Using more than 70 years of historical hydrologic data from the American River, an analysis was performed as part of the Water Forum Agreement that concluded that the City's contract surface water supply would be available pursuant to the City's purveyor-specific Water Forum Agreement (City of Roseville 2010a).

In times of drought, the City utilizes recycled water, groundwater, and implements conservation strategies to reduce its total water demand. It is expected that if the supply were to be reduced due to shortage, consistent with reductions identified in the Water Forum Agreement, existing surface water supply, coupled with conservation and groundwater use will be sufficient to meet Citywide demands (City of Roseville 2010a).

The City's water conservation strategies are codified in the Roseville Municipal Code. Under the Roseville Water Conservation and Drought Mitigation Ordinance (Municipal Code Chapter 14.09), the City has authority to declare water shortage conditions and implement drought related conservation measures. The City initiates this process by declaring the drought stage (Stage One through Stage Five) and imposing the appropriate and corresponding drought response measures depending on the severity of the drought. For example, Stage One prohibits washing of streets, driveways, sidewalks, and parking lots and places restrictions on vehicle washing, and serving water in restaurants. Stage Two includes additional measures on landscape irrigation. Stage Three, Four, and Five drought restrictions are imposed depending on the severity of the drought. The City can initiate use of groundwater during these stages (City of Roseville 2010a).

3.15.2.2 Wastewater

The City of Roseville would be the wastewater service provider for the project site. The City of Roseville is a participant in the South Placer Wastewater Authority (South Placer Wastewater Authority), along with South Placer Municipal Utility District and Placer County. The South Placer Wastewater Authority oversees policy for funding regional wastewater infrastructure. The City owns and operates two regional wastewater treatment facilities on behalf of the regional partners.

The City's wastewater collection system includes both gravity sewer lines and lift stations with associated force mains. The closest wastewater collection system to service the project area is located within the City's West Roseville Specific Plan.

Wastewater from the City of Roseville is currently treated at two regional wastewater treatment facilities. Both facilities are City owned and operated. The Dry Creek WWTP is located on Booth Road, along Dry Creek, in the southwest portion of the City. The second plant, Pleasant Grove WWTP, is located on the east side of Westbrook Boulevard, south of the Roseville Energy Park (City of Roseville 2010a).

The Pleasant Grove WWTP would serve the project site and Alternative 4 site. The WWTP currently treats approximately 7 mgd (26,000 cmd) of average dry weather flow (ADWF) with approximately 4 mgd (15,000 cmd) coming from the City of Roseville. The WWTP provides tertiary-level treatment through the process of screening, grit removal, extended aeration, secondary clarification, filtration, chlorination, and dechlorination. The plant provides full nitrification and de-nitrification, as well as produces recycled water that meets Title 22 regulations for full, unrestricted use. The WWTP is presently authorized to discharge treated effluent into Pleasant Grove Creek under the National Pollutant Discharge Elimination System (NPDES) Permit No. CA0084573 adopted on June 12, 2008. Under this permit the Pleasant Grove WWTP can discharge an ADWF of 12 mgd (45,000 cmd) increasing to a permitted ADWF discharge of 15 mgd (57,000 cmd) upon completion of additional treatment facilities.

Current flow data from the Pleasant Grove WWTP indicate the ADWF is 7 mgd (26,000 cmd). The Systems Evaluation report provides estimates of flow to the WWTP at buildout of the 2005 Service Area Boundary for South Placer Wastewater Authority, as well as at buildout of the ultimate service area boundary. At buildout of the 2005 boundary, wastewater flows (included rezones) are anticipated to be 16.52 mgd (62,530 cmd) ADWF (RMC 2009) for the Pleasant Grove WWTP. Under the ultimate Service Area boundary (the current 2005 Service Area plus anticipated Urban Growth Areas), the ADWF is estimated at 25.67 mgd (97,170 cmd) (RMC 2009). The WWTP would need to be expanded to meet this future demand. The project site is included within the anticipated South Placer Wastewater Authority ultimate Service Area boundary. The Alternative 4 site is not within the anticipated South Placer Wastewater Authority ultimate Service Area boundary.

3.15.2.3 Solid Waste

Solid waste generated in the City of Roseville and western Placer County is collected, hauled, and delivered to the Western Placer Waste Management Authority for processing and disposal. The Western Placer Waste Management Authority is a regional agency composed of the cities of Roseville, Rocklin, and Lincoln, and Placer County through a joint powers agreement for solid waste management. The Western Placer Waste Management Authority owns and operates the Materials Recovery Facility and the Western Regional Sanitary Landfill (Regional Landfill). The Materials Recovery Facility and the Regional Landfill are located on 320 acres (130 hectares) at the southwest corner of Athens Avenue and Fiddyment Road in Placer County, and are approximately 3 miles (5 kilometers) north of the project site, or 7 miles (11 kilometers) from the Alternative 4 site.

In compliance with the City's Municipal Code, Section 9.17.050, all construction and demolition debris, generated within the City of Roseville must be delivered to the Western Placer Waste Management Authority's facilities for recycling or disposal. Collection of solid waste within the City is managed by the City's Environmental Utilities Department. Solid waste in Placer County is currently collected by the Auburn Placer Disposal Service.

The majority of solid waste collected from within the service area is first delivered to the Materials Recovery Facility for processing. The Materials Recovery Facility, which opened in 1995, receives, separates, processes, and markets recyclable materials removed from delivered solid waste. The Materials Recovery Facility has a mixed waste processing capacity of 2,200 tons (1996 metric tons) per day and a permitted vehicle capacity of 1,014 vehicles per day. In addition to processing mixed solid waste, the Materials Recovery Facility includes a green waste compost facility. The compost portion of the facility has an annual processing capacity of 75,000 cubic yards (57,342 cubic meters). Based on an average density of 0.8 ton (0.7 metric ton) per cubic yard, this equates to an annual processing capacity of approximately 6,000 tons (5443 metric tons) (City of Roseville 2010a).

In calendar year 2008, the Materials Recovery Facility processed an average of 487 vehicles per day and received an average of 1,076 tons (976 metric tons) of waste per weekday. Of this amount, 831 tons (754 metric tons) consisted of mixed solid waste, 192 tons (174 metric tons) consisted of source-separated green waste; the remainder consisted of wood waste and other source-separated recyclables. During the same

period, the Western Placer Waste Management Authority received and processed a total of 54,548 tons (49,485 metric tons) of source-separated green waste at its composting facility (City of Roseville 2010a).

The Regional Landfill is a Class II/III municipal solid waste (non-hazardous) landfill. The Regional Landfill is permitted to accept 1,900 tons (1,724 metric tons) of waste per day and 624 vehicles per day. In 2008, the Regional Landfill received an average of 932 tons (845 metric tons) and 130 vehicles per weekday. The Regional Landfill has a total capacity of 36,350,000 cubic yards (27,791,569 cubic meters). As of July 1, 2009, a total of 10,911,366 cubic yards (8,342,338 cubic meters) have been disposed at the landfill, leaving a remaining capacity of 25,438,634 cubic yards (19,449,231 cubic meters). Under current projected development conditions, the landfill has a projected lifespan extending through 2042 (City of Roseville 2010a).

3.15.2.4 Electricity and Natural Gas

Electricity Supply

The City of Roseville purchases wholesale electrical power from both the Western Area Power Administration (WAPA), which is generated by the federal government's CVP, and from other members of the Northern California Power Agency, a joint powers agency, and distributes it through transmission and distribution lines. In addition, up to 40 percent of the City's power is generated at the City-owned Roseville Energy Park. The Roseville Energy Park is a 160-megawatt natural gas fired power plant that utilizes a combined cycle gas turbine technology (City of Roseville 2010a).

Pacific Gas and Electric Company (PG&E) and the City of Roseville Electric Department (Roseville Electric) are the two public utility providers that could provide electricity to the project site and Alternative 4 site. Roseville Electric provides electrical service to customers within the West Roseville Specific Plan area and is anticipated to be the service provider for the project site (City of Roseville 2010a). However, no Roseville Electric facilities currently exist in the immediate vicinity of the Alternative 4 site. The nearest Roseville Electric substation to both sites is the Fiddyment Substation, located near the intersection of Fiddyment Road and Pleasant Grove Boulevard. The nearest PG&E substations are the Catlett Substation, located on Fifield Road, just west of Natomas Road in Sutter County, feeding the circuit located along Pleasant Grove Road, and the Pleasant Grove substation located on Industrial Avenue just north of Sunset Boulevard, feeding the Fiddyment Road circuit.

