6.11 PUBLIC UTILITIES

6.11 PUBLIC UTILITIES

INTRODUCTION

This section of the EIR describes wastewater utilities (including recycled water), solid waste, and other utilities (electricity, natural gas, cable, and telephone service) that would serve the Regional University Specific Plan (RUSP). Potable water supply is discussed in section 6.14 of this Draft EIR. The existing utilities are described, as well as their capacity to accommodate development of the RUSP area (Plan Area).

Information from the Placer County General Plan and other environmental documents prepared for projects in the vicinity of the project were used to prepare this section, including the *Roseville Regional Wastewater Treatment Service Area Master Plan Draft EIR*, Environmental Science Associates and Montgomery Watson, May 1996; the *Placer Vineyards Specific Plan Revised DEIR*, Quad Knopf, March 2006 and *West Roseville Specific Plan EIR,* EIP Associates, September 2003; as well as engineering studies done for the specific plan and other technical reports by the County, City of Roseville, and PCWA were also used to prepare this section.

Comments received in response to the NOP (see Appendix B) stated concern about the ability of the County to provide adequate public utilities, and solid waste generation and handling. CSD-1 commented that the project site is outside of the Urban Service Boundary and will not be provided sewer service by CSD-1 or SRCSD.

ENVIRONMENTAL SETTING

The project site is undeveloped land; subsequently, there are no existing wastewater facilities or conveyance structures on-site. The proposed project would rely on the City of Roseville for treatment of wastewater at the Pleasant Grove Wastewater Treatment Plant (PGWWTP).

Conveyance System

Sewer services in Placer County are provided by the Placer County Department of Facility Services, Environmental Engineering and Utilities Division. This division maintains sewer lines, cleans sewers, and operates and maintains wastewater treatment plants operated by Placer County. Areas served include North Auburn, Granite Bay, Sabre City, Sunset Industrial area, Sheridan, Applegate, and Blue Canyon. Wastewater from Granite Bay, Sunset Industrial area, and the Dry Creek communities (Sabre City) are treated by the City of Roseville under the operations agreement among the participants of the SPWA.

Pleasant Grove Wastewater Treatment Plant

The PGWWTP is owned and operated by the City of Roseville on behalf of the Regional Partners, which includes Placer County, the City of Roseville, and the South Placer Municipal Utility District (SPMUD). The PGWWTP is located approximately 2.2 miles east of the northeast corner of the project site. The average dry weather flow (ADWF) permitted capacity of the PGWWTP is 12.0 million gallons per day (mgd) with a peak wet weather flow (PWWF) of 30 mgd.[1] Currently the PGWWTP treats an ADWF of 6.5 mgd. The plant is able to treat up to 12 mgd of wastewater into clean, recycled water in accordance with Title 22 standards. The recycled water is used to irrigate golf courses, parks, streetscapes, and other public landscapes.[2]

The PGWWTP is presently authorized to discharge treated effluent into Pleasant Grove Creek under NPDES Permit No. CA0084573, which was issued by the Central Valley Regional Water Quality Control Board on March 17, 2000. The impacts of PGWWTP treating and discharging up to 29.5 mgd ADWF has been previously addressed in two environmental impact reports; *Roseville Regional Wastewater Treatment Service Area Master Plan Draft EIR*[3] (1996 Master Plan EIR) prepared by Environmental Science Associates and Montgomery Watson, May 1996, and *West Roseville Specific Plan EIR*[4] prepared by EIP Associates, September 2003. These documents are hereby incorporated by reference in this EIR.

Any increase of treatment capacity beyond 12.0 mgd ADWF permitted under the current NPDES permit (NPDES No. CA0084573) would require expansion of the existing PGWWTP facilities. The selected alternative in the 1996 Master Plan EIR was based on a buildout capacity of 20.7 mgd. The West Roseville Specific Plan EIR evaluated flows of up to 24.7 mgd and anticipated the plant may

1 Central Valley Regional Water Quality Control Board. Waste Discharge Order No. 5-00-075.
2 City of Roseville, *New Wastewater Plant is a Model for the Nation,* www.roseville.ca.us, Accessed November 3, 2004.
3 City of Roseville, *Roseville Regional Wastewater Treatment Service Area Master Plan Draft EIR,* May 1996, SCN 93092079.
4 City of Roseville, *West Roseville Specific Plan and Sphere of Influence Amendment EIR*, January 2004, SCN 2002082057.

require future expansion on 15 to 20 acres south of the plant.[5] Buildout of the 2005 service area and surrounding urban growth areas (UGAs), including the proposed project, is expected to result in an ADWF of 23.4 mgd[6] to the PGWWTP. The current and proposed capacity of PGWWTP is included in Table 6.11-1.

TABLE 6.11-1

ADWF CAPACITY AT PGWWTP

	Flow (mgd)	Source
Current Permitted Capacity	12.0	NPDES Permit
Impact of Discharge Evaluated	29.5	1996 Master Plan EIR, Merritt and Smith Consulting 2006
Certified capacity in EIR	20.7	1996 Master Plan EIR
Expanded Design Capacity Evaluated	24.7	2004 West Roseville Specific Plan EIR
2005 ADWF	≅ 6.5	RMC, TM4a
Buildout of 2005 service area	13.1	
Buildout of UGA	10.3	
Total projected flow	23.4	
Evaluated capacity on current footprint	1.3	Expanded Capacity –Total Projected Flow

Source: PBS&J, 2007.

The nearest existing wastewater collection system for the PGWWTP is a 42-inch diameter sewer trunk line located in Phillip Road east of the PGWWTP. The nearest point of connection to the PGWWTP is a 36-inch sewer stub at the "Influent Junction Structure" located approximately 1.3 miles east of the northeast corner of the Plan Area.

REGULATORY SETTING

Federal Regulations

The discharge of treated wastewater is subject to the following federal requirements:

NPDES Permits

The National Pollutant Discharge Elimination System (NPDES) permit system was established in the Clean Water Act of 1972 to regulate municipal and industrial discharges to surface waters of the U.S. The discharge of wastewater to surface waters is prohibited unless an NPDES permit has been issued to allow that discharge. Each NPDES permit includes the following provisions: effluent and receiving water limits of allowable concentrations and/or mass emissions of pollutants contained in the discharge; prohibitions on discharges not specifically allowed under the permit; provisions that describe required actions by the discharger, including industrial pretreatment, pollution prevention, and self-monitoring activities; and other regulatory requirements.

The wastewater discharge from the PGWWTP to Pleasant Grove Creek is regulated under a NPDES permit issued by the Regional Water Quality Control Board (RWQCB). To obtain the permit, the City of Roseville prepared a Report of Waste Discharge (RWD). The RWD includes information about the design and operation of the treatment plant (including the average and dry weather

5 City of Roseville, *West Roseville Specific Plan and Sphere of Influence Amendment EIR, January 2004, SCN. 2002082057,* page 4.11-72.

6 RMC, Wastewater *Treatment Projected Loadings and Buildout-TM4a*, February 8, 2006. Table 2.

maximum flows for the plant), influent wastewater characteristics, and removal rates for specific water quality parameters. The NPDES permit and the Waste Discharge Requirements (WDR) are used to identify discharge prohibitions, effluent limitations, and monitoring and reporting requirements.

The discharge prohibitions and limitations in the permit are designed to ensure the maintenance of public health and safety, protection of receiving water resources, and safeguarding of designated beneficial uses of water bodies. Discharge limitations in the PGWWTP permit define allowable effluent concentrations for flow, biochemical oxygen demand (BOD), total suspended matter, residual chlorine, settleable matter, total coliform, oil and grease, and pH. Limitations also encompass mineralization and toxicity to aquatic life. The provisions provide stipulations for the disposal of solid materials, and limitations on impacts to receiving waters. The permit also specifies the sampling, monitoring, and reporting of requirements for compliance with waste discharge regulations. The monitoring program entails sampling influent, effluent, 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.

