# SECTION 3.11
# PUBLIC UTILITIES AND SERVICE SYSTEMS

# 3.11 PUBLIC SERVICES AND UTILITIES

## 3.11.1 INTRODUCTION

The following section evaluates the potential effects of the Proposed Project on public services and utilities, including fire and police protection, schools, park and recreation facilities, libraries, emergency services, sewer infrastructure, water supply and service systems, reclaimed water and stormwater infrastructure, solid waste disposal, and energy.

## 3.11.2 METHODOLOGY

This section is based on a review of available studies, documents, and communications with local service providers, including staff of the City of San Diego Redevelopment Agency and City of San Diego Development Services. Additional information was obtained through communications with SDSU Physical Plant Department staff. A brief overview of the methodology applied to assess the Project's potential impacts is provided below:

- **Police and Fire Protection**: Potential impacts were assessed, in part, through discussions with SDSU Police Department and San Diego Fire-Rescue Department staff relative to maintaining appropriate service levels.

- **Schools:** Potential impacts were assessed through a review of San Diego Unified School District facilities and City of San Diego school capacity standards. The analysis assumed that school-age children would not reside in the student housing component of the Proposed Project.

- **Parks and Recreation:** Potential impacts were assessed through a review of the City of San Diego General Plan Recreation Element goals and College Area Community Plan recreation policies. The existing, on-campus inventory of parks and recreation facilities at SDSU also was considered.

- **Library:** Potential impacts were analyzed by considering whether the existing and planned on-campus library facilities would be able to accommodate future residents of the Proposed Project.

- **Water Supply and Service Systems:** Existing water, sewer, and stormwater infrastructure was identified through a review of the following documents prepared for the Proposed Project: the Plaza Linda Verde Design Narrative (RBF Consulting, 2009),

the Mixed Use Feasibility Study for San Diego State University (Wallace Roberts & Todd, 2009), and the Complex Utility Study for the Plaza Linda Verde Project (P2S Engineers, 2009). To assess potential impacts on the existing water infrastructure, a water model was used to calculate the adequacy of the existing water infrastructure based on the fire flow requirements for the proposed buildings. Potential impacts to sewer are assessed based on whether the City's wastewater treatment system has adequate capacity to serve the Proposed Project. To assess potential impacts on the existing stormwater infrastructure, the analysis evaluated whether any additional runoff would occur as a result of the Proposed Project.

- **Recycled Water:** Potential impacts were assessed through discussion with City of San Diego Water Department staff.

- **Solid Waste Disposal:** Potential impacts were assessed through discussion with SDSU Physical Plant staff and review of relevant local planning documents and legislative policies.

- **Energy:** Potential impacts were assessed through discussion with SDSU Physical Plant staff and review of relevant local planning documents and legislative policies.

## 3.11.3 EXISTING CONDITIONS

### 3.11.3.1 Fire Protection

The City of San Diego Fire-Rescue Department (Fire-Rescue Department) is the primary responder to fires on the SDSU campus. When an on-campus fire is reported to the SDSU Police Department, a campus police officer is dispatched to the scene of the fire to verify the fire. Once the fire is verified, the SDSU Police Department will call the Fire-Rescue Department. (Browning, personal communication, March 19, 2009.) The campus police officer dispatched to the scene establishes an "Incident Command Post" and manages the incident until relieved by Fire-Rescue Department personnel. If the fire is an imminent threat to life or structure, the SDSU Emergency Operations Center may be activated in a Level II emergency mode. (When a fire incident occurs, the President of the University will determine if the Emergency Operations Center will be activated and, if activated, which staff positions are needed to respond to the emergency.)

Depending on the incident and available resources, the SDSU campus is served by three Fire-Rescue Department fire stations (Stations 10, 17 and 31) located within the general vicinity of

the Project site. (See **Figure 3.11-1, Existing Public Services.**) **Table 3.11-1, Fire-Rescue Department Stations Near the Project Area,** summarizes the station location, equipment, and proximity to the Project site.

**Table 3.11-1**

**Fire-Rescue Department Stations Near the Project Area**

| Station | Location (Community) | Equipment | Proximity to Project Site |
|---|---|---|---|
| Station 10<br><br>(Battalion 4 Headquarters) | 4605 62nd Street<br><br>(Del Cerro) | 1 Engine Company<br><br>1 Battalion Vehicle<br><br>1 Truck<br><br>1 Brush Rig<br><br>1 Chemical Utility Rig | 0.8 mile southeast |
| Station 17 | 4206 Chamoune Avenue<br><br>(City Heights) | 1 Engine Company | 2.7 miles southwest |
| Station 31 | 6002 Camino Rico<br><br>(Rolando) | 1 Engine Company<br><br>1 Medic Company | 1.4 miles northeast |

Source: City of San Diego Fire-Rescue Department, 2009

Located nearest to the Project site, Station 10 is equipped with both a fire engine and a fire truck. According to the Fire-Rescue Department, fire trucks consist of an aerial apparatus or a telescopic ladder tower and a passenger-carrying platform. Station 10 also is equipped with a chemical rig that would respond to fire incidents originating in parking structures or any other locations at which standard fire engines and trucks are unable to access due to height restrictions.

Station 17 is equipped with a fire engine. Station 31 is equipped with a fire engine and a paramedic unit and would respond to calls requesting medical service.


SDSU Plaza Linda Verde EIR

SAN DIEGO STATE UNIVERSITY

Figure 3.11-1

Existing Public Services

The SDSU Police Department receives all on-campus landline calls requesting 9-1-1 services. Calls requesting fire services (including medical aid) often require assistance from the Fire-Rescue Department. Data provided below in **Table 3.11-2, 2007/2008 Priority 1 Fire Service Calls From On-Campus Residences and Retail Businesses**, summarizes calls received by the SDSU Police Department requesting Fire-Rescue Department services. The call data presented below assumes the Fire-Rescue Department would respond to incidents, including fires, fire alarms, requests for medical aid, and suicide attempts that may require medical aid. According to call data provided by the SDSU Police Department, on-campus residence halls generate approximately 0.05 annual fire-related calls per student, while retail business generates approximately one fire-related call per 10,000 square feet of on-campus retail space.

**Table 3.11-2**

**2007/2008 Priority 1 Fire Service Calls From**

**On-Campus Residences and Retail Businesses**

| Call Origination | Existing Population/Square Feet | Priority 1 Calls received[1] | | Priority 1 Calls per student/Calls per 10,000 square feet | |
|---|---|---|---|---|---|
| | | 2007 | 2008 | 2007 | 2008 |
| Student Housing | 3,222 students[2] | 146 | 171 | 0.045 | 0.053 |
| Retail/Commercial | 167,000 square feet[2] | 15 | 20 | 0.89 | 1.19 |

Notes:
1. Source: SDSU Police Department, 2009b and 2009c (assumes 100 percent of calls are responded to by the Fire-Rescue Department)
2. Source: San Diego State University 2007 Campus Master Plan Revision

The City of San Diego General Plan's Public Facilities, Services, and Safety Element includes response time goals for fire and rescue services. The General Plan states that response times are evaluated based on compliance with response time guidelines included in the National Fire Protection Association 1710: Standard for the Organization and Deployment of Fire Suppression Operations, Emergency Medical Operations, and Special Operations to the Public by Career Fire-Rescue Departments. (City of San Diego, 2008d.) The City has adopted the response time guidelines of the National Fire Protection Association; and, the guidelines are included in the General Plan. The applicable guidelines for fire suppression are as follows:

- Deployment and arrival of the first-in engine company should be within five minutes, 90 percent of the time; and

- Deployment and arrival of the first full alarm assignment (3 engines and 1 truck) should be within nine minutes, 90 percent of the time.

According to the General Plan, a 2 to 2.5 mile distance between fire stations typically is sufficient to achieve response time goals. (City of San Diego, 2008d.) Fire service delivery depends on a number of factors, including the availability of adequate equipment and number of qualified personnel. (*Ibid.*)

A recent fire services study commissioned by the County of San Diego addressed current levels of service and identified future facility needs, including additional fire stations. (*Regional Fire Services Deployment Study for the County of San Diego Office of Emergency Services*, Citygate Associates (May 5, 2010) ("Citygate Study"), pp. 5-7.) The Citygate Study identified 11 areas within the County's Southwest Quadrant, which encompasses central portions of the City of San Diego, where additional fire stations are recommended, based on findings that travel times exceeded five minutes in those areas. (*Id.*) The areas identified for additional fire stations did not include the SDSU campus, generally, nor the site of the Proposed Project, specifically. (Citygate Study, Maps, San Diego County SOC Urban Coverage Gaps SW Quadrant, and San Diego County SOC Map 18 SW Gap 2.) Additionally, neither the SDSU campus nor Project site are located within any of the service coverage "gaps" identified in the Citygate Study. (*Ibid.*) (Excerpts of the Citygate Study are included in EIR **Appendix 3.11**.)

### 3.11.3.2 Police Protection

The SDSU Police Department provides on-campus police services to SDSU. The SDSU Police Department operates 24 hours a day, 7 days a week, and includes a staff of 34 sworn personnel and 57 non-sworn support employees. (SDSU Police Department, 2009a.) The safety and security of the on-campus environment is facilitated by the campus police via foot, vehicular, and bike patrols. The SDSU Police Department is located in the Department of Public Safety (DPS) building located at 55th Street and Remington Road.

SDSU DPS is the designated first responder for all incidents on campus and within the College Area community. Patrol officers are graduates of the California Peace Officers Training Academy with full arrest powers throughout the state. They are sworn and armed and charged with the enforcement of state, local and traffic laws, the investigation of accidents and crimes, and response to medical and domestic emergencies. Two K-9 units are on duty for explosives and substance detection.

SDSU police officers are responsible for reporting and responding to crimes, traffic accidents, and medical emergencies. The mission of the SDSU Police Department consists of four main elements. The Police Department seeks to "protect the public through proactive law enforcement," "address issues that impede or disrupt the orderly operation of the academic process," "protect university property by initiating police action (by) enforcing laws and regulations, arresting offenders and educating the public in crime prevention techniques," and "mitigate liability and hazards to the university." (SDSU Police Department, 2009a.)

The SDSU Police Department is organized into three distinct divisions: Operations, Administrative, and Auxiliary. (SDSU Police Department, 2009a.) The Operations Division includes the more visible police detail, including foot, bicycle and vehicle patrol.[1] The Administrative Division includes services such as communications, records, evidence, property management and special operations. The Auxiliary Division provides services such as SDSU employee key card issuance, parking ticket issuance, and operation of the Community Officer Program. (SDSU Police Department, 2009a.)

The SDSU Police Department has an administrative agreement with the City of San Diego Police Department to provide mutual assistance, as appropriate, at sites in the vicinity of the SDSU campus. (Browning, personal communication, March 19, 2009.) On average, the SDSU Police Department fields approximately 600 calls a year, which, due to the location of the call, must be routed to the City Police Department for response. (*Ibid.*) By state law, the SDSU Police Department and City of San Diego Police Department have concurrent jurisdiction within a one-mile radius of the campus boundary. (*Ibid.*) The City and SDSU Police Departments have a positive working relationship and often assist one another when one department is closer to the incident and/or is better equipped to respond. For example, between 2005 and 2007, the majority of liquor law and drug violation arrests reported by the SDSU Police Department occurred off-campus, while the SDSU Police Department issued hundreds of referrals for City of San Diego Police Department assistance with on-campus liquor law and drug violations. (SDSU Police Department, 2008a.)

The SDSU Police Department receives all landline 9-1-1 and duress calls made on-campus and from designated duress telephones. Depending on the severity of the call, the SDSU Police

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[1] All vehicle patrols are equipped with Automated External Defibrillators for first response use. (Browning, personal communication, March 19, 2009.)

Department either will respond to the call or contact the City of San Diego Police Department and request assistance.