In 2008, the City's annual electrical consumption was approximately 1,303,838 mega-watt hours. By the year 2025, the City's electrical consumption is expected to rise to 1,549,739 mega-watt hours. The peak demand for electricity for the City in July 2008 was approximately 336 megawatts. With the Proposed Action, the City's electric consumption is expected to be 1,689,887 mega-watt hours (City of Roseville 2010a).

Transmission

There are currently 12-kilovolt (kV) PG&E overhead lines along Fiddyment Road between Pleasant Grove Boulevard and Baseline Road adjacent to the project site. These overhead lines would be removed and relocated underground during development of the Proposed Action. A 230-kV electrical receiving station is located on the east side of Fiddyment Road approximately 375 feet (114 meters) south of Pleasant Grove Boulevard. The northern boundary of the substation site is adjacent to an existing 425-foot-wide (130-meter-

wide) transmission corridor that contains two aboveground 230-kV WAPA transmission lines and two Sacramento Municipal Utility District 230-kV transmission lines that run east/west through the project site. In addition, Roseville Electric has a 60-kV transmission line that extends south from Pleasant Grove Boulevard in the West Roseville Specific Plan along the future Westbrook Boulevard to the transmission corridor, where it then turns east to Fiddyment Road to connect to the electrical receiving station on Fiddyment Road. PG&E has existing overhead electric distribution circuits (12 kV) running to pumps and a few of the existing farmhouses on the site.

Natural Gas

A PG&E 10-inch steel high-pressure natural gas distribution feeder main was recently extended north up Fiddyment Road adjacent to the project site, west on Pleasant Grove Boulevard, and then north up Westbrook Boulevard in the West Roseville Specific Plan area to serve the new Roseville Energy Plant. It operates at a maximum allowable operating pressure of 500 pounds (227 kilograms) per square inch gauge (City of Roseville 2010a). PG&E would provide natural gas to both sites upon request and in accordance with the rules and tariffs of the California Public Utilities Commission. As discussed in **Section 3.9, Hazards and Hazardous Materials**, PG&E plans to construct a 30-inch (76-centimeter) diameter, 40-mile-long (64-kilometer-long) natural gas pipeline to serve the southern Sacramento Valley region, including the project site. The pipeline project was approved in 2009 and construction of the segment adjacent to the project site is currently anticipated to commence in 2015.

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

3.15.3.1 Water Regulations, Laws, 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 Biological Opinion on the revised OCAP 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 Biological Opinion 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 Biological Opinion 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), 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 Game (CDFG), DWR developed new assumptions for implementation of both the USFWS BO (December 15, 2008) and NMFS BO (June 4, 2009) in CALSIM II. 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 federal agencies 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 federal agencies challenging the 2009 BO under the federal ESA. This litigation is still pending and the outcome of the litigation cannot be predicted as of this writing.[2]

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 that sought to promote more collaborative planning between local water suppliers and cities and counties. The City of Roseville prepared a Water Supply Assessment for 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 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 City. The standards are required by state law to meet or exceed standards adopted by the US EPA. 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 City has obtained this permit.

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. The City's Water Utility is responsible for implementing a cross-connection program to ensure that future potable services are not accidentally connected to the

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2 Governor Schwarzenegger and the California legislature prepared a comprehensive 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 ambitious 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.

recycled water system. Additionally, a public information program (including signage) is in place to notify the public of the use and location of recycled water application.

Regional Water Quality Control Board - Recycled Water Master Reclamation Permit

The recycled water distribution system operates under a Master Water Reclamation Permit (Order No. 97-147) issued by the Regional Water Quality Control Board (RWQCB). This permit contains specific prohibitions on the use of recycled water by the City, and places stringent water quality and treatment and disinfection standards on the City's recycled water. The permit prohibits the following: ponding of recycled water, recycled water seeping off the site where it is being applied, and/or entering waters of the state, unless expressly allowed by the permit.

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 this 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 City of Roseville, PCWA, San Juan Water District, and 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).

City of Roseville Recycled Water Supply Policy

It is the policy of the City to provide its Urban Growth Area[3] with a maximum supply of recycled water equal to the amount of wastewater that is generated by the growth area during July average dry weather flow (ADWF) conditions. This supply is referred to as the "committed [recycled water] supply." New growth areas such as the West Roseville area are required to provide storage facilities for recycled water (City of Roseville Ord. 4786 Section 1, 2009).

Groundwater Management Plan

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

City of Roseville Water Conservation Ordinance

In 1991, the City developed and adopted the Roseville Water Conservation and Drought Mitigation Ordinance as documented in the City's Municipal Code Chapter 14.09. Under this ordinance, the City has authority to declare water shortage conditions and implement drought-related mitigation measures.

In February 2008, the City of Roseville adopted Ordinance 4629, which prohibits wasteful uses of water and provides tools for water conservation during droughts (City of Roseville Ordinance 4629 Section 14.09).

Wastewater Regulations, Laws, 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 Section 1251 et seq. [1972]) to regulate municipal and industrial discharges to surface waters of the US 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 Pleasant Grove WWTP to Pleasant Grove Creek is regulated under a NPDES permit issued by the RWQCB (NPDES No. CA0084573). The NPDES permit and the Waste Discharge Requirements (WDR) identify discharge prohibitions, effluent limitations, and monitoring and reporting requirements.

Discharge limitations in the Pleasant Grove WWTP permit define allowable effluent concentrations for flow, biological oxygen demand (BOD), total suspended matter, residual chlorine, settleable matter, total coliform, oil and grease, and acidity/alkalinity (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 permit also specifies the sampling, monitoring, and reporting requirements for compliance with waste discharge regulations. The monitoring program entails sampling influent, effluent,

3 The City's Urban Growth Area is defined as future planning areas, including Specific Plan areas or other areas that have been annexed or are being considered for annexation.

and the receiving water. The provisions of the NPDES permit and the WDR 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 (RWQCBs). 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.

General Waste Discharge Requirements for Sanitary Sewer Systems

The General Waste Discharge Requirements for Sanitary Sewer Systems (Order No. 2006-0003-DWQ) were adopted by the SWRCB in May 2006. These waste discharge requirements (WDRs) require local jurisdictions to develop a Sewer System Management Plan (SSMP) that addresses the necessary operation and emergency response plans to reduce sanitary sewer overflows. The WDRs require that the local jurisdiction approve the SSMP and the Roseville City Council approved the City's SSMP on January 21, 2009.

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.

City of Roseville Municipal Code

Section 14 of the City's Municipal Code contains regulations associated with sewer use, sewer rates and charges, and industrial wastewater. Chapter 14.26 prohibits discharge to a sanitary sewer of any pollutant or wastewater that would interfere with the operation or performance of the City's wastewater collection or treatment facilities.

City of Roseville General Plan

The City of Roseville General Plan (2010b) contains goals and policies that are designed to ensure that residents have adequate wastewater service.

Goal 1 Participate in a cooperative regional approach to wastewater that adequately services planned growth within the city.

Goal 2 Provide wastewater services to all existing and future Roseville development through the City's wastewater utility. The provision of services by another provider may be considered when it is determined that such service is beneficial to the City and its utility customers or the provision of City services is not feasible.

Goal 4 Meet State of California and EPA water quality standards for the discharge of treated wastewater, as well as meet State of California quality standards for the production of recycled water.

Policy 2 Ensure adequate storm surge capacity at the wastewater treatment plants.

Policy 3 Initiate upon 75 percent utilization of treatment plant capacity, expansion studies to determine necessary improvements to meet projected wastewater treatment demands.

Policy 4 Ensure that wastewater treatment capacity is available and that wastewater generation is minimized.

Solid Waste Regulations, Laws, Plans and Policies

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. The City of Roseville achieved 66 percent diversion by 2006, while unincorporated Placer County achieved a diversion rate of 68 percent (Cal Recycle 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.

City of Roseville General Plan and Zoning Ordinance

As described previously, the City's Source Reduction and Recycling Element is a part of the City of Roseville General Plan, and contains includes goals and policies for solid waste disposal. Section 9.17 of the Municipal Code includes provision for refuse hauling and recycling.

Electricity and Natural Gas Laws, Plans and Ordinances

Federal

The Federal Energy Regulatory Commission regulates the transmission and sale of electricity in interstate commerce, licenses hydroelectric projects, and oversees related environmental matters. In 2006, the US EPA and Department of Energy co-sponsored the National Action Plan for Energy Efficiency (the Action Plan). The Action Plan presents policy recommendations for creating a sustainable, aggressive national commitment to energy efficiency through gas and electric utilities and partner organizations. As stated in the Action Plan, such a commitment could save many billions of dollars on energy bills over the next 10 to 15 years and contribute to energy security and improvement the environment (US Department of Energy and US EPA 2006). Roseville Electric practices the principles of the Action Plan by implementing renewable energy program and offering incentives to reduce energy use.

