3.1.9 Utilities and Service Systems

The 1981 Sycamore Springs EIR found impacts to water supply and wastewater disposal to be significant but mitigable. The 1981 EIR discussed annexation for water and wastewater into either the RMWD or San Luis Rey MWD (SLRMWD). The use of well water or recycled water was discussed, and the use of recycled water for irrigation or construction of an on-site wastewater treatment plant **w**as noted as possible mitigation measures for wastewater disposal impacts.

The 1983 Hewlett Packard EIR required the applicant to pay annexation fees to RMWD with regard to water service and to incorporate water conservation measures. Payment of sewer annexation and collection fees, and preparation of a report to determine the impact to RMWD and identify necessary facility improvements, were identified as mitigating sewer-related impacts.

Changes in existing service concerns and mitigation possibilities result in the need for new subsequent analysis for wastewater management. Further, other conclusions from the 1981 and 1983 EIRs are no longer applicable to the Proposed Project. First, well water is not proposed as part of the Project. Second, water and sewer services to the entire Project site would be provided by RMWD and would require annexation into the RMWD and an amendment to the San Luis Rey Municipal Water District's (SLRMWD) Sphere of Influence. In addition, population in the area has changed, which is the basis for assessment of services impacts.

Project Facility Availability Forms, as well as personal communications from service providers, are summarized below and included in Appendix Q. Additionally, the Proposed Project's Water Supply Assessment (WSA; ATKINS 2012a) is included as Appendix R. Finally, the Water and Sewer System Studies (ATKINS 2012), included as Appendix S, are the most recent basis for the description of proposed on-site and off-site utilities.

Specific provisions for service have been outlined in a pre-annexation agreement dated May 22, 2012 (Appendix S). Annexation into the RMWD and an amendment to the SLRMWD's Sphere of Influence (SOI) would be initiated once the Project is approved by the County.

3.1.9.1 *Existing Conditions*

Water Supply

The subject property is currently divided between two water districts. The portion north of SR-76 lies within the service area of SLRMWD (a groundwater monitoring district that does not provide imported water or wastewater service), and is not within the SDCWA service area. The portion of the site located south of SR-76 is included within the service areas of RMWD and SDCWA. RMWD is a member agency of the SDCWA and provides water and sewer service to portions of its service area, including the portions immediately west and south of the Proposed Project. RMWD's primary source of potable water is imported through the SDCWA, imported through seven turnouts located on The Metropolitan Water District of Southern California/SDCWA aqueducts. RMWD currently does not generate nor distribute recycled

water. Furthermore, due to the financial impacts of acquiring or producing recycled water and installing and maintaining a parallel recycled water transmission and distribution system, a recycled system is not planned at this time.

LAFCO would certify the annexation and detachment of the service areas to and from providers, as appropriate. The SOIs of the districts are also likely to require amendment. Factors LAFCO would consider include current and planned land uses (in particular the neighboring proposed developments of Meadowood and Campus Park), the existing probable future need for public facilities in the area, and the capacities and adequacy of existing facilities in the various districts in the area.

Regional Water Supply Considerations

Water supply issues are continuously evolving; they are affected by regulations, policies, and the plans and resources of regional water supply agencies, as discussed below.

Senate Bills 610 and 221

The WSA is required by Senate Bill 610 (specifically, Public Resources Code Section 21151.9 and California Water Code Sections 10631, 10656, 10657, 10910, 10911, 10912, and 10915). This document addresses the issue of water supply availability and is required through Senate Bill (SB) 610 to be prepared when projects subject to CEQA and larger than certain specified thresholds are under evaluation. The commercial floor space component of the Project exceeds the specified threshold (500,000 s.f.) and, therefore, preparation of a WSA is required.

SB 221, a companion bill approved at the same time as Senate Bill 610, requires verification of water supplies as a condition of tentative map approval for residential subdivisions of 500 units or more. The Proposed Project contains fewer than 500 residential units; S B 221 is therefore not applicable to the Project.

WSAs normally are prepared by the retail water provider in whose district a subject project resides. The Campus Park West WSA was prepared on behalf of RMWD.

San Diego County General Plan Policies

The San Diego County General Plan includes a Land Use Element that contains policies regarding water supply, including the following:

- LU 13.1: Adequacy of Water Supply. Coordinate water infrastructure planning with land use planning to maintain an acceptable availability of a high quality sustainable water supply. Ensure that new development includes both indoor and outdoor water conservation measures.

- LU 13.2: Commitment of Water Supply. Require new development to identify adequate water resources, in accordance with State law, to support the development prior to approval.