The SDSU Police Department is responsible for notifying the City of San Diego Fire-Rescue Department if an on-campus fire is reported. When a call is received by the SDSU Police Department requesting fire support, the campus police notify the City of San Diego Fire-Rescue Department through a direct phone line. (Browning, personal communication, March 19, 2009.) The SDSU Police Department is able to monitor the Fire-Rescue Department radio frequency and, when necessary, go on-air and direct Fire-Rescue Department personnel to the on-campus fire site. The SDSU Police Department personally escorts the Fire-Rescue Department to the incident site. (*Ibid.*)

According to its 2008 Annual Report, the SDSU Police Department received approximately 9,500 assigned calls in 2007 and 11,500 assigned calls in 2008. In 2008, assigned calls for services resulted in approximately 1,780 crime reports and 670 incident reports. (SDSU Police Department, 2009a.) In 2008, approximately 875 misdemeanor arrests and 140 felony arrests were made by the SDSU Police Department. Similar to 2007, in 2008, larceny continued to be the most prevalent major crime reported on campus, followed by motor vehicle theft, and burglary. According to SDSU Police Department Annual Call data for 2007-2008, security checks were the most prevalent campus police-related incident, followed by traffic stops, parking citations/complaints, and access control alarm responses. (SDSU Police Department, 2008b.)

Priority 1 call data provided by the SDSU Police Department is summarized below in **Table 3.11-3, 2007/2008 Priority 1 Police Service Calls From On-Campus Residences and Retail Businesses**. According to the data, students housed on-campus generate approximately 0.05 annual calls per student, while retail businesses generate approximately 1.4 calls per year per 10,000 square feet.

**Table 3.11-3**
**2007/2008 Priority 1 Police Service Calls From On-Campus Residences and Retail Businesses**

| Call Origination | Existing Population/Square Feet | Priority 1 Calls received[1] | | Priority 1 Calls per student/Calls per 10,000 square feet | |
|---|---|---|---|---|---|
| | | 2007 | 2008 | 2007 | 2008 |
| Student Housing | 3,222 students [2] | 173 | 190 | 0.053 | 0.058 |
| Retail/Commercial | 167,000 square feet[2] | 23 | 24 | 1.38 | 1.44 |

Notes:
1. Source: SDSU Police Department, 2009b and 2009c
2. Source: San Diego State University 2007 Campus Master Plan Revision

The Public Facilities, Services and Safety Element of the City of San Diego General Plan contains goals and response time objectives for the City of San Diego Police Department. The College Area Community is located within the Mid-City Division of City of San Diego Police Department. (City of San Diego, 2009j.) The Mid-City Division is headquartered at 4310 Landis Street within the City Heights neighborhood. The following are the City Police Department response time goals (City of San Diego, 2008c):

- Priority E Calls (imminent threat to life) within seven minutes;
- Priority 1 Calls (serious crimes in progress) within 12 minutes;
- Priority 2 Calls (less serious crimes with no threat to life) within 30 minutes;
- Priority 3 Calls (minor crimes/requests that are not urgent) within 90 minutes;
- Priority 4 Calls (minor requests for police service) within 90 minutes.

The SDSU Police Department does not have official response time goals; however, according to 2008 Police Department call data, the average response time for a Priority 1 call from dispatch to on-scene arrival of the SDSU Police Department was three minutes, while the average response time for Priority 2 and Priority 3 calls was four and seven minutes, respectively. (SDSU Police Department, 2008d.)

#### 3.11.3.3 Schools

The College Area Community is served by the San Diego Unified School District. The San Diego Unified School District includes more than 221 educational facilities (including 118 elementary schools, 24 middle schools, 29 high schools) and serves over 132,000 students. (San Diego Unified School District, 2009.) According to the City of San Diego General Plan Public Services, Facilities, and Safety Element (City of San Diego, 2008d), the San Diego Unified School District applies the following enrollment limits to guide the planning of future school facilities:

- Maximum enrollment at elementary schools: 700
- Maximum enrollment at junior high/middle schools: 1,500
- Maximum enrollment at high schools: 2,000

Several San Diego Unified School District schools (including elementary, junior high, and high schools) are located in the general vicinity of the Proposed Project (see **Figure 3.11-1**). **Table**

**3.11-4, Project Area Public Schools and Enrollment (2008)**, lists the public schools in the Project vicinity and student enrollment. Based on the City enrollment limits noted above, with the exception of Patrick Henry High School, none of the schools exceed their maximum enrollment limits.

**Table 3.11-4**

**Project Area Public Schools and Enrollment (2008)**

| School | Location | Enrollment |
|---|---|---|
| ***Elementary*** | | |
| Hardy Elementary (K-5) | 5420 Montezuma Road | 359 |
| Hearst Elementary (K-5) | 6230 Del Cerro Boulevard | 444 |
| The Language Academy (K-8) | 4941 64th Street | 816 |
| ***Junior High/Middle School*** | | |
| Lewis Middle School (6-8) | 5170 Greenbriar Drive | 1,073 |
| The Mann School Of Excellence (6-8) | 4345 54th Street | 984 |
| ***Senior High School*** | | |
| Patrick Henry High School (9-12) | 6702 Wandermere Drive | 2,453 |
| Crawford High Educational Complex (9-12) | 4191 Colts Way | 1,678 |

Source: San Diego Unified School District, 2008

### 3.11.3.4 Parks and Recreation

The City of San Diego's Parks and Recreation Department is responsible for the operation and maintenance of approximately 40,000 acres of developed and undeveloped park land and open space within the City. (City of San Diego, 2009i.) The development of public park space within the City is governed by the population-park and recreation facilities guidelines contained within the Recreation Element of the City of San Diego General Plan. The guidelines associated with the development of population-based parks "provide a means to measure the degree to which park and recreational facilities are developed and to equitably provide facilities throughout the City." (City of San Diego, 2008c.)

The General Plan park standard is to "provide population-based parks at a minimum ratio of 2.8 useable acres per 1,000 residents." (City of San Diego, 2008c.) The General Plan also contains the following guidelines to direct the development of population-based recreation facilities:

- For every 5,000 residents, a neighborhood park (3 to 13 acres) is recommended within a one-mile radius. The park should be between approximately 3 to 5 acres in size when located next to an elementary school, and 10 to 13 acres if the park is stand-alone;
- For every 25,000 residents, a community park (13-acre minimum) is recommended within the specific community plan area;
- For every 25,000 residents, a recreation center (minimum 17,000 square feet) is recommended within a three mile radius;
- For every 50,000 residents, a swimming pool (minimum standard 25 meter by 25 yard) is recommended within a six-mile radius.

**Table 3.11-5, Existing City Parks within the Project Vicinity**, provides a summary of the parks within a 1.5-mile radius of the Project site (see also **Figure 3.11-1**). The table depicts the type of park, the distance from the Project site, and the approximate park acreage.

**Table 3.11-5**
**Existing City Parks within the Project Vicinity**

| Park | Type | Distance from Project Site | Acres (approximate) |
|---|---|---|---|
| Montezuma Park | open space | 0.6 mile southeast | 1.7 |
| Clay Park | neighborhood park | 0.8 mile southeast | 5.1 |
| Del Cerro Park | community park | 0.8 mile northeast | 3.6 |
| Mission Trails Regional Park | regional park | 1 mile northeast | 5,760 |
| Princess Del Cerro Park | neighborhood park | 1.1 miles north | 5.5 |
| Colina Del Sol Park | community park | 1.25 miles south | 30 |
| Rolando Park (City La Mesa) | neighborhood park | 1.29 miles southeast | 2.8 |

| | | | |
|---|---|---|---|
| Sunshine Park (City of La Mesa) | special activity park | 1.38 miles southeast | 5.6 |

According to the College Area Community Plan, most of the College Area was developed prior to the City's adoption of the population-based park guidelines included in the General Plan Recreation Element and, as a result, the area is deficient in useable parkland. (City of San Diego, 1989.) The Community Plan also states that only one park, Montezuma Park (1.7 acre), is included in the Community Plan boundary. According to the City of San Diego General Plan park guidelines and 2008 San Diego Association of Government's population estimates for the College Area community, the community should be served by approximately 64 acres of useable parkland. However, due to the developed nature of the community, the acquisition of property for additional parkland for residential use historically has been problematic for the City. (*Ibid.*)

The SDSU campus includes open space parks, indoor and outdoor recreation centers, and outdoor playfields. **Table 3.11-6, SDSU Park and Recreation Facilities**, lists SDSU's recreational resources; resource size is provided in acres.

To finance, construct, and operate on-campus athletic/recreation facilities, all SDSU students pay mandatory campus fees. As part of the payment for on-campus housing, SDSU resident students can elect to pay an optional, nonrefundable Recreation Fee. The Recreation Fee entitles the payee to membership in the on-campus Aztec Recreation Center. The Aztec Recreation Center also is open to the public; however; membership to the Center requires a monthly membership fee. The Aztec Recreation Center includes a 7,000 square foot cardio room, an 8,000 square foot fitness room, 4 multi-purpose gyms, and a climbing wall. (San Diego State University, 2009a.) Membership also provides access to certified personal trainers and certified strength and conditioning specialists, the lighted, 12-court Aztec Tennis Center, and the Aquaplex swimming complex. Peterson Gym (40,000 square feet) and the Aztec Athletics Center (a 80,000 square feet facility consisting of a weight room, studio spaces, and basketball courts) also are available for student use.

**Table 3.11-6**
**SDSU Park and Recreation Facilities**

| Resource | Description | Acres |
|---|---|---|
| *Community/Neighborhood Facilities (City of San Diego "Population-Based" Park/Recreation Facilities)* | | |
| Aztec Green | Open lawn with seating areas and footpaths | 1.0 |
| Campanile Walk | Boulevard style walk with turf parkway and plantings | 3.0 |
| Centennial Mall | Boulevard style walk with turf parkway and plantings | 1.1 |
| Cox Arena Foreground | Mixed paved and turf terrace area | 1.0 |
| Cuicacalli Lawn | Residential complex dedicated turf area with seating and shade | 0.3 |
| Education Park | Quadrangle park with turf, benches, and shade trees | 0.5 |
| Hepner/Hardy Quad | Informal garden with turf lawns, benches, walks and shade trees | 0.7 |
| Individual building gardens | Occasional courtyards, gardens and seating areas with benches and plantings | 0.5 |
| Library Quad | Paved area with bench-lined planters and large shade trees | 0.8 |
| Mediterranean Garden | Informal garden with water features, circulation walks and benches | 0.4 |
| Olmeca/Maya Quad | Enclosed dedicated turf lawn with water features and occasional trees and benches | 0.8 |
| Scripps Park and Cottage | Hillside garden with water features and small meeting venue | 1.7 |
| Aquaplex Swimming Complex | Competition and recreation pools, lounge deck, locker rooms | 1.7 |
| Cuicacalli residence halls pool | Recreational pool for residential use | 0.1 |
| Cuicacalli sand volleyball court | Beach style volleyball courts for residential | |

| | | |
|---|---|---|
| | use | |
| Football practice field | Synthetic turf practice field for intercollegiate athletics | 1.5 |
| Open Air Theatre | Greek style outdoor amphitheatre | 2.5 |
| PG 700 Field | Natural turf multipurpose recreational field | 3.0 |
| Recreational Field PG 610 | Multi use natural turf field | 1.5 |
| Recreational Field PG 620 | Multi use natural turf field | 1.5 |
| Softball Field | NCAA approved softball field and stadium for practice and intercollegiate use | 4.9 |
| Sports Deck Soccer Field PG 660 | NCA approved turf soccer field | 1.8 |
| Sports Deck Track | Olympic track and field venue with grandstands and support facilities | 0.9 |
| Tennis Center | Competition hard court tennis center for intercollegiate and recreational use | 3 |
| Tenocha pool | Recreational pool for residents/students use | 0.01 |
| Tenocha sand volleyball | Beach style volleyball courts for residential/student use | 0.02 |
| Tony Gwynn Field | NCAA approved baseball field and stadium for practice and intercollegiate use | 3.8 |
| University Center Children's Play yards | Secure outdoor multipurpose play yards segregated by age groups | 0.2 |
| Peterson Gym | Recreational basketball, volleyball, and soccer courts | 0.9 |
| Aztec Recreation Center | Indoor sports and fitness center | 1.7 |
| Aztec Center | Bowling lanes, billiards, table tennis, video games, outdoor patio, indoor lounges | 0.6 |
| Aztecs Athletic Center | Fitness and weight training center with meeting venue and athletic offices | 1.8 |
| Cox Arena | Multiuse indoor entertainment and sports | 3.3 |

| | | |
|---|---|---|
| | venue | |
| | **TOTAL** | **46.53** |
| ***Scenic or Natural Areas*** | | |
| A Lot | Preserved and restored wetlands habitat | 1.2 |
| C/D Lot | Preserved and restored wetlands habitat | 2.5 |
| Mission Trails – Fortuna Mountain Research Reserve | Public Access Hiking and Research | 500 |
| | **TOTAL** | **503.7** |

Source: SDSU Park and Recreation Space Log, May 30, 2007. Data confirmed by Doug Martin, SDSU, May 21, 2009h.

