

SECTION 3.13
PUBLIC UTILITIES AND SERVICES

3.13 PUBLIC UTILITIES AND SERVICES SYSTEMS

3.13.1 INTRODUCTION

This section evaluates the potential impacts of the proposed project on public services and utilities, including water supply and service systems, sewer service, educational facilities, libraries, park and recreation facilities, police services, emergency operational services, and fire protection.

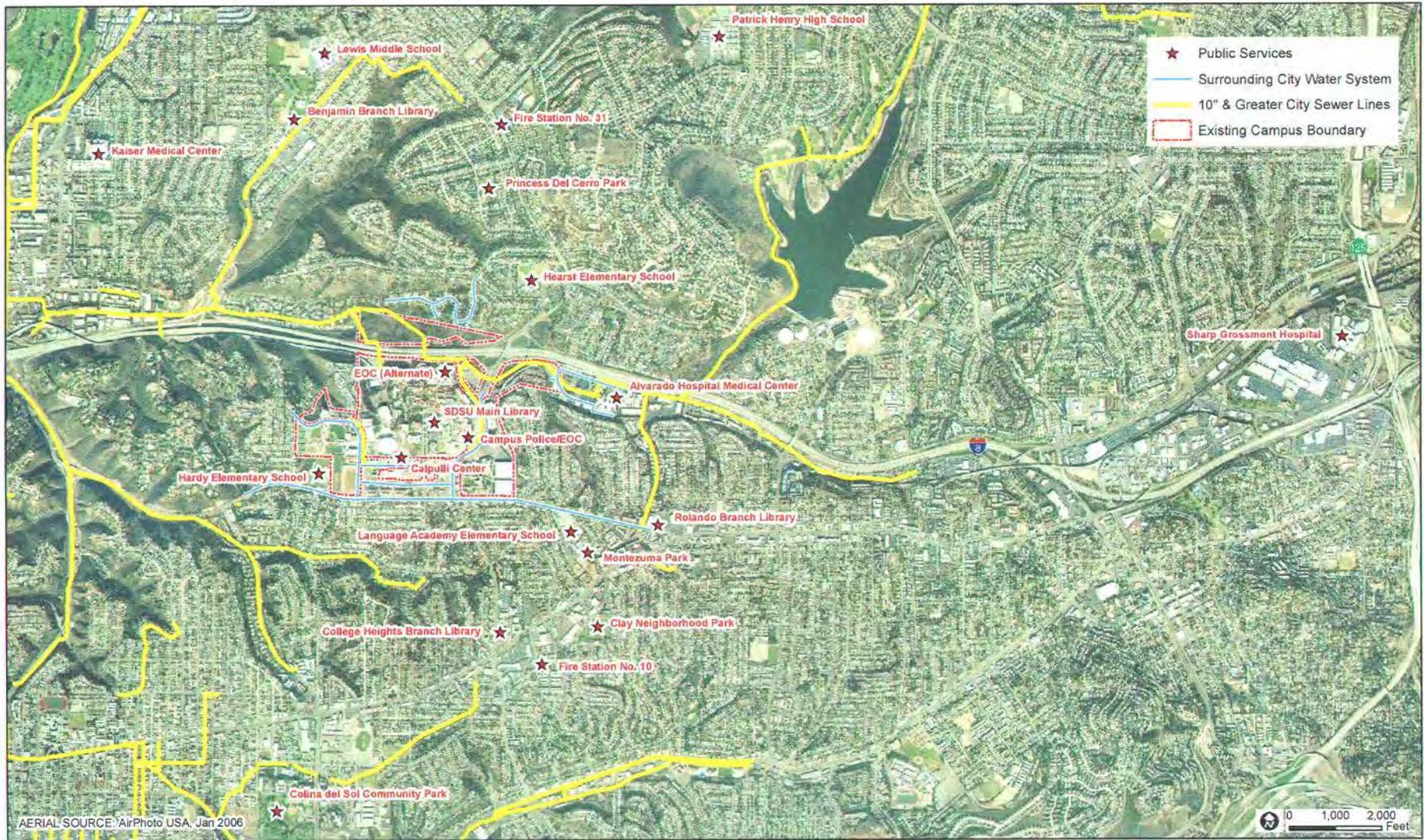
3.13.2 METHODOLOGY

This section was prepared based on communications with applicable public service providers and a review of available studies and other documents. The project's impact on sewer service was assessed through discussions with City of San Diego Metropolitan Wastewater Department and City of San Diego Development Services staff. Water service availability was assessed through a review of existing studies, including: (a) the City's *Urban Water Management Plan* ("UWMP"), adopted in 2005; (b) the San Diego County Water Authority's ("SDCWA") *Urban Water Management Plan*, adopted in 2005; (c) the Metropolitan Water District's ("MWD") *Regional Urban Water Management Plan*, adopted in 2005; and (d) the City's *Long-Range Water Resources Plan* (2002-2030), adopted in 2002.

Potential impacts on police, fire and emergency services were assessed through discussions with SDSU Department of Public Safety and City of San Diego Fire Department personnel. Potential impacts on park and recreation facilities were assessed through a review of recreation plans and policies contained in the City of San Diego Navajo and College Area Community Plans. The proposed project's potential impact on school facilities was assessed through a review of San Diego Unified School District facilities. Potential impacts on solid waste disposal services and capacities were assessed through discussions with personnel from the Allied Waste & Recycling Services, Inc., and City of San Diego Environmental Services staff.

3.13.3 EXISTING CONDITIONS

Figure 3.13-1, Existing Public Utilities and Service Systems, depicts the location of the existing public facilities and service systems addressed in this section. A discussion of each of the facilities is presented below.



Water Demand/Supply And Systems

Potable Water

SDSU uses water for drinking, sanitation, fire protection, heating, cooling, utility systems, research, classrooms, cleaning, restrooms, showers, laundry and landscape irrigation. The most recent data available regarding campus water demand is from fiscal year 2005-06. Water usage at the SDSU campus for that year was approximately 206,564 hundred cubic feet ("ccf") or 474 acre-feet per year ("afy") (Lekas, pers. comm., March 13, 2007).

Approximately 90% of the San Diego region's water is imported, while 10% is supplied from water produced locally through a system of reservoirs and pipelines. The San Diego County Water Authority ("SDCWA") is the main wholesale supplier of water in San Diego County. Imported water is supplied to the SDCWA by the Metropolitan Water District ("MWD"), which serves the greater Southern California area. MWD's primary sources of water are the State Water Project ("SWP") and the Colorado River. Local water is supplied to the San Diego area by the City of San Diego Water Department, which purchases water from SDCWA.¹ The City's Water Department provides potable water supplies to SDSU.

The City's Water Department maintains a complex water treatment and distribution system to support approximately 1.2 million people over a 200 square mile area of developed land. The City maintains three water treatment plants, one of which is located at Lake Murray, northeast of the SDSU campus. The City Water Department maintains and operates more than 2,890 miles of water lines, 45 water pump plants, 90-plus pressure zones, and more than 200 million gallons of potable water storage capacity in 32 standpipes, elevated tanks, and concrete and steel reservoirs. There are approximately 250,000 metered service connections within the City Water Department's service area. The City Water Department sells water to a number of other water agencies, and maintains emergency connections to these adjacent jurisdictions/districts in the event of water shortages.²

As indicated on **Figure 3.13-1, Existing Public Utilities and Service Systems**, three water mains serve the SDSU campus. The water mains are located within 55th Street (8" line), Montezuma and Campanile Drive (8" line) and College Avenue (by G Lot) (8" line). These lines are served by existing lines, which bring treated water from the City's Alvarado Water Treatment Plant

¹ See, City Water Department website, www.sandiego.gov/water, accessed March 2, 2007.

² See, City Water Department website, www.sandiego.gov/water, accessed March 2, 2007.

("WTP"), located adjacent to Lake Murray, approximately 2 miles east of SDSU. The Alvarado WTP capacity is currently at 120 million gallons per day ("mgd"), which will be increased to 200 mgd under the current Expansion and Improvement Project expected to be completed in 2011.³ The Adobe Falls Water Pump Station is also within the vicinity of the proposed project. In 2001, the pump station was upgraded by increasing the pumping capacity and improving the reliability of the pump station.⁴

The project site is located within the Mid-City Neighborhoods, which include the communities of City Heights East, City Heights West, College Area, Darnall, El Cerrito, Gateway, Kensington, Normal Heights, Oak Park, Rolando, Talmadge, and Webster. Current Infrastructure and Capital Improvement Programs that are under construction to ensure water supplies will be maintained within the Mid-City Neighborhoods include both the Alvarado Water Treatment Plant Expansion and Improvement Project and the Mid-City Water Transmission Pipeline Project.

The 4.85 mile long Mid-City Water Transmission Project is being constructed to address the existing Trojan Pipeline, which was built in the 1950s and cannot keep up with increasing demands in the Mid-City area.⁶ The project will provide a back-up water supply, which does not currently exist in the Mid-City area and will help ensure adequate water pressure to all Mid-City communities. The Mid-City Water Transmission Project, currently under construction at the time of EIR publication, will deliver up to 43 million gallons of water per day.