State

The project 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

The City currently encourages energy conservation by providing information regarding rebate programs for energy efficiency investments and education programs for residents and businesses. In recent years, the City has encouraged energy efficiency through its BEST (Blueprint for Energy Efficiency and Solar Technology) Homes program. BEST Homes bring together integrated rooftop solar electric generation technology, high energy efficiency, water efficiency, and shade trees as standard features in homes. Through BEST Homes, Roseville Electric is offering new home developers up to $8,600 in rebates for each participating dwelling unit (plus $30 per qualifying Shade Tree). The City proposes that up to 20 percent of all new home

construction include high energy efficient integrated rooftop solar electric generation technology as a standard feature in homes. The City of Roseville has numerous other programs that encourage energy conservation.

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 US 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 and alternatives was estimated utilizing unit water demand factors from the Water Supply Assessment prepared for the Sierra Vista Specific Plan. These water factors are based on meter data from existing customers in the City and County. These factors were applied to proposed land uses included in the Proposed Action and alternatives. Next reductions resulting from the use of recycled water for outdoor uses and estimated savings from planned water conservation measures were applied to arrive at the total demand for potable water. In calculating the water demand, a 2 percent factor was added to account for water system losses. **Table 3.15-1, Water Demand at Buildout,** presents the estimated water demand for the Proposed Action and alternatives.

Table 3.15-1
Water Demand at Buildout (Acre-Feet Per Year)

Land Use	Proposed Action	Alternative 1	Alternative 2	Alternative 3	Alternative 4	Alternative 5 (No Action)
Water Demand	4,252	3,119	2,927	3,811	4,452	3,286
2 % for Losses	85	62	59	76	89	66
Total	4,337	3,181	2,986	3,887	4,541	3,352
Conservation Measures Imposed	-729	-533	-500	-652	-761	-562
Net Water Demand	**3,608**	**2,648**	**2,485**	**3,236**	**3,780**	**2,789**

Source: City of Roseville 2009; Impact Sciences 2011
Note that the totals from the City of Roseville Water Supply Assessment for the Sierra Vista Specific Plan included the Urban Reserve properties. These are excluded from this total.

The USACE reviewed the water supply entitlements, water rights, and water service contracts held by the water suppliers to determine the suppliers' abilities to meet the Proposed Action and alternatives' future demands. Water demand was evaluated against supplies under normal/wet year and drought year scenarios. Water demand was also evaluated against reduced surface water supplies that could result from cutbacks per the Water Forum Agreement or from cutbacks instituted by BoR as a result of the OCAP.

Groundwater

The City of Roseville and PCWA rely on groundwater as a backup supply during drought years. The Water Supply Assessment prepared for the Proposed Action evaluated historical hydrologic data to determine the frequency of droughts in the region. The analysis then determined the amount of groundwater required if surface water supplies were reduced in accordance with the Water Forum Agreement or potential reductions from the OCAP.

A groundwater impact analysis was prepared for Reason Farms Land Retirement Plan. The report simulated groundwater conditions using the North American River and Sacramento County Combined Integrated Groundwater and Surface Water Model (IGSM) (MWH 2003). Data from this study was also used to evaluate groundwater impacts of the Proposed Action and alternatives.

Wastewater

For wastewater treatment, the demand for treatment was calculated for the Proposed Action and compared to the capacity of the Pleasant Grove WWTP as well as to demand estimates included in the Systems Evaluation report. The Average Dry Weather flow that is used to evaluate treatment capacity impacts was determined utilizing unit flow factors established in the System Evaluation report (RMC 2009). These unit flow factors were applied to the land uses under the Proposed Action and alternatives to estimate the quantity of wastewater to be treated at the Pleasant Grove WWTP. **Table 3.15-2, Average Dry Weather Flow at Buildout,** below presents the estimated Average Dry Weather Flows for the Proposed Action and alternatives.

Table 3.15-2
Average Dry Weather Flow at Buildout (mgd)

Alternative	Total Average Dry Weather Flow
Proposed Action	1.37
Alternative 1: Reduced Footprint/ Increased Density	1.29
Alternative 2: Reduced Footprint/Same Density	1.01
Alternative 3: Focused Avoidance	1.07
Alternative 4: Southwest Site	1.16
Alternative 5: No Action	0.79

Source: City of Roseville 2010a; Mackay & Somps 2011

Solid Waste

In order to evaluate the Proposed Action or an alternative's effects on solid waste disposal facilities, as a first step, the total tonnage of solid waste that would be generated was estimated. Solid waste generation rates were based on actual data obtained from City of Roseville records, data maintained by the Western Placer Waste Management Authority, and data maintained by CalRecycle. **Table 3.15-3, Solid Waste Generation, Diversion, and Disposal at Buildout,** presents the estimated solid waste for the Proposed Action and alternatives.

Table 3.15-3
Solid Waste Generation, Diversion, and Disposal at Buildout

Alternative	Generation		Diversion – Materials Recovery Facility		Diversion – Direct Recycling		Disposal in Landfill	
	Tons per Year[1]	Tons per Day	Tons per Year[3]	Tons per Day	Tons per Year[4]	Tons per Day	Tons per Year[2]	Tons per Day
Proposed Action	37,053	102	9,988	27	9,094	25	17,972	49
Alternative 1: Reduced Footprint/Increased Density	37,081	102	9,995	27	9,101	25	17,985	49
Alternative 2: Reduced Footprint/Same Density	27,475	75	7,406	20	6,743	18	13,326	37
Alternative 3: Focused Avoidance	29,787	82	8,029	22	7,311	20	14,448	40
Alternative 4: Southwest Site	31,175	85	8,403	23	7,651	21	15,120	41
Alternative 5: No Action	20,778	57	5,601	15	5,099	14	10,078	28

Source: City of Roseville 2010a; Impact Sciences 2011

[1] *Generation rate is 12.02 lbs/person/day*

[2] *Disposal rate is 5.83 lbs/person/day*

[3] *Materials Recovery Facility Diversion rate is 3.24 lbs/person/day*

[4] *Direct Recycling rate is 2.95 lbs/person/day*

The estimated tonnage was then compared to the processing capacity at the Materials Recovery Facility and the remaining capacity of the landfill to determine whether additional capacity would be required.

Electricity, Natural Gas, and Telecommunication

The existing and future infrastructure electricity, natural gas, and telecommunications facilities area were evaluated in the Technical Dry Utilities Study for the Sierra Vista Specific Plan (Capitol Utility Specialists 2009).

3.15.5 ENVIRONMENTAL CONSEQUENCES AND MITIGATION MEASURES

Impact UTIL-1 Availability of Water Supplies to Meet Demand

Proposed Action

Development of the Proposed Action would include residential, commercial, business professional, and school uses that would require water. As demonstrated by the analysis presented below, the City of Roseville's water supply would be adequate to serve the Proposed Action at buildout under both normal/wet year conditions and under drought conditions, and the effect related to water supply would be **less than significant**. Mitigation is not required.

Without conservation, the total water demand for the Proposed Action at build out would be approximately 4,337 afy (535 hmy), which includes 85 afy (10 hmy) for system losses. The Proposed Action, however, includes conservation measures such as limiting the amount of turf in front yards and replacing turf with low water use plantings, smart irrigation controllers, and implementing systems to recirculate hot water. In total, the water conserved from these measures would reduce water demand by 17 percent or 729 afy (90 hmy) (City of Roseville 2009). Therefore, with conservation measures, the water demand for the Proposed Action would be 3,609 afy (445 hmy) at build out. See **Table 3.15-1, Water Demand at Buildout.**

The normal demand for the City at General Plan build out plus the Proposed Action is estimated to be approximately 62,194 afy (7,672 hmy) (58,586 afy [7,226 hmy] + 3,608 afy [445 hmy]). The Proposed Action and new development in the City of Roseville would rely on recycled water for irrigation. A total of 4,388 afy (541 hmy) of recycled water is anticipated to be available at build out of the City and the Proposed Action. If recycled water available at build out (approximately 4,388 afy [541 hmy]) is subtracted from the total demand of 62,194 afy (7,672 hmy), the net water demand would be 57,806 afy (7,130 hmy).

Wet Years

In normal/wet years, the City's American River supply of 58,900 afy (7,265 hmy) is sufficient to meet the projected demand associated with the buildout of the Proposed Action and the rest of the City under the General Plan. In fact, when compared to the total projected potable water demand of 57,806 afy (7,130 hmy), there is a surplus of 1,094 afy (134 hmy) of water at buildout. Therefore, current supplies are reasonably certain to be sufficient to serve the Proposed Action plus build out under the City's General Plan in wet years.