### 3.11.3.5 Libraries

The Malcolm A. Love Library (main campus library) is centrally located on the SDSU campus. The library is a 5-story, glass-dome structure, and open to the public. The library hours are Mondays through Thursdays, 7:00 a.m. to 1:00 a.m., Fridays from 7:00 a.m. to 7:00 p.m., Saturdays from 10:00 a.m. to 7:00 p.m., and Sundays from 12:00 p.m. to 1:00 a.m. (San Diego State University, 2009c.) There also are two branches of the San Diego Public Library located within the general vicinity of the Project site (see **Figure 3.11-1**). The closest City branch library to the Project site is the College-Rolando Branch, located at 6600 Montezuma Road, east of the Project site. (City of San Diego, 2009k.) **Table 3.11.-7, City of San Diego Libraries in Vicinity of Project Site**, lists the City of San Diego library branches in the Project vicinity.

**Table 3.11-7**
**City of San Diego Libraries in Vicinity of Project Site**

| City of San Diego Library Branch | Street Address | Proximity to Project Site |
|---|---|---|
| College-Rolando | 6600 Montezuma Road | 0.8 mile east |
| Allied Garden/Benjamin | 5188 Zion Road | 1.6 miles north |

Source: City of San Diego, 2009k

The General Plan Public Facilities, Services, and Safety Element of the City of San Diego General Plan contains guidelines and standards for City of San Diego branch libraries. According to the guidelines, a library branch should serve a residential population of 30,000 and be located in areas of "intense" human activity. (City of San Diego, 2008d.) Additionally, the General Plan states that all library branches are required to provide a minimum of 15,000 square feet of dedicated library space. (*Ibid.*)

### 3.11.3.6 Emergency Medical Services

Emergency medical response may be provided by both the SDSU Police Department and City of San Diego Fire-Rescue Department. Goals and response time objectives for emergency medical response are included in the Public Facilities, Services, and Safety Element of the City of San Diego General Plan, and response time objectives are discussed above. All on-campus 9-1-1 calls associated with injuries and illness are received by the SDSU Police Department who are then able to request additional services from the City of San Diego Fire-Rescue Department, if necessary.

The SDSU Student Health Services Department is responsible for on-campus student health and emergency medical needs. The Student Health Services Center, which is located at the 4-story, 69,000 square foot Calpulli Center, is staffed by fully licensed and certified health care professionals who provide health care to the SDSU academic community (students, faculty, and staff).

Basic services (such as outpatient evaluation and treatment of common medical ailments, preventive care and health counseling) are available by appointment and are paid for through mandatory health fees paid for by registered students, faculty and staff. (San Diego State University, 2009b.) Regular check-ups and appointments are accommodated in the 30-exam room/3-procedure room clinical wing. (Lichtenstein, Dr. Gregg, personal communication, March 30, 2009.) Minor surgery can be undertaken (by appointment) in one of the procedure rooms. Other services offered at the Calpulli Center include Urgent Care, a Radiology suite equipped with state of the art imaging equipment, laboratory services, immunization services, and a pharmacy. The urgent care wing (which includes the radiology suite) includes five treatment bays with gurneys, exam rooms, and two procedure rooms. During the 2007/2008 school year, the Center provided service to approximately 50,000 patients and transported approximately 40 patients to local hospital emergency rooms for more serious procedures. (*Ibid.*)

In addition to basic services and urgent care, several specialists in the fields of orthopedics, osteopathic medicine, optometry, and dermatology are available for appointments and consultations at various times throughout the week at the Center. A newly constructed dentistry suite with seven exam chairs is complete and will begin accepting patients in 2009. (Lichtenstein, Dr. Gregg, personal communication, March 30, 2009.) Additional fees apply for specialty care services.

Three hospitals, to which the majority of SDSU-related emergencies are referred, are located in the general vicinity of the Project area. The closest facility, Alvarado Hospital, is a 306-bed facility located approximately 0.75 mile northeast of the Project site at 6655 Alvarado Road. Approximately 450 physicians (representing more than 40 surgical specialties) work at Alvarado Hospital. The hospital employs approximately 1,000 staff members, and 400 active volunteers. (Alvarado Hospital, 2009.) The Hospital provides health care to approximately 60,000 patients annually, while the emergency room accommodates approximately 22,800 patients annually with nearly 9,500 of those patients arriving by ambulance. (Holmberg, Carol, personal communication, March 27, 2009.)

In addition to Alvarado Hospital, Sharp Grossmont Hospital is located approximately four miles east of SDSU at 5555 Grossmont Center Drive in La Mesa. The hospital includes numerous patient programs and services including 24-hour emergency services with a heliport and paramedic base station, ambulatory care services, acute care, and an intensive care unit. (Sharp Grossmont Hospital, 2009.) Kaiser Permanente San Diego Medical Center/Kaiser Foundation Hospital is located approximately two miles northeast of SDSU at 4647 Zion Road. The hospital includes an active emergency services department.

The Public Facilities, Services, and Safety Element of the City of San Diego General Plan contains policies and recommendation related to emergency medical services. The applicable response time goals are as follows:

- Deployment and arrival of first responder or higher-level capability should be within four minutes, 90 percent of the time
- Deployment and arrival of a unit with advanced life support (ALS) capability should be within eight minutes, 90 percent of the time; and
- Deployment and arrival of emergency medical service first responder with an automatic external defibrillator should be within four minutes, 90 percent of the time.

### 3.11.3.7 Sewer

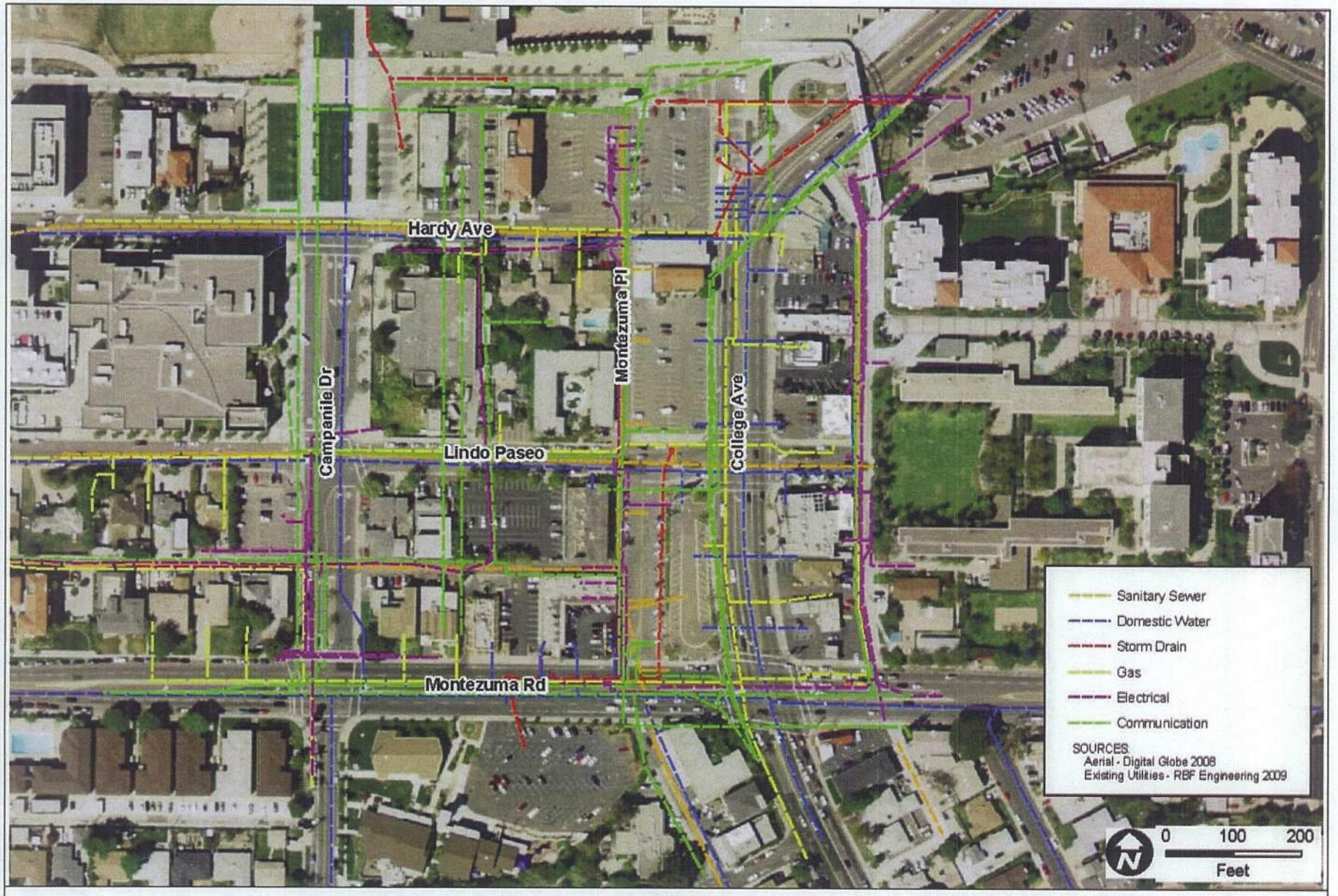
The College Area Community is served by the City of San Diego Metropolitan Wastewater Department. The Department is separated into two separate systems: the Metropolitan Sewerage System and the Municipal Wastewater Collection System.

- The Metropolitan Sewerage System treats wastewater from the City of San Diego and 15 other cities and special districts in a 450 square mile area. (City of San Diego, 2009e.) Approximately 2.2 million residents live in this area.

- The Municipal Wastewater Collection System collects and conveys waste from the portion of the City of San Diego not served by the Metropolitan Sewerage System and includes a service area of approximately 330 square miles and a residential population of approximately 1.2 million. (City of San Diego, 2009e.) The Municipal Wastewater Collection System includes approximately 2,894 miles of sewer lines running beneath the service area, resulting in excess of 250,000 City connections to sewer lines and over 55,000 City manholes.

The Metropolitan Sewerage System relies on nine pump stations, while the Municipal Wastewater Collection System relies on 84 smaller pump stations to convey sewage to the City's main treatment facility in Point Loma. (City of San Diego, 2009f.) At Point Loma, wastewater passes through screens, grit removal tanks, and sedimentation tanks before discharge into the Pacific Ocean via the Point Loma Ocean Outfall. The Point Loma Wastewater Treatment Plant treats approximately 175 million gallons of wastewater per day but has capacity to treat up to 240 million gallons per day. (City of San Diego, 2009g.)

The Project area is served by the existing sanitary sewer system located along Lindo Paseo, Montezuma Place, the east-west alley between Campanile Drive and Montezuma Place, and the north-south alley east of College Avenue. (P2S Engineering, 2009.) Wastewater generated by land uses between College Avenue and Campanile Drive is conveyed by a 6-inch sewer main (located along Lindo Paseo) and an 8-inch sewer main (located along the east-west alley between Lindo Paseo and Montezuma Road) that gravity flow to a central 8-inch sewer main located in Montezuma Place. From there, wastewater is conveyed south of the Project site. Wastewater generated by land uses east of College Avenue is conveyed by the 8-inch north-south sewer main located east of College Avenue to the sewer main located in Lindo Paseo. **Figure 3.11-2, Existing Utilities**, identifies the location of the existing sewer infrastructure in the Project area.




SDSU Plaza Linda Verde EIR

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**Figure 3.11-2**

**Existing Utilities**

A 12-inch sewer main also is located immediately north of the pedestrian skybridge (approximately 250-feet north of the Project site) within College Avenue. (San Diego State University, 2007.) This sewer main conveys flow north towards an outfall (located immediately south of Interstate 8) to the City of San Diego's North Mission Valley Interceptor. (City of San Diego, 2008d.)

#### 3.11.3.8 Potable Water

The City of San Diego Water Department treats and delivers more than 200,000 acre feet per year of water to more than 1.2 million people residing in a service area of over 330 square miles. (City of San Diego, 2005a.) The City Water Department maintains and operates more than 3,302 miles of water lines, 49 water pump plants, 90-plus pressure zones, and more than 200 million gallons of potable water storage capacity in 32 treated water storage facilities (e.g., standpipes, elevated tanks, concrete and steel reservoirs). (City of San Diego, 2009a.) The City's nine raw water storage reservoirs have approximately 415,000 acre-feet of storage capacity and can supply up to 20 percent of the City's water needs.