Regional Water Supply Agency Plans

SDCWA's 2010 Urban Water Management Plan (UWMP) provides for a comprehensive planning analysis at a regional level and includes water use associated with accelerated forecasts of residential development as part of its municipal and industrial sector demand projections. SDCWA utilizes the SANDAG regional growth forecast to calculate future demands within their service area. This provides for consistency between San Diego County planning efforts and SDCWA demand projections, thereby ensuring that adequate supplies are being planned for existing and future water users. The demand associated with accelerated forecasted growth is intended to account for SANDAG's land use development currently projected to occur between 2035 and 2050, but with the likely potential to occur on an accelerated schedule. SANDAG estimates that accelerated residential development could occur within the planning horizon of the 2010 UWMP update. These residential units are not yet included in local jurisdictions' general plans, so their projected demands are incorporated at a regional level. When necessary, this additional demand increment can be used by member agencies to meet the demands of development projects not identified in the general land use plans, as part of general plan amendments, and/or new annexations.

As documented in the 2010 UWMP, the SDCWA is planning to meet future and existing demands, which include the demand increment associated with the accelerated forecasted growth. The SDCWA will also assist its member agencies in tracking certified EIRs provided by the agencies that include water supply assessments that utilize the accelerated forecasted growth demand increment, to demonstrate adequate supplies for the development.

Local Water Supply Considerations

As discussed previously, water service would be provided to the Project site by RMWD. Specific provisions for service have been outlined in a pre-annexation agreement dated May 22, 2012. In order to receive water service from the SDCWA aqueduct system, the portion of property north of SR-76 would need to annex to SDCWA. The Water Authority Act (the section of the Water Code under which the SDCWA operates as a special district governmental agency) specifies that annexations in the SDCWA are at the discretion of the SDCWA Board of Directors. Annexation into the RMWD and an amendment to the SLRMWD's Sphere of Influence would be initiated once the Project is approved by the SDCWA.

RMWD provides water service to the unincorporated areas of northwestern San Diego County, specifically the unincorporated communities of Rainbow, Bonsall, and portions of Fallbrook and Pala. RMWD was formed in 1953 and is a retail water supplier and a member agency of SDCWA. The RMWD service area is bounded by Marine Corps Base Camp Pendleton to the west, City of Vista to the south, Fallbrook Community Planning Area to the east, and County of Riverside to the north. RMWD covers approximately 50,000 acres and serves approximately 7,000 households/businesses through 6,300 connections. Its facilities include 17 reservoirs (total capacity 1,350 af), 46 pressure stations, and approximately 300 miles of pipeline.

The RMWD has prepared a UWMP in accordance with the California Urban Water Management Planning Act. The last update was completed in 2010 and was used to prepare the WSA for the

Proposed Project. RMWD's 2010 UMWP contains a comparison of projected supply and demands within its existing boundaries through the year 2035. Projected potable water resources to meet planned demand would be primarily supplied with imported water purchased from SDCWA.

There are two existing RMWD water service pressure zones in the vicinity of the Project site. The Canonita Zone system operates at a hydraulic grade line of 1,019 feet. The nearest facility to the Project site is a 16-inch-diameter water main in Stewart Canyon Road. From its intersection with I-15, this water main extends north and connects to the 6-million gallon Canonita Tank. The Beck Zone system operates at a hydraulic grade line of 897 feet. The nearest water line to the Project site is an 18-inch-diameter water main located in the Pala Mesa Drive overpass of I-15. The Beck Zone system includes the Beck Reservoir, which has a storage capacity of 203.7 million gallons. The hydraulic grade of both of these zones is too high to serve the Project directly.

A new reduced pressure 660 zone is planned to supply the 2011-approved Campus Park development located to the north and east of the Proposed Project. The 660 Campus Park Zone would be supplied from two pressure reducing stations (PRS). The primary supply to the 660 Zone would be from an existing Beck Zone water main in Old Highway 395 on the west side of I-15. Caltrans will be making improvements at the I-15/SR-76 interchange, which will include construction of a new RMWD 12-inch diameter pipeline in SR-76, connecting to the water main in Old Highway 395 and extending to the eastern boundary of the Caltrans right-of-way. Campus Park off-site supply facilities would include an eastward extension of this pipeline in SR-76, a pressure reducing station near the intersection of SR-76 and Pankey Road, and a 16-inch diameter 660 Zone pipeline in SR-76 and Horse Creek Road. The second PRS for the 660 Zone is planned at the intersection of Pala Mesa Heights Drive and Horse Ranch Creek Road, which would provide a redundant supply from the Canonita Zone through an extension of the existing 16-inch diameter pipeline in Stewart Canyon Road. It is anticipated that each of the pipelines described above would be in place (installed by others) prior to operations at Campus Park West. The lines in Horse Ranch Creek Road are currently in process and the Caltrans improvements would be completed as part of the SR-76 East improvements, currently begun at the west end by Mission Road and anticipated to be complete by 2017. Project status information on SR-76 East is available at http://www.transnettrip.com/Snapshot.aspx.