Drought Years

During drought years, the City would be required to cut back its water supply pursuant to the Water Forum Agreement. In addition, as described in **subsection 3.15.3** above, the OCAP could be required to reduce the supply from CVP and SWP to the water purveyors in the region. The two scenarios are described below.

Water Forum Scenario

The Water Forum Agreement identifies three different water year types: normal or wet (normal/wet); drier; and, driest. The Water Forum Agreement imposes limitations on the amount of water than can be diverted by the participants from the American River, depending on the type of water year and the stage of drought. In a normal/wet year, the City has agreed to limit the amount of water it would divert from the American River for its use to 58,900 afy (7,265 hmy). In drier years, the amount of water available for diversion varies depending on the American River's unimpaired inflow. Diversions would vary from a maximum of 58,900 afy (7,265 hmy) to a minimum of 39,800 afy (4,909 hmy). In the driest (critically dry) years, the City has committed to limiting the amount of water diverted from the American River to no less than 39,800 afy (4,909 hmy) (City of Roseville 2010a).

The Sierra Vista Specific Plan Water Supply Assessment examined the potential shortfalls surface water supplies of the City, based on 100 years of the hydrologic record of the American River. The City's demand at buildout of the general plan (including the Proposed Action) was compared to available supply from American River during historical drier and driest years to estimate water shortfalls during historical drier and driest years. The demand was assumed for analysis to be equal to 58,900 afy (7,265 hmy); in reality as reported above, with the use of recycled water, it is estimated to be lower. The analysis showed that in a normal year, such as occurred in 1929, there would be no anticipated shortfalls. In critically dry years, such as occurred in 1924 and 1977, the shortfall could be up to 19,100 acre-feet (2,356 hmy) of water supply. In wetter years as the amount of surface water availability to the City increases from 39,800 afy (4,909 hmy) to 58,900 afy (7,265 hmy), based on the unimpaired inflow, the anticipated shortfall decreases from 19,100 (2,356) to 0 afy (City of Roseville 2009).

The hydrologic record indicates that in the past 100 years, there were two critically dry years and 13 drier years (City of Roseville 2009). In 1977, the driest year on record for the last 100 years, the annual flow on the American River was 520,190 acre-feet (af) (64,164 hectare-meters [hm]). If similar drought conditions occurred in the future, the City would experience a shortfall of up to 19,100 af (2,356 hm). As the water demand associated with the Proposed Action is included in the demand for the City as a whole, this shortfall is the maximum shortfall that is expected to occur. The Proposed Action's contribution to the shortfall is accounted for in this number. The City has indicated that it would address this shortfall by imposing conservation measures identified in its municipal code, which would reduce its demand, and would supplement any additional demand with groundwater supplies if necessary (City of Roseville 2010a). If the City is able to accomplish a 50 percent reduction in demand through its conservation measures, groundwater would not be needed to supplement supplies. However, to ensure a highly reliable water supply for the City, the water supply assessment assumed that only a 20 percent reduction would be achieved through conservation. This is equivalent to a reduction in water demands of 11,561 afy

(1,426 hmy) at buildout of the City plus the Proposed Action (20 percent of the surface water supply requirement of 57,806 afy [7,130 hmy]). The 100 years of hydrologic data include both the 1977 and 1924 droughts of record. This hydrologic record provides a good picture of what can be anticipated as future unimpaired flows in the American River. The data indicate that there would be 15 years out of 100 that would require some level of conservation. Of those 15 years, and assuming only a 20 percent reduction in water demand through conservation efforts, only 7 years would require groundwater pumping to make up for shortfalls in surface water supplies (City of Roseville 2010a). The use of groundwater will help avoid the need to divert additional American River water in excess of what is allowed under the Water Forum Agreement.

Based on the above, the Proposed Action would not increase the City's total water demand such that the available surface water supplies would be inadequate in normal and dry years. During critically dry years, the additional demand for water created by the Proposed Action would further increase the gap between available supply and total demand for water, making it necessary for the City to pump groundwater. Effects associated with groundwater withdrawal are discussed under **Impact UTIL-2**.

With respect to possible effects from climate change, it is expected that surface water volumes within the American River watershed (the City's surface water supply source) will not change, although the City and the State may need to take proactive measures to manage the supply should water be received increasingly in the form of rain, instead of snow pack.

BoR OCAP Scenario

In addition to the evaluation of the Proposed Action's effect on water supply relative to Water Forum Agreement limitations, the City of Roseville also conducted an evaluation of the effects of reduced surface water supply as a result of cutbacks resulting from the revised OCAP. As noted earlier, the federal ESA allows the USFWS to require changes to the OCAP for the protection of the delta smelt and other federally listed species. According to revised OCAP, full deliveries of PCWA and BoR contracted supplies are projected to occur 58 percent of the time. According to the City, about 45 percent of the time, shortages in surface water supplies can be addressed through implementation of water conservation measures for drought Stages One and Two (between 10 percent and 20 percent conservation) outlined in the Roseville municipal code. Under the OCAP scenario, about 13 percent of the time, surface water deliveries will fall below a level where the shortfall would be addressed by 20 percent conservation efforts and supplemental supply from groundwater. Based on the 100-year hydrological record under the OCAP scenario, there would be a need to pump groundwater in 13 of 100 years.

In summary, the City has sufficient dry and critical dry year water supplies for the Proposed Action and the rest of the growth under the General Plan under both Water Forum Agreement and BoR OCAP scenarios. With the conservation measures described above and

limited reliance on groundwater, current supplies are reasonably certain to be sufficient to serve not only the Proposed Action, but buildout under the City's General Plan even in drought years. Therefore, the effects of the Proposed Action on wet and drought year water supplies would be **less than significant**. Mitigation is not required.

No Action Alt., Alts. 1, 2 & 3 (On Site)

As demonstrated by the analysis presented below, the City of Roseville's water supply would be adequate to serve all of the on-site alternatives at buildout under both normal/wet year conditions and under drought conditions, and the effect related to water supply would be **less than significant**. Mitigation is not required.

All of the on-site alternatives would develop commercial and residential uses that would create demand for water supplies in the City of Roseville. As shown on **Table 3.15-1,** development of these uses would result in a demand for water ranging from 2,986 afy (368 hmy) (Alternative 2) to 3,887 afy (479 hmy) (Alternative 3), without conservation but including system losses. It is anticipated that the water supply source for all of the on-site alternatives would be similar to the Proposed Action, so would include water from the City's American River water supply. As described above, current supplies in the City are reasonably certain to be sufficient to serve demands from the Proposed Action which are higher than demands under the on-site alternatives. Therefore, the City would have adequate supplies to serve the on-site alternatives, in addition to other development anticipated under the City's General Plan in normal/wet years. Based on the significance criteria listed above and for the same reasons presented above for the Proposed Action, the effect related to water supply during normal/wet years would be **less than significant**. Mitigation is not required.

During drought years, the City would have reduced surface water supplies under the Water Forum Agreement and OCAP scenarios described above. The City would impose water conservation measures, depending on the severity of the drought, which would reduce the total demand for water supplies in the City and would rely on groundwater as backup supply. Based on the analysis completed for the Proposed Action above, the City would have sufficient supplies during dry years to serve the on-site alternatives, in addition to other development in the City. Based on the significance criteria listed above and for the same reasons presented above for the Proposed Action, the effect related to water supply during drought years would be **less than significant**. Mitigation is not required.

Alt. 4 (Off Site)

As demonstrated by the analysis presented below, the PCWA's water supply would be adequate to serve Alternative 4 at buildout under both normal/wet year conditions and under drought conditions, and the effect related to water supply would be **less than significant**. Mitigation is not required.

Development of commercial and residential uses at the Alternative 4 site would result in a water demand of approximately 3,887 afy (479 hmy), without applying conservation measures. The Alternative 4 site would be served by the PCWA. Off-site infrastructure

required to serve the Alternative 4 site would not demand water.

The total surface water supply available to the western Placer County area (Zone 1 & Zone 5) is 263,889 afy (32 550 hmy) of permanent supply in normal years, including 9,000 afy (1,110 hmy) of recycled water. Out of that permanent supply, PCWA has contracted to deliver up to 25,000 afy (3,084 hmy) to 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.