The City's three water treatment plants (Miramar, Alvarado, and Otay) have a total treated capacity of 294 million gallons per day. (City of San Diego Water Department, 2005a.) The Alvarado Water Treatment Plant currently is being expanded to increase its capacity to 200 million gallons per day (increasing the total treated capacity for the three water treatment plants to 343 million gallons per day).

In addition to supplying water to more than 280,000 metered service connections within its own incorporated boundaries, the City Water Department conveys and sells potable water to the City of Del Mar and several local water agencies, and also maintains several emergency connections to and from neighboring water agencies. (City of San Diego, 2009a.)

##### 3.11.3.8.1 Local Water Distribution System

Potable water is delivered to the Project area primarily by the Montezuma Pump Station (located approximately 2,300 feet west of the existing campus near the intersection of Montezuma Road and Yerba Santa Drive). (San Diego State University, 2007.) The Project area also is fed by a 12-inch diameter main at the intersection of Montezuma Road and 55th Street, an 8-inch diameter main at the intersection of 55th Street and Hardy Avenue, and a 12-inch diameter main at the intersection of College Avenue and Hardy Avenue. (*Ibid.*)

The potable water is delivered to the Project area by a well-defined grid of water mains. The primary backbones are the 12-inch water mains located in Montezuma Road and College Avenue. (P2S Engineering, 2009.) These mains are interconnected by 6-inch mains located in Hardy Avenue (between 55th Street and Campanile Drive) and Lindo Paseo (between 55th Street and Campanile Drive), two 8-inch mains located in Campanile Drive (one SDSU-owned and one City-owned) between Montezuma Road and Hardy Avenue, 8-inch mains located in Lindo Paseo (between Campanile Drive and College Avenue) and Hardy Avenue (between Campanile Drive and College Avenue), and a 6-inch main located in Lindo Paseo (east of College Avenue. (San Diego State University, 2007.) The existing water infrastructure in the Project area is shown in **Figure 3.11-2**.

Water delivered to SDSU and the Project area is treated at the Alvarado Treatment Plant northeast of the Project site and adjacent to Lake Murray. Current capacity at Alvarado is 120 million gallons per day, but will be increased to 200 million gallons per day upon completion of the Upgrade and Expansion Project, a City Water Department Capital Improvement Project. (City of San Diego, 2009b.) Construction of the upgrade and expansion project is expected to be completed in 2013. (*Ibid.*) Additional Water Department Capital Improvement Projects in the immediate area include the San Carlos Reservoir Interior Enhancement and Alvarado Water Treatment Plant San Diego-12 Flow Control Facility Project (which addresses cavitation and corrosion problems at the facility). (City of San Diego, 2009c.)

#### 3.11.3.8.2 Water Supply Policy Issues

*Urban Water Management Plans*

In 2005, the City of San Diego adopted an Urban Water Management Plan ("UWMP"), which identifies projected water supplies required to meet future water demands through the year 2030. The UWMP assessed metropolitan water supply and demand, and concluded that the City has an adequate water supply to meet municipal, commercial, and industrial demands emanating in the City's service area through 2030. (City of San Diego, 2005a.)

Also in 2005, the San Diego County Water Authority adopted its own UWMP and similarly concluded that it had adequate regional supplies to meet demand through 2030 in average/normal, single dry, and multiple dry years. (San Diego County Water Authority, 2005.) The San Diego County Water Authority's UWMP uses the San Diego Association of Government's ("SANDAG") most recent regional growth forecast to calculate regional water demands and assess whether adequate supplies exist for future planned development.

SANDAG's regional growth forecasts are based on population forecasts, projected housing forecasts, and other growth forecasts provided by the member cities. Because the proposed housing and retail land uses that would be developed as part of the Proposed Project are consistent with the increased densities outlined in the City's General Plan, College Area Community Plan, and College Area Redevelopment Plan (**Section 3.7, Land Use and Planning**), these uses necessarily were accounted for in the County Water Authority's UWMP in concluding that adequate water supplies will be available to meet forecasted demands through 2030.

By law, water agencies are required to update their UWMP every five years. Accordingly, both the City of San Diego and San Diego County Water Authority are to update their UWMP in 2010 to reflect new development projects and assess any ongoing water supply issues, such as drought. While the 2005 UWMPs concluded that adequate water supply exists for future planned development within the San Diego region, in light of the current drought conditions facing southern California, additional analysis is presented below.

*Drought Policies*

Level 1 Water Emergency Conditions

On July 28, 2008, the City of San Diego City Council declared a Level 1 (Voluntary Compliance-Water Watch) Water Emergency. (City of San Diego, 2008a.) In Level 1 Water Emergencies, San Diegans are asked to reduce, voluntarily, excessive irrigation and restrict landscape irrigation and car washing to before 10 a.m. or after 6 p.m. Level 1 "Drought Watch" conditions also include, but are not limited to, the following voluntary water use restrictions:

- Customers must repair water leaks immediately or within five days of City Water Department notification;
- Customers may not use a running hose to wash down sidewalks or driveways;
- Overfilling of spas and pools is prohibited;
- Operating ornamental fountains or similar decorative water features is prohibited unless they use a recirculating water pump;
- Vehicles may only be washed at a commercial car wash or with a hose with an automatic shutoff nozzle; and

- Restaurants and other food service establishments must serve and refill water for customers only upon request.

Level 2 Drought Alert Conditions

On April 14, 2009, the Metropolitan Water District approved a 13 percent cut in water supply delivery to the San Diego County Water Authority effective June 1, 2009. (Metropolitan Water District of Southern California, 2009.) In response to the delivery reductions and ongoing drought conditions in the state, on April 23, 2009 the San Diego County Water Authority declared a Stage 2 "Drought Alert" condition, which requires a consumer demand reduction of up to 20 percent. (San Diego County Water Authority, 2009.) In an effort to conserve water, the San Diego County Water Authority will reduce water deliveries by about 8 percent countywide, effective July 1, 2009.

In response to the San Diego County Water Authority Stage 2 declaration, the City of San Diego declared a Level 2 Drought Alert on May 5, 2009, with the enforcement of expanded conservation rules beginning June 1, 2009. Conservation rules associated with Level 2 Drought Alert conditions include, but are not limited to, the following mandatory water use restrictions:

- All water use restriction of Level 1 Drought Watch conditions;
- Limit all landscape irrigation to no more than three assigned days per week on a schedule established and posted by the City Manager. From November to May, landscape irrigation is limited to no more than once per week on a schedule determined by the City Manager (provision does not apply to commercial growers or nurseries or the irrigation of golf course greens and tees);
- Limit lawn watering and landscape irrigation using sprinklers to no more than ten minutes maximum per watering station per assigned day (does not apply to water efficient devices);
- Limit watering of trees and shrubs by hand or with the use of a soaker hose to no more than three days per week;
- Repair or stop all leaks upon discovery or within 72 hours of notification by the City of San Diego; and
- Stop operating ornamental fountains except to the extent needed for maintenance.

A Level 2 declaration also allows the City Manager (upon resolution of the City Council) to implement a water allocation per customer account served by the City of San Diego, and a schedule of penalties for exceeding the water allocation.

Level 3 Drought Critical Conditions

If drought conditions persist in the near future, the San Diego City Council has the option to declare a Level 3 "Drought Critical" condition. Under Level 3 Drought Critical conditions, a consumer demand reduction of up to 40 percent is required to ensure that sufficient supplies will be available to meet anticipated demands. (San Diego City Council, 2009.) In addition to Level 1 and Level 2 water conservation policies, a Level 3 declaration includes several additional policies, including a moratorium on new potable water service connections for development projects, unless the following circumstances apply:

- A valid building permit has been issued for the project;
- The project is necessary to protect the public's health, safety, and welfare; or;
- The applicant provides substantial evidence satisfactory to the City Manager of an enforceable commitment that the new water demands for the project will be offset prior to the provision of new water meter(s).

Under Level 3 conditions, new development projects generally would be unable to connect to the City's water infrastructure unless the project obtained a building permit prior to declaration of Level 3 conditions, or if the project applicant can provide evidence to the City that water demand of the project would be offset prior to the provision of new water meters. (San Diego City Council, 2009.)

Level 4 Drought Emergency Conditions

A Level 4 "Drought Emergency" condition would be declared if there is a reasonable probability that there will be a shortage supply and a customer demand reduction of more than 40 percent is required in order to ensure that sufficient supplies will be available to meet anticipated demands. Under Level 4 conditions, customers would be required to comply with all water conservation policies associated with Levels 1 through 3. (San Diego City Council, 2009.) Several additional measures, including strict restrictions on landscape irrigation and a moratorium on new water service connections, could be instituted. Under Level 4 conditions, new projects would be unable to connect to the City's water infrastructure system.

### 3.11.3.9 Recycled Water

#### 3.11.3.9.1 Statewide Policy

On February 3, 2009, the California State Water Resources Control Board ("SWRCB") adopted a statewide recycled water policy, with the ultimate goal to increase the use of recycled water from municipal wastewater sources. Included in the statewide policy is the mandate to increase the use of recycled water in California by 200,000 acre feet per year by 2020, and an additional 300,000 acre feet per year by 2030. (State Water Resources Control Board, 2009.) The plan also states that the SWRCB expects to develop other policies to encourage stormwater usage and the use of both surface and groundwater in order to promote water conservation.

#### 3.11.3.9.2 City of San Diego Program

The City of San Diego maintains an active recycled water program in order to meet current and future water demands and to decrease dependence on imported water.

The City operates two water reclamation plants -- the North City Water Reclamation Plant and South Bay Water Reclamation Plant -- to treat wastewater that can then be used for landscape irrigation, construction water, toilet and urinal flushing, commercial use, enhancement of wildlife habitat, manufacturing, and other non-potable uses. (City of San Diego Water Department, 2008b.) The North City Plant provides reclaimed water to cities in northern San Diego, and currently treats approximately 22.5 million gallons of wastewater per day and is capable of treating up to 30 million gallons per day (buildout capacity of the plant is approximately 33 million gallons per day). The South Bay Reclamation Plant provides reclaimed water to south bay communities, and currently treats approximately 9 million gallons per day of wastewater and has capacity to treat up to 15 million gallons per day. (City of San Diego, 2005b.)

Recycled water currently is available in the Northern Service Area (an area generally north of Highway 52 in the UCSD, Torrey Pines, Mira Mesa, Scripps Ranch and Sable Springs areas) and the Southern Service Area (via Otay Water District recycled water pipelines located within the Otay Water District service area in the city of Chula Vista). The City's recycled water distribution center consists of 66 miles of recycled water pipeline, a nine-million-gallon reservoir, and two pump stations. (City of San Diego Water Department, 2005b.) In 2005, the City of San Diego Water Department provided recycled water service to approximately 400 meters. (*Ibid.*)

Recycled water currently is *not* available in the Project area (i.e., south of Highway 52 and north of Highway 54). (City of San Diego Water, 2009d.) According to City staff, there are no current plans to extend recycled water to the College Area of the City of San Diego. (Rife, personal communication, March 12, 2009.)

### 3.11.3.10 Stormwater Drainage

Stormwater from the Project site currently drains into one of six basins as depicted in **Figure 3.11-3, Plaza Linda Verde Drainage Area Map**, and described further below.[2]

Basin "1" consists of approximately 4.54 acres and conveys a total of 9.24 cubic feet per second of stormwater runoff ($Q_{100}$) under existing conditions. Stormwater from this basin sheetflows to the curb and gutter system along Montezuma Road, which drains to a mid-block curb inlet and then is conveyed to an 18-inch diameter reinforced concrete pipe located on Montezuma Road between Campanile Drive and Montezuma Place.

Basin "2" consists of approximately 3.64 acres and conveys a total of 10.24 cubic feet per second of stormwater runoff under existing conditions. Stormwater generated in this basin is conveyed through an existing curb and gutter system to the mid-block curb inlet and an 18-inch reinforced clay pipe located on Montezuma Road between Campanile Drive and Montezuma Road.