Recycled water

The City of San Diego Water Department has begun a recycled water program to meet future water demands and avoid shortages, while reducing dependence on imported water. The construction of both the North City Water Reclamation Plant and the South Bay Water Reclamation Plant has provided the ability to treat wastewater to a level suitable for irrigation, manufacturing and other non-drinking, or non-potable purposes. The North City Plant has the capability to treat 30 million gallons a day and the South Bay Plant can treat 15 million gallons a day.⁷ Recycled water provides a dependable, year-round, locally controlled water resource,

³ See, City Water Department website, www.sandiego.gov/water/cip/alvarado.shtml, accessed March 2, 2007.

⁴ See, City Water Department website, www.sandiego.gov/water/cip/adobe.shtml, accessed March 2, 2007.

⁶ See, City Water Department website, www.sandiego.gov/water, accessed February 28, 2007

⁷ See City Water Department website, www.sandiego.gov/water, accessed March 15, 2007)

while being cost-effective, reliable and good for the environment. (City of San Diego, www.sandiego.gov/water/recycled, accessed February 28, 2007).

The City provides recycled water to 383 meters. Service areas include Torrey Pines, UCSD, University City, Mira Mesa, Scripps Ranch, and the Sabre Springs areas. Most of these customers use recycled water for irrigation while a few customers use recycled water for industrial purposes, including source water for cooling tower operations, dust suppression and universal cleaning elements. Large City customers include the North City Water Reclamation Plant, Metropolitan Biosolids Center, Miramar Landfill, City maintained open space parkland, and the Torrey Pines Golf Course. Other large customers include General Atomics, Caltrans, Miramar Nursery, San Diego California Temple, the University of California at San Diego, and the Miramar Marine Corps Air Station Golf Course (City of San Diego, www.sandiego.gov/water/recycled, accessed February 28, 2007). The City of San Diego does not have plans to extend infrastructure that would allow the use of recycled water in the College Area and, therefore, recycled water is not available for use on the SDSU campus. (Wilson, pers. comm., March 14, 2007).

Sewer

The City of San Diego Metropolitan Wastewater Department ("MWWD") serves 2.2 million people from the City of San Diego and 15 other cities and special wastewater/water districts. The 450 square mile service area generates approximately 180 million gallons of wastewater per day. Within the City, there are approximately 2,894 sewer lines with over 250,000 connections and 55,000+ manholes. There are 84 municipal pump stations that transport the sewage to the system's main treatment facility in Point Loma. (MWWD website, www.sandiego.gov/mwwd, accessed February 27, 2007.)

Campus wastewater flows from local facilities to the Alvarado Trunk Sewer, which generally follows the path of Alvarado Creek along the northeastern edge of the SDSU campus before it crosses under I-8 and into the Adobe Falls area. The Alvarado Trunk Sewer was the site of a major sewage spill in February 2000, which resulted in removal of the sewer line from the creekbed and relocation onto SDSU's Adobe Falls/Faculty Staff Housing upland property. The Alvarado Creek habitat, which was contaminated during the sewage spill, currently is being restored; this restoration effort is planned for completion by 2008.

Like the Alvarado Trunk Sewer, approximately 320 miles of MWWD's sewer lines currently are located in canyons or environmentally sensitive lands. Two City Council Policies, approved on

January 22, 2002, address this issue. Policy 400-14, "Planning for Redirection of Sewage Discharge away from Canyons and Other Environmentally Sensitive Lands," establishes a feasibility and planning framework for the redirection of sewage discharge away from sensitive areas. The Policy states that during project planning, a cost-benefit analysis should be conducted, including both quantitative and qualitative measurements, to determine whether relocation of the facility or redirection of the flow is possible. The Policy provides that, whenever economically and environmentally practical, sewer infrastructure should be relocated away from these canyons and other environmentally sensitive lands. (City of San Diego, City Council Policy 400-14, January 22, 2002.)

If a facility is determined to be financially not feasible without location in a sensitive area, Policy 400-13, "Planning for Management of Sewer Facilities located in Canyons and Other Environmentally Sensitive Lands," establishes guidelines for safe and effective access to facilities, operation and maintenance of sewer collection systems located within these sensitive lands. The guidelines provide that, in order to avoid impacts to environmentally sensitive lands, the following steps shall be taken:

- Develop plans for appropriate emergency and scheduled access into canyons and other environmentally sensitive lands;
- Replace deteriorated sewer infrastructure;
- Employ low environmental impact practices and procedures for all sewer repairs, replacement or routine maintenance;
- Expand the City's equipment fleet to include low impact, canyon proficient vehicles that can safely access natural areas, while minimizing impacts to sensitive resources;
- Stabilize erosion that could threaten the integrity of existing sewer infrastructure, water quality and habitat value;
- Implement timely and effective restoration procedures when impacts do occur;
- Establish and enforce high performance standards for contractors and City crews;
- Implement measures that minimize the need for unscheduled maintenance due to erosion, storm runoff, vandalism, and other factors, such as general deterioration of habitat due to sewer operations in canyons; and
- Develop a public outreach plan. (City of San Diego, City Council Policy 400-13, January 22, 2002.)

Parks And Recreation

The public parks closest to the proposed project are Montezuma Park (1.7 acres), located in the College Area, and Princess Del Cerro Park (5.5 acres), located in the Navajo Community. Montezuma Park includes passive recreation space, while Princess Del Cerro Park includes active recreation space. Additionally, Colina del Sol Community Park and Clay Neighborhood Park provide the College Area with recreational facilities. Due to the existing athletic/recreation programs at SDSU, many recreational amenities, including ball fields, tennis courts and a running track, are located on the SDSU campus. Passive recreational facilities, such as open fields, plazas and gardens, also are located on the SDSU campus. Though not a park, the existing Adobe Falls/Faculty Staff Housing parcel is believed to be used for dog walking and hiking. The Hearst Elementary School in the Navajo community, and the Hardy Elementary School in the College Area, also serve the local community's needs for open space areas and active recreational facilities. (Navajo Community Plan, 1982 as amended 2002, pg. 79-80.) The location of each of these facilities is depicted on **Figure 3.13-1, Existing Public Utilities and Service Systems**.

Mission Trails Regional Park, located approximately 4 miles northeast of the SDSU campus, encompasses 5,760 acres of natural and developed recreational land. The park is one of the largest urban parks in the country and provides regional recreational space (hiking, mountain biking and nature interpretation) for the SDSU, Navajo and College Area communities.

The Recreation Element of the City of San Diego Progress Guide and General Plan ("General Plan") provides guidance for planning, designing and management of both neighborhood and community recreational amenities within the City. In general, the City suggests that there be approximately 20 acres of urban recreation land for each 1,000 residents citywide. Population-based facilities (neighborhood and community parks) should account for 1 to 4 acres of this total, while resource based parks (scenic or natural areas) should account for 15 to 17 acres of the 20. The General Plan calls for a neighborhood park for every 3,500 to 5,000 persons within the community and a community park for every 18,000 to 25,000 community members. Under the General Plan, all neighbors are to have a park facility located within approximately one-half mile of their home. Neighborhood parks should consist of at least 5 acres, if adjacent to a school, or 10 acres, if disjointed from a school. Community parks are larger in scale and should contain active recreational facilities, such as athletic fields, multipurpose courts, picnic facilities, play areas, recreation and lawn areas. If a community park is located adjacent to a school, it should consist of at least 13 acres; if distant from a school, at least 20 acres. The design and type of facilities provided are to be determined by the population and use characteristics of the

neighborhood. (City of San Diego General Plan, June 1989, pg. 313-314.). As indicated in the October 2006 City of San Diego Final Draft Progress Guide and General Plan, Policy RE-F.9 states that for every 1,000 residents, 2.8 acres of usable open space shall be provided (City of San Diego, October 2006).

The Navajo Community Plan has designated the SDSU Adobe Falls site as a community park, and indicates that the City-owned 4-acre parcel within the Adobe Falls area could allow for access to the SDSU-owned land. (Navajo Community Plan, 1982, as amended 2002, pg. 66.) The College Area Community Plan does not designate additional park facilities within the College Area, but it does acknowledge a general deficiency in park facilities given existing population numbers. (College Area Community Plan, 1989, as amended 1993, pg. 96-98.)

Police Protection

The SDSU Department of Public Safety ("DPS") is operational 24 hours a day, seven days a week, and consists of 34 sworn police officers and 57 support employees. The police officers conduct foot, vehicular and bicycle patrols over 300 acres of university-owned property (including the Adobe Falls parcel) and auxiliary organizations' holdings, including SDSU Foundation-owned land (*e.g.*, the existing Alvarado Medical Center). The DPS operates the main police station in the Public Safety Building, located on 55th Street. (Browning, personal communication, March 14, 2007.)

University Police officers are responsible for the protection of students, faculty, staff, visitors and property owned by San Diego State University and its auxiliaries. DPS has a reciprocity agreement with the San Diego Police Department for all areas within a one mile radius of the university. Further, DPS has an Administrative Agreement with the San Diego Police Department to provide mutual assistance as appropriate and to investigate all homicides, officer-involved shootings, and significant use of force incidents. The DPS is responsible for reporting and investigating crimes and traffic accidents, enforcing state laws and local ordinances, responding to medical emergencies, and all other incidents requiring police assistance.