During dry years, the total surface water supply would be reduced to 204,238 afy (25,192 hmy) for Zones 1&2. The projected demand for treated demand within western Placer County would be about 69,701 afy (8,597 hmy) beyond 2040 (PCWA 2011). Addition of water demands from Alternative 4 (3,887 afy [479 hmy]) to future demands projected for developments in western Placer County would result in a future demand of 73,588 afy (9,077 hmy) after 2040. Therefore, PCWA would have sufficient supplies in normal and dry years to meet demands of Alternative 4 and other future developments. Based on the significance criteria listed above and for the reasons presented above, the effects would be **less than significant**. Mitigation is not required.

Impact UTIL-2 Groundwater Demand Impacts

Proposed Action

Withdrawal of groundwater has the potential to cause groundwater levels to decline locally or regionally. Although groundwater aquifers are recharged by precipitation, if the groundwater withdrawal rate exceeds the recharge rate, it can lead to long-term declines in groundwater levels. The use of groundwater, even when infrequent, can affect aquifers in the area by altering groundwater elevations, which can in turn affect recharge condition, change aquifer storage characteristics, result in localized well impacts, or cause areas of poorer quality groundwater to shift (MWH 2003). However, as shown by the analysis presented below, the effect of groundwater withdrawal needed to serve the Proposed Action on the regional groundwater levels would be **less than significant**. Mitigation is not required.

As discussed under **Impact UTIL-1**, during normal/wet hydrologic year types, water demand within the City, including the Proposed Action, would be met using surface water and recycled water supplies, and groundwater would not be used. During dry hydrologic years, City water demand, including the demand associated with the Proposed Action, would be met by a combination of surface water, recycled water, and demand reduction activities such as mandatory water conservation efforts. In the critically dry years, these sources would need to be supplemented by groundwater supplies. In all year types, groundwater may also be used as an emergency backup for recycled water supplies as is current City policy. The City of Roseville evaluated the effect of groundwater extraction

under two scenarios that are described below.

Water Forum Scenario

As discussed under **Impact UTIL-1**, under the Water Forum scenario, the City estimated that groundwater would need to be used in 7 years out of 100 to supplement available surface water supplies after a 20 percent conservation level had been achieved. The estimated amount of groundwater per year needed would range from 0 to 6,445 afy (795 hmy), and would add up to 26,363 acre-feet (3,252 hectare-meter) for the 100-year analysis period for the City of Roseville buildout including the Proposed Action.

In 2003, the City of Roseville acquired Reason Farms, a 1,754-acre (710-hectare) property located in the West Roseville Specific Plan Area that was used for production of rice. As explained in **Mitigation Measure HYDRO-1**, the City plans to use the site in the future for stormwater retention so has taken the site out of rice production. When Reason Farms was still in use for rice production, approximately 6,483 af (800 hm) of groundwater was extracted each year at this site to irrigate the rice fields, and most of this water was lost to evaporation. Since 2003, the Reason Farms site is dry farmed and the use of groundwater on the site is much reduced. According to the City, the total amount of banked groundwater obtained through fallowing Reason Farms is estimated to be 293,043 acre-feet (36,146 hectare-meter). This is based on the assumption that groundwater would be banked 93 years of 100 years at the rate of 3,151 acre-feet (389 hectare-meters) banked each year. After subtracting both the amount of groundwater used for emergency backup recycled water supply and the amount used in 7 out of 100 dry years from the amount of banked groundwater, 266,512 acre-feet (32,874 hectare-meter) would remain banked in the groundwater basin.

BoR OCAP Scenario

Under the OCAP scenario, full deliveries will be available only 58 percent of the time and 42 percent of the time; some level of conservation will be in effect. Thirteen percent of the time, surface water deliveries will need to be supplemented with groundwater. The estimated amount of groundwater per year needed to augment surface water supplies would range from 0 to 6,445 afy (795 hmy) and would total 48,559 acre-feet (5,990 hectare-meter) for the 100-year analysis period. The amount of banked groundwater obtained through fallowing Reason Farms is estimated to be 274,137 acre-feet (33,814 hectare-meters). This is based on the assumption that groundwater would be used 13 years out of 100 years, and banked 87 years out of 100 years for a total of 3,151 afy (389 hmy) banked. After subtracting both the amount of groundwater used for emergency backup recycled water supplies and the amount used in dry years from the amount of bank groundwater, 225,410 acre-feet (27,804 hectare-meter) would remain banked in the groundwater basin.

Thus, under both the Water Forum and the BoR OCAP scenarios, the groundwater levels within the basin are expected to increase as a result of the City's retirement of Reason Farms.

Because the Proposed Action is expected to use less groundwater than would be banked, groundwater withdrawal to serve the Proposed Action would not adversely affect groundwater levels. The effect of the Proposed Action on the regional groundwater levels would be **less than significant**. Mitigation is not required.

No Action Alt., Alts. 1, 2, 3 (On Site) Under all of the on-site alternatives, groundwater would be used to supplement surface water supplies during dry years and as emergency back-up supply. As shown in **Table 3.15-1**, the water demands under the on-site alternatives would be less than the demand under the Proposed Action. Therefore, the effects on groundwater resources described under Proposed Action above would apply to the on-site alternatives. Based on the significance criteria listed above and for the same reasons presented above for the Proposed Action, the effect of all the on-site alternatives on groundwater levels would be **less than significant**. Mitigation is not required.

Alternative 4 (Off Site) Similar to the City of Roseville, the PCWA uses groundwater as a backup supply in the event that surface water supplies are temporarily reduced. A large portion of the Alternative 4 site is currently used for agricultural production, with an estimated 716 acres (290 hectares) in rice production. Based on a rate of 6 acre-feet (0.7 hectare-meter) per year of irrigation water per acre of rice fields, it is estimated that about 4,300 acre-feet (530 hectare-meters) of groundwater is pumped annually from the groundwater basin to irrigate the rice fields on this site. With the displacement of the rice fields, this amount of groundwater would no longer be pumped and would instead be banked and would be available for withdrawal during dry years when surface water supplies are reduced. The amount banked would substantially exceed the amount of groundwater that would be extracted under drought conditions. Based on the significance criteria listed above and for the reasons presented above, the effect of the off-site alternative on groundwater levels would be **less than significant**. Mitigation is not required.

Impact UTIL-3 Capacity of Water Treatment and Supply Facilities

Proposed Action The City's WTP has sufficient treatment capacity to meet the needs of the Proposed Action and buildout of the City of Roseville. In addition, BoR raw water pumping facilities would be adequate to serve future needs of the City, including the Proposed Action. This effect is considered **less than significant**. Mitigation is not required.

Treatment Plant Capacity

The City's WTP on Barton Road, which is owned and operated by the City of Roseville, would treat water for uses under the Proposed Action and alternatives. The capacity of the City's WTP is 100 mgd (379 mld). Potable water demands at buildout of the City and the Proposed Action are estimated at 57,806 afy (7130 hmy) (62,194 afy [7,672 hmy] water demand – 4,388 afy [541 hmy] recycled water supply). This equates to an average day treatment demand of 51.6 mgd (195.3 mld). Based on a peaking factor of 1.83 for the maximum day demand, water treatment plant capacity of 94.4 mgd (357.3 mld) would be

required to meet future demands. The City's WTP currently has a capacity of 100 mgd (379 mld), which is greater than the anticipated demands. Therefore, the City's WTP would have adequate capacity to meet the demands of the Proposed Action and the buildout of the rest of Roseville under the General Plan.

Water Supply Facilities

The raw water supplied for the Proposed Action would come to the City of Roseville's Barton Road WTP from Folsom Lake via conveyance facilities owned and operated by the BoR. The pumping capacity for the City of Roseville at the BoR pumping plant is limited to 150 cubic feet (4.2 cubic meters) per second or 96.9 mgd (366.8 mld). As described above, potable water demands at buildout of the City, including the Proposed Action, equate to an average day demand of 51.6 mgd (195.3 mld) and a maximum day demand of 94.4 mgd (357.3 mld). Since pumping capacity at BoR facilities exceeds demands at buildout of the City, including the Proposed Action, the raw water pumping facilities would be adequate to serve future needs of the City.

In summary, the City's WTP has sufficient treatment capacity to meet the needs of the Proposed Action and buildout of the City of Roseville. In addition, BoR raw water pumping facilities would be adequate to serve future needs of the City, including the Proposed Action. This effect is considered **less than significant**. Mitigation is not required.

No Action Alt., Alts. 1, 2, 3 (On Site)

Potable water for use under the on-site alternatives would be treated at the City's WTP on Barton Road. The average and maximum day demand for water treatment at this facility under the alternatives would be lower than the demand reported for the Proposed Action. Therefore, the City's WTP would have adequate capacity to meet the demands of the on-site alternatives and the BoR raw water pumping facilities would be adequate to serve future needs of the City, including the alternatives. Based on the significance criteria listed above and for the same reasons presented above for the Proposed Action, the effects would be **less than significant**. Mitigation is not required.