Title 40 of the Code of Federal Regulations (CFR), Part 503 and Part 258, serves as the basis for the RWQCB requirements for biosolids disposal by land application or in a landfill. Title 27 of the California Code of Regulations and standards established by the RWQCB in a General Order for the disposal of biosolids regulate the disposal of biosolids.

Title 40 of the CFR, Parts 405 through 471, contains the Federal Categorical Pretreatment Standards for the pretreatment of industrial wastes discharged to publicly owned treatment works, such as the PGWWTP.

State Regulations

Porter-Cologne Water Quality Control Act

The Porter-Cologne Water Quality Control Act[7] 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. The SWRCB delegates regional authority for planning, permitting, and enforcement to the nine Regional Water Quality Control Boards (RWQCB). The Porter-Cologne Act authorizes the SWRCB and RWQCB to issue NPDES permits and WDRs containing waste discharge requirements, and to enforce these permits. SWRCB and RWQCB regulations implementing the Porter-Cologne Act are included in Title 27 of the California Code of Regulations. Regional water quality requirements, criteria, and prohibitions are found in the Regional Water Quality Control Plan or "Basin Plan."

Local Regulations

Placer County General Plan

The following goals and policies from the Placer County General Plan are applicable to the provision of wastewater services:

7 California Water Code Section 13000 *et seq*.

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

Policies

4.D.1.

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

4.D.2.

The County shall require proponents of new development within a sewer service area to provide written certification from the service provider that either existing services are available or needed improvements will be made prior to occupancy.

4.D.3.

The County shall discourage the extension of sewer service outside of city spheres of influence and *community plan areas*, except in limited circumstances to resolve a public health hazard resulting from existing development, or where there is a substantial overriding benefit.

4.D.4.

The County shall promote efficient water use and reduced wastewater system demand by:

- Requiring water-conserving design and equipment in new construction;
- Encouraging retrofitting with water-conserving devices; and
- Designing wastewater systems to minimize inflow and infiltration to the extent economically feasible.

4.D.5.

The County shall encourage pretreatment of commercial and industrial wastes prior to their entering community collection and treatment systems.

All sewer conveyance constructed for the proposed project would be required to be constructed to County standards, which includes water-tight joints and paved access to manholes.

IMPACTS AND MITIGATION MEASURES

Methods of Analysis

For wastewater treatment, the demand for treatment was calculated for the Plan Area and compared to the available capacity of the PGWWTP. Wastewater generation factors to predict treatment capacity were developed in a technical memorandum prepared for the City of Roseville to project future wastewater generation rates. These generation rates were applied to the proposed land uses for the proposed project in the *Regional University Specific Plan Sewer Master Plan*, November 28, 2006. The generation rates and predicted wastewater flows from the project are included in Table 6.11-2.[8] Additional factors not developed in the technical memorandum were also required to address stadium and aquatic center generation rates. The generation rates were applied to the Plan Area land uses and resulted in an ADWF of 1.17 mgd, as shown in Table 6.11-3. The resulting transmission capacity should be 2.30 mgd. Transmission flow rates were developed using the Placer County Land Development Manual.

8 City of Roseville. Dry Weather Flow Projection for the 2005 Proposed SPWA Service Area (TM No. 2b) Technical Memorandum - Final, prepared by RMC, October 21, 2005.

TABLE 6.11-2

WASTEWATER GENERATION FACTORS

Land Use	Demand Factor for WWTP[1]	Demand Factor for Transmission Capacity[2]
Commercial Heavy Industrial Light Industrial	850 gpd per acre	5,800 gpd per acre
Mixed use	2,300 gpd per acre	2,500 gpd per acre
Public Quasi Public	660 gpd per acre	5,800 gpd per acre
Schools Elementary	170 gpd per acre	2,500 gpd per acre
High School	170 gpd per acre	2,000 gpd per acre
High Density Residential	190 gpd per DU	300 gpd per DU
Low to Medium Density Residential	190 gpd per DU	400 gpd per DU
Open Space	Not applicable	Not applicable
Parks > 10[3]	10 gpd per acre	10 gpd per acre
Stadium	660 gpd per acre	3 gallons per seat
Aquatics Center	660 gpd per acre	2,500 gpd per acre

Notes:
1. Wastewater generation factors from in RMC, Unit Flow Factor Sets and Sewer Design Criteria - TM No. #a (FINAL), October 3, 2006, except stadium and aquatic center, based on Table 9-1, Draft Sewer Master Plan for University of California Davis by West Yost Associates.
2. Transmission service factors based on Placer County Land Development Manual.
3. All parks used to calculate wastewater demand, including those smaller than 10 acres.

Source: MacKay & Somps Civil Engineers, Regional University Specific Plan Sewer Master Plan, Revised November 28, 2006.

TABLE 6.11-3

WASTEWATER BY LAND USE

Land Use	Acres	Transmission Flow (gpd)	WWTP Flow (gpd)
Pump Station No. 1	557	1,459,181	585,125
Low Density Residential (5-6 DU/acre)	131	287,200	136,420
Medium Density Residential (9-12 DU/acre)	140	603,200	286,520
High Density Residential (18-22 DU/acre)	45	301,800	176,890
Commercial	12	70,760	10,370
Commercial/Mixed Use	10	58,000	8,500
Elementary School	31	58,600	5,270
Fire Station	2	12,760	1,452
Park	40	396	396
Public Facilities	8	47,560	5,412
Village Green	1	5	5
Landscape Setback, Open Space, ROW	137		
Pump Station No. 2 (University)	600	878,750	582,600
Faculty Housing LDR (6 DU/acre)	60	132,000	62,700
Retirement Housing (10 DU/acre)	8	15,000	9,750
Student Housing (18 DU/acre)	42	150,000	97,500
High School	40	80,000	6,800
Aquatics	10	25,000	6,600
Stadium 20,000 seats	24	60,000	15,840
Academic	167	416,750	383,410
Playfields	33	0	0
Open Space	184	0	0
Roads/Parking	33	0	0
TOTAL	**1,157**	**2,319,031**	**1,167,725**

Source: MacKay & Somps Civil Engineers, Regional University Specific Plan Sewer Master Plan, Revised April 5, 2006.

Standards of Significance

Based on Appendix G of the CEQA Guidelines, Placer County has determined that a significant environmental impact could occur if the proposed Specific Plan would:

- Fail to meet wastewater treatment requirements of the Regional Water Quality Control Board;
- Require or result in the construction of new wastewater treatment facilities or expansion of existing facilities that could cause significant environmental effects;
- Result in a determination by the wastewater treatment provider that serves or may serve the project that it does not have adequate capacity to serve the project's projected demand in addition to the provider's existing commitments;
- Violate any water quality standards or waste discharge requirements; or
- Be inconsistent with the goals and policies of the adopted *Placer County General Plan*.

Project-Specific Impacts and Mitigation Measures

6.11-1 The proposed project could fail to meet the wastewater treatment requirements of the Regional Water Quality Control Board.

The proposed project would generate an ADWF of 1.17 mgd. The current ADWF at the PGWWTP is 6.5 mgd. The proposed project is outside the PGWWTP service area boundary and the boundary would need to be adjusted to include the project site prior to being served by the PGWWTP. However, if the PGWWTP were to serve the proposed project, the PGWWTP could continue to operate under its current permit and operating strategy, and the project would not result in additional risk of any violations of the RWQCB requirements. Therefore, the proposed project would not cause the PGWWTP to exceed the requirements set forth by the RWQCB.

There is the probability that as more development occurs in the City of Roseville and within the UGAs, the treatment capacity at the PGWWTP could be exceeded prior to completion of the proposed project. However, the selected alternative presented in the 1996 Master Plan EIR was based on a buildout capacity of 20.7 mgd. Therefore, it is assumed that if additional capacity was required prior to completion of the proposed project, additional capacity beyond 20.7 mgd could be procured as addressed in the 2004 West Roseville Specific Plan EIR.