Basin "3" consists of approximately 8.02 acres and currently conveys a total of 20.84 cubic feet per second of stormwater runoff. Stormwater generated from this basin generally flows in an easterly direction along existing curbs and gutters located along Lindo Paseo and Hardy Avenue towards an inlet located north of proposed Building 2 and east of proposed Building 1. The inlet north of proposed Building 2 conveys flow to the 18-inch reinforced concrete pipe in Montezuma Road, while the inlet located east of proposed Building 1 conveys flow to the 18-inch reinforced concrete pipe located in College Avenue.

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[2] The following stormwater drainage discussion was derived from the *Hydrology and Water Quality Technical Report* prepared by Dudek (May 2009), included in **Appendix 3.6** of this EIR.

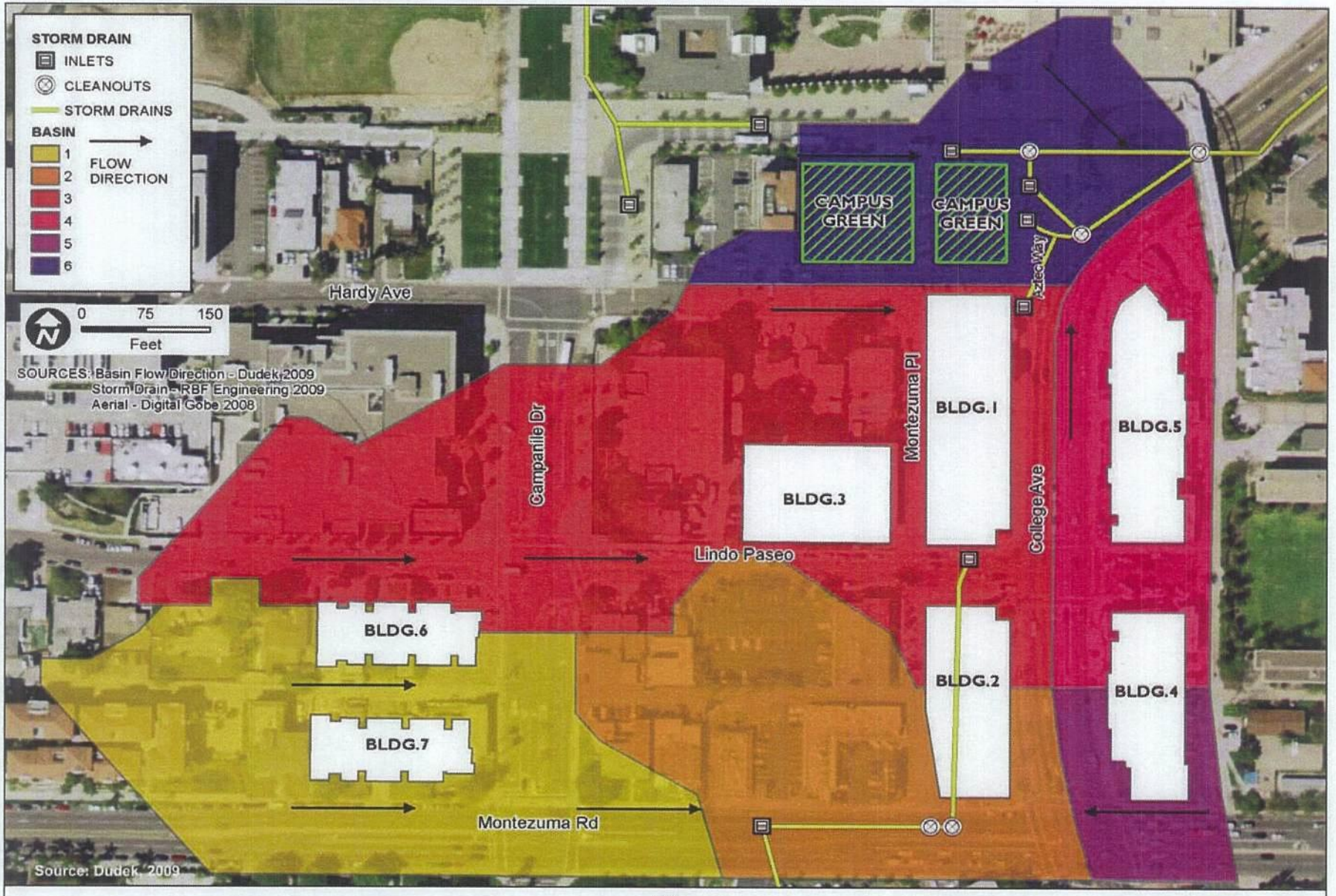


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Figure 3.11-3

Plaza Linda Verde Drainage Area Map

Basins "4" and "5" consist of approximately 3.44 acres and convey a total of 12.44 cubic feet per second of stormwater runoff under existing conditions. Stormwater generated from these basins flows in two directions. Stormwater generated from Basin 5 flows north along the gutter in College Avenue and into the inlet located east of proposed Building 2, and then to the 18-inch reinforced concrete pipe located in College Avenue. Stormwater generated from Basin 4 crosses Montezuma Road and then flows south along the gutter in College Avenue to underground storm drain facilities south of the Project site.

Basin "6" consists of approximately 2.61 acres and currently conveys 10.05 cubic feet per second of stormwater runoff. Stormwater generated from Basin 6 flows in two directions: east along the gutters located near the SDSU Transit Center towards an inlet located north of the proposed Campus Green, *or* southeasterly from the existing SDSU campus towards inlets located in Aztec Circle. Inlets serving Basin 6 convey flow to the 18-inch reinforced concrete pipe located in College Avenue.

### 3.11.3.11 Solid Waste Disposal

#### 3.11.3.11.1 Existing Disposal Facilities

Allied Waste & Recycling Services, Inc. provides solid waste management services to the SDSU campus. Solid waste is collected in dumpsters located throughout the campus and then transported to one of three locations: (1) food and green waste is diverted to the Miramar Greenery located within the Miramar Landfill, (2) non-recyclable solid waste is diverted to the Miramar Landfill, and (3) the remaining recyclable waste is diverted to the EDCO Recycling Facility in Lemon Grove. (Lincoln, personal communication, March 11, 2009.)

The closest landfill to SDSU is the Miramar Landfill, which is located in Kearny Mesa and owned/operated by the City of San Diego Environmental Services Department. Approximately 1.4 million tons of trash are disposed of at the landfill annually, although the actual tonnage of buried trash has been decreasing over the past few years due to recycling and diversion programs. (City of San Diego, 2009l.) The approximate 800-acre Class III landfill has a maximum permitted capacity of 87,760,000 cubic yards. (California Integrated Waste Management Board, 2009a.) As of December 31, 2008, the remaining capacity of the landfill was 22,172,206 cubic yards; the landfill is permitted to accept 8,000 tons per day. (Clay, personal conversation, March 11, 2009.)

In February 2009, the City of San Diego announced that it would be increasing the permitted height of the Miramar Landfill by up to 20 feet. Prior to the height increase, the Miramar

Landfill was slated to close in 2012, but it is now expected to have adequate capacity to remain open until 2018.

When the Miramar Landfill closes, Allied Waste & Recycling Services, Inc. could transport SDSU-generated, non-recyclable solid waste to another landfill in the region, possibly the Sycamore Canyon Landfill in Santee or the Otay Landfill in Chula Vista. As of September 30, 2006, the Sycamore Canyon Landfill had a remaining capacity of 47,388,428 cubic yards and, as of November 30, 2006, the Otay Landfill has a remaining capacity of 33,070,879 cubic yards. (California Integrated Waste Management, 2009.)

#### 3.11.3.11.2 Integrated Waste Management Regulations

*Assembly Bill 939*

Assembly Bill 939 ("AB 939") established an integrated waste management hierarchy to guide the California Integrated Waste Management Board and local agencies in the implementation of programs geared at (1) source reduction, (2) recycling and composting, and (3) environmentally safe transformation and land disposal. AB 939 also included waste diversion mandates that require all cities and counties to divert 50 percent of all solid waste through source reduction, recycling, and composting activities. (California Integrated Waste Management Board, 2008.)

*Assembly Bill 75*

Assembly Bill 75 ("AB 75") was passed in 1999 and requires that all state agencies and large state facilities develop and implement an integrated waste management plan. AB 75 also requires all state agencies and large state facilities to divert at least 25 percent of their solid waste from landfills by January 1, 2002, and at least 50 percent on and after January 1, 2004. (California Integrated Waste Management Board, 2009b.)

*Countywide Integrated Waste Management Plan*

The Countywide Integrated Waste Management Plan consists of a Countywide Siting Element, a Countywide Summary Plan, and three elements (source reduction and recycling, household hazardous waste disposal, and non-disposal facility locations) from each. (County of San Diego, 2005.) The Siting Element requires that the County's landfills demonstrate remaining capacity of at least 15 years to serve all jurisdictions. (*Ibid.*) The Summary Plan contains waste management policies and goals, and summarizes the diversion programs at the county and local level implemented to meet and maintain the 50 percent diversion mandate required by AB 939. (*Ibid.*)

*SDSU Waste Disposal Practices and Programs*

According to SDSU Physical Plant staff, SDSU typically diverts over 50 percent of its yearly, on-campus generated solid waste to a licensed recycling facility. (Lincoln, personal communication, March 11, 2009.) Between July 1, 2008 and December 31, 2008, SDSU generated approximately 5,710 tons of waste. Of that total, approximately 2,977 tons (53%) were diverted from a landfill and processed at a recycling center or used as compost. (San Diego State University, 2009d.)

In response to AB 75 and the establishment of the State Agency Buy Recycled Campaign, the California State University system initiated its own Buy Recycled Campaign to promote environmentally responsible procurement procedures. SDSU's Business and Financial Affairs Department implements the "SDSU Recycles" campaign on campus, which provides numerous recycling bins throughout the campus. Items that can be placed in these bins include appliances, beverages containers (aluminum, glass, and plastic), cardboard, green waste, metal scrap and toner cartridges. (San Diego State University, 2009e.) SDSU also encourages students, faculty and staff to: (1) purchase goods containing recycled content, and (2) purchase items that can be recycled/reused when discarded. (*Ibid.*)

Hazardous wastes are collected from university departments and disposed of by qualified vendors. Hazardous waste disposal is facilitated through the Environmental Health and Safety Department. SDSU also operates its own Recycling Center on the Cuicacalli walkway in Olmeca Hall. The SDSU Recycling Center accepts aluminum, glass and plastic beverage containers, and all containers are redeemable for "Aztec bucks," which can be used at on-campus stores.

#### 3.11.3.11.3 Local Recycling Programs

The City of San Diego maintains an active, citywide recycling program governed by the City's Recycling Ordinance. Approved by the City Council on November 20, 2007, the City's Recycling Ordinance requires recycling of plastic, glass bottles and jars, paper, newspaper, metal containers, and cardboard. (City of San Diego, 2007a.) The Recycling Ordinance is applicable to all single-family residences, apartments, and condominium complexes with 50 or more units, commercial buildings with 10,000 square feet or more, and all special events requiring a permit from the City. Effective January 1, 2010, the Recycling Ordinance is applicable to *all* apartment and condominium complexes and *all* commercial facilities. (*Ibid.*) Residential recyclables placed in City-issued blue collection bins are collected by Environmental Service Department staff. The

City of San Diego's Curbside Recycling Program currently serves approximately 276,000 residents with regular collection service. (City of San Diego, 2009m.)

The City's Construction and Demolition Debris Diversion Deposit Program is intended to increase the diversion of construction and demolition debris from landfill disposal and conserve the capacity and expand the life of Miramar Landfill. (City of San Diego, 2007b.) The program requires contractors applying for a building or grading permit to pay a refundable deposit at the issuance of the permit. The contractor can recover the deposit once satisfactory evidence is submitted to the Director of Environmental Services Department showing that at least 75 percent (by weight) of construction or demolition debris generated by development of the project was diverted to a certified recycling facility. (*Ibid.*) The Environmental Services Department maintains a map and list of certified recycling facilities in the County. (City of San Diego, 2009n.)

### 3.11.3.12 Energy

#### 3.11.3.12.1 Cogeneration Plant

In 2002, SDSU constructed an 11-megawatt ("MW") cogeneration facility to complement its existing central plant complex and better ensure a reliable and quality power source for the campus. Located immediately adjacent to the on-campus electrical plant complex (south of Canyon Crest Drive and west of Parking Lot A), the cogeneration plant includes two, 5.2 MW gas turbines and a 4 MW steam turbine. Waste heat from the gas turbines is conveyed as steam to the steam turbine, which, in turn, provides heating and cooling for the campus. Depending on the campus load, the seasonal amount of electricity generated by the cogeneration plant tends to fluctuate; although, on a yearly basis, a "net zero" (to produce as much energy as the plant consumes) result is desired. (Martin, personal communication, March 16, 2009.)