Wastewater Management

The San Diego County General Plan Land Use Element identifies two policies regarding wastewater relevant to the Project:

- LU 14.2: Wastewater Disposal. Require that development provide for adequate disposal of wastewater concurrent with the development and that the infrastructure is designed and sized appropriately to meet reasonably expected demands.

- LU 14.4: Sewer Facilities. Prohibit sewer facilities that would induce unplanned growth. Require sewer facilities to be planned, developed, and sized to serve the land use pattern and densities depicted on the Land Use Map. Sewer systems and services shall not be

extended beyond either Village boundaries or extant Urban Limit Lines, whichever is more restrictive except: when necessary for public health, safety, or welfare; when within existing sewer district boundaries; when necessary for a conservation subdivision adjacent to existing sewer facilities; or where specifically allowed in a community plan.

Local Wastewater Facilities

In terms of wastewater service facilities, RMWD collects wastewater generated within its boundaries and transfers the flow to the City of Oceanside through a trunk sewer that extends west along SR-76. The approximately 11-mile system of gravity pipelines, lift stations and force mains connects with Oceanside's system at Stallion Drive and North River Road. Wastewater is treated at the San Luis Rey WWTP, where RMWD has existing capacity ownership, and discharged through an ocean outfall.

The existing sewer facilities in the vicinity of the Project site consist of gravity sewer pipelines and a force main. Additionally, a gravity trunk sewer and lift station are planned to convey flows from the 2011-approved proposed Campus Park development. The existing and proposed sewer facilities are shown on Figure 1-21 and are described below.

Plant B Collector Sewer. An existing 12-inch diameter RMWD gravity sewer line called the Plant B Collector sewer extends along the eastern boundary of the Project site north of SR-76. This line heads south past SR-76 and then turns west, crosses under I-15 and connects to the Plant B Pump Station, which is located on Old Highway 395 near the RMWD office. An additional gravity sewer collects flows from a residential area just west of I-15, crosses under I-15 approximately 400 feet north of the Pala Mesa Drive overpass, and extends approximately 1,000 feet east through the Project site to connect with the Plant B Collector sewer. RMWD has been investigating options to relocate the Plant B Collector sewer north of SR-76, since it is aligned in an environmentally sensitive area with difficult access. Furthermore, the RMWD Wastewater Mater Plan Update has identified a capacity deficiency in the both the Plant B Interceptor and Plant B Sewer Lift Station, which is also in need of rehabilitation. The Plant B Sewer Lift Station will be replaced by future Campus Park facilities.

SR-76/Pala Road Main. Sewer facilities constructed as part of the Hewlett Packard Campus Park improvements in 1988 extend up to the western boundary of the Project site. A lift station, which was never built, was planned near the southwest corner of the SR-76/Pankey Road intersection. A portion of the force main for this lift station was constructed in SR-76, but never put into use. The 12-inch diameter force main extends west to the bridge over I-15, where it reduces to a 10-inch diameter section through the bridge. The force main discharges to an existing 21-inch diameter gravity sewer in SR-76 on the west side of the bridge.

Planned Campus Park Gravity Sewers. The Sewer Service Analysis for the Campus Park Project was prepared for RMWD in November 2010. Based on recommendations from this report, all sewer flows from Campus Park would be collected in on-site gravity sewers and conveyed south in a trunk sewer aligned in Horse Ranch Creek Road. The trunk sewer would turn west in SR-76 and discharge to the proposed Campus Park lift station, which would be located within the Campus Park project at the northeast corner of Pankey Road and SR-76. The trunk sewer in

Horse Creek Road would be sized for ultimate Campus Park projected flows plus Plant B interceptor flows (peak wet weatherflow = 560 gpm) and future flows from the Palomar College site (peak flow = 72 gpm). An additional 15-inch diameter gravity sewer is planned in Pankey Road to connect with the existing Plant B Interceptor and convey flows to the Campus Park Lift Station. Flows from the northern portion of Campus Park West would also discharge to this 15-inch diameter pipeline.

Planned Campus Park Lift Station. The Ten Percent Preliminary Design Report (PDR) for the Campus Park Sewer Lift Station was prepared in November 2010 for the RMWD. A summary of its planned elements, as well as a preliminary site plan, are provided in Chapter 1 of this EIR. The Campus Park Sewer Lift Station is part of the infrastructure needed for sewer service to Campus Park and would be constructed on the Project site, but it would be a public facility owned and operated by the RMWD. In the 10 percent design report, the capacity of the lift station is based on peak sewer flows from the entire Campus Park project, the Palomar Community College project, and ultimate projected flows in the Plant B Interceptor.

A new section of force main would be constructed between the Campus Park Lift Station and the existing 12-inch diameter force main in SR-76, which discharges to a 21-inch diameter gravity interceptor west of I-15. Based on the firm pumping capacity, velocities in the Campus Park lift station force main would be 4.9 fps in the 12-inch diameter sections and 7.0 fps in the existing 10-inch diameter section through the bridge over I-15.