Alt. 4 (Off Site)

Water that would be used at the Alternative 4 site would be treated by the Foothill/Sunset system, which consists of the Foothill WTP in Newcastle and the Sunset WTP in Rocklin. Buildout demands for the service area of the Foothill/Sunset system exceed the current capacity of the Foothill and Sunset water treatment plants. The unused treatment capacity within the Foothill/Sunset water system would be provided on a first come-first served basis (Smith 2012). However, expansion of additional capacity within Foothill/Sunset system would be provided as necessary. This represents a **less than significant** effect.

The treated water would be delivered through PCWA's existing transmission pipeline system to the vicinity of Industrial Avenue. There the water would be introduced into the City of Roseville's potable water system and conveyed to the intersection of Baseline and Fiddyment roads. The pipeline to serve Alternative 4 would connect to the City's distribution system at this location. Installation of the new pipeline would occur in currently

undeveloped areas in unincorporated Placer County. The disturbance to construct this pipeline would be substantially greater than the disturbance associated with piping water to the project site.

Ground disturbing activities associated with pipeline installation would result in footprint impacts including impacts to biological resources and cultural resources. The effect is considered **significant,** but would be mitigated to **less than significant** with the proposed mitigation.

IMPACT UTIL-4 Impacts from Construction or Expansion of Wastewater Facilities

Proposed Action

Wastewater effluent from the Proposed Action site would be treated at the Pleasant Grove WWTP. While the Proposed Action on its own could be served by the existing excess treatment capacity at the Pleasant Grove WWTP, however when the flows generated by the Proposed Action are combined with projected flows from other anticipated development within the service area of the WWTP, an expansion of treatment capacity would be required. This is a **significant** effect of the Proposed Action. The proposed mitigation would reduce this effect to **less than significant.**

Based on unit flow factors and peaking factors established in the South Placer Regional Wastewater and Recycled Water Systems Evaluation, the Proposed Action would generate approximately 1.37 mgd (5.19 mld) Average Dry Weather flow (ADWF) at buildout (see **Table 3.15-2)**. The current capacity of the WWTP is 12 mgd (45 mld) and the current flows that are treated at the plant are 7 mgd (26 mld). Therefore, there is adequate WWTP capacity to serve the Proposed Action. In addition, the off-site conveyance facilities are adequately sized to handle the flows from the buildout of the Proposed Action.

However, the Proposed Action would be constructed over a period or 15 to 30 years depending on market conditions. During this timeframe, other new development is expected to also occur within the service area of the WWTP. The City of Roseville evaluated the effect on capacity from wastewater flows generated by the Proposed Action in conjunction with flows from other existing and planned development within the 2005 service area boundary and the ultimate service area boundary of the Pleasant Grove WWTP. The City estimated that at buildout of the 2005 service area boundary, ADWF flows to the WWTP would be on the order of about 19 mgd (72 mld) (this includes wastewater flows from the Regional University project and the Proposed Action) and under the buildout of the ultimate service area boundary, ADWF would be about 25.7 mgd (97.3 mld). Since its existing permitted capacity is 12 mgd (45 mld) and an expansion to 15 mgd (57 mld) is planned but would still not suffice, additional expansion of the WWTP would be required to accommodate future demands. While the Proposed Action's contribution to the need to expand the WWTP is incremental, and would be in combination with other development in the region, it would nonetheless contribute to the need to expand the facility.

The West Roseville Specific Plan EIR (West Roseville Specific Plan EIR) and the Wastewater

Master Plan EIR, both prepared by the City of Roseville, evaluated effects associated with the expansion of the WWTP. As summarized in the Sierra Vista Specific Plan (SVSP) EIR, construction effects associated with plant expansion that are anticipated to occur include noise, dust, emissions from construction vehicles, increased traffic congestion due to construction vehicles, potential disruption of utility lines, erosion, water quality effects, and potential disturbance of cultural resources. However, all of these effects would be temporary and either not substantial or reduced to less than significant with mitigation. However, operation of the expanded treatment plant would likely contribute to potential growth inducement, land use compatibility, traffic, noise, dust, odors, and water quality effects, including increased discharge of treated effluent to Pleasant Grove Creek and potential effects to water temperatures associated with operation of the WWTP. On-site effects that have been identified for the WWTP expansion include loss of vernal pools/seasonal wetlands, and effects to vernal pool special status species, loss of raptor habitat, odor and noise emissions at Pleasant Grove WWTP, and increased criteria air pollutant emissions due to resultant development. With mitigation measures prescribed in the EIR, these effects would be reduced to the extent practicable. As the Proposed Action would contribute to the need for WWTP expansion, the effect related to expansion of wastewater facilities would be considered a **significant** indirect/secondary effect of the Proposed Action.

Implementation of **Mitigation Measure UTIL-4** would reduce this effect. This measure is the same as Mitigation Measure 4.12.3-1 in the Sierra Vista Specific Plan EIR and was adopted by the City of Roseville at the time of project approval and will be enforced by the City. Pursuant to this mitigation measure and consistent with General Plan Policy 3, the City of Roseville will initiate expansion efforts at the time the Pleasant Grove WWTP nears 75 percent capacity. At that time, the City will prepare required California Environmental Quality Act (CEQA) documents to analyze any effects and identify appropriate mitigation measures that would mitigate the effects, to the extent feasible. It is anticipated that the WWTP would be expanded on the 20-acre (8-hectare) parcel to the south of the plant that was identified in the West Roseville Specific Plan for this purpose. The Sierra Vista Specific Plan EIR determined that this mitigation measure would reduce the effect to less than significant (City of Roseville 2010a). The USACE agrees with the conclusion in the Sierra Vista Specific Plan EIR and finds that this effect would be reduced to **less than significant**.

No Action Alt., Alts. 1, 2, 3 (On Site)

All of the on-site alternatives would require wastewater treatment services that would contribute to the need to expand the Pleasant Grove WWTP. The expansion of the WWTP would result in the same types of effects described above under the Proposed Action. Based on the significance criteria listed above and for the same reasons presented above for the Proposed Action, this effect is considered **significant**.

Mitigation Measure UTIL-4 would be applied to the alternatives to ensure that any significant effects related to expansion of the treatment plant would be disclosed and mitigated, to the extent feasible. As noted above, this measure is the same as Mitigation

Measure 4.12.3-1 in the Sierra Vista Specific Plan EIR. The USACE assumes that the City of Roseville would impose the same mitigation measure on all of the on-site alternatives to address this effect. For reasons presented above, the USACE finds that this effect would be reduced to **less than significant**.

Alt. 4 (Off Site) Alternative 4 site is located outside the ultimate service area boundary of the Pleasant Grove WWTP. Therefore a major revision to the service area boundary would be required in order to treat the wastewater from this site at the WWTP. Assuming such a revision is permitted by the South Placer Wastewater Authority and the Alternative 4 site is included in the service area, the buildout of Alternative 4 would make a similar contribution as the Proposed Action to the need to expand the WWTP capacity. The expansion of the WWTP would result in the same types of effects described above under the Proposed Action. Based on the significance criteria listed above and for the same reasons presented above for the Proposed Action, this effect is considered **significant**. **Mitigation Measure UTIL-4** would be applied to Alternative 4 to ensure that any significant effects related to expansion of the treatment plant would be disclosed and mitigated, to the extent feasible. The USACE assumes that Placer County would impose a mitigation measure similar to **Mitigation Measure UTIL-4** for the off-site alternative and would find that the measure would reduce the effect to **less than significant**. The USACE acknowledges that it has no authority to require **Mitigation Measure UTIL-4** and cannot guarantee that the County will impose this measure.

Unlike the Proposed Action and on-site alternatives that would not require expansion of off-site conveyance facilities, development of the mixed-use community at Alternative 4 site would require the construction of a new wastewater conveyance pipeline from the eastern boundary of the site to the WWTP that would be placed in street rights-of-way where possible and across some undeveloped land. The environmental effects from construction of this wastewater pipeline are evaluated in other sections of this EIS.