All 911 calls made on the SDSU campus, auxiliary properties or other SDSU-owned phone lines are transmitted first to the SDSU DPS. Depending on the nature of the call, either DPS personnel respond, or the respective service provider is notified of the incident. The SDSU DPS is responsible for notifying San Diego Fire Department and emergency response or paramedic teams as necessary. Due to their proximity to one another, the City of San Diego Police

Department and SDSU DPS work hand-in-hand responding to calls if one agency is short staffed, or if closer than the other and better equipped for action. Approximately 90% of all arrests or citations made by DPS officers occur on private property within the surrounding community or on city streets. All revenue from fines issued by DPS is transmitted to the City or County of San Diego. (Browning, personal communication, March 14, 2007.)

During the 2006 calendar year, the DPS received approximately 9,000 assigned calls, which are calls received via 911 or the DPS phone number. Of these calls, approximately 450 were referred to the San Diego Police Department because the SDPD either was closer to the incident, or the incident was occurring outside of DPS jurisdiction. (Browning, personal communication, May 17, 2007.) The calls to DPS resulted in a total of 160 incident reports, 25 misdemeanor reports and 23 felony reports. The incident report volume is consistent with incidents handled by DPS within the last five years. The majority of crimes in 2006 consisted of larceny and motor vehicle theft. (Browning, personal communication, March 14, 2007).

The City of San Diego is currently in the process of updating public safety response time goals by incident type through the 2020 City of San Diego Progress Guide and General Plan update process. The following San Diego Police Department response time goals are outlined in the proposed General Plan:

- Priority E Calls (imminent threat to life): respond within seven minutes;
- Priority 1 Calls (serious crimes in progress): respond within 12 minutes;
- Priority 2 Calls (less serious crimes with no threat to life): respond within 30 minutes;
- Priority 3 Calls (minor crimes/requests that are not urgent): respond within 90 minutes; and
- Priority 4 Calls (minor requests for police service): respond within 90 minutes (City of San Diego, October 2006).

The DPS does not have identified response time goals; however in 2006, all responses were made in under five minutes. Specifically, robbery calls were responded to within an average of 2 minutes, injury calls within 3 minutes, illness calls within 3 minutes, disturbance calls within 3 minutes, suspicious circumstances calls within 3 minutes, and burglary calls within 2 minutes. DPS is often an initial responder to fire calls as well; the average DPS response time for fire-related calls is approximately 2 minutes (Browning, personal communication, March 14, 2007).

Fire Protection

The SDSU campus relies on the San Diego Fire Department ("SDFD") for primary fire services. In the event that a fire is reported on campus or in the immediate surrounding area, a university police officer is dispatched to the scene to confirm the report. If fire is confirmed, the University Police Dispatch will initiate a call-out to SDFD. The university police officer on the scene will establish an "Incident Command Post" and begin the process of managing the incident until relieved by SDFD command. If the fire is an imminent threat to life or structure, the SDSU Emergency Operations Center ("EOC") may be activated, pursuant to the university's revised and updated Emergency Plan. (See, SDSU Emergency Plan, Appendix 9, Threat Assessment and Planned Response [Fire].)

The SDFD operates two fire stations near the site of the proposed project components. These locations are depicted on **Figure 3.13-1, Existing Public Utilities and Service Systems**. One station is located south of the El Cajon Boulevard and 62nd Street intersection within the College Area (Station 10); a second station is located at Camino Rico and College Avenue within the Del Cerro Community (Station 31). Station 10 includes a battalion vehicle, fire engine, fire truck, a brush rig, and a utility rig. Fire Station 31 includes a fire engine and medic unit, and was recently renovated. Nine medic units circulate throughout the City of San Diego based on need. During an emergency, the closest unit responds and may not necessarily originate from Station 10 or 31 (Cota, personal communication, March 27, 2007). The City Fire Department currently employs a total of 1,279 employees, including 1,153 fire fighters and 126 administrative staff.

As outlined above under the Police Protection heading, some calls that are received by the DPS warrant assistance from the San Diego Fire Department. The San Diego Fire Department fielded 122 calls at or related to SDSU facilities/events in the 2002 calendar year, 103 calls in 2003, 119 calls in 2004, 120 calls in 2005, and 120 calls in 2006. On average then, SDSU students, faculty/staff and facilities have generated approximately 117 fire department calls per year. Of the average 117 calls, approximately 26% are related to injury calls, 55% are related to illness calls, 8% are related to alcohol issues, 8% are related to minor injury accidents, less than 1% are related to serious injury calls, and 2% of the calls provided insufficient detail (Cota, personal communication, March 27, 2007).

Many SDSU activities/projects require review by the State Fire Marshall's office. Any events or activities that will attract large crowds may necessitate fire safety inspections. All event layouts are reviewed and approved by the State Fire Marshall's office. Often, events may require the

use of fire, thereby necessitating a pyrotechnic permit and pyrotechnic oversight. All services provided by the State Fire Marshall's office are fee-based; the fees are incurred by the event sponsor, which is usually the Associated Students of San Diego State University (student-fee supported entity) (Cornthwaite, personal communication, February 13, 2007).

As noted above, the City of San Diego is nearing completion of an update to the Progress Guide and General Plan. The final draft of the Progress Guide and General Plan outlines several policies and guidelines for fire service levels. The following San Diego Fire Department response times are outlined in the proposed General Plan:

- Fire Suppression: First-in engine company shall arrive within 4 minutes, 90% of the time. Total response time for deployment and arrival of the full first-alarm assignment should be within 8 minutes, 90% of the time; and
- Emergency Medical Incidents: Deployment and arrival of first responder or higher-level capability shall be within 4 minutes, 90% of the time. Total response times for deployment and arrival of a unit with advanced life-support capability at emergency medical incidents should be within 8 minutes, 90% of the time (City of San Diego, October 2006).

Emergency Medical Service

Emergency medical response service is provided by the SDSU DPS and, as necessary, the City of San Diego Fire Department ("SDFD"). DPS provides escort services for fire personnel in the event of a SDFD response due to the complexity of the campus roadway/driveway system. All onsite events (such as concerts at Cox Arena, sporting events, *etc.*) would have a minimum of two advanced life-support paramedics, and one ambulance in case of emergency. High risk events may warrant additional supplemental medical support. The costs for these onsite services are borne by the event sponsors, which often include the Associated Students of San Diego State University (pers. comm.. Cornthwaite).

SDSU's on-campus Health Center ("Calpulli Center") also provides routine and urgent health care service to SDSU students, faculty and staff. Health care is provided by physicians, nurses and medical support staff, including x-ray technicians, medical assistants and pharmacists. Renovations, to expand this facility, were completed in 2005. Regular medical check-ups and appointments are handled by the 30-exam room/3-procedure room clinical wing. This facility also provides mental health, dental, optometry and physical therapy services. The urgent care

wing has five treatment bays with gurneys, 10 exam rooms, two procedure rooms for closing lacerations and other minor operative procedures, and an orthopedic casting room; a radiology suite is located next to the urgent care wing. Due to the scope of the urgent care service, Calpulli Center is able to provide intravenous therapy for dehydration, nebulizer treatment for asthmatics and prepare casts for bone fractures. This facility provided service for approximately 55,000 patient incidents in the 2005/2006 school year. Of these 55,000 visits, 30 resulted in transport to local hospital emergency rooms; 10% of which traveled by ambulance. A vast majority of SDSU emergency room needs are met by Sharp Grossmont Hospital. Due to insurance or other concerns, SDSU students or faculty/staff are almost never referred to Alvarado Hospital Medical Center (pers. comm., Lichtenstein).

There are three hospitals located in the project area, Alvarado Hospital Medical Center ("Alvarado Hospital"), Sharp Grossmont Hospital, and Kaiser Medical Center. Alvarado Hospital is located at 6655 Alvarado Road, near College Avenue and 70th Street/Lake Murray Boulevard. The hospital services approximately 30,000 patients on an annual basis, and employs 1,000 employees, including nearly 500 physicians. Alvarado Hospital has an active emergency room with a service volume of approximately 18,000 patients per year, including 5,800 patients that arrive *via* ambulance (pers. Comm., Koenig).

Sharp Grossmont Hospital is located approximately four miles from SDSU. As of 2007, Grossmont Hospital has a new Emergency and Critical Care Center, which is capable of treating more than 70,000 patients annually. Kaiser Permanente San Diego Medical Center is located at 4647 Zion Road, approximately two miles from SDSU. This hospital also has an emergency services department.

Campus Emergency Plans

SDSU has established an Emergency Operations Plan in the event of an emergency. The Plan designates an Emergency Operations Center ("EOC") to function as the meeting place for emergency management and response operations. The EOC site is located in the Student Services East building on Aztec Circle Drive near College Avenue. An alternate EOC location is designated in the Physical Plant building on Canyon Crest Drive. SDSU's Emergency Evacuation Plan dictates major escape corridors to be utilized by the campus community in case of an emergency. These corridors include Montezuma Road to Fairmount Avenue to Interstate 8 ("I-8"), and College Avenue to I-8.

SDSU is a participating agency in the California Disaster and Civil Defense Master Mutual Aid Agreement. This agreement sets out a program to formally link all governmental agencies for purposes of natural or human-induced disaster response (Browning, personal communication, March 14, 2007). SDSU, as a member of the larger CSU system, can be aided, from a law enforcement or disaster management perspective, by other CSU Departments of Public Safety due to system-wide communication and connectivity programs (Browning, personal communication, March 17, 2007). SDSU also maintains an emergency response plan relating to the release or spill of hazardous materials. Responsible units providing technical expertise in containment and clean-up of spilled chemical, radioactive, biological, asbestos-containing, or other regulated materials include the SDSU Department of Environmental Health and Safety, the San Diego Fire Department, the San Diego County Hazardous Materials Division Unit ("HAZMAT"), and outside contractors. The emergency response plan also addresses emergency and spill response procedures, and includes personnel contact information and information regarding the location of equipment, such as fire extinguishers, safety showers and first aid kits.