3.1.9.2 *Analysis of Project Effects and Determination as to Significance*

The following utilities analysis does not make a distinction between on- and off-site Project effects because utility demand is not attributable such improvements. With regard to operational demands for utilities, the analysis generally evaluates the worst-case of the two land use scenarios. If there are substantive differences between **Scenarios 1** and **2**, both land use scenarios are analyzed.

Water Supply

Guideline for the Determination of Significance

A significant impact to utilities would occur if the Proposed Project would:

1. Create a demand for potable water that cannot be met with the current projected water supplies and/or that requires significant alterations to the existing water pipelines and infrastructure that is needed to convey potable water to the site.

Guideline Source

The identified guideline for significance is based on Appendix G of the CEQA Guidelines and is intended to ensure that adequate public utilities and services are available for local residents.

Analysis

Project Demand and Regional Water Supply

As noted above, water supply for the Proposed Project would be provided by RMWD, a member agency of the SDCWA and MWD. The RMWD's water supply is dependent on the SDCWA as the wholesale water supplier. Therefore, the water supply reliability assessment relies on the Water Authority's 2010 UWMP. Water Code section 10635 requires that every urban water supplier assess the reliability of its water services during normal, dry and multiple dry water years. The water supply and demand assessment compare the total projected water use with expected water supply over the next 20 years in 5-year increments. The assessment contained in the 2010 UWMP projects reliability through the next 25 years to correspond with population growth forecasted by SANDAG. The Water and Sewer Studies (Appendix S) estimated water demands directly from planned land uses, using unit use factors specific to each land use in the current Project plan. The total average water demand was estimated to be 261,120 gallons per day (gpd) as detailed in Table 3.1.9-1, Water Demand Projections.

The near-term service for the proposed water demands of the Project can be accounted for in the SDCWA's 2010 UWMP accelerated forecasted growth demand increment, discussed above. This additional demand increment (shown in Table 4.9.1-2, Total Regional Baseline Forecast), can be used by member agencies to meet the demands of development projects not identified in general land use plans, as part of general plan amendments, and/or new annexations. As documented in the 2010 UWMP, SDCWA is planning to meet future and existing demands, including the demand increment associated with accelerated forecasted growth. SDCWA also will assist its member agencies in tracking the certified EIRs provided by the agencies that include water supply assessments that utilize the accelerated forecasted growth demand increment, to demonstrate adequate supplies for the development. In addition, the next update of the demand forecast for SDCWA's 2015 UWMP will be based on SANDAG's most recently updated forecast, which would include the Project.

As noted above, RMWD used SDCWA's projections for normal, dry year and multiple dry years to determine future demands for the next 20 years. The forecasted normal year water demands compared with the projected supplies from the SDCWA are shown in Table 3.1.9-3, SDCWA Normal Year Demand and Supply Comparison. This demonstrates that with existing supplies and implementation of the projects discussed in the SDCWA planning documents there would be adequate water supplies to serve the Project. Table 3.1.9-4, SDCWA Single Dry Year Demand and Supply Comparison, provides a comparison of a single dry year supply with projected water demands over the next 20 years. Tables 3.1.9-5 through 3.1.9-7 present multiple dry year scenarios. As demonstrated by Tables 3.1.9-3 through 3.1.9-7, SDCWA can reliably meet demands during normal, single dry, and multiple dry year scenarios.

In summary, the Proposed Project has been found to create a demand for potable water that could be met by water supplies that are planned for and intended to be available over a 20-year planning horizon, under normal conditions and in both single and multiple dry years. Therefore, impacts associated with water supply would be **less than significant**.

Water Supply Facilities

Specifics regarding the water supply system for the Proposed Project are described in Section 1.2.2.3, Utilities, of this EIR and in the Water and Sewer Studies contained in Appendix S. Figure 1-20 illustrates the proposed water system for the Project. As discussed in Section 1.2.2.3, in order to provide water system redundancy, two systems would be provided.

On-site Water System. The proposed on-site water system for the Proposed Project would consist of an 897 Beck Zone to 660 Campus Park Zone PRS, a 12-inch diameter transmission main in Pankey Road, and smaller distribution pipelines that would be determined as site development plans are prepared. The PRS would be located at the terminus of the existing 18-inch diameter water main in the Pala Mesa Drive I-15 overpass. A redundant supply to Campus Park West would be provided from the 16-inch diameter transmission main in SR-76 and the two 660 Zone PRSs planned for Campus Park.

Distribution lines within the Project site would be looped and designed to deliver maximum day demands plus a fire flow, which exceed the peak hour demands.