Therefore, because the project would meet the requirements of the RWQCB and would not require that the PGWWTP be expanded, this is considered a ***less-than-significant impact***.

Mitigation Measure

None required.

6.11-2 The proposed project could require or result in the construction of new wastewater treatment facilities or expansion of existing facilities.

The proposed project would generate 1.17 mgd ADWF of wastewater requiring treatment at the PGWWTP. At this time, the PGWWTP uses 6.5 mgd of its permitted 12 mgd of ADWF capacity. Combined with the project the demand for treatment would increase to 7.7 mgd. Therefore, there is

currently adequate capacity to serve the project if the service area boundary were changed to include the project site. As discussed under Impact 6.11-5, the impacts of expanding the PGWWTP to increase treatment capacity and discharge up to 29.5 mgd ADWF has previously been addressed in two environmental impact reports; *Roseville Regional Wastewater Treatment Service Area Master Plan Draft EIR*[9] (1996 Master Plan EIR) prepared by Environmental Science Associates and Montgomery Watson in May 1996, and the *West Roseville Specific Plan EIR*[10] prepared by EIP Associates in September 2003. In the event additional capacity is required prior to completion of the proposed project, additional treatment capacity could be obtained, as discussed in the 1996 Master Plan EIR.

Although adequate treatment capacity is currently available to serve the project, as noted above, as more development occurs in the City of Roseville and within the UGAs, the treatment capacity at the PGWWTP could be exceeded prior to completion of the proposed project. If that were to occur, the PGWWTP would need to be expanded in order to accommodate demand associated with the project. Therefore, this impact is considered *potentially significant*.

Mitigation Measure

Implementation of the following mitigation measures would ensure that there is sufficient capacity at the PGWWTP at the time development within the Plan Area occurs, thus reducing the impact to a ***less-than-significant level***.

6.11-2 a) *Commitments from the wastewater treatment provider to receive anticipated flows from the Specific Plan area at the PGWWTP shall be secured by Placer County prior to County approval of improvement plans for wastewater collection and transmission infrastructure. The County shall comply with General Plan Policy 4.D.2, which requires written certification from the service provider that either existing services are available or needed improvements will be made prior to occupancy to meet wastewater demands of the Specific Plan area.*

b) *Specific Plan proponents shall participate financially through connection fees and other financial mechanisms in the construction of additional wastewater treatment capacity sufficient to accommodate projected flows and treatment at the PGWWTP. In addition, Specific Plan proponents shall prepare, or shall provide a fair share contribution toward the preparation of any additional CEQA analysis that may be required for plant modifications and/or expansions.*

c) *For each increment of new development within the Specific Plan area, the County shall confirm that all necessary permits (e.g., NPDES) are in place for either the PGWWTP to discharge additional treated effluent in the amounts associated with the new development. This shall include a determination that development timing will not impede other development for which entitlements have been issued. The requirement for such a showing shall be made a condition of any small lot tentative map approval associated with the new development and shall be verified by the County prior to recordation any final map associated with the new development. Where no small lot tentative map and final map are required prior to non-residential*

9 City of Roseville, *Roseville Regional Wastewater Treatment Service Area Master Plan Draft EIR,* May 1996, SCN 93092079.

10 City of Roseville, *West Roseville Specific Plan and Sphere on Influence Amendment EIR*, September 15, 2003, SCN 2002082057.

development having the potential to increase wastewater flows, the requirement for such verification, to be demonstrated no later than the time of issuance of building permits, shall be made a condition of approval of project-level discretionary approvals analogous to issuance of small-lot tentative maps.

d) *Approval of the Specific Plan shall be premised on concurrent County approval of a financing plan that will provide for funding the necessary wastewater collection facilities needed to serve the Specific Plan area, and implemented through approval for formation of a County Service Area (CSA) and a corresponding funding mechanism.*

e) *The Specific Plan proponents shall construct or participate financially in the construction of off-site wastewater conveyance capacity, including lift stations, to accommodate projected wastewater flows that would be generated by development of the Specific Plan.*

f) *Adequately sized on-site collection facilities, including lift stations, shall be installed for each subdivision in the Specific Plan area concurrent with road construction for individual subdivisions. A "backbone" conveyance system sufficient to serve each subdivision shall be installed prior to issuance of building permits for that subdivision.*

g) *The Sewer Master Plan shall be revised prior to submission of any wastewater-related improvement plans to include a detailed description of necessary on-site and off-site lift station components. The Master Plan shall include a plan for dealing with power and pump failure, and pump maintenance. The plan shall identify how necessary pumping capacity will be replicated in the event of pump failure or pump maintenance, and shall provide for on-site back-up power sufficient to run pumps and any odor scrubbers, in the event of power failure. Each lift station shall include a wastewater storage component in the form of an enclosed reservoir or tank sufficient to deal with temporary emergency conditions while backup systems are brought on line, in accordance with sizing standards utilized by the County Department of Facility Services.*

Cumulative Impacts and Mitigation Measures

The cumulative setting for impacts related to wastewater is the developments within the SPWA 2005 service area boundary that would contribute wastewater flows to the PGWWTP.

6.11-3 The proposed project, in combination with other developments that would contribute wastewater flows to the PGWWTP, could fail to meet the wastewater treatment requirements of the Regional Water Quality Control Board.

The projected flows to the PGWWTP at buildout of the SPWA service area, including the proposed project and urban growth areas, is estimated to be 23.4 mgd ADWF, significantly above the currently permitted 12.0 mgd ADWF and above the flow of 20.7 mgd ADWF evaluated in the 1996 Wastewater Master Plan EIR. As discussed in the 1996 Wastewater Master Plan EIR, the potentially significant impacts to Pleasant Grove Creek associated with discharges of up to 29.5 mgd ADWF on water temperature, trace metals, organics, and dissolved oxygen were all reduced to less-

than-significant levels[11] with mitigation measures included in the 1996 Wastewater Master Plan, summarized in Table 6.11-4. An increase in the permitted level of discharge could be required prior to buildout, which may result in the need to obtain additional permits from the RWQCB to increase the discharge amount.

TABLE 6.11-4

ADWF CAPACITY AT PCWWTP URBAN GROWTH AREA IMPACTS AND MITIGATIONS FOR PGWWTP 29.5 MGD DISCHARGE TO PLEASANT CREEK

Criteria	Impact	Significance	Mitigation Measures from 1996 Master Plan EIR
Temperature	Additional flows from UGAs will increase thermal load of Creek.	Potentially significant, but less than significant after mitigation monitoring	MM 7-4: Install cooling towers.
Trace Metals/ Organic Pollutants	Increased flows will reduce dilution from Creek, resulting in a greater concentration of effluent constituents.	Potentially significant, but less than significant after mitigation monitoring	MM 7-2: Install advanced treatment facilities. MM 7-3: Use pre-treatment metal source controls.
Dissolved Oxygen	Biochemical oxygen demand of effluent should be under 3 mg/L to prevent Potentially Significant decreases in dissolved oxygen levels in Creek	Potentially significant, but less than significant after mitigation monitoring	MM 7-2: Install advanced treatment facilities. MM 7-3: Use pre-treatment metal source controls
Riparian Habitat	Loss of oak trees due to effluent discharge	Potentially significant, then ***Significant*** after mitigation monitoring	MM 4-13: Oak mortality monitoring along Creek

Source: Merritt Smith Consulting, Cumulative Analysis of UGA Impacts on Water Quality and Aquatic Resources in Pleasant Grove Creek, Roseville, California, and January 15, 2006.