The emergency response plan is assigned to the Emergency Planning Team ("EPT") for ongoing updates and maintenance. The EPT reviews the plan monthly and suggests revisions when necessary. The plan is a management plan that supports and is integrated with site operations. The sections of the plan addressing site procedures can be updated easily with minor modifications when there are changes to the SDSU organization, systems or when new functional positions are added, or new hazardous material storage/disposal/handling facilities added.

Libraries

The Main Library on the SDSU campus operates Monday through Thursday 7:00 a.m. – 1:00 a.m., Friday 7:00 a.m. – 7:00 p.m., Saturday 10:00 a.m. – 7:00 p.m., and Sunday 12:00 p.m. - 1:00 a.m. In addition to the SDSU Main Library, there are several City libraries in the vicinity: the College Heights Branch is located at 4710 College Avenue; the College-Rolando Branch is located at 6650 Montezuma Road; and the Benjamin Branch Library is located at 5188 Zion Avenue and is the closest library to the SDSU campus located within the Navajo community (City of San Diego, www.sandiego.gov/public-library/locations/#benjamin.gov, accessed March 9, 2007). **Figure 3.13-1, Existing Public Utilities and Service Systems**, depicts the location of each of these libraries.

Schools

The proposed project site is located within the San Diego Unified School District. Two public elementary schools are located within the project vicinity. Hardy Elementary, in the College Area community, is located at 5420 Montezuma Road. This school includes kindergarten through 5th grade, and had a student enrollment of 372 with a 17-member teaching staff in the 2004/2005 school year. Hearst Elementary, in the Navajo community, is located at 6230 Del Cerro Boulevard. This school services kindergarten through 5th grade, and had a student enrollment of 391, with an 18-member teaching staff in the 2004/2005 school year (San Diego Unified School District, www.studata.sandi.net/research/sarcs/index.asp.edu, Accessed March 9, 2007). In addition, the Language Academy Elementary School is located southeast of the project site at 4961 64th Street, with a student population of 797. Lewis Middle School is the closest middle school to the proposed project and is located north of the Adobe Falls Faculty/Staff Housing parcel. Patrick Henry High School, northeast of the SDSU campus, is the closest high school to the proposed project. **Figure 3.13-1, Existing Public Utilities and Service Systems**, depicts the locations of each of these schools.

Solid Waste Disposal

Solid waste is collected in dumpsters located throughout campus and then hauled away for disposal by Allied Waste & Recycling Services, Inc., a private refuse collection company. Allied transports waste generated on campus to three locations: (1) food and green waste is transported to the Miramar Greenery, located within the Miramar Landfill. This facility accepts recyclable green waste to produce mulch, compost and wood chips that are available to the public; (2) non recyclable solid waste is transported to the West Miramar Sanitary Landfill; and (3) remaining recyclable solid waste is transported to the EDCO Recycling Facility in Lemon Grove (Lincoln, personal communication, April 25, 2007).

In 2005, SDSU generated approximately 11,654 tons of solid waste of which 5,764 tons were disposed as solid waste, and 5,890 tons were diverted from the landfill for recycling. As with any year when significant building activity has occurred, a significant portion of SDSU's solid waste generated in 2005 resulted from on-campus construction activities. (Lincoln, personal communication, April 25, 2007.)

All non-recyclable solid waste generated at SDSU is taken to the West Miramar Sanitary Landfill located at 5180 Convoy Street in San Diego. More than 1.4 million tons of waste are disposed of at the Miramar Landfill on an annual basis. (City of San Diego, Environmental Services Department, www.sandiego.gov/environmental-services, accessed March 15 2007.)

As of March 2006, the remaining capacity at the Miramar Landfill was 13,687,454 cubic yards, with an expected closure date of December 2011. (California Integrated Waste Management Board, www.ciwmb.ca.gov, accessed March 15, 2007.) Once Miramar Landfill is closed, other, nearby landfills would provide disposal capacity for SDSU waste. These landfills include the Sycamore Canyon and Otay Landfills. (Thoreau, personal communication, March 21, 2007.)

Under state law recycling requirements, cities and counties in the state were required to divert 50% of their refuse from entering landfills by 2000. To measure how much waste is being diverted, the City of San Diego Environmental Services commissioned a study to determine the total amount of waste produced (both recycled waste and waste that ultimately is disposed of in a landfill) in 1990. This study created a "base year" from which each subsequent year and the success of the diversion programs could be measured. The 1990 base year for waste generation was 2.4 million tons, with an estimated 18% of this waste being diverted through some form of reuse or recycling. Regional population growth factors have been entered into a model to predict each subsequent year's total waste production. By measuring the total waste generated against the total quantities landfilled, the City is able to determine what percentage of waste is being diverted.

The City of San Diego diverted 52 percent of its waste in 2004, therefore meeting the 50% diversion goal. City recycling services include residential curbside recycling and greenwaste pickup, a zone recycling collection program for those without curbside recycling service, business waste assessment and recognition programs, and educational outreach. The Miramar Landfill Greenery Recycling Facility makes compost, mulch and wood chips from the approximately 100,000 tons of green and food waste brought there annually (as indicated above, SDSU's green waste is disposed of at this facility). The Mission Landfill also serves as the hub for city waste management programs and includes a full-service public recycling center that accepts appliances and electronic waste, a household hazardous waste transfer facility, and room for a planned construction and demolition materials recovery facility (City of San Diego, www.sandiego.gov/environmental-services/index.shtml, accessed April 27, 2007).

State law requires that all state agencies, including public colleges and universities, divert at least 50% of the waste products entering sanitary landfills by January 1, 2006. Each state entity is required to develop and adopt an integrated waste management plan. In response to this mandate, the SDSU Business and Financial Affairs ("BFA") department (in charge of the campus' waste management) has developed the "SDSU Recycles" campaign. This campaign has resulted in an aggressive effort to educate the campus community about recycling post-

consumer waste. SDSU manages a disposal and collection program to recycle appliances, beverage containers, cardboard, construction debris, green wastes, paper, scrap metal and printer and copier toner cartridges. In compliance with recent law requiring that electronic waste be recycled, SDSU has mechanisms in place to recycle old computers, copiers, fax machines and other electronics. (SDSU BFA, <http://bfa.sdsu.edu/recycle/index.htm>, accessed March 9, 2007.)

To further promote recycling, the SDSU BFA department participates in the "CSU Buy Recycled" campaign, a CSU system-wide campaign that promotes the use of recycled products at CSU campuses. Under the "CSU Buy Recycled" program, SDSU's Purchasing Department has developed procurement procedures to promote the purchase of products that contain recycled materials whenever possible. (SDSU BFA, <http://bfa.sdsu.edu/recycle/index.htm>, Accessed March 9, 2007).

Energy

In 2002, SDSU constructed a new 14 megawatt cogeneration plant, replacing the existing 3 megawatt facility constructed in 1986. The new facility consists of two gas turbines, two waste heat recovery steam generators, a steam turbine, and 2 auxiliary boilers. The amount of power generated fluctuates seasonally, with approximately 8.5 megawatts produced during the winter months, and 10.5-11 megawatts during the summer months. Electricity demands not met by the cogeneration plant are fulfilled by purchased electricity. SDSU receives electricity from a direct access provider utilizing the SDG&E transmission grid. Electricity is delivered to the campus in 12 kV transmission lines, which connect to three substations throughout the campus. Electrical power is distributed throughout the campus through an underground distribution system that is operated and maintained by SDSU Physical Plant staff (Martin, personal communication, April 16, 2007).

On average, the campus uses approximately 72 million kilowatt-hours of electricity per fiscal year, of which approximately 68 million kilowatt-hours are produced by the in-house cogeneration plant. During fiscal year 2005-2006, 67,773,000 kilowatt-hours were produced by the cogeneration plant. During this same fiscal year, the campus bought 3,979,000 kilowatt-hours from SDG&E (Martin, Personal Communication, April 16, 2007).

Natural gas service to the university is provided by the California Department of General Services. SDSU participates in a public sector gas-purchasing program whereby fixed and floating prices are offered from private sector gas suppliers (Department of General Services,

www.dgs.ca.gov, accessed April 14, 2007). Approximate natural gas consumption for the 2005-2006 year was 8,783,813 therms (Martin, personal communication April 16, 2007).

With respect to energy conservation, the State of California has established several important policy directives to promote energy conservation for all CSU campus operations and activities. These policies include:

- State Executive Order No. S-12-04 (adopted September 2004). This order requests the CSU's active participation in statewide energy conservation and reduced electrical demand. The executive order retains general operational provisions and sustainable building practices while adding the CSU Sustainable Measurement Checklist process. It encourages campuses to continue to adopt an integrated design approach that includes sustainable materials and practices. It also requires new goals for energy conservation, and the purchase and generation of renewable power.
- State Executive Order No. S-20-04 (adopted March 2005). This order recognizes that state institutions such as the California State University are major consumers of energy and natural resources, and asks these institutions to reduce the use of non-renewable resources as well as increase energy efficiency.
- State Executive Order No. S-3-5. This order recognizes that California is vulnerable to the impacts of climate change and action must be taken to reduce the use of fossil fuels. The California State University recognized it has an obligation to the citizens of the state of California to be wise stewards of scarce resources and to assure the continued economic and ecological viability of the state.