The cogeneration plant is connected electrically to three separate SDGE 12-kilovolt ("kV") circuits. Three electrical substations are located on campus. Each cogeneration facility turbine is dedicated to one 12-kV circuit. (Martin, personal communication, March 16, 2009.) If on-campus facilities are unable to meet the electrical demands of SDSU, then electricity is purchased from SDGE and delivered (via 12-kV transmission lines) to one of the on-campus substations.

According to SDSU Physical Plant staff, the SDSU campus uses approximately 76 million kilowatt hours of electricity per year, most of which are produced by the on-campus co-generation facility. For the 2007/2008 Fiscal Year (July 1, 2007 through June 30, 2008), the co-generation facility produced 76,727,761 kilowatt hours of electricity. (Martin, personal

communication, March 16, 2009.) During the same time frame, SDSU exported 947,790 kilowatt hours of electricity and bought 234,396 kilowatt hours of electricity from SDGE.

#### 3.11.3.12.2 Natural Gas

Natural gas is delivered to the Project site via underground distribution lines located within the public right-of-way of College Avenue, Montezuma Road, Lindo Paseo, and Hardy Avenue. In addition, an underground natural gas distribution line is located within the alley west of Campanile Drive, south of Lindo Paseo, north of Montezuma Road, and east of proposed Building 4, running parallel to College Avenue. **Figure 3.11-2** identifies the existing natural gas infrastructure in the Project area.

Approximate natural gas consumption by the campus for the 2007/2008 Fiscal Year was 9,566,878 therms, with 9,234,296 therms consumed by the cogeneration facility. (Martin, personal communication, March 17, 2009.)

#### 3.11.3.12.3 State Policies

The State of California has implemented several important energy conservation policies applicable to state facilities since 2004. These policies include:

- *Executive Order S-12-04:* This order requests the participation of all state agencies under the authority of the Governor and other entities not under the direct authority of the Governor (including the California State University) to institute energy conservation measures that will reduce energy consumption. Additionally the order requests that all state agencies review and assess energy conservation policies currently in place and expand those measures to all applicable facilities. (State of California, 2004a.)

- *Executive Order S-20-04:* This order requires the state to commit to "aggressive" action to reduce state building energy usage by retrofitting, building, and operating energy and resource efficient buildings, and by taking all cost-effective measures described in the Green Building Action Plan for facilities owned, funded, or leased by the state. Executive Order S-20-04 requests that the California State University system participate in the effort to reduce energy usage. (State of California, 2004b.)

- *State Executive Order S-3-05:* This order directs the state to reduce greenhouse gas emissions, which are linked to energy efficiency. (State of California, 2005.)

Included within Executive Order S-20-04, the State of California Green Building Action Plan includes the following directives for the operation of future state buildings:

- All state-owned buildings will reduce the volume of energy purchased from the grid, with a goal to reduce energy consumption by at least 20 percent by 2015 (as compared to a 2003 baseline), by undertaking all cost-effective operation and efficiency measures, as well as on-site renewable energy technologies. Alternatively, buildings that already have taken significant efficiency actions must achieve a minimum efficiency benchmark to be established by the California Energy Commission;

- 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 California Energy Commission. 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 conditioners) shall ensure each is Energy Star-rated, where cost effective, and that procurement goals and operating practices minimize energy and resource use and impacts. (State of California, 2004b.)

#### 3.11.3.12.4 CSU/SDSU Policies and Programs

*CSU Policies*

The Chancellor's Office of the California State University system has established energy conservation goals and policies applicable to all campuses in order to comply with state energy conservation policy.

In August 2001, the Chancellor's Office established Executive Order 785, which delegated to each University President the power to implement the CSU Board of Trustees Energy Conservation and Utilities Management Goal and Policy. (The California State University, 2001.) The energy conservation goal was to reduce on-campus energy consumption 15 percent

by 2004/2005, when compared to energy consumption recorded for the 1999/2000 fiscal year. Utilities management goals and policies contained general provisions (e.g., all CSU buildings will be operated in the most energy efficient manner and the CSU will promote the use of cost-effective renewable and nondepleting energy sources), and operations and maintenance provisions (e.g., all air conditioning equipment shall be shut off on weekends, holidays and varying periods throughout the night). (The California State University, 2001.)

In September 2004, the Chancellor's Office delegated to each University President the power to implement the CSU Board of Trustees energy conservation, sustainable building practices, and physical plant management policy. Known as Executive Order No. 917, the policy reaffirmed the CSU System's commitment to energy conservation and energy consumption reduction, reaffirmed utility management policies included in Executive Order No. 785 (Executive Order 917 supersedes Executive Order 785), and established several sustainable building practices (including that CSU encourage the use of materials and systems with reduced environmental impacts and the consideration of sustainable and durable design to achieve a low life cycle cost). (The California State University, 2004.)

Lastly, Executive Order No. 987 extended the 15 percent reduction in energy consumption goal first established in Executive Order No. 785 for another five years to 2010, established an Energy Independence goal for the CSU system (which includes a consideration of constructing on-campus co-generation plants), established a commitment to meet or exceed the state's Renewable Portfolio Standard of procuring 20 percent of its electrical needs from renewable sources by 2010, and restates the commitment to Sustainable Building Practices and Utility Management policies established in previous Executive Orders. (The California State University, 2006.)

*SDSU Programs*

In April 2007, the SDSU Senate unanimously approved the creation of a campus sustainability committee to study and improve on-campus sustainability practices. The Sustainability Committee is comprised of 15 members, including five faculty members, one staff member, and two students. In addition to studying and making recommendations regarding sustainability practices, the committee also is tasked with coordinating with other campus committees to ensure that sustainability is taken into consideration during actions undertaken by those committees.

In addition to the Sustainability Committee, there are several on-campus programs and initiatives relating to energy conservation and sustainability. The SDSU Green Campus Program, for example, holds various events and awareness campaigns throughout the school year to educate the campus as to why energy conservation is important. (San Diego State University, 2009f.) For example, in March 2009, the Green Campus Program held an energy competition amongst all the on-campus residence halls to see which hall could reduce its overall energy consumption the most. (San Diego State University, 2009g.) The Green Campus Program also hosts several compact fluorescent lamp exchanges throughout the school year.

Another program, Associated Students Green Love, creates awareness of sustainable practices on-campus, encourages student organizations and residents to adopt sustainable habits, and assists SDSU in becoming a more sustainable campus through the creation of Associated Students Environmental and Sustainable Standards. (San Diego State University, 2009f.)

SDSU utilizes the Leadership in Energy and Environmental Design ("LEED") certification program to ensure that select construction projects are energy efficient and designed/constructed in as sustainable fashion as possible. Developed by the U.S. Green Building Council in 2000, LEED is an internationally-recognized, third-party certification system that establishes benchmarks for the design, construction, and operation of green buildings. As a point based system, LEED generally evaluates a project's building criteria across five environmental categories: (1) the sustainability of the project site; (2) water efficiency; (3) energy savings and carbon dioxide emission reductions; (4) the use of materials and resources; and, (5) indoor environmental quality. LEED also considers innovation in design. Based on the number of points accrued for green design features, a project may achieve one of the following ratings: Certified; Silver; Gold; or, Platinum. (For additional information on LEED, please see http://www.usgbc.org/.)

### 3.11.4 SIGNIFICANCE THRESHOLDS

Appendix G of the CEQA Guidelines states that a project would result in potentially significant impacts to public services and utilities 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 expansion of existing facilities, the construction of which could cause significant environmental effects;

d) Require or result in the construction of new stormwater 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 require new or expanded entitlements;

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.

Appendix G of the CEQA Guidelines does not contain significance thresholds related to energy. Therefore, for purposes of this analysis, the City of San Diego CEQA Thresholds were utilized to assess project impacts on energy. The City's thresholds states that a project would result in potentially significant energy impacts if the project would result in the use of: (i) excessive amounts of fuel or energy (e.g., natural gas); or (ii) excessive amounts of power.

## 3.11.5 PROJECT IMPACTS

### 3.11.5.1 Fire Protection

***Would the project 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?***

**Table 3.11-8, Projected Fire-Rescue Department Priority 1 Calls from On-Campus Residences and Retail Businesses**, shows the projected fire-related calls anticipated for the Proposed Project. Because the Fire-Rescue Department currently responds to calls for service originating from the existing residential and retail uses located on the Project site, only the net increase in resident population (1,525) and retail square footage (33,009) was used to calculate projected Priority 1 calls attributable to the proposed student housing and retail spaces. As shown in **Table 3.11-8**, the Proposed Project would generate approximately 75 additional annual calls from future student residents, and approximately three additional annual calls from future retail establishments or customers.

**Table 3.11-8**
**Projected Fire-Rescue Department Priority 1 Calls from On-Campus Residences and Retail Businesses**

| Call Origination | Average annual calls per student/per 10,000 square feet[1] | Project Population/Square Footage Net Increase[2] | Projected Additional Priority 1 Calls |
|---|---|---|---|
| Student Housing | 0.049 | 1,525 students | 75 |
| Retail/ Commercial | 1.04 | 33,009 square feet | 3 |

Notes:
1. See **Table 3.11-3**. To calculate average per student and per 10,000 square feet call rate, the arithmetic mean of the 2007 and 2008 Priority 1 calls received was calculated.
2. See **Table 1.0-2, Proposed Project Summary**.

**Table 3.11-9, Fire-Rescue Department Response Times**, lists the current average response times for each station within the vicinity of the Proposed Project. As shown on the table, Station 17 response times are compliant with the City of San Diego General Plan response time objective to secure the deployment and arrival of the first-in engine company within five minutes 90 percent of the time. While average response times at Stations 10 and 31 slightly exceed the objectives, according to the General Plan the proximity of each station to the campus (0.8 and 1.4 miles, respectively) typically is sufficient to achieve response time goals.

**Table 3.11-9**
**Fire-Rescue Department Response Times**

| Station | Average Response Time (minutes: seconds)[1] |
|---|---|
| Station 10 | 5:29 |
| Station 17 | 4:13 |
| Station 31 | 6:10 |

1. Source: City of San Diego Fire-Rescue Department, Fiscal Year 2006 Annual Report (2008), available at http://www.sandiego.gov/fireandems/pdf/annualrpt06.pdf. (Data excludes canceled and test incidents, as well as responses with invalid times)

The 1993 College Area Public Facilities Financing Plan ("PFFP") states that adequate fire facilities exist within the College Area community. The PFFP states that "since the Fire Department has determined that existing fire facilities are adequate to meet the needs of existing and future development, no additional facilities are needed. Therefore, no fire fee has been calculated." (PFFP, pp. 21-22.) Accordingly, the initial PFFP impact fees for the College Area included a zero (0) dollar amount for the "Fire" component of the fee. (PFFP, p. 24.) Similarly, the current City of San Diego Fiscal Year 2011 development impact fee ("DIF") schedule also includes a zero dollar amount for the "Fire" component of the College Area fee, indicating that existing fire facilities remain adequate to meet the needs of existing and future College Area development. This is consistent with the results of the recent Citygate Study, which neither includes the SDSU campus area within the areas recommended for additional fire stations, nor identifies the SDSU campus area as being located within a service coverage gap. Additionally, the buildings constructed as part of the proposed project would be fully-sprinklered facilities, which would effectively slow the effect of a fire in the initial stages. Therefore, because the Proposed Project would result in a limited number of additional calls for fire service, in combination with the fact that the Proposed Project would not result in the need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, the Proposed Project would not result in potentially

significant impacts relating to fire protection. (Excerpts of the PFFP and City DIF schedule are included in EIR **Appendix 3.11.**)

### 3.11.5.2 Police Protection

***Would the project 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?***

The Proposed Project would generate additional demand for campus police services by adding 1,525 net student residents, and approximately 33,009 net square feet of retail space.