Any request to expand the PGWWTP beyond 20.7 mgd would require additional CEQA review and additional permits for discharge into Pleasant Grove Creek. As mentioned previously, treatment capacity expansion to meet the projected 23.4 mgd may require expansion of the plant beyond the current boundaries. The extent to which the PGWWTP would need to expand to treat additional wastewater beyond the 23.4 mgd would depend on which projects would use the plant, subject to approval of the SPWA. Wastewater flows in excess of the 20.7 mgd would need to be analyzed, since that was the selected alternative in the Wastewater Master Plan EIR. If flows were to exceed 20.7 mgd, an expansion beyond the current site may be necessary. Expansion of the plant to serve such unanticipated flows could result in impacts on the environment associated with construction to increase the capacity of the plant, loss of natural and other resources to expand the footprint of the facility, and degradation of water quality as a result of increased discharges to Pleasant Grove Creek. However, as noted above, prior to any expansion of the PGWWTP, the plant operator would be required to obtain and comply with a RWQCB permit. Compliance with the requirements in the permit would ensure that discharges from the PGWWTP would not exceed wastewater treatment requirements. This would be a ***less-than-significant impact.***

Mitigation Measure

None required.

11 Merritt Smith Consulting, Cumulative Analysis of UGA Impacts on Water Quality and Aquatic Resources in Pleasant Grove Creek, Roseville, California, January 15, 2006.

6.11-4 The proposed project, in combination with other development, could require or result in the construction of new wastewater treatment facilities or expansion of existing facilities.

The 1996 Wastewater Master Plan EIR selected an alternative with future expansion of the PGWWTP to a capacity of 20.7 mgd to address buildout of anticipated future development within the UGAs and the SPWA. In combination with other future development, the proposed project would contribute to an increased demand on the PGWWTP to serve future development which could exceed the 20.7 mgd capacity analyzed in the 1996 Wastewater Master Plan EIR. This would be a significant cumulative impact. Because the project has the potential to contribute to the need to expand the PGWWTP to serve anticipated demand beyond the 20.7 mgd capacity already analyzed, the project's contribution would be considered cumulatively considerable, resulting in a *significant impact*.

Mitigation Measures

Implementation of the following mitigation measures will reduce impacts associated with treatment plant capacity to a ***less-than-significant level***.

6.11-4 *Implement Mitigation Measure 6.11-2(c).*

ENVIRONMENTAL SETTING

The Western Placer Waste Management Authority (WPWMA) operates under a joint powers agreement with the cities of Lincoln, Rocklin, and Roseville and Placer County, and is responsible for managing solid waste disposal.

The majority of solid waste collected from within the service area is first deposited at the Materials Recovery Facility (MRF).[12] The MRF recovered approximately 37 percent of the solid waste it received in 2005, including wood waste and green waste.[13] The MRF operates on a 40-acre site at 3195 Athens Avenue in Lincoln, and is permitted to receive 1,750 tons per day but only has the capability to process 1,400 tons per day. The California Integrated Waste Management Board (CIWMB) recently approved the MRF application to increase throughput to 1,750 tons per day. The WPWMA is expected to begin expansion of the MRF in 2006 and will reach a final processing capacity of 2,200 tons per day.[14] The MRF also includes a 13-acre composting facility that accepts approximately 146 tons of green waste per day.[15] In 2002, unincorporated Placer County achieved a 58 percent diversion rate.[16]

After all recyclable material has been removed at the MRF, the remaining solid waste is transferred to the adjacent landfill, the Western Regional Sanitary Landfill (WRSL). The Western Regional Sanitary Landfill permit was issued on August 19, 2003 and is due for formal review by the regulatory agencies in August 2008. The WRSL has a permitted site area of 281 acres and permitted disposal area of 231 acres.[17] An additional 465 acres west of the WRSL are available for landfill expansion, but no expansion has been approved at this time.[18]

The WRSL's maximum permitted disposal is 1,900 tons per day. The landfill currently receives 694 tons per day (253,310 tons per year).[19] In 2001, the landfill received 220,334 tons.[20] Of the facility's total permitted capacity (36,350,000 cubic yards), approximately 7,781,000 cubic yards, or 21 percent, has been used.[21] As of 2005, the landfill had a remaining capacity of 28,569,000 cubic

12 Approximately 12% of municipal solid waste and construction debris is hauled directly to the landfill because it is unsuitable for processing (Placer Vineyards DEIR, SCH # 199062020, page 4-11-51).

13 Chris Hanson, Environmental Resource Specialist, Western Placer Waste Management Authority, letter to Lori Lawrence, Placer County Community Development Department / Resource Agency, RE: Regional University Specific Plan Administrative Draft EIR, dated July 10, 2006.

14 Eric Oddo, Senior Planner, Western Placer Management Authority, personal communication, April 18, 2005.

15 Chris Hanson, Environmental Resource Specialist, Western Placer Waste Management Authority, letter to Lori Lawrence, Placer County Community Development Department / Resource Agency, RE: Regional University Specific Plan Administrative Draft EIR, dated July 10, 2006.

16 California Integrated Waste Management Board, *Jurisdiction Profile,* www.ciwmb.ca.gov, Accessed November 5, 2004.

17 California Integrated Waste Management Board, *Active Landfills Profile,* www.ciwmb.ca.gov, Accessed November 4, 2004.

18 Placer County, *Placer Vineyards DEIR,* September 2004, page 4-11-51.

19 Placer County, *Placer Vineyards DEIR,* September 2004, page 4-11-51.

20 California Integrated Waste Management Board, *Active Landfills Profile, Capacity Information (2000),* www.ciwmb.ca.gov, Accessed November 4, 2004.

21 Chris Hanson, Environmental Resource Specialist, Western Placer Waste Management Authority, letter to Lori Lawrence, Placer County Community Development Department / Resource Agency, RE: Regional University Specific Plan Administrative Draft EIR, dated July 10, 2006.

yards.[22] In 2000, the CIWMB projected the WRSL would remain operational until 2051.[23] However, based on the current permitted configuration and assumed growth rates, the landfill closure date is estimated at 2036, a 30-year life expectancy.[24]

REGULATORY SETTING

Federal Regulations

Volume 40 of the Code of Federal Regulations, Part 258 (Resource Conservation and Recovery Act (RCRA, Subtitle D) contains regulations for municipal solid waste landfills and requires states to implement their own permitting programs incorporating the federal landfill criteria. The federal regulations address the location, operation, design, groundwater monitoring, and closure of landfills.

State Regulations

Regulation affecting solid waste disposal in California is embodied in California State Assembly Bill (AB) 939, which is known as the Integrated Waste Management Act and was codified in the Public Resources Code and in Title 14 of the California Code of Regulations in 1992. AB 939 was designed to increase landfill life by diverting solid waste from landfills within the state and conserving other resources through increasing recycling programs and incentives. AB 939 requires that Counties prepare Integrated Waste Management Plans to implement landfill diversion goals, and requires that Cities and Counties prepare and adopt Source Reduction and Recycling Elements (SRRE). The SRRE must set forth a program for management of solid waste generated with the jurisdiction of the respective City or County. Each source reduction and recycling element must include, but is not limited to, all of the following components for solid waste generated in the jurisdiction of the plan:

- A waste characterization component,
- A source reduction component,
- A recycling component,
- A composting component,
- A solid waste facility capacity component,
- An education and public information component,
- A funding component, and
- A special waste component.

The SRRE programs are designed to achieve landfill diversion goals by encouraging recycling in the manufacture, purchase and use of recycled products.

22 Chris Hanson, Environmental Resource Specialist, Western Placer Waste Management Authority, letter to Lori Lawrence, Placer County Community Development Department / Resource Agency, RE: Regional University Specific Plan Administrative Draft EIR, dated July 10, 2006.

23 California Integrated Waste Management Board, *Active Landfills Profile, Capacity Information (2000),* www.ciwmb.ca.gov, Accessed November 4, 2004.

24 City of Roseville, *West Roseville Specific Plan EIR*, September 15, 2003, page 4.11-75.

Landfills and MRFs are required to secure a Solid Waste Facilities Permit from the Placer County Solid Waste Local Enforcement Agency and obtain a report of Waste Discharge Requirements from the California Regional Water Quality Control Board (RWQCB) (California Integrated Waste Management Board, Website, July 2001).