As outlined in the State of California Green Building Action Plan (which is the detailed direction accompanying State Executive Order S-20-04, outlined above), future State buildings are to comply with the following directives:

- All State-owned buildings shall reduce the volume of energy purchased from the grid, with a goal to reduce their energy consumption by at least 20% by 2015 (as compared to a 2003 baseline) by undertaking all cost-effective operational and efficiency measures, as well as onsite renewable energy technologies. Alternatively, buildings that already have taken significant efficiency actions must achieve a minimum efficiency benchmark to be established;

- All occupied State-owned buildings, beginning no later than July 2005 and completed by 2007, shall be benchmarked for energy efficiency, using guidelines established by the Center for Economic Development. Building managers of low-rated buildings shall prepare a plan to undertake cost-effective efficiency retrofit projects;
- All State buildings over 50,000 square feet shall be retro-commissioned, and then re-commissioned on a recurring 5-year cycle, or whenever major energy consuming systems or controls are replaced. This will assure that energy and resource consuming equipment is installed and operated at optimal efficiency; and
- All State agencies that purchase or operate electrical equipment such as computers, printers, copiers, refrigerators, and unit air conditioners shall insure that these are Energy Star-rated where cost-effective and that procurement goals and operating practices minimize energy and resource use and impacts.

In an effort to carry out the State of California's energy efficiency policies, the CSU Chancellor's Office has established several important policy directives to promote energy conservation for all CSU campus operations and activities. These policies include:

- CSU Executive Order No. 785 (adopted August 2001). The goal of this policy is that each campus of the California State University will reduce its energy consumption by 15 percent by fiscal year 2004/2005 compared to the energy consumption recorded in fiscal year 1999/2000.
- CSU Executive Order No. 987 (adopted August 2006). This order is known as the CSU system's Policy Statement on Energy Conservation, Sustainable Building Practices and Physical Plant Management, and it establishes energy conservation, sustainable building practices, and physical plant management policy. The order reaffirms the need to conserve energy in order to achieve the goal originally set in 2001 (Executive Order No. 785) and reevaluated in 2005, and establishes a goal to reduce energy consumption by 15% by the end of FY 2009/10, as compared to 2003/04 (California State University, Office of the Chancellor, www.calstate.edu, accessed April 26, 2007).

In September 2005, the CSU Board of Trustees approved key energy efficiency provisions for the Policy on Energy Conservation, Sustainable Building Practices and Physical Plant Management. These provisions include the following requirements:

- All new buildings shall achieve a minimum of a Leadership in Energy and Environmental Design ("LEED") "Certified" rating;
- All future buildings shall be equipped with standardized lighting and HVAC controls which enable energy use only when needed. A central monitoring system of energy use ensures for continued efficiency;
- Future facilities shall be designed with a goal of exceeding Title 24 energy codes by 15% on all new buildings; and
- Future facilities shall utilize natural lighting and value public space, landscaping and open space areas.

In response to the State Executive Orders outlined above, on March 20, 2007, the SDSU Senate Executive Committee approved the establishment of a committee on sustainability. This committee has been tasked with studying sustainability issues related to the campus, and to make recommendations to improve sustainable practices, serve as a resource to faculty wishing to undertake research or propose curriculum in sustainability, and coordinate with the Committee on Environment and Safety and the Campus Development Committee to ensure that sustainability is taken into consideration in the deliberations of those bodies. (SDSU Senate, www.senate.sdsu.edu/minutes/2006-2007/2007_03_20secmin.pdf, accessed April 27, 2007).

SDSU has taken steps to incorporate energy efficient designs, mechanisms and practices throughout campus. These include retrofitting older buildings with magnetic ballasts and T12 lighting with electronic ballasts and high efficiency T8 lighting; and installing low flow showers, a centrally monitored irrigation system, a central chilled water loop, a centralized building management system and motion sensor improvements throughout campus. Additionally, as of early 2007, SDSU had 117 kw of photovoltaics (solar panels which harness solar energy and convert it to electricity) installed on campus. Each of these design features or programs provides energy efficiencies throughout campus operations.

3.13.4 SIGNIFICANCE THRESHOLDS

Appendix G of the CEQA Guidelines provides that a proposed project may have a potentially significant impact relative to public services, utilities and service systems if the project would:

- a) Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, or, the need for new or physically altered governmental facilities, the construction of which could cause significant environmental

impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the following public services: fire, police, schools, parks, or other public facilities;

- b) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board;
- c) Require or result in the construction of new water or wastewater treatment facilities or the expansion of existing facilities, the construction of which could cause significant environmental effects;
- d) Require or result in the construction of new storm water drainage facilities or the expansion of existing facilities, the construction of which could cause significant environmental effects;
- e) Have insufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed;
- f) 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;
- g) Be served by a landfill with insufficient permitted capacity to accommodate the project's solid waste disposal needs; or
- h) Not comply with federal, state, and local statutes and regulations related to solid waste.

3.13.5 IMPACTS

Water Demand/Supply And Systems

The proposed project involves the addition of 11,385 students, 691 faculty, and 591 staff members to the university population over the next 15-20 years, and the construction of a maximum of 348 housing units, several new residence halls with a total of 2,976 beds (*i.e.*, on-campus dormitory facilities), a 120-room hotel, and additional campus instruction and activity

space. These project components would result in an increase in SDSU's water demand on the available water supplies.

As noted in section 3.13.3, water usage on the SDSU campus for fiscal year 2005-06 was approximately 474 afy. To calculate the proposed project's estimated future water demand, the following methods were applied: With respect to the increase in student enrollment, future projected water demand for the years 2012 and 2024-25 was calculated assuming a proportionate increase over the 2005-06 water usage amount relative to the increase in student headcount. As shown in **Table 3.13-1, Summary of Projected Water Demand - 2012 and 2024-25**, the proposed project would increase water demand attributable to the student enrollment increase by 29.6 afy in 2012, and by a cumulative total of 161.4 afy by the year 2024-25. With respect to the Student Housing, Alvarado Hotel, and Adobe Falls Faculty/Staff Housing components of the proposed project, future water demand was calculated based on City water consumption guidelines of 150 gallons per day per capita usage. Applying this water demand factor, the Student Housing, Alvarado Hotel, and Adobe Falls components of the proposed project would increase water demand by 332 afy, 40.3 afy, and 20.1 afy, respectively, by the year 2012. See **Table 3.13-1**. Increased water demand for these three components would total 500 afy, 40.3 afy, and 146.1 afy, respectively, by buildout year 2024-25. In sum, as shown on **Table 3.13-1**, over the 15-20 year project buildout period, total water usage is estimated to increase by approximately 847.8 afy by the year 2024/25.

**Table 3.13-2
Summary of Projected Water Demand - 2012 and 2024/25**

Project Component	2012	2024-25
On Campus Population	(35,535 Headcount) 29.6 afy	(44,826 Headcount) 161.4 afy
Student Housing	(1,976 Student Beds) 332 afy	(2,976 Student Beds) 500 afy
Alvarado Hotel	(120 Hotel Rooms) 40.3 afy	(120 Hotel Rooms) 40.3 afy
Adobe Falls	(48 Housing Units) 20.1 afy	(348 Housing Units) 146.1 afy
	Subtotal - 422 afy	Total - 847.8 afy

Source: SDSU Facilities Planning, Design and Construction, 2007

Notes:

- ¹ To arrive at the projected on-campus population water demand, the amount of water used to serve the 2006 on-campus population (33,441 headcount) was pro-rated to year 2012 (35,535 headcount) and year 2024-25 (44,826).
- ² To arrive at the projected water demand for the Student Housing, Alvarado Hotel, and Adobe Falls Faculty/Staff Housing components, City of San Diego water consumption guidelines of 150 gallons per day per capita usage were applied. Calculations for the Student Housing dormitory units assumed 1 person per bed; calculations for the Alvarado Hotel assumed 2 persons per room, and calculations for the Adobe Falls housing units assumed 2.5 persons per unit. All resulting calculations were converted from gallons to acre-feet.
- ³ The estimated Student Housing demand is overstated in that it attributes "full-share" water usage to a project segment that is already accounted for in large part under the increased demand attributable to "On Campus Population." Additionally, the Student Housing demand estimate assumes year-round occupancy, although many of these students return home for summer.

In accordance with the Urban Water Management Planning Act, the City of San Diego adopted the 2005 *Urban Water Management Plan* ("UWMP"). As required by law, the 2005 UWMP identifies projected water supplies required to meet future water demands through the year 2030. The 2005 UWMP assesses demand and supply and concludes that the City has an adequate supply (relying mostly on imported water) to meet municipal, commercial and industrial demands throughout the City's service area through 2030. The 2005 UWMP does not contemplate specific projects, but rather is based on the overall anticipated growth rate within the City's water service area.

In addition, the SDCWA adopted its own UWMP in December 2005, which demonstrates that with implementation of the plan, adequate supplies will be available to meet forecasted demands through 2030 in average/normal, single dry and multiple dry years. To ensure adequate supplies to meet predicted growth in the San Diego region, the SDCWA uses SANDAG's most recent regional growth forecast in calculating regional water demands.