**Table 3.11-10, Projected Priority 1 Calls from On-Campus Residences and Retail Businesses,** provides a projection of future calls to the SDSU Police Department. Because the SDSU Police Department currently responds to calls for service originating from the existing residential and retail uses located on the Project site, only the net increase in student population (1,525) and retail square footage (33,009) was used to calculate projected Priority 1 calls attributable to the proposed student housing and retail spaces. As shown in the **Table 3.11.-10**, the Proposed Project would generate approximately 76 additional annual calls to the SDSU Police Department from on-campus residents and approximately five additional annual calls from on-campus retail businesses.

**Table 3.11-10**
**Projected Priority 1 Calls From**
**On-Campus Residences and Retail Businesses**

| Call Origination | Average annual calls per student/per 10,000 square feet[1] | Project Population/Square Footage Net Increase[2] | Projected Additional Priority 1 Calls |
|---|---|---|---|
| Student Housing | 0.05 | 1,525 students | 76 |
| Retail/ Commercial | 1.4 | 33,009 square feet | 5 |

Notes:
1. See **Table 3.11-3.** To calculate average per student and per 10,000 square feet call rate, the arithmetic mean of the 2007 and 2008 Priority 1 calls received was calculated.
2. See **Table 1.0-2, Proposed Project Summary.**

Thus, the increased population could generate an additional demand for police services. Preliminarily, because the project site lies within the jurisdiction of the SDSU DPS and is already part of the normal patrol and enforcement zone, the Proposed Project would not generate any new or altered demands on the City's police department. As to the SDSU DPS, as discussed previously in **Section 3.11.3.2**, the SDSU Police Department, which is housed in close proximity to the Project site (less than 1 mile west), currently responds to Priority 1 calls within three minutes, Priority 2 calls within four minutes and Priority 3 calls within seven minutes. These current response times substantially exceed the City of San Diego General Plan response time goals, which, as previously noted, are 12 minutes, 30 minutes, and 90 minutes, respectively. Therefore, while the increase in on-campus student housing and retail uses may result in increased calls and increased response times, based on existing service levels and the projected increase in Priority 1 calls, response times likely would continue to be within acceptable service levels at Project buildout.

However, even if response times were to exceed acceptable service levels, there is no evidence that new or additional governmental facilities would be required to maintain acceptable levels. In 2008, the SDSU DPS Police Department moved to their newly renovated campus building near the intersection of Remington Road and Aztec Circle Drive. The nearly $1-million renovation project created 15,000 gross square feet of administrative and public services space, which was designed to accommodate the police protection needs of a forecast 35,000 full-time equivalent students (FTES) and related uses through 2025. Because the Proposed Project is consistent with the growth forecast assumptions utilized in the design of the new facility in that the Project does not propose to increase campus enrollment, the new facility is adequately sized to accommodate the campus-related development that would take place under the Proposed Project.

Therefore, in light of the Proposed Project's forecast effect on existing response times, in combination with the fact that that the Project would not result in the need for new or physically altered governmental facilities, the Proposed Project would not result in potentially significant impacts to police services and no mitigation is necessary.

#### 3.11.5.3 Schools

***Would the project 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?***

Children (other than SDSU students under the age of 18) would not be permitted to live in the proposed student housing units. Therefore, the student housing component of the Proposed Project would not generate additional demand for elementary and secondary schools in the surrounding community.

With respect to the retail component of the Proposed Project, the Project would result in 33,009 square feet of net new retail development. It would be speculative to assume that the addition of such relatively limited space would result in an increase in employees with school age children and that such children would significantly impact school enrollment in the Project vicinity. As discussed in **Section 3.11.3.3**, of the several San Diego Unified School District schools in the general vicinity of the Proposed Project (including elementary, junior high, and high schools), only Patrick Henry High School exceeds the maximum enrollment limit.

Therefore, because the schools in the Project area generally have adequate capacity to accommodate additional students, in combination with the speculative nature of any conclusion that the Proposed Project would result in a substantial increase in enrollment demand, the Proposed Project is not expected to result in potentially significant impacts associated with maintaining acceptable school service ratios.

### 3.11.5.4 Parks and Recreation

***Would the project 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?***

According to the City of San Diego General Plan Recreational Element, the City of San Diego's parks standard is a minimum ratio of 2.8 useable acres per 1,000 residents. (City of San Diego, 2008c.) SDSU currently provides on-campus housing to approximately 3,222 students. The Proposed Project would add 390 housing units, which would support an additional 1,632 on-campus student residents. Assuming a projected on-campus student population of 4,854 (3,222 plus 1,632) and using the City of San Diego General Plan park standards as a guide, SDSU should provide a total of 13.59 useable acres of population-based parks, which would account for all resident students.

As shown in **Table 3.11-6**, above, SDSU currently provides 46.53 acres of community/neighborhood park and recreation facilities. As shown in **Table 3.11-11, SDSU Park and Recreation Facilities and General Plan Requirement**, SDSU provides approximately 32.94 additional acres of population-based parks in excess of the General Plan standard. Therefore, SDSU provides adequate community/neighborhood park and recreation facilities to serve the proposed on-campus resident population.

**Table 3.11-11**
**SDSU Park and Recreation Facilities and General Plan Requirement**

| | On-campus Resident Population | Total Park Acreage | Acreage required per City General Plan | Amount in Excess of General Plan Requirement |
|---|---|---|---|---|
| Existing | 3,222[1] | 46.53 | 9.02 | 37.51 |
| Projected | 4,854[2] | 46.53 | 13.59 | 32.94 |

Notes:
1. Existing on-campus population data provided by San Diego State University.
2. Existing on-campus population (3,222) plus proposed student housing capacity (1,632)

While the Proposed Project would increase the number of students living on-campus and amount of square footage of on-campus retail uses, the Project would not increase the community population or total permitted enrollment at SDSU. Rather, the Proposed Project would provide additional on-campus living options for SDSU students. By offering an additional option for on-campus student housing, the Proposed Project would help to decrease the student population in the surrounding communities, which would decrease the overall demand in the area for City park and recreation facilities and services; by locating students on-campus and closer to SDSU recreation facilities, students are more likely to use SDSU recreation facilities instead of City of San Diego park and recreation facilities in the surrounding College Area community.

Non-SDSU community patrons of the proposed retail businesses are not expected to utilize College Area parks and recreation facilities due to the temporary nature of their visits to proposed retail establishments.

In summary, the Proposed Project would not result in potentially significant impacts related to the maintenance of acceptable park and recreation service ratios.

#### 3.11.5.5 Libraries

***Would the project 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?***

Because residents would be SDSU students, the on-campus Malcolm A. Love library would continue to be used for research and other library needs. While residents of the Proposed Project would have the opportunity to obtain a City library card (by virtue of being City residents) and utilize the resources of a nearby City library branch, due to the proximity of the Malcom A Love library, residents of the Proposed Project would be more likely to utilize on-campus library facilities. In addition, non-SDSU community patrons of the proposed retail businesses are not expected to utilize College Area libraries due to the temporary nature of their visits to proposed retail establishments. In summary, the Proposed Project would not result in potentially significant impacts related to the maintenance of acceptable library performance objectives.

### 3.11.5.6 Emergency Medical Services

***Would the project 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?***

The Proposed Project would not increase the student enrollment at SDSU. Rather, the Proposed Project would provide additional on-campus housing options for existing students who already utilize on-campus emergency medical facilities, including the Calpulli Center. Thus, the Proposed Project is not expected to significantly increase the annual percentage of Calpulli Center patients or those requiring transport to a local area hospital. Accordingly, existing facilities are adequate to serve future residents of the Proposed Project, and impacts would be less than significant.

In addition, while the projected increase in traffic on local roadways may potentially impact the movement of emergency vehicles, this impact would be less than significant because: (1) emergency vehicles are equipped with sirens that help increase maneuverability; and (2) adequate right-of-way exists in the vicinity of Alvarado Hospital (the nearest off-campus hospital) for emergency service responders to navigate area streets.

### 3.11.5.7 Wastewater Treatment Requirements

***Would the project exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?***

The City of San Diego is the National Pollution Discharge Elimination System ("NPDES") permit holder for the Point Loma Wastewater Treatment Plant and is responsible for compliance with the wastewater treatment requirements specified in the NPDES permit (No. CA0107409/ Order No. 95-106). Therefore, the City controls the type and quality of discharge from the Point Loma Wastewater Treatment Plant. According to the latest Point Loma Wastewater Treatment Plant and Ocean Outfall Annual Report, major permit discharge limitations including flows, total suspended solids, biological oxygen demand removals and mass emission rates of monitored effluent were well within the discharge specifications of the NPDES permit. (City of San Diego, 2007c.)

Upon connection to the City's sewer infrastructure, the Proposed Project would be required to comply with the wastewater treatment requirements of the Regional Water Quality Control Board. Therefore, the Proposed Project would not exceed the wastewater treatment requirements of the applicable Regional Water Quality Control Board and impacts would be less than significant.

### 3.11.5.8 Water Serving Infrastructure

#### 3.11.5.8.1 Water Treatment Plants

***Would the project require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?***

As discussed above, the City's three water treatment plants (Miramar, Alvarado, and Otay) have a total treatment capacity of 294 million gallons per day. Water delivered to the Project area is treated at the Alvarado Treatment Plant, which is located northeast of the Project site adjacent to Lake Murray. The Alvarado Treatment Plant currently is being expanded to increase its treatment capacity to 200 million gallons per day. Expansion of the Alvarado Treatment Plant is being undertaken in order to meet current and future water needs of the Alvarado service area. The projected water treatment needs of the Alvarado service area are based primarily on the number of existing and projected water department customers residing in the service area. Existing and projected customer data is based on land uses identified in local planning documents including general plans and community plans.

SANDAG's population and employment data is based on data included in the General and Community Plans prepared by the 19 jurisdictions located in the San Diego region. (SANDAG, 2009.) Because the Proposed Project is consistent with the intensification of land uses outlined for the Project site in the City of San Diego General Plan, College Area Community Plan and College Community Redevelopment Plan, the Proposed Project would not increase the demand for regional water treatment facilities as these facilities are sized to accommodated densities envisioned by the referenced city planning documents and planned as part of the Proposed Project.

#### 3.11.5.8.2 Water Distribution Infrastructure

***Would the project require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?***

*Water Demand*

The City of San Diego's *Water Capital Improvement Program Guidelines, Book Two, Facility Design Guide* (2002) contains water usage demand factors. The retail land use water demand factor included in the guidelines was utilized to calculate existing and projected retail/commercial water demand as shown in **Table 3.11-12, Existing and Projected Daily Water Demand.** Specifically, commercial and retail water use rates (existing, proposed and net increases) utilized the City of San Diego use rate criteria of 5,000 gallons / day / acre.

However, the residential water usage factor (150 gallons/capita/day) was not used to calculate existing or projected water demand because this water usage factor is not representative of the actual water consumption associated with on-campus, apartment-style student housing. To determine an appropriate water usage factor, SDSU's Physical Plant Department provided actual water usage information for on-campus housing.

The approximate 3,222 students that currently reside in on-campus student housing currently consume approximately 5,371 hundred acre feet (4,017,508 gallons) of water per month. (Lekas, personal communication, March 25, 2009.) This results in a water consumption rate (per student per month) of approximately 1,247 gallons. Assuming 30 days in a month, the water consumption rate (per student per day) is approximately 42 gallons. Note, however, this data does not differentiate water consumption between apartment-style student housing featuring full bathrooms and kitchen in each units, and dorm-style student housing containing communal bathroom and kitchen facilities.

Water use rates at the Villa Alvarado apartments, an existing, on-campus student housing complex similar to the Proposed Project, also were reviewed to determine the Proposed Project's likely water use. The average monthly water consumption rate for the 99-unit Villa Alvarado apartment development was 606 hundred acre feet (453,288 gallons). (Lekas, personal communication, May 25, 2009.) Assuming two bedrooms per unit and four beds per unit, Villa Alvarado provides housing to approximately 396 students. On a per student per month basis, students residing at the Villa Alvarado apartments consume approximately 1,144 gallons of water, which results in a daily water consumption rate of approximately 38.15 gallons

(assuming 30 days per month). Therefore, in an abundance of caution, 42 gallons/capita/day was identified as an appropriate generation factor to project the water use associated with the student housing component of the Proposed Project.

**Table 3.11-12, Existing and Proposed Water Demand,** provides a summary of existing and projected water demand. This table provides an estimate of the existing water use likely occurring on the Project site (30 dwelling units and 44,200 square feet of commercial/retail/office). In addition, the net water demand attributed to the Proposed Project also is identified in **Table 3.11-12**. As shown in **Table 3.11-12**, the Proposed Project would require 68,050 more gallons of water per day than existing residential and retail/commercial uses located on the Project site. The increased water demand of the Proposed Project would result in additional demands on the local water infrastructure system.