Off-site Water System. The Project site is proposed to be supplied from a new on-site 660 Zone PRS and a connection to the planned 660 Zone pipeline in SR/76 at Pankey Road. Off-site improvements would consist of a 660 Zone pipeline connection and a short section of 12-inch diameter pipeline in Pankey Road. Supply to the site would utilize the pipeline that would be constructed with the new Caltrans interchange and off-site improvements planned as part of the approved Campus Park project. Only one of these facilities is necessary for the Proposed Project. Campus Park West would be responsible for a portion of the costs for these planned off-site improvements, to be determined by RMWD.

For both on-site and off-site elements of the water supply system, the facilities would be sized to provide the capacity required, and would not necessitate significant alterations to existing systems beyond those assumed as part of Project design. Therefore, impacts to water service facilities would be **less than significant.**

Wastewater Management

Guidelines for the Determination of Significance

A significant impact to utilities would occur if the Proposed Project would:

2. Generate wastewater that cannot be treated by an existing or proposed facility and/or requires significant alterations to existing sewage systems and infrastructure.

3. Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments.

Guidelines Source

The identified guidelines for significance are based on Appendix G of the CEQA Guidelines and are intended to ensure that adequate public utilities and services are available for local residents.

Analysis

Specifics regarding the sewer system are provided in the Project Description, Section 1.2.2.3, Utilities, of this EIR and in the Water and Sewer Studies (ATKINS 2012) contained in Appendix S. The sewage system and pump stations would be managed by the RMWD.

Projected wastewater flows for the Proposed Project are based on the sewage generation factors contained in Appendix S and summarized in Table 3.1.9-8. Since only the total building area for the general commercial category is defined, building areas for the three commercial planning areas (PA 2, 4 and 5) are apportioned based on the relative size of the planning areas (acres). The total average wastewater flow is projected to be 0.134 mgd or 93 gpm.

Peak wastewater flows from the Proposed Project are calculated based on the peaking factor of 3.0 and average flows of 93 GPM, for a peak wastewater flow of 280 gpm.

RMWD plans to abandon the Plant B Interceptor north of SR-76 with development of the Proposed Project and the adjacent approved Campus Park development. Flows in the gravity sewers that enter the Project site from the north and the west would be re-routed separately.

Flows in the gravity sewer entering the Project site from the north would be diverted upstream of the Project site to flow east and then south through the proposed Campus Park project. Future flows from the Palomar College site also would be conveyed through Campus Park. Flows in the existing branch gravity sewer that crosses I-15 and enters the Project site from the west are proposed to be pumped from a new RMWD lift station. The lift station would discharge to the proposed Campus Park West collection system for conveyance south. Three potential locations have been identified near Pala Mesa Drive for the proposed "Pala Mesa" lift station. These locations are shown on the proposed system map on Figure 1-22.

Option 1 would utilize the existing gravity sewer crossing I-15 and locate the Pala Mesa Lift Station within the Proposed Project. A new force main would be constructed to convey flows south and then west in Pala Mesa Drive, discharging to the proposed gravity sewer in Pankey Road. Option 2 would locate the Pala Mesa lift station on the west side of Old Highway 395, adjacent to the existing gravity sewer. A new force main extending south and then west across I-15 in a bridge cell of the Pala Mesa Drive overpass would be constructed. Option 3 would locate the lift station further south on the east side of Old Highway 395. All options require a new section of force main from the east side of the bridge to the proposed gravity sewer in Pankey Road. Option 1 would require an additional section of force main along the eastside of I-15, and Options 2 and 3 would also require sections of new force main on the west side of I-15 and in the Pala Mesa I-15 overpass.

Based on information provided by RMWD staff, the peak flow in the existing gravity sewer that crosses I-15 just north of Pala Mesa Road is 53 gpm. The proposed Pala Mesa lift station would have a minimum required design capacity of 70 gpm (peak flow times the 1.3 peak pumping safety factor). At this flow rate, a three-inch diameter force main would be required to provide the minimum force main velocity of three feet per second. Due to the small force main diameter, it is recommended that the lift station be equipped with a separate grinder pump.

The Campus Park lift station would pump all flows from the Proposed Project as well as the Campus Park Project, Palomar College Project and Plant B Interceptor (see Table 3.1.9-9).

The proposed facilities would have the appropriate capacity for the Proposed Project and adjacent developments noted above. Where, as anticipated, these facilities are in place due to ongoing "first in time" implementation by adjacent projects, Conditions of approval would be placed on the Project to share in the cost of the facilities under the terms of a cost-sharing agreement to be negotiated among the parties. The Project would be consistent with relevant policies, and would not require significant alterations to existing sewage systems and infrastructure; therefore, impacts to wastewater service facilities would be **less than significant.**

3.1.9.3 *Cumulative Impact Analysis*

Several related cumulative development projects have been recently completed or are planned for development in the vicinity of the Proposed Project, as listed in Table 1-4. These future projects include residential developments totaling approximately 3,665 units, as well as other types of development, such as expansion of the Pala Mesa Resort. Cumulative impacts of these development projects are discussed below. The significance guidelines that were used to evaluate Project-specific impacts also are used here to evaluate cumulative impacts.