SANDAG's regional growth forecasts include projected growth for universities within the San Diego region, including SDSU. As a result, the projected water demand for the proposed project is taken into account by the water supply agencies (SDCWA, City). To the extent that the water agencies desire to identify specific projects to be included within the next long-term planning horizon (2030 and beyond), both the City's 2005 UWMP and SDCWA's 2005 UWMP are required by law to be updated every five years. *See*, Cal. Water Code §10621(a). Therefore, both the City and SDCWA are able to update their respective UWMPs in calendar year 2010 to reflect this project and others that are planned for the 2030 horizon year. Because water supplies exceed demand for the San Diego region, including demand for this project and other existing and future uses, water supply availability impacts would be less than significant. No mitigation is required. The City's 2005 UWMP and SDCWA's 2005 UWMP are incorporated by reference and are available for public inspection by contacting SDSU, Office of Facilities Planning, Design and Construction, 5500 Campanile Drive, San Diego, California 92182-1620.

It is also noted that the California State University ("CSU") has adopted a revised policy on energy conservation and utilities management, which requires that all CSU campuses take every necessary step to conserve water resources, including installing controls to optimize irrigation water, reducing water usage in restrooms and showers, and cooperating with state, city and county governments to the greatest extent possible to effect additional water conservation.

Consistent with CSU policy, SDSU has installed low-flow toilets and urinals, flush valve controls, electronic faucets and low-flow showerheads in all or most of its lavatory facilities. SDSU also has required the installation of energy and water conserving fixtures in all new construction on campus. To conserve water used in landscape irrigation, SDSU utilizes irrigation controllers that are linked to weather service evapotranspiration data to deliver the irrigation water only when needed. As a result of these measures, SDSU's water consumption has remained relatively constant from 1989 to the present, despite increased campus population, the addition of approximately 2 million square feet of new buildings and structures, and improvements to campus landscaped areas (William Lekas, SDSU, pers. comm.). Consistent with CSU policy, SDSU will continue to implement conservation measures to reduce the use of water and decrease wastewater flows.

In terms of the water delivery or conveyance system, as stated above, the land uses for each project component would result in an increased demand for water, which may require larger conveyance facilities for the transport of water to the SDSU campus. The three existing water

mains are currently 8-inch lines, which appear large enough to convey the relatively limited additional water demand created by the project. In the Adobe Falls areas, the project proposes a maximum of 348 residential units, which would be served by the existing water line within Adobe Falls Road. This existing line would not need to be expanded from its existing capacity in order to serve the additional residential units planned for the site. To the extent modifications to existing water conveyance facilities are necessary to serve all project components, the project would be responsible for implementing such modifications; although none are known to be needed as of this writing.

Sewer

The proposed project would generate additional demand for sewer services. The increased demand for sewer services may result in a potentially significant impact. An accurate assessment of the specific level and amount of potential impacts requires the preparation of a sewer study, prepared in accordance with the City of San Diego Sewer Design Guide. Impacts to wastewater treatment facilities can be accommodated through payment of applicable sewer capacity fees, to the extent required by law. Further, certain types of discharges to the sewer system, including waste typical of research and science oriented facilities, may require pretreatment and appropriate permits prior to discharge.

Parks And Recreation

The proposed project would result in an increase in campus and surrounding area population over the next 20 years, thereby potentially increasing the demand for park and recreation facilities or services. The additional students likely would utilize SDSU park and recreation facilities, since it is likely that SDSU recreation facilities are the closest and most convenient. Over the last 15 years, SDSU has updated nearly all athletic and active recreation amenities on campus. These facilities would adequately service the anticipated increase in student population.

The projected increase in faculty and staff also would contribute potentially to an increase in the demand for local park and recreation facilities. Faculty and staff live in many areas of San Diego. Section 3.12, *Population And Housing*, describes the existing faculty and staff residence concentrations, which assist in determining future residential preferences. Assuming faculty and staff continue to reside in these neighborhoods, potential demand for park facilities would increase. However, in light of the relatively small number of increased faculty and staff spread over a 20-year period, as well as the fact that many faculty and staff utilize the extensive

athletic/recreation programs available to the SDSU community, any potential impacts to neighborhood parks would be less than significant.

The proposed Adobe Falls Faculty/Staff Housing development may result in an increased demand for recreational and park facilities within the residential Navajo community, although as university employees the residents would have access to the extensive recreational and park facilities located on the SDSU Campus. Additionally, the Adobe Falls Faculty/Staff Housing development plan includes a community center, which would provide gathering space for the residents and a pedestrian/bicycle trail throughout each village. Additional open space amenities include approximately 15.7 acres of SDSU-owned land in and around Adobe Falls and Alvarado Creek, which would be dedicated as open space. The development plan also provides for a bicycle/pedestrian path to be constructed along the length of the riparian corridor to provide walking, biking and nature viewing opportunities for the community. Therefore, the development of new housing units at the Adobe Falls Faculty/Staff Housing site would not result in a potentially significant impact to recreation and park facilities.

Police Protection

The addition of 11,385 students, 691 faculty, and 591 staff members to the university community by the 2024-2025 academic year would result in an increase in demand for SDSU police services. As noted in Section 3.13.4, Existing Conditions, SDSU currently meets its goal of responding to 95% of all police emergency calls within three to five minutes. Additional campus community members will necessitate additional policing staff, which would constitute a potentially significant impact. The nature of the planned facilities will dictate the type of additional police protection needed. The increase in residential (including hotel) uses increases the need to have police forces trained in domestic dispute intervention and theft/loss of property crimes. The increase in student residence hall units also necessitates additional staff trained in dealing with excess alcohol consumption, false fire alarms, sexual assault and theft crimes.

The increase in land uses along the northern and eastern portion of campus (the proposed Alvarado Hotel, Alvarado Campus, and Adobe Falls Faculty/Staff Housing) would result in increased 911 calls from the northeastern side of campus, requiring increased DPS response. Increased College Avenue traffic congestion resulting from the proposed project and other area projects would result in an increase in response times to incidents north, east and south of College Avenue. This condition also is likely to affect City of San Diego Police Department personnel who would be traveling southbound on College Avenue from the Navajo Community to assist SDSU DPS personnel in responding to an emergency at the Adobe Falls

Faculty/Staff Housing site. An increase in DPS and City police officer emergency response times is a potentially significant impact. Mitigation measures designed to reduce College Area traffic congestion would, in turn, facilitate emergency response times. (See, Section 3.14, *Transportation/Circulation And Parking, Mitigation Measures.*) However, as discussed below, the project would result in a short-term increase in emergency response times and, therefore, would result in a potentially significant impact.

Fire

The increase in campus population likely would result in an increased demand for City Fire Department services. As indicated in **Table 3.13-2, Existing and Projected SDSU-Related Fire Department Calls**, over the last five years, SDSU has supported the needs of an average of 32,484 students. These 32,484 students (and the associated faculty, staff, and visitors) have generated an average of approximately 117 fire department calls per year. While the SDSU DPS handles the vast majority of emergency calls, the increase in student enrollment by 10,000 FTES (and associated increases in faculty, staff, visitors, etc.) is expected to result in a corresponding increased demand for fire department services. Assuming that the same call volume per student would occur at buildout of the proposed master plan, the 10,000 FTES increase (which translates to a total increase of 11,385 students), is projected to result in an increase of 44 calls per year at buildout. Because projected student growth would occur gradually over the next 18 years, the calls likely would gradually increase commensurate with the gradual increase in students, reaching the projected 161 annual calls by 2025.

**Table 3.13-2
Existing and Projected SDSU-Related Fire Department Calls**

Analysis Period	Student Headcount	Call Rate per Student	Total Calls
2002 – 2006 (average)	32,484 (average)	0.0036	117 (average)
2025 (projected)	44,826	0.0036	161

Notes: Average call rate per student was calculated from the following raw data: Calls: 2002: 122 calls, 2003: 103 calls, 2004: 119 calls, 2005: 120 calls, 2006: 120 calls; Student Headcount: 2002: 33,391, 2003: 32,803, 2004: 31,605, 2005: 32,088, 2006: 32,532. Sources for Fire Department Call Volume: SDSU DPS, Browning, personal communication, March 28, 2007. All calculations prepared by Dudek.

As discussed above, fire prevention inspections and support for special events at SDSU are handled through the State Fire Marshall’s office. All assistance is provided for a fee, borne by the event/project sponsor, which is often the Associated Students of San Diego State University. Should an event (*i.e.*, sporting event, concert at Cox Arena, *etc.*) require fire protection services,

City of San Diego Fire Department personnel would respond similar to other SDSU-related emergency fire needs.

The 1993 College Area Public Facilities Plan states that adequate fire facilities exist within the College Area community. However, the fire facilities fee calculated in the Facilities Plan reflects the cost of fire stations providing fire protection services to both residential and non-residential establishments within the community. Since the Fire Department has determined that existing fire facilities are adequate to meet the needs of existing and future development coupled by the fact that additional projected calls would be minimal, additional facilities are not needed. Therefore no fire fee has been calculated.

The proposed Adobe Falls Faculty/Staff Housing development would be located on a hillside currently not supported by the City's fire hydrant system. Although the proposed project site would be equipped with City fire hydrants and other fire protection devices once construction is completed, during construction the project site would be susceptible to brush fire hazards due to the presence of natural vegetation and lack of fire extinguishing capabilities. Therefore, while the proposed project would improve conditions in the long-term, during construction, the project would result in a potentially significant impact, absent mitigation.