AB 1327, known as the Solid Waste Reuse and Recycling Access Act of 1991, requires each jurisdiction to adopt an ordinance by September 1, 1994 requiring each development project to provide an adequate storage area for collection and removal of recyclable materials. Placer County has adopted an ordinance (Municipal Code Section 8.16.080) in compliance with AB 1327.

Local Regulations

Placer County General Plan

The following goals and policies from the Placer County General Plan are applicable to the provision of solid waste services:

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

Policies

4.G.1. The County shall require waste collection in all new urban and suburban development.

4.G.2. The County shall promote the maximum use of solid waste source reduction, recycling, composting, and environmentally-safe transformation of wastes.

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

IMPACTS AND MITIGATION MEASURES

Methods of Analysis

The analysis of solid waste service impacts are based upon consideration of the estimated amount of solid waste anticipated to be generated by the project. The following solid waste generation rates from the Plan Area were used.[25]

- Residential: 9.4 lbs/residential unit/day
- Commercial: 2.5 lbs/100 square feet/day
- University buildings: 1.6 lbs/student/day[26]

These rates have been used to estimate the solid waste generation for the proposed project. The amount of waste generated was then compared to the annual and daily tonnage intake of the landfill and the MRF. The annual waste is used to estimate the amount of waste the project would generate from project buildout over the remaining lifespan of the landfill, approximately 20 years (assuming project buildout by approximately 2016).

25 John Rowe, General Manager, Auburn Placer Disposal Service, personal communication, November 28, 2005.

26 County of Merced, University Community Plan Draft Environmental Impact Report, August 2001, page 4.15-36.

Standards of Significance

Based on Appendix G of the CEQA Guidelines, Placer County has determined that a significant environmental impact could occur if the proposed Specific Plan would:

- Require or result in the construction of new or expansion of existing MRF or landfill facilities that would result in significant adverse environmental effects;
- Be served by a landfill with insufficient permitted capacity to accommodate the project's solid waste disposal needs;
- Not comply with federal, State, and local statutes and regulations related to solid waste; or
- Be inconsistent with the goals and policies in the *Placer County General Plan*.

Project-Specific Impacts and Mitigation Measures

6.11-5 The proposed project could require the construction of new or the expansion of an existing landfill, which could result in a significant adverse environmental effect.

The proposed project would result in the addition of residential, commercial, mixed-use, and university uses. As shown in Table 6.11-5, these uses would generate approximately 61,351 pounds (30.7 tons) of solid waste each day. The proposed project does not include any specific waste reduction measures; however, the plan states that the University would encourage recycling of all office paper/cardboard, glass, plastic, aluminum, and metal through an on-campus program. Auburn Placer Disposal Service provides curbside collection of green waste and will collect office paper/cardboard upon request. Because waste reduction rates are not available, it is assumed that all the waste generated would be delivered to the MRF and landfill.

TABLE 6.11-5

SOLID WASTE

Land Use	Acres/Units	Generation Rate	Daily Solid Waste (lbs/day)	Annual Solid Waste (tons/year)
Low-Density Residential	718 units	9.4 lbs/unit/day	6,749.2	1,231.7
Medium-Density Residential	1,508 units	9.4 lbs/unit/day	14,175.2	2,587.0
High-Density Residential	931 units	9.4 lbs/unit/day	8,751.4	1,597.1
Mixed-Use (Commercial)[1]	10.0 acres	2.5 lbs/ 100 sf/day	4,356.0	795.0
Mixed-Use (Residential)	75 units	9.4 lbs/unit/day	705.0	128.7
Schools[1]	31 acres	0.007 lbs/sf/day	2,835.8	517.5
Commercial Planned Development[1]	12.2 acres	2.5 lbs/100 sf/day	3,321.5	606.2
University	363.5 acres	1.6 lbs/student/day	9,600.0	1,752.0
Student Housing	750 units	9.4 lbs/unit/day	7,050.0	1,286.6
Faculty Housing	330 units	9.4 lbs/unit/day	3,102.0	566.1
Retirement Housing	75 units	9.4 lbs/unit/day	705.0	128.7
Total			61,351 **(30.7 tons/day)**	11,196.6

Notes:
1. Assumes Floor Area Ratio of 0.40 for Commercial Mixed Use, 0.25 for Commercial Planned Development, 0.30 for schools.
Sources: Generation rates: John Rowe, General Manager, Auburn Placer Disposal Service, personal communication, November 28, 2005.
University generation rates from: County of Merced, University Community Plan Draft Environmental Impact Report, August 2001, page 4.15-34.

The landfill currently receives an average of 694 tons/day, so, at buildout of the Specific Plan, the proposed project would increase daily deliveries to the landfill by 4.4 percent over current conditions. Annually, the proposed project would generate 11,196.6 tons of solid waste. During its first 20 years of operation, the proposed project would generate 223,931.2 tons of solid waste (based on the amount of solid waste generated between project buildout and landfill closure in 2036). Using a conversion factor of 500 lbs per cubic yard,[27] the proposed project would generate approximately 895,724 cubic yards of solid waste over 20 years. The landfill has a remaining capacity of approximately 28,569,000 cubic yards, and is expected to accept solid waste until 2036. The proposed project would use approximately three percent of the remaining capacity at the landfill; the proposed project contributions to the landfill would be less with implementation of recycling programs. However, with no recycling programs are in place, increased deliveries from the proposed project could shorten the life of the landfill by approximately one year (based on the amount of waste received daily at the landfill). Given the landfill is expected to continue operating for an additional 30 years and recycling programs would be required in the Plan Area, the reduction in lifespan of the landfill would be less than one year, which would not be considered substantial.

As discussed in the Environmental Setting section, the 465 acres west of the WRSL are available for a landfill expansion, although no expansion has been approved to date. The environmental impacts of the proposed expansion of the landfill on WPWMA property on the west side of Fiddyment Road were analyzed in the *Placer County Western Regional Landfill Expansion Draft Supplemental EIR* (SCH# 1985120208), and the WPWMA has obtained a conditional use permit authorizing the establishment of a landfill on this property.

Solid waste generated by the proposed project, which could shorten the lifespan of the landfill by up to one year, would not itself require expansion. However, compliance with regulations regarding the diversion of solid waste, would reduce the solid waste delivered from the Plan Area to the landfill to less than 3 percent of current deliveries. Therefore, the proposed project would not result in environmental impacts associated with construction of new or the expansion of an existing landfill, and the impact would be ***less than significant***.

Mitigation Measure

None required.

6.11-6 The proposed project could require the construction of new or expansion of the existing MRF, resulting in significant adverse environmental effects.

A total of 30.7 tons per day would be hauled to the MRF for processing. This represents an increase of approximately 1.7% of the facility's current capacity. The landfill is currently estimated to remain open until 2036 with a remaining net capacity of approximately 28,569,000 cubic yards. The additional solid waste generated by the proposed project would have the potential to reduce the life of the landfill by up to one year, as discussed above under Impact 6.11-5. The WPWMA projects that by 2008 the MRF would receive a peak of 1,707 tons per day.[28] The peak tonnage received at the MRF would continue to increase as growth occurs in the service area and would likely exceed 1,750 by 2009.[29] If the 30.7 tons per day from the Plan Area is added to the projected 2008 peak tonnage at the MRF, the total of 1,736 tons per day would approach the existing permit, 1,750 tons

27 Title 14 CCR, Division 7, Chapter 3, Article 6.0, Section 17402(a)(9)(B).
28 City of Roseville, *West Roseville Specific Plan EIR,* September 15, 2003, page 4.11-85.
29 City of Roseville, *West Roseville Specific Plan EIR,* September 15, 2003, page 4.11-85.

per day, by 2008. However, the WPWMA is currently planning to expand the MRF to a final processing capacity of 2,200 tons per day.