Water Supply and Facilities

As discussed previously, the SDCWA's 2010 UWMP provides for a comprehensive planning analysis at a regional level and includes water use associated with accelerated forecasts residential development as part of its municipal and industrial sector demand projections. The demand associated with accelerated forecasted growth is intended to account for SANDAG's land use development currently projected to occur between 2035 and 2050, but which has the likely potential to occur on an accelerated schedule. SANDAG estimates that this accelerated residential development could occur within the planning horizon of the 2010 UWMP update. These units are not yet included in local jurisdictions' general plans, so their projected demands are incorporated at a regional level. When necessary, this additional demand increment can be used by member agencies to meet the demands of development projects not identified in the general land use plans or for new annexations.

As documented in the 2010 UWMP, the SDCWA is planning to meet future and existing demands which include the demand increment associated with the accelerated forecasted growth. SDCWA will also assist its member agencies in tracking the certified EIRs provided by the agencies that include water supply assessments that utilize the accelerated forecasted growth

demand increment, to demonstrate adequate supplies for the development. Therefore, cumulative impacts on water supply and water facilities would be **less than significant**.

Wastewater Management

Wastewater treatment would be provided by the San Luis Rey WTP in Oceanside. The San Luis Rey WTP has a current capacity of 1.5 million gpd and is operating at approximately 67 percent of its capacity (1.0 million gpd). Based on an average of 250 gpd per household, the total cumulative residential sewage generation (including the Proposed Project) would be approximately 1.3 million gpd over current levels. This estimate is considered conservative (greatest impact) in that: (1) some projects would not be within RMWD and therefore may not be treated by the San Luis Rey WTP; and (2) some projects may utilize septic systems. This would further increase sewage treatment demand over the maximum service capacity of the San Luis Rey WTP. The RMWD Wastewater Master Plan recognizes the cumulative need for additional treatment capacity. The Proposed Project and other cumulative projects served by RMWD would pay appropriate fees prior to granting of building permits for all approved projects. Because capacity is available for the Proposed Project, the Project's contribution to cumulative impacts on wastewater treatment services would be **less than significant.**

3.1.9.4 *Significance of Impacts*

According to the WSA, the RMWD has adequate water supplies to serve the anticipated growth of the Project. The RMWD Board of Directors approved the WSA on November 20, 2012 and a preliminary service agreement has already been signed by RMWD. Impacts related to water supply are, therefore, anticipated to be less than significant.

Impacts related to water and sewage conveyance facilities would be less than significant because facilities would be new, constructed and/or funded by the Project and approved Campus Park, sized to provide the capacity required, and would not necessitate significant alterations to existing systems beyond those proposed as part of Project design.

Impacts related to wastewater utilities are anticipated to be less than significant because there is adequate capacity at the San Luis Rey WTP to serve the Project and the Project would be consistent with relevant policies, and would not require significant alterations to existing sewage systems and infrastructure beyond those proposed as part of Project design.

3.1.9.5 *Conclusion*

Since the Project would have less than significant impacts related to water and wastewater utilities, no mitigation would be required. It should be noted, however, that if the Project could not meet annexation requirements of SDCWA and RMWD, the Project would not be implemented, and no impacts would occur.

Table 3.1.9-1
WATER DEMAND PROJECTIONS

Land Use	Gross Acreage	Max Square Footage/Units	Unit Use Factor	Average Annual Demand	
				gpd	gpm
Multi-Family Residential	12.4	248	300 gpd/DU	74,400	51.7
Commercial/Mixed Use	52.4	503,500	3,000 gpd/acre	157,200*	109.2
Mixed Use residential	--	35	300 gpd/DU	10,500	7.3
Light Industrial/Office	12.6	120,000	100 gpd/1,000 SF	12,000	8.3
HOA - irrigation	1.42	--	4,000 gpd/acre	5,680	3.9
Biological Open Space	31.0	--	0 gpd/acre	-	0.0
Right-of-Way**	6.7	--	4,000 gpd/net acre	1,340	0.9
Total	**116.5**			**261,120**	**181**

Source: ATKINS 2012
*Table 3.1.9-1 reflects water use for **Scenario 1. Scenario 2** adds an additional 2 acres to general commercial use with anticipated average annual demand equaling 163,500.
**Mostly pavement, with 5% of the area assumed irrigated (net acres).