Due to the isolated nature of the Adobe Falls Faculty/Staff Housing parcel, access in and out of the proposed development would be limited, generally, and specifically with respect to the Lower Village parcel. In case of a fire or other emergency, quick evacuation from the Lower Village site, therefore, may be hampered by limited access routes, thereby resulting in a potentially significant impact, absent mitigation.

Emergency Medical Service

The increase in campus population likely would result in a corresponding increase in calls for emergency medical services. However, as outlined in Section 3.13.3, Existing Conditions, above, SDSU has completed an expansion to Calpulli Center (on-campus healthcare facility), which now has an urgent care wing with medical staff/facilities that can provide minor operative procedures, orthopedic casting, intravenous therapy for dehydration and nebulizer treatment for asthmatics. These expanded on-campus medical facilities can accommodate the vast majority of SDSU community health care needs. Further, because of the extensive services offered at the Calpulli Center, only 0.0005% of patient visits to the on-campus facility in 2005/2006 resulted in the need for transport of students for emergency medical care at hospitals off the SDSU Campus. Assuming a similar percentage of campus community health care needs

would need to be accommodated at local area hospitals as the campus population gradually increases through 2024/25, this increase in demand for local emergency medical services would be a less than significant impact.

With respect to emergency response times, the proposed project would increase vehicle traffic and congestion in the vicinity of SDSU and could affect emergency response times, generally, and specifically as to Alvarado Hospital. However, it is not expected that the increased traffic would result in significant impacts in the form of increased emergency response times. This conclusion is based on a number of reasons.

First, emergency response vehicles have the right-of-way and are exempted from rules of the road in emergency situations. Specifically, upon the approach of an emergency vehicle that is sounding a siren, the surrounding traffic must yield the right-of-way and immediately drive to the right-hand edge or curb of the highway, clear of any intersection, and stop until the emergency vehicle has passed. (Veh. Code, §21806.) If required, drivers of emergency vehicles are trained to utilize center turn lanes, or travel in opposing through lanes to pass through crowded intersections. Additionally, when driven in response to an emergency call, and if the driver sounds a siren, emergency vehicles are exempted from the general rules of the road, such as right of way and speed limits. (Veh. Code, §21055; San Diego Mun. Code, §81.06.)

In addition, the roadway configuration of Alvarado Road is such that there is adequate right-of-way for emergency vehicles to maneuver around traffic, even under congested conditions. Based on field observations, between College Avenue and 70th Street, Alvarado Road ranges in width from 30 to 40 feet. The narrowest point of the roadway is where parking is allowed on both sides of the street within a 40-foot wide section. However, even assuming cars are parked on both sides of the street, this leaves approximately 28 feet of roadway, which is a sufficient width for cars traveling in opposite directions to pull over next to the parked cars and for the emergency vehicle to pass. As to those segments of the road where the width is 30 feet, parking is prohibited on both sides of the street. Thus, no matter how slow moving traffic may be, there is sufficient roadway width along all points of Alvarado Road to allow emergency vehicles to pass.

Lastly, communications with emergency service providers in the area confirmed that emergency vehicles generally have the ability to go where they need to go in the event of an emergency, and in the event of traffic congestion have the ability to maneuver through the congestion (pers. comm., SDPD). While one provider noted that vehicle drivers do not always

give emergency vehicles the right of way (pers. comm., SD Fire Rescue Dept.), another provider noted that there is not currently, nor has there ever been historically, a problem with ambulances getting to and from Alvarado Hospital (pers. comm., SD Medical Service Enterprise).

Although no potentially significant impacts are identified, mitigation is proposed that would require SDSU to work with Alvarado Hospital and the City of San Diego to improve emergency access to the hospital, including investigating the removal of on-street parking from Alvarado Road. Additionally, during construction of the proposed project, a traffic control plan would be implemented to mitigate the impact caused by construction activities on traffic congestion and delay. (See EIR Section 3.14, Transportation/Circulation and Parking, Mitigation Measure TCP-25.) The plan, which would require that special attention be paid to Alvarado Road and the potential effect of construction-related traffic on Alvarado Hospital emergency access, would require that any temporary street closures are adequately marked and/or flagmen provided, and emergency response agencies are notified of pending construction activity that may impact access to the area.

Campus Emergency Plans

As noted, the local Emergency Evacuation Plan would utilize College Avenue, I-8, Montezuma Road and Fairmount Avenue as the major evacuation corridors. The project's contribution to an increase in traffic congestion would add to the challenges posed in evacuating large numbers of people through congested College Area streets. This impact potentially would be significant. Mitigation measures designed to reduce College Area traffic congestion would facilitate emergency evacuation plans. (See, Section 3.14, *Transportation/Circulation And Parking, Mitigation Measures.*)

As indicated above in the discussion of fire impacts, due to the isolated nature of the Adobe Falls Faculty/Staff Housing Lower Village parcel, access in and out of the proposed development would be limited. In case of a fire or other emergency, quick evacuation from the site, therefore, may be hampered by limited access routes, thereby resulting in a potentially significant impact, absent mitigation.

Should an emergency occur as a result of a hazardous material spill at any of the proposed project facilities, a significant public safety hazard would occur. SDSU's Hazardous Materials Response Plan outlines protocols and guidelines and location of emergency service facilities in case of an accident. If the plan is not revised to incorporate the new campus facilities to be

developed under the proposed project, a potentially significant impact related to exposure to hazardous materials may occur.

Libraries

Since the proposed project will result in an increase in the number of SDSU students and faculty, it is expected that these residents will utilize the Main Library on the SDSU campus. Nearby City libraries also could accommodate future students, faculty and staff. Further, the Rolando Library, which was recently constructed, would help support College Area residents' needs. Thus, the proposed project would not significantly impact the local library system.

Schools

The increase of 11,385 SDSU students by the 2024-25 academic year is not likely to generate additional demand for local elementary and secondary schools as the vast majority of SDSU students do not have school-aged children. With respect to graduate students, it is difficult to forecast the number who have children and who would relocate from their existing neighborhood to attend SDSU, thereby creating increased demand for elementary and secondary school facilities. Further, there likely is a large percentage of graduate students' children who are preschool age and, therefore, do not require public school services. Due to the small number of school-aged children likely to be imported into the San Diego Unified School District from other school districts, a significant impact relative to the increased SDSU student population is not expected to occur.

The increase of an additional 691 faculty and 591 staff members by the 2024-25 academic year is not likely to result in a significant increase in demand on local schools. For purposes of this analysis, it is assumed that the majority of faculty/staff positions would be filled by persons already residing in the SDSU vicinity. Section 3.12, *Population And Housing*, describes the locations in which the existing faculty resides. Assuming these locational patterns remain similar over the next 20 years, the demand for elementary and secondary school facilities in those neighborhoods would increase relative to the increased number of faculty. Using the State of California average of 1.01 children under the age of 18 per household, and assuming each and every additional faculty member would relocate to the SDSU area (a worst-case assumption), approximately 698 school-aged children would be added to the local elementary and secondary school demand over the next 20 years, or an average of approximately 39 children per year, by the 2024-25 academic year. Therefore, the proposed project, generally, is not expected to result in a significant increase in the demand for local elementary or secondary school facilities.

The proposed Adobe Falls Faculty/Staff Housing project component would result in the addition of a maximum of 348 multi-family housing units in an area located within the San Diego Unified School District ("SDUSD") service area. The number of students per unit per multi-family development within the SDUSD varies widely depending on the unit sizes, proximity to schools, sales price or rent, density, target market and specific amenities. For the Adobe Falls Faculty/Staff Housing project component, the applicable student generation rates were determined based on the average number of multi-family developments (100 units or larger) in the vicinity of the proposed Adobe Falls development. **Table 3.13-3, Anticipated Student Generation - Adobe Falls Faculty/Staff Housing**, provides an estimate of the total number of school students that would attend Phoebe Hearst Elementary School, Lewis Middle School and Patrick Henry High School.

**Table 3.13-3
Anticipated Student Generation
Adobe Falls Faculty/Staff Housing**

School Level	Students Per Unit	Number of Students
K-5	0.055-0.110	20-41
6-8	0.020-0.058	7-21
9-12	0.022-0.060	8-22
K-12 Total		35-84

Source: Willoughby, Personal communication, April 4, 2007. Calculations adjusted to correct arithmetic errors.

The addition of 35-84 school-aged children over the buildout timeframe of the Adobe Falls Faculty/Staff Housing project (approximately 8-10 years) would not result in a potentially significant impact to these school facilities. Moreover, future residents of the Adobe Falls Faculty/Staff Housing project component would be subject to a "posessory" tax, a portion of which is used to fund the local school system.

Solid Waste Disposal

Allied Waste & Recycling Services, Inc., would continue to provide waste and recycling services to SDSU, irrespective of any anticipated increase in waste generation (Barba, personal communication, March 22, 2007). It is assumed that the existing SDSU recycling programs will continue in place, thereby helping SDSU maintain the 50% diversion goal. SDSU procurement procedures, which encourage the purchase of products containing recycled waste products, also will assist in achieving the diversion goal.