Mitigation Measure UTIL-4 **WWTP Capacity**
(Applicability – Proposed Action and All Alternatives)

Prior to obtaining building permits in the SVSP, the applicants shall demonstrate to the City that the South Placer Wastewater Authority has approved expansion of the South Placer Wastewater Authority service area boundary to include the SVSP area. The applicants shall participate financially through connection fees in the construction of additional wastewater treatment capacity sufficient to accommodate projected flows. Applicant shall also participate on a fair share basis in other financial mechanisms for any additional environmental review required to secure approvals necessary to increase wastewater discharges from the plant, including approval by the South Placer Wastewater Authority for expansion of the service area boundary. It is recognized that the applicants will rely on the City (on behalf of the South Placer Wastewater Authority partners) to construct regional treatment and regional transmission facilities needed to discharge treated wastewater flows from within the service area boundary. In the event the City is unable to obtain the appropriate permits (e.g., NPDES permit) or is unable to complete the required facility expansions,

development within the service area boundary may continue until existing capacity has been exhausted, at which time any remaining development will be curtailed until such time that sufficient treatment and discharge capacity becomes available. Further, the applicants and/or the City, as appropriate, shall implement all relevant construction-related mitigation measures for expansion of the plant listed in Appendix H of the Sierra Vista Specific Plan EIR prepared by the City of Roseville and all water quality and aquatic resource mitigation measures applicable to this project as listed in Table 4.12.3-5 of the Sierra Vista Specific Plan EIR.

Impact UTIL-5 Increased Demand for Solid Waste Services

Proposed Action

Development of the Proposed Action would result in a demand for solid waste services that would be adequately handled by the existing Materials Recovery Facility (MRF). The effect on the MRF would be **less than significant**. Mitigation is not required. However, as shown in the analysis below, the Proposed Action, along with other existing and planned development, would result in the need for expanded landfill capacity. Expansion of the regional landfill could result in a **significant** effect. Mitigation would not reduce this effect to less than significant. A residual **significant** effect would remain after mitigation.

Materials Recovery Facility Capacity

There is adequate permitted capacity at Materials Recovery Facility to serve the Proposed Action by itself or in conjunction with growth under the Roseville General Plan. The effect on capacity of the facility would not be significant. The Materials Recovery Facility currently processes an average of 831 tons per day of mixed solid waste, and is permitted to receive up to 2,200 tons (1996 metric tons) per day. The Proposed Action is expected to generate approximately 102 tons (93 metric tons) of solid waste per day, of which 27 tons (24 metric tons) would be diverted to the Materials Recovery Facility (**Table 3.15-3)**. This represents an increase of 3 percent over the amount of solid waste currently processed at the facility and 1 percent of the facility's permitted capacity. At buildout of the Proposed Action and General Plan, an additional 493 tons (447 metric tons) per day of solid waste would be processed at the Materials Recovery Facility[4], resulting in a total of 1,324 tons (1,201 metric tons) of waste processing per day. This would represent 60 percent of the Materials Recovery Facility's permitted capacity at buildout. This effect would be **less than significant**. Mitigation is not required.

Landfill Capacity

Approximately 37,053 tons (33,614 metric tons) per year (102 tons [93 metric tons] per day)

4 The amount of solid waste conservatively expected to be generated within the City of Roseville at buildout of the General Plan is 324,417 tons per year (City of Roseville 2010). Approximately 37,053 tons per year are projected to be generated by the Proposed Action. The total processing demand of the City of Roseville and the Proposed Action would be as much as 361,470 tons per year (990.3 tons per day) if no direct recycling efforts are assumed. The City currently generates approximately 181,229 tons of solid waste per year (497 tons per day) to be processed at the Materials Recovery Facility. At buildout, this would amount to an average increase of approximately 493 tons per day over current processing demand.

of solid waste would be generated by the Proposed Action at buildout. Of this amount, approximately 17,972 tons (16,304 metric tons) per year, or approximately 49 tons (44 tons) per day, would require disposal at the Regional Landfill. At buildout of the City's General Plan, landfill disposal will reach approximately 155,720 tons (141,267 metric tons) per year or 427 tons (387 metric tons) per day (City of Roseville 2010a). With the addition of the Proposed Action, City landfill disposal needs would be approximately 173,705 tons (157,583 metric tons) per year, or 476 tons (432 metric tons) per day.

The landfill has a remaining capacity of approximately 15,263,180 tons (13,846,524 metric tons) (City of Roseville 2010a). Currently, the landfill is projected to be able to accept waste until 2042. However, the final closure date could be affected by regional growth rates, economic conditions, efficiency of waste recovery, and other factors. If the Proposed Action is built out by 2025, and assuming that recycling programs are in place, it would generate approximately 305,524 tons (277,167 metric tons) of solid waste for disposal at the landfill (17,972 tons [16,304 metric tons] per year x 17 years). This additional waste would take up approximately 2 percent of the landfill's remaining capacity, which could shorten the lifespan of the landfill by about six months.

As the Proposed Action would contribute to the need to expand the landfill in the future, the effect would be **significant**. **Mitigation Measure UTIL-5** would be implemented to address this effect. This measure is the same as Mitigation Measure WMM 4.11-7 in the Sierra Vista Specific Plan EIR and was adopted by the City of Roseville at the time of project approval and will be enforced by the City. It provides for the collection of fees with which to expand the landfill. However, because the City of Roseville cannot guarantee landfill expansion beyond current plans, the Sierra Vista Specific Plan EIR determined that this mitigation measure would not reduce the effect to less than significant (City of Roseville 2010a). The USACE agrees with the conclusion in the Sierra Vista Specific Plan EIR and finds that a residual **significant** effect would remain after mitigation.

Approximately 465 acres (188 hectares) west of the Regional Landfill are available for landfill expansion, although no expansion has been approved to date. If the Western Placer Waste Management Authority (WPWMA) proceeds with expanding the landfill, the expansion would result in environmental effects. However, since the expansion has not been formally proposed and details about the expansion are not known, specific effects cannot be identified at this time. Effects associated with the expansion would likely resemble those attributed to the existing landfill because the expansion site would be located adjacent to the existing landfill. Construction would likely result in effects from air pollutant emissions, noise, and erosion. In addition, agricultural land and biological resources, including wetlands, could be lost. Once constructed, the landfill could create additional odors, traffic, operational air emissions, increased emissions of landfill gas and combustion flare emissions, litter, night lighting, and degradation of surface and groundwater quality. The USACE assumes that these effects would resemble those of the existing landfill and the

expansion would be completed in compliance with the requirements of the landfill permitting process. The landfill expansion would also be required to undergo environmental review at the time it is proposed, and would be required to mitigate its potential effects to the extent feasible.

No Action Alt., Alts. 1, 2, 3 (On Site)

Development of all of the on-site alternatives would result in a demand for solid waste services that would be adequately handled by the existing MRF. This effect would be **less than significant**. Mitigation is not required. However, as shown in the analysis below, all of the on-site alternatives, along with other existing and planned development, would result in the need for expanded landfill capacity. Expansion of the regional landfill could result in a **significant** effect. Mitigation would not reduce this effect to less than significant. A residual **significant** effect would remain after mitigation**.**

Materials Recovery Facility Capacity

All of the on-site alternatives would include commercial and residential uses that would generate waste for processing at the MRF, as shown in Table 3.15-3. The on-site alternatives would divert 27 tons (24 metric tons) (under Alternative 1) to 15 tons (14 metric tons) (Alternative 5) each day to the MRF. This represents a net increase of up to 3 percent of the existing amount that is processed, or 1 percent of the permitted capacity of the facility. As described above, the MRF would have adequate capacity to process waste from the City at buildout, including the waste generated under the on-site alternatives. Based on the significance criteria listed above and for the same reasons presented above for the Proposed Action, the effect on MRF capacity would be **less than significant**. Mitigation is not required.

Landfill Capacity

All of the on-site alternatives would require the disposal of solid waste at the Regional Landfill, as shown in **Table 3.15-3**. As described above for the Proposed Action, the waste disposed of under the alternatives could shorten the life span of the landfill, thus contributing to the need for additional landfill space. Based on the significance criteria listed above and for the same reasons presented above for the Proposed Action, this represents a **significant** effect. Assuming the expansion would take place at a site identified adjacent to the existing landfill, there would be effects similar to those for the existing landfill. However, since details about the expansion are not known, specific effects cannot be identified at this time. The landfill expansion would be required to undergo environmental review at the time it is proposed, and would be required to mitigate its potential effects to the extent feasible.

As with the Proposed Action, each alternative would implement **Mitigation Measure UTIL-5** that provides for the collection of fees that would be used to fund landfill expansion. As noted above, this measure is the same as Mitigation Measures WMM 4.11-7 in the Sierra Vista Specific Plan EIR. The USACE assumes that the City of Roseville would impose the same mitigation measures on the on-site alternatives to address this effect. However,

because the City of Roseville cannot guarantee landfill expansion beyond current plans, this mitigation measure would not reduce the effect to less than significant. The USACE finds that a residual **significant** effect would remain after mitigation.