The County is required under AB 939 to prepare and adopt a *Source Reduction and Recycling Element* (SRRE), which includes the County's plan to divert solid waste from the landfill for all generated waste. To meet this requirement, the County actively pursues composting, business waste reduction, school recycling, curbside collection, public education and outreach programs to reduce the amount of solid waste generated. Community access to recycling facilities would increase the life of the landfill and reduce the amount of solid waste being separated at the MRF. However, the MRF is currently operating at approximately 55% of permitted capacity, but activity is expected to intensify as growth in the area continues.

Based on the standards of significance, at buildout of the proposed project, the direct contribution of solid waste generated in the Plan Area would not require the construction of new or expansion of the existing MRF; therefore this is considered a ***less-than-significant impact***.

Mitigation Measure

None required.

Cumulative Impacts and Mitigation Measures

The WPWMA provides solid waste collection and delivery to the WRSL for unincorporated Placer County and the cities of Lincoln, Rocklin, and Roseville. Future development in the unincorporated areas of the county and the cities listed above would increase the amount of waste to be processed at the MRF and deposited at the landfill. Specifically, the following development proposals would increase the amount of solid waste generated in the vicinity of the proposed project: Placer Vineyards, Placer Ranch, and Curry Creek developments, as well as the Roseville Sphere of Influence Remainder Area, and the Lincoln Sphere of Influence Expansion Area.

6.11-7 The proposed project, in combination with other development, could require the construction of new or expansion of the existing landfill and MRF, which could result in significant adverse environmental effects.

Development throughout unincorporated Placer County and the cities of Lincoln, Rocklin, and Roseville would significantly increase the number of residents and businesses over the next 30 years. Waste generated by these new homes and commercial areas would need to be processed at the existing MRF and ultimately deposited at the landfill. WPWMA is currently planning to expand the MRF to accommodate future waste, and cumulative development would not require further expansion. The landfill is anticipated to be able to accept waste until year 2036 based on the current permitted configuration and assumed growth rates. However, the final closure date would be affected by several factors, including changes to the regional growth rates, economic conditions, and the efficiency of waste recovery.[30] Depending on these factors, waste from the Specific Plan area, in combination with other cumulative development, could shorten the lifespan of the landfill. Ultimately, the WRSL would be required to expand to accommodate waste from cumulative growth in the area. As previously mentioned, the 465-acre area west of the WRSL has been identified for expansion to extend the life of the WRSL. Environmental impacts of the proposed expansion of the landfill on the

30 Western Placer Waste Management Authority, Capacity Enhancement Project 2002-2003 Draft Environmental Impact Report, January 9, 2003, page 3-6. As cited in City of Roseville, *West Roseville Specific Plan EIR,* September 15, 2003, page 5-93.

west side of Fiddyment Road were analyzed in the Placer County Western Regional Landfill Expansion Draft Supplemental EIR (SCH# 1985120208).

In the event that the expansion of the Western Regional Sanitary Landfill is not approved, there are several other landfills in Northern California and Northwestern Nevada with adequate capacity that could serve the proposed project.[31][32] They include:

- Neal Road Landfill, Butte County, 22,001,876 cubic yards remaining capacity
- L and D Landfill, Sacramento County, 5,190,536 cubic yards remaining capacity
- Sacramento County (Keifer) Landfill, Sacramento County, 86,163,462 cubic yards remaining capacity
- Foothill Sanitary Landfill, San Joaquin County, 94,969,466 cubic yards remaining capacity
- Forward Landfill, San Joaquin County, 40,031,058 cubic yards remaining capacity
- North County Landfill, San Joaquin County, 13,239,032 cubic yards remaining capacity
- Hay Road Landfill, Solano County, 22,815,505 cubic yards remaining capacity
- Portero Hills Landfill, Solano County, 8,200,000 cubic yards remaining capacity
- Tehama County/Red Bluff Landfill, Tehama County, 2,424,448 cubic yards remaining capacity
- Fink Road Landfill, Stanislaus County, 10,000,000 cubic yards remaining capacity
- Yolo County Central Landfill, Yolo County, 16,122,000 cubic yards remaining capacity
- Norcal Waste Systems Ostrom Road LF Inc., Yuba County, 11,252,490 cubic yards remaining capacity
- Lockwood Landfill, Sparks, Nevada, 37,500,000 cubic yards remaining capacity

Although the Western Regional Sanitary Landfill would be the closest landfill to the project site, there are several other options with substantial capacity remaining that could serve the proposed project. Some of the landfills listed above are planning expansions to further increase their ability to accept solid waste. If the Western Regional Sanitary Landfill cannot serve the proposed project, other landfills would be available to accept solid waste from the proposed project without substantially affecting capacity.

As stated under Impact 6.11-5, the proposed project would reduce the WRSL's lifespan by up to one year. This project, combined with existing uses and additional future development, would require expansion of the landfill. Although the project would not require expansion of either the landfill or the MRF in and of itself, it provides a considerable contribution of waste into the cumulative development scenario. Therefore, the cumulative impact would be considered *significant.*

31 California Integrated Waste Management Board, *Active Landfill Profiles*, www.ciwmb.ca.gov, accessed June 14, 2006.

32 Chris Thomas, Waste Management, Lockwood Landfill, personal communication, April 25, 2006.

Mitigation Measures

Implementation of the following mitigation measure would help to offset the cumulative impact; however, the cumulative impact would remain ***significant and unavoidable***.

6.11-7 a) *The project applicant shall require that all construction contracts include a provision requiring contractors to provide on-site separation of construction debris to assure a minimum 50% diversion of this material from the landfill.*

b) *A source separated green waste program shall be implemented within the Plan Area, subject to review and approval by the Western Placer Waste management Authority.*

c) *The project applicant shall develop and ensure the continuous maintenance of recycling centers within the Plan Area. Recycling centers meeting the standards of the California Integrated Waste Management Board/LEA and County Facility Services Department, including provisions for staffing, continuous maintenance, and resident-friendly hours of operations, shall be a part of the permit conditions for new commercial development. Recycling centers shall accept all types of recyclable waste, shall be fenced and screened from view, and shall be located in commercial areas dispersed throughout the Plan Area.*

ENVIRONMENTAL SETTING

Electric Service

The Plan Area is within the service area of Pacific Gas and Electric (PG&E); however, it is not known at this time if PG&E or Roseville Electric would ultimately provide service to the Plan Area.

PG&E owns and maintains several 12 kilovolt (kv) lines throughout the Plan Area, generally existing along roadway alignments and provide service to existing residences in the area. The University site is bisected by twin north-south overhead PG&E 230 kv transmission lines within easement corridors. The nearest PG&E substations are the Catlett Substation, located on Fifield Road, just east 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.

Roseville Electric provides service to the West Roseville Specific Plan area (immediately east of the Plan Area); however, no Roseville Electric facilities currently exist in the immediate vicinity of the Plan Area. The nearest Roseville Electric substation is the Fiddyment Substation, located at Fiddyment Road and Pleasant Grove Boulevard.

Roseville Electric is a department within the City of Roseville and primarily provides electric service to residences and businesses within Roseville. The West Roseville Specific Plan area will receive service from Roseville Electric; they are currently in the design stage. Planned facilities in the West Roseville Specific Plan area include a new substation and an overhead 60 kv transmission line. The new substation may include additional circuits to provide service to Roseville's annexation boundaries. There are currently no plans to extend facilities or service west of the West Roseville Specific Plan area; Roseville Electric does not plan to extend its service to areas outside of the City boundaries.[33]

Natural Gas Service

PG&E would provide natural gas upon request and in accordance with the rules and tariffs of the California Public Utilities Commission (PUC). Gas service to the Plan Area would be obtained by constructing off-site transmission facilities necessary to serve the site.