Local governments are required under state law to provide 15 years of disposal capacity. The County of San Diego Integrated Waste Management Plan Siting Element reports that the region currently does not have the mandated 15 years of solid waste disposal capacity. (Final Draft County of San Diego Integrated Waste Management Plan, January 2005.) Based on current waste disposal projections, the City's Miramar Landfill is expected to reach capacity in 2011. Once closed, future waste generation would be directed to Sycamore Canyon, or Otay Mesa, or possibly the proposed Gregory Canyon Landfill or other out-of-county landfill facilities.

The County Siting Element provides recommendations for obtaining additional landfill space, including the continuation of diversion programs for paper, plastics and construction debris; improving landfill technology and space management; development of enhanced recycling facilities, such as the proposed construction recycling facility at the Miramar Landfill; exporting waste out of the County; and increasing permitted dump rates at in-county landfills. (Final Draft County of San Diego Integrated Waste Management Plan, January 2005.) In addition to the implementation of these recommendations, cities, the County, and state agencies, such as SDSU, are expected to continue to promote waste disposal reduction measures in order to prolong existing and planned landfill capacities.

In 2005, SDSU generated approximately 11,654 tons of solid waste, of which 5,764 tons were disposed of as solid waste, and 5,890 tons were diverted from the landfills for recycling. As noted above, a significant portion of the 2005 campus solid waste was generated as a result of on-campus construction activities. Due to the increased amount of construction and demolition on campus during 2005, construction waste was significantly higher than in previous years. Based on historic solid waste generation amounts, SDSU estimates that the additional students, faculty and staff that would result from the proposed project would generate an additional 2,500 tons of solid waste per year by 2024/25. (Lincoln, personal communication May 25, 2007).

Because the regional solid waste disposal landfills currently available are projected to reach capacity within the next several years, any increase in solid waste generation could be viewed as a potentially significant impact. Therefore, in order to reduce the proposed project's potential impacts relating to solid waste disposal, mitigation is proposed that would require SDSU: (i) to ensure that all demolition waste resulting from project construction is disposed of at an appropriate construction waste recycling facility; and (ii) to maintain an active recycling program in order to continue to meet the 50% diversion goal for all solid waste produced on campus.

Energy

On average, the campus uses approximately 72 million kilowatt-hours of electricity per year, of which 68 million are produced by the in-house cogeneration plant. During fiscal year 2005-2006, approximately 67,773,000 kilowatt-hours, or 94% of the total amount used, were produced by the SDSU cogeneration plant. During this same fiscal year, the campus bought 3,979,000 kilowatt-hours from SDG&E. Natural gas consumption for the 2005-06 year totaled 8,783,813 therms. (Martin, personal comm. April 16, 2007.)

It is assumed that a gradual increase in energy use would occur over buildout of the master plan based on the increased physical building space that would be constructed as part of the project, and the additional students, faculty and staff. To estimate the projected increase in future electricity and natural gas consumption, the amount of energy used by the existing campus indoor space was increased proportionate to the planned increase in square footage that would result with project implementation. As shown in **Table 3.13-4, Current and Future Campus Indoor Square Footage**, the proposed project would result in a net increase of 2,067,207 gross square feet ("GSF") of indoor campus space by the year 2024-25. This amount represents an increase of 47.6% over the existing campus GSF.

**Table 3.13-4
Current and Future Campus Indoor Square Footage**

Type of Facility Space	Current Gross Square Feet	Square Feet to be Demolished	Proposed Additional Square Feet	Projected Square Feet
Indoor Sports	292,751	0	0	292,751
Multipurpose, Indoor	5,050	0	70,000	75,050
Academic	2,433,781	128,678	612,285	2,917,388
Administration	285,650	7,000	15,000	283,650
Student Services	342,562	0	70,000	412,256
Residential	716,282	78,000	1,453,600	2,091,882
Public Services	83,810	0	60,000	143,810
Food Services	137,604	0	0	137,604
Infrastructure	41,032	0	0	41,032
TOTAL	4,338,522	213,678	2,280,885	6,405,729

Source: Existing square footage information: SDSU Gross Square Footage by Use Type Data, provided by Doug Martin, May 15, 2007. Existing energy use information: Martin, April 16, 2007. All calculations prepared by Sarah Lozano, Dudek, May 15, 2007.

Due to energy conservation plans, policies and programs in place at SDSU, it is difficult to project how closely future energy use rates will mirror existing rates. However, assuming energy consumption rates would increase proportionate to the increased building square footage over the next 15-20 years, the proposed project could potentially result in increased energy consumption of 34,272,000 kilowatt hours of electricity, and 4,181,094 therms of natural gas. See **Table 3.13-5, Projected Energy Use**.

**Table 3.13-5
Projected Energy Use**

	Existing Energy Use	Increase Factor (47.6%)	Projected Increase Amount	Total Projected Amount at Buildout
Existing Electrical Energy Use/Year	72,000,000 kilowatt-hours	.476	34,272,000 kilowatt-hours	106,272,000 kilowatt-hours
Existing Natural Gas Consumption/Year	8,783,813 therms	.476	4,181,094 therms	12,964,907 therms

This impact would be less than significant for at least two reasons. First, as noted above, during fiscal year 2005-06, of the 72 million kilowatt-hours of electricity utilized on campus, over 67 million kilowatt-hours, or approximately 94% of the electricity utilized, was generated by the SDSU cogeneration plant. These on-campus energy-producing facilities are sized to handle the increased demand that would result from project implementation and, therefore, the increased demand/consumption would not be required to be met by regional energy producers such as SDG&E. (See EIR **Section 3.2, Air Quality**, for an analysis of the environmental effects associated with increased on-campus energy consumption.)

Second, the proposed project would result in less than significant impacts to energy sources due to energy efficiency programs in place at SDSU. Because SDSU has and will continue to utilize numerous energy conservation measures to reduce existing and future energy consumption, the projected future demands shown in **Table 3.13-6** are likely overstated.

As noted above in **Section 3.13.2**, in September 2005, the CSU Board of Trustees approved key energy efficiency provisions for the Policy on Energy Conservation, Sustainable Building Practices and Physical Plant Management. Consistent with the CSU directives, SDSU has developed environmentally sustainable design goals and standards for the 2007 Campus Master

Plan Revision. These design goals and standards will be implemented by the CSU Office of the Chancellor and will be incorporated into the design of each project component.

Moreover, as outlined above in **Section 3.13.3**, Existing Conditions, SDSU already has engaged in an aggressive energy efficiency program throughout the campus. These existing programs and systems will further help reduce energy use in new buildings and facilities. For example, the recently completed Arts and Letters Building implemented all of SDSU's new efficiency measures, and exceeded Title 24 energy requirements by approximately 25%. Therefore, as new facilities, such as those proposed by the project, come online, energy efficiencies will be realized immediately due to the efficient infrastructure programs and systems already in place at SDSU, as well as future energy efficiency mandates that will be incorporated into all future building design. These past and future energy conservation efforts by all SDSU programs and facilities will help offset future energy use and demand and, therefore, the project will result in a less than significant impact on energy resources.

3.13.6 CUMULATIVE IMPACTS

The proposed project would result in an incremental increase in demand for public services and facilities. However, the project's consistency with planned growth and redevelopment anticipated in the College Area, implementation of the mitigation measures recommended below, and implementation of similar mitigation measures by other related projects, would reduce any potentially significant cumulative impacts to local water, sewer, police, parks and recreation, fire, refuse collection, school services and energy use to a level below significant.

3.13.7 MITIGATION MEASURES

The following mitigation measures are proposed to reduce the identified potential impacts to public utilities and service systems to a level below significant:

- PSS-1** SDSU, or its designee, shall consult with the City's Development Services Department, Water Review Section, on exact sizing and extensions required for water and sewer lines that will serve each project component as it moves forward with site-specific design plans for each project component.

- PSS-2** Following project approval, SDSU shall work with Alvarado Hospital Medical Center and the City of San Diego to improve emergency access to the hospital, including investigation of the removal of on-street parking from Alvarado

Road, which would increase vehicle carrying capacity and thereby reduce traffic congestion.

- PSS-3** As each project component moves forward with site-specific design plans, SDSU's Department of Public Safety shall take those steps necessary to increase police staff, equipment and facilities, at levels necessary to serve the increased campus population and maintain the existing response rate of three to five minutes for 90% of its calls.
- PSS-4** During construction of the Adobe Falls Faculty/Staff Housing residential development, SDSU shall require the contractor or its designee to maintain a water truck and/or other fire retardant mechanisms onsite at all times.
- PSS-5** Prior to occupancy of the first building comprising the Alvarado Campus, SDSU's Department of Environmental Health and Safety shall revise the SDSU Hazardous Materials Response Plan to incorporate the new campus facilities into the plan.
- PSS-6** Prior to construction of the Adobe Falls Faculty/Staff Housing Lower Village, SDSU, or its designee, shall work with the City of San Diego Fire Department to identify measures in to and out of the Lower Village development to ensure that adequate fire safety is maintained.
- PSS-7** SDSU shall ensure that all recyclable demolition waste products resulting from project construction are disposed of at a construction waste recycling facility.
- PSS-8** SDSU shall continue to maintain an active recycling program in order to continue to meet the 50% diversion goal for all solid waste produced on campus.

3.13.8 LEVEL OF SIGNIFICANCE AFTER MITIGATION

With implementation of the proposed mitigation measures, potential impacts to public utilities and service systems would be reduced to a level below significant.