Table 3.1.9-2
TOTAL REGIONAL BASELINE DEMAND FORECAST (AFY)

	2015	2020	2025	2030	2035
Baseline M&I Demand[1,2,3]	590,731	661,415	728,574	788,174	839,417
Baseline Agricultural Demand - Program	30,358	27,164	26,531	25,927	25,324
Baseline Agricultural Demand - Full Service	2,500	22,370	21,849	21,352	20,854
Near-Term Annexations[4]	5,709	6,670	6,670	6,670	6,670
Accelerated Forecasted Growth	2,224	4,421	6,605	8,776	10,948
Total Baseline Demand Forecast	**631,522**	**722,040**	**790,229**	**850,899**	**903,213**

Source: SDCWA 2010 UWMP (Table 2-2)
[1] Includes approximately 12,000 AF of demand for Camp Pendleton – provided by base staff.
[2] Reflects passive historic conservation savings.
[3] Includes increment of demand associated with the decay of historic active conservation program savings (2015 = 7,111 AF; 2020 = 14,221 AF; post-2020 = 21,332 AF).
[4] Known near-term annexation demands include: Escondido (314 AF), Otay Ranch Village 13 and parcels East of Village 13 (2,361 AF), Peaceful Valley Ranch (70 AF), Sycuan Reservation (392 AF), Stoddard Parcel (2 AF), San Ysidro Mt. Parcel Village 17 (148 AF), Viejas (2,000 AF), Rincon (417 AF), Meadowood Development (460 AF), Pauma Ranch (76 AF) and Warner Ranch/Sycamore Ranch (430 AF). Including the demands for these parcels does not limit the Board's discretion to deny or approve these or other annexations not contemplated at this time.

Table 3.1.9-3
SDCWA NORMAL YEAR DEMAND AND SUPPLY COMPARISON

	2015	2020	2025	2030	2035
Water Authority Supplies					
IID Water Transfer[1]	100,000	190,000	200,000	200,000	200,000
ACC and CC Lining Projects[2]	80,200	80,200	80,200	80,200	80,200
Proposed Regional Seawater Desalination	0	56,000	56,000	56,000	56,000
Sub-Total	**180,200**	**326,200**	**336,200**	**336,200**	**336,200**
Member Agency Supplies					
Surface Water	48,206	47,940	47,878	47,542	47,289
Water Recycling	38,660	43,728	46,603	48,278	49,998
Groundwater	11,710	11,100	12,100	12,840	12,840
Groundwater Recovery	10,320	15,520	15,520	15,520	15,520
Sub-Total	**108,896**	**118,288**	**122,101**	**124,180**	**125,647**
Metropolitan Water District Supplies	358,189	230,601	259,694	293,239	323,838
Total Projected Supplies	**647,285**	**675,089**	**717,995**	**753,619**	**785,685**

Source: SDCWA 2010 UWMP (Table 9-1)
[1]. Imperial Irrigation District Water Transfer
[2]. All-American and Coachella Canals canal lining projects

Table 3.1.9-4
WATER AUTHORITY SINGLE DRY YEAR DEMAND AND SUPPLY COMPARISON

	2015	2020	2025	2030	2035
Water Authority Supplies					
IID Water Transfer	100,000	190,000	200,000	200,000	200,000
ACC and CC Lining Projects	80,200	80,200	80,200	80,200	80,200
Proposed Regional Seawater Desalination	0	56,000	56,000	56,000	56,000
Sub-Total	**180,200**	**326,200**	**336,200**	**336,200**	**336,200**
Member Agency Supplies					
Surface Water	17,932	17,932	17,932	17,932	17,932
Water Recycling	38,660	43,728	46,603	48,278	49,998
Groundwater	9,977	9,977	9,977	9,977	9,977
Groundwater Recovery	10,320	15,520	15,520	15,520	15,520
Sub-Total	**76,889**	**87,157**	**90,032**	**91,707**	**93,427**
Metropolitan Water District Supplies	430,431	305,101	338,501	376,023	409,389
Total Projected Supplies	**687,520**	**718,458**	**764,733**	**803,930**	**839,016**

Source: SDCWA 2010 UWMP (Table 9-2)

Table 3.1.9-5
SDCWA MULTIPLE DRY YEAR DEMAND AND SUPPLY COMPARISON
(THREE-YEARINCREMENTS – 2012-2014 and 2016-2018)

	2012	2013	2014	2016	2017	2018
Member Agency Supplies	69,597	84,440	103,907	78,943	93,408	112,499
Water Authority Supplies	170,200	180,200	180,200	236,200	236,200	266,200
Metropolitan Allocation (Preferential Right)	317,760	319,177	320,456	322,661	323,350	324,100
Total Estimated Core Supplies w/o Storage Tanks	557,557	583,817	604,563	637,804	652,958	702,799
Total Demands w/ SBX7-7 Conservation	658,381	679,509	711,241	682,338	705,461	740,326
Potential Supply; (Deficit) or Surplus	(100,824)	(95,692)	(106,678)	(44,534)	(52,503)	(37,527)
Utilization Carryover Supplies	40,000	40,000	30,000	44,534	40,000	30,000
Total Projected Core Supplies with Utilization of Carryover Storage Supplies	597,557	623,817	634,563	82,338	692,958	732,799
Remaining Potential Supply, (Deficit) or Surplus, that will be handled through Management Actions	(60,824)	(55,692)	(76,678)	0	(12,503)	(7,527)