An existing PG&E 6-inch gas distribution line runs north-south along Fiddyment Road, approximately 2.75 miles east of the Plan Area. PG&E would require the developers of the West Roseville Specific Plan to extend new connections from the 6-inch Fiddyment Road main along the westerly extensions of Blue Oaks Boulevard and Pleasant Grove Boulevard. A 6-inch gas stub would be constructed by the developers of the West Roseville Specific Plan to the west in Base Line Road at Fiddyment Road.

The development review process includes a review and comment opportunity for privately owned utility companies, including PG&E, to allow for informed input from each utility company on all development proposals. The input facilitates a detailed review of all projects by service purveyors to

33 Mike Bonomi, Engineer, Roseville Electric, personal communication, January 20, 2005.

assess the potential demands for utility services on a project-by-project basis. The ability of PG&E to provide its services concurrently with each project is evaluated during the development review process. Funding for gas service is collected through company billings and developer fees put toward the extension of infrastructure to new development.

Telephone and Communications

The Plan Area is within the Pleasant Grove Service Area of AT&T. The existing service equipment for this general area is located at the Pleasant Grove Wire Center at Howsley Road and Pleasant Grove Road in Sutter County. AT&T maintains a small telephone line from this facility south along Brewer Road and easterly along Phillip Road to the Pleasant Grove Wastewater Treatment Plant. The existing telephone utilities do not have the capacity to serve the Plan Area.

There is currently no cable service provided to the Plan Area. Cable service is provided to the majority of the Roseville area by Comcast Cablevision of Sacramento.

REGULATORY SETTING

Federal Regulations

There are no specific federal regulations pertaining to the provision of natural gas, cable television, or telephone services to the Plan Area.

State Regulations

The California PUC sets forth specific rules that relate to the design, installation, and management of California's public utilities. Decisions #77187 and #78500 state that the undergrounding of utilities is mandatory if developable lots are less than 3 acres in size. Decision #81620 states that lots over 3 acres in size (large lot subdivision) are not required to underground utilities. A formal waiver from the PUC is required for exemption from complying with these tariffs.

CPUC Decision 95-08-038 governs the planning and construction of new transmission facilities, distribution facilities, and substations. The Decision requires permits for the construction of certain power line facilities or substations if the voltages would exceed 50 kv or the substation would require the acquisition of land or result in an increase in voltage rating above 50 kv. Distribution lines and substations with voltages less than 50 kv do not need to comply with this Decision; however, the utility must obtain any non-discretionary local permits required for the construction and operation of these projects. CEQA compliance is required for facilities constructed in accordance with the Decision.

Title 20 and Title 24, California Code of Regulations (CCR)

New buildings constructed in California must comply with the standards contained in Title 20, Energy Building Regulations, and Title 24, Energy Conservation Standards, of the CCR. Title 20 contains the statutes relating to power plant siting certification. Title 24 (AB 970) contains the energy efficiency standards for residential and nonresidential buildings based on a State mandate to reduce California's energy demand.

Warren-Alquist Energy Resources Conservation and Development Act

The California Energy Commission regulates energy resources by encouraging and coordinating research into energy supply and demand problems and to reduce the rate of growth of energy consumption (Warren-Alquist Energy Resources Conservation and Development Act, Government Code section 25000 et seq.).

Energy Restructuring

Energy restructuring in California became law when Governor Wilson signed AB 1890 in 1996. The generation of electricity was opened to competition. Competition through an open market place was among the purposes of the legislation in anticipation that competition would drive down the cost of electricity to the consumer. Under energy restructuring, however, utility companies retained ownership of their transmission and distribution systems. These facilities continue to be regulated by the PUC.

Energy Efficiency Standards

Energy Efficiency Standards for Residential and Nonresidential Buildings were established in 1978 in response to a State mandate to reduce California's energy demand. The standards are updated periodically to allow consideration and possible incorporation of new energy efficiency technologies and methods. The 1998 standards have an effective date of July 1, 1999.

The California Environmental Quality Act (CEQA)

CEQA directs all State agencies, boards, and commissions to evaluate an EIR's mitigation measures to reduce wasteful, inefficient, and unnecessary consumption of energy.

Local Regulations

Placer County General Plan

The following goals and policies from the Placer County General Plan are applicable to the provision of electricity, natural gas, cable, or telephone service:

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

Policies

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

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

a) The applicant can demonstrate that all necessary public facilities will be installed or adequately financed (through fees or other means); and

b) The facilities improvements are consistent with applicable facility plans approved by the County or with agency plans where the County is a participant.

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

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

IMPACTS AND MITIGATION MEASURES

Methods

The assessment of electricity and natural gas service is a review of services available to the project and a determination of whether they are adequate to serve its needs. Standard generation rates were used for the projected electrical and natural gas demand for the proposed project.

The peak electrical demand for the project is calculated by applying the following demand rates to the proposed land uses:[34]

- Single-Family Residential: 0.0055 MW per year per dwelling unit
- Multi-Family Residential: 0.0035 MW per year per dwelling unit
- Commercial: 0.116 MW per year per acre
- Schools: 0.025 MW per acre

The average natural gas demand for the project is calculated by applying the following demand rates to the proposed land uses:[35]

- Residential: 1,440 therms per year per dwelling unit
- Commercial/Business-Professional: 63,600 therms per year per acre

The impact of the increased demand on the cable and telephone service providers is addressed qualitatively.

Standards of Significance

Based on Appendix G of the CEQA Guidelines, Placer County has determined that a significant environmental impact could occur if the proposed Specific Plan would:

- Result in substantial adverse physical impacts associated with the provision of new or physically altered facilities, or create a need for new or physically altered facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, or other performance objectives;

34 City of Roseville, *West Roseville Specific Plan EIR*, page 4.11-94.
35 City of Roseville, *West Roseville Specific Plan EIR*, page 4.11-94.

- Use scarce energy resources in a wasteful or inefficient manner; or
- Be inconsistent with the adopted *Placer County General Plan*.

Project-Specific Impacts and Mitigation Measures

6.11-8 The proposed project could require the construction of new facilities to provide electrical and natural gas service, which could result in significant environmental effects.

Electrical Service

Based on the generation rates listed in Table 6.11-6, the proposed project would demand 32.95 MW of electricity. As described in the Environmental Setting section, Roseville Electric or PG&E would supply electricity to the Plan Area. An electric substation is proposed on a 6-acre site (Parcel 29) on the north side of the Plan Area. This site would be co-located with planned water storage tanks and a potable water well adjacent to 8th Street. Underground electrical distribution would be extended from the substation to the Plan Area parcels in conjunction with roadway improvements. All electric facilities would be constructed to the standards of the service provider. A detailed review of all projects by service purveyors to assess the potential demands for utility services on a project-by-project basis would be conducted. Developers are required to obtain approval from PG&E for the construction of the needed infrastructure. Consistent with the RUSP and PG&E requirements, the County and the applicant would work with PG&E to locate transmission line corridors to distribute electricity to project uses from the distribution circuit.

TABLE 6.11-6

ELECTRICITY AND NATURAL GAS DEMAND

Land Use	Acres/Units	Electricity Demand Rate (per year)	Electricity Demanded (MW per year)	Natural Gas Demand Rate (per year)	Natural Gas Demanded (therms per year)
Low-Density Residential	131.3 acres/ 718 units	0.0055 MW/unit	3.95	1,440 therms/unit	1,033,920
Medium-Density Residential	139.9 acres/ 1,508 units	0.0055 MW/unit	8.29	1,440 therms/unit	2,171,520
High-Density Residential	44.3 acres/ 931 units	0.0035 MW/unit	3.26	1,440 therms/unit	1,340,640
Commercial Mixed-Use	10.0 acres	0.116 MW/acre	1.16	63,600 therms/acre	636,000
Commercial Mixed-Use Residential	10.0 acres/ 75 units	0.0035 MW/unit	0.26	1,440 therms/unit	108,000
Commercial Planned Development	12.2 acres	0.116 MW/acre	1.42	63,600 therms/acre	775,920
Public/Quasi Public (Schools)	40.1 acres	0.025 MW/acre	1.00	63,600 therms/acre	2,550,360
University	356.5 acres	0.025 MW/acre	8.91	63,600 therms/acre	22,673,400
Student Housing	750 units	0.0035 MW/unit	2.62	1,440 therms/unit	1,080,000
Faculty Housing	55 acres/ 330 units	0.0055 MW/unit	1.82	1,440 therms/unit	475,200
Retirement Housing	75 units	0.0035 MW/unit	0.26	1,440 therms/unit	108,000
Total			**32.95**		**32,952,960**

Source: Generation rates from City of Roseville, *West Roseville Specific Plan EIR,* page 4.11-94.