Alt. 4 (Off Site)

Development of the off-site alternative would result in a demand for solid waste services that would be adequately handled by the existing MRF. This effect would be **less than significant**. Mitigation is not required. However, as shown in the analysis below, the off-site alternative, along with other existing and planned development, would result in the need for expanded landfill capacity. Expansion of the regional landfill could result in a **significant** effect. Mitigation would not reduce this effect to less than significant. A residual **significant** effect would remain after mitigation**.**

Materials Recovery Facility Capacity

Waste generated under Alternative 4 would be processed at the MRF. Based on the significance criteria listed above and for the same reasons presented above for the Proposed Action, the effect on MRF capacity would be **less than significant**. Mitigation is not required.

Landfill Capacity

Alternative 4 would develop commercial and residential uses that would result in disposal of waste at the Regional Landfill, as shown in **Table 3.15-3**. As with the Proposed Action, the waste generated by the alternative could shorten the life span of the landfill, thus contributing to the need for additional landfill space. Based on the significance criteria listed above and for the same reasons presented above for the Proposed Action, this represents a **significant** effect. Assuming the expansion would take place at a site identified adjacent to the existing landfill, there would be effects similar to those for the existing landfill. However, since details about the expansion are not known, specific effects cannot be identified at this time. The landfill expansion would be required to undergo environmental review at the time it is proposed, and would be required to mitigate its potential effects to the extent feasible.

Mitigation Measure UTIL-5 is proposed to address the need for additional landfill space. The USACE assumes that Placer County would impose mitigation measures similar to **Mitigation Measure UTIL-5** for the off-site alternative. However, because Placer County cannot guarantee landfill expansion beyond current plans, this mitigation measure would not reduce the effect to less than significant. The USACE finds that a residual **significant** effect would remain after mitigation. The USACE acknowledges that it has no authority to require **Mitigation Measure UTIL-5** and cannot guarantee that the County will impose this measure.

Mitigation Measure UTIL-5 **Expand the Regional Landfill**
(*Applicability – Proposed Action and All Alternatives)*

Development in the SVSP Area and Urban Reserve shall pay collection fees to the City of Roseville, a portion of which shall be used to service bonds necessary to fund landfill expansion. As a member of the WPWMA, the City of Roseville can support the expansion of the landfill, as needed; however, the City cannot compel the WPWMA to expand the landfill.

Impact UTIL-6 Increased Demand for Electricity, Natural Gas, and Telecommunications

Proposed Action

The effects of providing electricity, natural gas, and telecommunication service to the project site under the Proposed Action would be **less than significant**. Mitigation is not required.

Electricity

The development and implementation of the Proposed Action would add land uses that would increase the demand for electrical services. The increased demand for electrical service is estimated to average 52 megavolt-amperes (MVA) peak demand (Capitol Utility Specialists 2009). Roseville Electric has indicated that there are no constraints to providing a reliable energy source to serve the development of the Proposed Action.

A 60-kV line currently exists within the project site. However, in order to provide service to the area, a new 60-kV electric substation is required and is included in the Proposed Action, as described in **Chapter 2.0, Proposed Action and Alternatives**. A site of a little less than 1 acre, located on the east side of Westbrook Boulevard, has been identified in the SVSP to accommodate the electric substation. Also as part of the Proposed Action, the 60-kV overhead transmission line that extends south into the project site, along the east side of Westbrook Boulevard will loop in and out of the new substation, then continue south and east in its current alignment where it completes its loop with the Fiddyment substation on Fiddyment Road. 12 kV light wire circuits will be looped off the mainline circuits via pad-mounted switches, and will distribute electric service within the various commercial and residential parcels on the site. Potential environmental effects that could occur as a result of constructing this substation and the transmission system described above are addressed in other sections of this EIS.

While development of the Proposed Action will result in increased demand for electricity, the proposed infrastructure would be adequate to meet this demand. Because the City has access to 40 percent of its supply from the Roseville Energy Park and has an energy efficiency program that would reduce energy demands, and a substation will be constructed as part of the Proposed Action to provide for adequate distribution, the effect would be **less than significant**. Mitigation is not required.

To the extent that increased electricity usage from the Proposed Action results in environmental effects due to fossil fuel consumption associated with power generation, such

secondary effects are addressed in **Section 3.5, Climate Change**.

Natural Gas

The development of the Proposed Action would increase the demand for natural gas. There are multiple opportunities for natural gas connections in the vicinity of the project site and adequate gas service will be available to serve the project site.

The increased demand for natural gas is estimated to be approximately 472 thousand cubic feet per hour (13,000 cubic meters per hour) (Capitol Utility Specialists 2009). The project site would be connected to existing points of connection nearby. In addition, a 30-inch (76-cm) steel natural gas transmission main is planned[5] on the north side of Baseline Road parallel and adjacent to the south side of the project site. Construction of the gas pipeline is scheduled to begin in the next year**.** The new pipeline will operate at a maximum allowable operating pressure of 975 pound-force per square inch gauge (psig) (69 kilogram-force per square centimeter [kgf/cm^2]).

Service would be extended to various parcels within the project site from existing plastic gas mains (pressures range up to 60 psig (4 kgf/cm^2)) on Fiddyment Road and Pleasant Grove Boulevard, which are currently fed from two gas regulator stations: one located on Blue Oaks Boulevard at Industrial Avenue, and the other on Baseline Road east of Fiddyment Road. It is possible that a third natural gas regulator station will be required to serve the project site. A possible site for a future natural gas regulator station has been identified in the SVSP on the project site adjacent to Baseline Road due to its proximity to the proposed 30-inch (76-centimeter) natural gas transmission main planned for Baseline Road.

Potential environmental effects that could occur as result of constructing the on-site natural gas distribution system are addressed throughout this EIS. According to PG&E there is adequate natural gas supply to serve the Proposed Action. Therefore, effects would be **less than significant**. Mitigation is not required. To the extent that increased natural gas usage contributes to climate change, such effects are addressed in **Section 3.5**.

Telecommunications

The development of the project site 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.

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5 The California State Lands Commission certified the Environmental Impact Report (EIR) for development of the 406-407 gas transmission line, including the portion along Baseline Road (California State Lands Commission 2009). As described in the EIR, operation and construction of the pipeline would result in potential significant impacts on the environment in the following subject areas: biological resources, agricultural resources, geological resources, hazards and hazardous materials, air quality, hydrology and water quality, cultural resources, transportation, aesthetics, recreation, population and housing, public services, utilities, energy, mineral resources, and noise.

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, the demand for cable television and telephone services would result in **less than significant** effects. Mitigation is not required.

No Action Alt., Alts. 1, 2, 3 (On Site)

The effects of providing electricity, natural gas, and telecommunication service to the project site under the on-site alternatives would be **less than significant**. Mitigation is not required.

The on-site alternatives would result in the demand for electricity, gas, and telecommunications. Although the amount of gas and electricity use would vary with the alternative, but the demands under the alternatives would be lower than under the proposed project, and the infrastructure necessary to support each alternative would be similar to that described for the Proposed Action. The facilities would be constructed within the project site and the environmental effects of these facilities have been evaluated in the remaining sections of this EIS. Based on the significance criteria listed above and for the same reasons presented above for the Proposed Action, the effects related to construction and operation of gas, electric, and telecommunication facilities would be **less than significant**. Mitigation is not required.

Alt. 4 (Off Site)

The effects of providing electricity, natural gas, and telecommunication service to the project site under the off-site alternative would be **less than significant**. Mitigation is not required.

Alternative 4 would result in increased demand for electricity, gas, and telecommunications. The amount of gas and electricity used would be similar to the Proposed Action as Alternative 4 would result in a similar intensity of development. PG&E would likely provide electric and gas service at the Alternative 4 site. To provide electricity and natural gas to the alternative, PG&E would extend power lines and new gas distribution feeder mains, regulator stations and transmission lines throughout the alternative site. The alternative 4 site would be connected to existing power lines and the future natural gas facilities within Baseline Road. Telecommunication companies would also install telecommunication facilities in the alternative site that would extend from existing facilities within Baseline Road. To the extent that electrical, gas, and telecommunication facilities would be constructed within the alternative site, the environmental effects of these facilities have been evaluated in the remaining sections of this EIS. Based on the significance criteria listed above and for the same reasons presented above for the Proposed Action, the effects related to construction and operation of gas, electric, and telecommunication facilities would be **less than significant**. Mitigation is not required.

3.15.6 RESIDUAL SIGNIFICANT IMPACTS

Impact UTIL-3 would remain **significant** under the off-site alternative as no feasible mitigation measures are available. **Impact UTIL-5** would remain **significant** under the Proposed Action and all alternatives 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.

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