Source: SDCWA 2010 UWMP (Table 9-3 and 9-4)

Table 3.1.9-6
SDCWA MULTIPLE DRY YEAR DEMAND AND SUPPLY ASSESSMENT
(THREE YEAR INCREMENTS – 2021-2023 AND 2026-2028)

	2021	2022	2023	2026	2027	2028
Member Agency Supplies	87,732	100,719	118,331	90,367	103,114	120,486
Water Authority Supplies	336,200	336,200	336,200	336,200	336,200	336,200
Metropolitan Allocation (Preferential Right)	326,697	327,671	328,695	332,058	333,272	334,532
Total Estimated Core Supplies w/o Storage Tanks	750,629	764,590	783,226	758,625	772,586	791,218
Total Demands w/ SBX7-7 Conservation	724,294	751,800	790,177	772,892	801,649	844,137
Potential Supply; (Deficit) or Surplus	26,335	12,790	(6,951)	(14,267)	(29,063)	(52,919)
Utilization Carryover Supplies	0	0	6,951	14,267	29,063	40,000
Total Projected Core Supplies with Utilization of Carryover Storage Supplies	750,629	764,590	790,177	772,892	801,649	831,218
Remaining Potential Supply, (Deficit) or Surplus, that will be handled through Management Actions	26,335	12,790	0	0	0	(12,919)

Source: SDCWA 2010 UWMP (Table 9-5 and 9-6)

Table 3.1.9-7
SDCWA MULTIPLE DRY YEAR DEMAND AND SUPPLY ASSESSMENT
(THREE YEAR INCREMENTS – 2031 – 2033)

	2031	2032	2033
Member Agency Supplies	92,051	104,807	122,188
Water Authority Supplies	336,200	336,200	336,200
Metropolitan Allocation (Preferential Right)	338,575	340,009	341,486
Total Estimated Core Supplies w/o Storage Tanks	766,826	781,016	799,874
Total Demands w/ SBX7-7 Conservation	811,421	842,947	882,795
Potential Supply; (Deficit) or Surplus	(44,595)	(61,931)	(82,921)
Utilization Carryover Supplies	44,595	40,000	30,000
Total Projected Core Supplies with Utilization of Carryover Storage Supplies	811,421	821,016	829,874
Remaining Potential Supply, (Deficit) or Surplus, that will be handled through Management Actions	0	(21,931)	(52,921)

Source: SDCWA 2010 UWMP (Table 9-7)

Table 3.1.9-8
SEWER FLOW PROJECTIONS

Land Use	Quantity	EDUS			Projected Sewer Flow*	
		1st 5,000 ft²	>5,000 ft²	Total	Average (gpd) Peak (gpm)	
PA 1						
Industrial	120,000 s.f.	3.4	46.0	49.4	12,350	
PA 2						
General Commercial	442,525 s.f.	3.4	175.0	178.4	44,602	
Mixed Use Residential	35 units	--	--	35.0	8,750	
PA 3						
Multi-Family Residential	248 units	--	--	248.0	62,000	
Subtotal PA-1 thru PA-3				**510.8**	**127,702**	**310**
PA 4						
General Commercial	27,838 s.f.	3.4	9.1	12.5	3,134	
PA 5**						
General Commercial	32,637 s.f.	3.4	11.1	14.5	3,614	
Subtotal PA 4 and PA 5				**27.0**	**6,748**	**14**
Totals				**538 EDUs**	**134,450 gpd**	**280 gpm**

Source: ATKINS 2012
* Based on 250 gpd per EDU and RMWD sewer peaking factor equation
Table 3.1.9-8 provides anticipated sewer flow projections for **Scenario 1. Under **Scenario 2,** with an additional 10,000 s.f. of general commercial uses, the sewer flow projection would increase in PA 5 by 4 Equivalent Dwelling Units or 1,000 gallons per day.

Table 3.1.9-9
CAMPUS PARK LIFT STATION PUMPING CAPACITY

Service Area	Average Sewage Flow (gpm)	EDUs[1]	Population[2]
Campus Park West	93.4	537.8	1,345
Campus Park Project	148.0	850.1	2,125
Warner Ranch[3]	135.4	780.0	1,950
Palomar College Project	17.4	100	251
Plant B Interceptor	160	921.6	2,304
Totals	**554.2**	**3189.7**	**7,974**
Sewer Peaking Factor	3.00		
Lift Station Safety Factor	1.30		
Total Firm Pumping Capacity	**2,161 gpm**		

Source: ATKINS 2012
[1] Based on 250 gpd/EDU
[2] Based on 2.5 people/EDU
[3] Assumes 780 dwelling units for Warner Ranch