There are many sources of electrical energy, and it is likely that various sources would be used in the Plan Area at buildout. According to PG&E's 2004 Generation Portfolio, the company obtains energy from hydroelectric, nuclear and fossil facilities. It is beyond the scope of this EIR to speculate regarding impacts of using any particular source of energy; however, for informational purposes common potential environmental impacts from various energy sources are listed below.

- Hydroelectric: Alteration of aquatic ecosystems and hydrologic processes, soil erosion, disruption of natural fish movement.
- Nuclear: Significant water use, discharge of warmed and polluted water into natural water bodies, generation of radioactive waste, soil contamination.
- Coal: Emission of nitrogen oxides, carbon dioxide, sulfur dioxide, mercury and methane into the air; significant water use; discharge of warmed and polluted water into natural water bodies; generation of solid waste; soil contamination; alteration of wildlife habitat during surface mining.
- Natural Gas: Emission of methane, nitrogen oxides, and carbon dioxide; alteration of habitat during extraction.

PG&E

PG&E currently maintains the facilities described in the Environmental Setting section to serve the project region. The two nearest substations, Catlett Substation and Pleasant Grove Substation, have available capacity, as well as potential for expansion to carry additional load. All electric facilities would be constructed to the standards of the service provider.

Roseville Electric

If service is provided by Roseville Electric, Roseville Electric would construct a looped system, with one connection point at the substation at Fiddyment Road and Pleasant Grove Boulevard, then extending westerly along the existing Western and Sacramento Municipal Utilities District Power Corridor, and traveling north along the proposed Watt Avenue extension to the southeastern portion of the Plan Area. The other portion of the loop would extend from the northeastern portion of the Plan Area, north along the existing unimproved road to Phillips Avenue. The route would then continue east to the future power plant.

If Roseville Electric serves the project, an electric substation would be required. The substation could be accommodated within Parcel 29, as described above.

Title 24 of the California Code of Regulations addresses required energy efficiency measures for construction. These construction practices can reduce costs to homeowners and businesses over the long-term. It is assumed that all new residential units would be built to Title 24 standards.

Natural Gas Service

Based on the generation rates listed in Table 6.11-6, the proposed project would demand 32,952,960 therms of natural gas per year.

The primary point of service for natural gas to the Plan Area would be a connection to the 6-inch gas line to be constructed in Pleasant Grove Boulevard as part of the West Roseville Specific Plan and an extension of that line to the eastern project boundary, which is sufficient to serve the Plan Area.

If Pleasant Grove Boulevard is not extended to the Plan Area in Phase 1, and if Watt Avenue is constructed as the access road for Phase 1, PG&E would tie into the existing 6-inch gas stub at Base Line and Fiddyment Roads. From that point of connection, gas service would be extended westerly in Base Line Road and north in the Watt Avenue extension to the Plan Area.

Within the Plan Area, 4-inch distribution mains would be stubbed off extensions of the 6-inch main located at Pleasant Grove Boulevard or Watt Avenue and looped through the internal circulation streets.

Gas regulation stations would be required along the backbone main in this scenario. These facilities would provide the necessary gas pressure reductions or increases to serve individual developments within the Plan Area and would be considered by PG&E as part of the standard development process.

Gas facility development and line extension within specific developments would proceed according to PG&E's typical subdivision line and facility extension policies. The feeder and service lines would be placed within a joint trench with other utilities to reduce the construction cost.

Conclusion

Roseville Electric and PG&E would have an opportunity to review and comment on the proposed electric and natural gas service plans. The ability of PG&E and Roseville Electric to provide their services concurrently with other development is evaluated during the development review process. The construction of the new facilities would occur on the project site, or within roadway extensions associated with implementation of the project. The physical impacts from the construction of these facilities are analyzed as part of the off-site infrastructure described in Chapter 2 of this EIR. The proposed project would not require the construction of new facilities to provide electrical and natural gas service that have not already been analyzed in this EIR; therefore, the impact is considered ***less than significant***.

Mitigation Measure

None required.

6.11-9 The proposed project could require the construction of new facilities to provide cable and communication service, which could result in significant environmental effects.

Buildout of the proposed project would result in an increased demand for telephone, cable, and other communication services. These services are not currently available in the project area. The site is within AT&T's Pleasant Grove Service Area. The Pleasant Grove Wire Center, located at Howsley and Pleasant Grove Road, would need to be upgraded due to the increase in demand as a result of the proposed project and the Placer Vineyards Specific Plan. The existing distribution line from the wire center, along Brewer Road to Phillip Road would need to be upgraded to accommodate demand from the proposed project. An additional line would be installed in this trench (Brewer to

Phillip Road) to accommodate telecommunication demand. Distribution lines to individual parcels would extend from the line in Brewer Road.[36]

One or more private cable companies would provide service to the proposed project. Cable and other communication services would be provided by private utility companies and would be funded through developer fees and future customer billing. In addition, the utility companies would be given the opportunity to review and comment on any proposed development requiring new service. All phone and cable lines would be installed in roadway rights-of-way, so there would not be any environmental impacts beyond the construction impacts identified in this EIR. Therefore, the demand for cable television and telephone services is considered a ***less-than-significant impact***.

Mitigation Measure

None required.

Cumulative Impacts and Mitigation Measures

The cumulative context for natural gas, electricity, and telecommunications includes growth in the areas serviced by the same facilities as the project area. Future development in the South Placer region would increase residential and commercial demand for electric, natural gas, and telecommunications services. Specifically, the following development proposals would increase the demand for services in the vicinity of the proposed project: Placer Vineyards, Placer Ranch, and Curry Creek developments, as well as the Roseville Sphere of Influence Remainder Area and the Lincoln Sphere of Influence Expansion Area.

6.11-10 The proposed project, combined with other development, could require the construction of new or expansion of existing facilities in order to provide electrical, natural gas, cable, or communication services.

Future development in the region would, increase residential and commercial needs for electricity, natural gas, cable, and other communication services. Existing facilities would not be adequate to meet this demand. Development in undeveloped areas would require the extension of existing lines, new transmission facilities, and substations. Natural gas regulators and transmission lines are required to serve residences and businesses. Expansions of these types of facilities would be required to serve the growing population of the region, and would be constructed by the service provider as demand from new development warrants. Therefore, the potential impacts of constructing any new facilities would be addressed concurrent with the proposed development. The construction and operation of additional natural gas or electrical facilities in areas where such facilities currently do not exist could result in potentially significant environmental effects, in part, related to construction activities. However, it would be speculative to identify the level of significance of potential environmental impacts absent a plan that identifies a specific project and/or project location. Further, any infrastructure improvements would be subject to environmental review on a project-by-project basis as part of the proposed development or subsequently by the service provider.

The availability and provision of adequate natural gas and electricity would be required prior to project approval. The need for additional utility infrastructure, including electrical and natural gas facilities, cable TV, and phone service, increases as development occurs. PG&E and Roseville

36 *Regional University Specific Plan,* July 2005, page 8-42.

Electric build and/or contract for additional capacity on a continuing basis as development planning occurs in an area. Because service providers would construct facilities as demand occurs, and would be subject to environmental review as part of the proposed development project or analyzed independently by the service provider, this cumulative impact is considered ***less than significant.***

Mitigation Measure

None required.