**Table 3.11-12**
**Existing and Projected Daily Water Demand**

| Project Component | Water Usage Factor | Existing | | Projected | | Net Increase | |
|---|---|---|---|---|---|---|---|
| | | Population /Square footage | Water Usage (gallons /day) | Population/ Square Footage | Water Usage (gallons /day) | Population /Square footage | Water Usage (gallons /day) |
| Residential | 42 gallons/ person/ day | 107 residents | 4,494 | 1,632 residents | 68,544 | 1,525 | 64,050 |
| Commercial /Retail | 5,000 gallons/ acre/day | 1.0 acres (44,200 square feet) | 5,000 | 1.8 acres (77,209 square feet) | 9,000 | 0.8 acres (33,009 square feet) | 4,000 |

*Capacity of Water Serving Infrastructure*

SDSU's Provision of Water Meters and Service Laterals

Water service for the Proposed Project would be provided by a number of water meters and service laterals. The Proposed Project would construct new service laterals to the existing water infrastructure in the Project area that conform to City of San Diego design standards for new construction. **Figure 3.11-4, Proposed Utilities**, identifies the location of new service laterals connecting the Proposed Project to the existing utility infrastructure located within the public right-of-way. Water meters also would be replaced and calibrated by the service provider. SDSU would be required to construct all necessary laterals and water meters to provide water to all Project buildings. Each proposed building would be provided with multiple connections to the potable water system for supply redundancy.

Relatedly, SDSU would be responsible for relocating the existing, 6-inch water main in Hardy Avenue (east of Montezuma Place) to accommodate proposed Building 2. As required by the California Department of Health and Services Drinking Water Field Operations Branch, the


SDSU Plaza Linda Verde EIR

SAN DIEGO STATE UNIVERSITY

**Figure 3.11-4**

**Proposed Utilities and Connection Points**

Proposed Project must maintain horizontal and vertical separation as the Project relocates water lines.

Two pedestrian malls are proposed to provide inter-project connectivity and non-vehicular links to the main portion of the SDSU campus. This Project component would be ancillary to the mixed-use retail/student housing component and would not be essential to development of the overall Project. To facilitate development of the pedestrian malls, it would be necessary to close, or vacate, four roadways/alleys adjacent to the Project site. Any vacated or closed streets supporting buried water infrastructure (and other utility conveyance facilities, including sewer, electricity, and natural gas) would be affixed with manholes to provide access to service providers per City standards. The proposed pedestrian malls would be accessible to City utility service providers and their vehicles at any time in order to access the pedestrian malls at any time to access underground utility infrastructure. Therefore, the street vacations proposed as a component of the Proposed Project would not affect the City's ability to access and maintain utility conveyance facilities that may be located beneath these pedestrian malls.

Water-Serving Pipelines

When assessing impacts to existing water systems, pipelines must be adequately sized to respond to the highest possible water delivery scenario. The worst-case scenario for water delivery was assumed to be the provision of required fire flow (during a fire) for the duration identified in the California Fire Code. As stated in the California Fire Code, fire flow requirements for individual buildings are determined according to building square footage, number of floors and construction type. Proposed Buildings 1, 2, 3, 4 and 5 are all greater than 85,000 square feet, and Buildings 6 and 7 would be 48,070 square feet and 55,300 square feet, respectively. Additionally, all buildings would be of Type V-N construction. (Wallace Roberts & Todd, 2009.) Therefore, according to Table A.III-A-I of Appendix III-A of the California Fire Code, the majority of the Project buildings have a required fire flow of 8,000 gallons.

Given the required fire flow to serve the proposed buildings, the existing water infrastructure (to which the Proposed Project would connect) was analyzed to determine whether the required fire flow could be delivered to the proposed buildings. **Table 3.11-13, Fire Flow Requirements**, summarizes the fire flow requirements of the Proposed Project and identifies the available fire flow at the hydrant nearest to the proposed buildings. Available fire flow at hydrants was based on a water model calibrated under the assumption that the existing water infrastructure in the Project area maintains a pressure of 50-65 pounds per square inch during peak hours. The existing water pressure of the Project area water infrastructure was identified in the P2S Plaza

Linda Verde Complex Utility Study (2009). As shown in **Table 3.11-13**, the existing Project area water infrastructure is unable to deliver the required fire flow to the Project buildings. The inability to deliver the required fire flow is a result of inadequately sized water mains in the Project area; specifically the mains are currently too small to deliver the volume of water required.

**Table 3.11-13**
**Fire Flow Requirements**

| Building | Area (gross square feet) | Required Fire Flow (gallons per minute) | Hours | Available Fire Flow at Hydrant (gallons per minute) |
|---|---|---|---|---|
| 1 | 118,550 | 8,000 | 4 | 4,125 |
| 2 | 85,640 | 8,000 | 4 | 7,894 |
| 3 | 128,925 | 8,000 | 4 | 3,300 |
| 4 | 123,004 | 8,000 | 4 | 3,683 |
| 5 | 157,971 | 8,000 | 4 | 5,544 |
| 6 | 48,070 | 6,000 | 4 | 3,192 |
| 7 | 55,300 | 6,250 | 4 | 6,249 |

Notes:
1. Building Type V-N assumed for Fire Area.
2. Building area was obtained from Wallace Robert & Todd Mixed Use Feasibility Study for San Diego State University Plaza Linda Verde (2009).
3. Fire flow and duration requirements as per 2001 California Fire Code, Appendix III-A, Table A-III-A-1.

The Proposed Project would fully sprinkler all buildings, which, according to the California Fire Code Division III, Appendix III-A, Section 4.2, may reduce the required fire flow by 25 percent. (California Fire Code, 2001.) **Table 3.11-14, Projected Fire Flow Demand (Assuming 25% Reduction from Sprinklers)**, identifies the fire flow demand of the Proposed Project assuming a reduction rate of 25 percent. Under this scenario, the existing water infrastructure would still be unable to deliver the appropriate fire flow to all proposed buildings.

**Table 3.11-14**
**Projected Fire Flow Demand (Assuming 25% Reduction from Sprinklers)**

| Building | Area (gross square feet) | Reduced Fire Flow Requirement (gallons per minute) | Available Fire Flow at Hydrant (gallons per minute) |
|---|---|---|---|
| 1 | 118,550 | 6,000 | 4,125 |
| 2 | 85,640 | 6,000 | 7,894 |
| 3 | 128,925 | 6,000 | 3,300 |
| 4 | 123,004 | 6,000 | 3,683 |
| 5 | 157,971 | 6,000 | 5,544 |
| 6 | 48,070 | 4,500 | 3,192 |
| 7 | 55,300 | 4,688 | 6,249 |

In summary, because the existing water infrastructure is inadequately sized to serve the Proposed Project and because the Proposed Project would require additional capacity, the Proposed Project would result in potentially significant impacts to water distribution infrastructure.

### 3.11.5.9 Sewer

***Would the project require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?***

#### 3.11.5.9.1 Wastewater Generation

To calculate the wastewater generated by the Proposed Project, factors included in the *Water Agencies Standards Design Guidelines for Water, Recycled Water and Sewer Facilities* (2004) were used. According to the guidelines, wastewater generation for residential uses is based on the number of equivalent dwelling units, and wastewater generation for commercial uses is based on gross acreage. **Table 3.11-15, Projected Wastewater Flow**, summarizes the sewer demand generated by existing and proposed land uses on the Project site. In addition, **Table 3.11-15**

calculates the net wastewater flow attributable to the Proposed Project. As shown, the Proposed Project would result in 73,200 more gallons of wastewater per day than the existing residential and retail/commercial uses located on the Project site.

**Table 3.11-15**
**Projected Wastewater Flow**

| Project Component | Wastewater Generation Factor | Existing | | Projected | | Net Increase | |
|---|---|---|---|---|---|---|---|
| | | Dwelling Units/ Square footage | Sewer Usage (gallons /day) | Dwelling Units/ Square Footage | Sewer Usage (gallons/day) | Dwelling Unit/Square footage | Sewer Usage (gallons /day) |
| Residential | 200 gallons-day/ dwelling unit | 30 units | 6,000 | 390 units | 78,000 | 360 | 72,000 |
| Commercial/ Retail | 1,500 gallons-day/gross acre | 1.0 acres (44,200 square feet) | 1,500 | 1.8 acres (77,209 square feet) | 2,700 | 0.8 acres (33,009 square feet) | 1,200 |

### 3.11.5.9.2 Sewer Infrastructure Connections

The Proposed Project would be served by existing sewer infrastructure located in area roadways surrounding the Project site. However, connections to the nearest available facility through new service laterals would be required to provide sewer collection to the Proposed Project. **Figure 3.11-4** identifies the proposed points of connection to the Project area sewer infrastructure.

The Proposed Project would connect to the existing, 6-inch sewer main located in Lindo Paseo, and the 8-inch mains located in Montezuma Place, along the alley off Campanile Road (between Lindo Paseo and Montezuma Road) and east of College Avenue (running north-south parallel to College Avenue). The Proposed Project also would relocate the existing, 8-inch sewer line in Lindo Paseo (east of College Avenue) to accommodate the underground parking garage associated with Buildings 4 and 5. (As required by the California Department of Health and Services Drinking Water Field Operations Branch, the Proposed Project would maintain

horizontal and vertical separation to ensure that adjacent water lines are not contaminated during the relocation process.)

#### 3.11.5.9.3 Sewer Capacity

In the City of San Diego, the minimum diameter allowed for a sewer main is 8-inches in residential areas and 10-inches in commercial, industrial and high-rise buildings. (City of San Diego, 2004.) In addition, sewer mains are sized to convey flow at a rate where depth is not greater than half the inside diameter of the pipe (ratio of depth of flow to pipe diameter). (*Ibid.*) **Table 3.11-16, Existing Sewer Capacities**, provides the existing capacities and depth/diameter ratio of the sewer mains that the Proposed Project would connect. The City of San Diego *Sewer Design Guide* indicates that the allowable flow loading for sewer pipes is determined by the American Society of Civil Engineers (ASCE) *Manuals and Reports on Engineering Practice – No. 60, Gravity Sanitary Sewer Design and Construction* (City of San Diego 2004). Per ASCE Manual No. 60, Chapter 6, Section I Flow Velocities and Design Depths of Flow, generally accepted standards dictate that the minimum design velocity should not be less than 2 feet per second (ASCE 1982). Therefore, utilizing the Manning equation for calculating hydraulic capacity in gravity pipelines, an 8-inch circular pipe flowing at half full, with a velocity of 2 feet per second, has a slope of 0.34% and a flow of 158 gallons per minute, or 227,700 gallons per day. A 6-inch diameter pipeline given the same minimum design flow characteristics will have a slope of 0.49% and a flow of 88 gallons per minute, or 126,930 gallons per day. These estimated quantities are summarized in **Table 3.11-16**.

**Table 3.11-16**
**Existing Sewer Capacities**

| Location | Diameter | Existing Capacity (gallons per day) (Assuming 0.5 depth/diameter ratio) |
|---|---|---|
| Lindo Paseo | 6-inch | 126,900 |
| Montezuma Place | 8-inch | 227,700 |
| Alley (east-west) (between Lindo Paseo and Montezuma Road) | 8-inch | 227,700 |
| Alley (north-south) (east of College Avenue) | 8-inch | 227,700 |

Assuming that the existing sewer mains located in Lindo Paseo, Montezuma Place, the east-west alley between Lindo Paseo and Montezuma Road, and the north-south alley east of College Avenue are currently operating at capacity (as identified in **Table 3.11-16**), the 73,200 gallons of wastewater generated per day by the Proposed Project would likely exceed the capacity of the existing sewer mains. Therefore, the Proposed Project could result in potentially significant impacts.

### 3.11.5.10 Recycled Water

***Would the project require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?***

As discussed previously, recycled water is not available in the College Area. In addition, the City of San Diego does not currently have plans to extend recycled water infrastructure from either the northern or southern service area to the College Area. (Rife, personal communication, March 12, 2009.) Therefore, the Proposed Project would not result in potentially significant impacts related to the use or distribution of recycled water.

### 3.11.5.11 Stormwater Drainage Facilities

***Would the project require or result in the construction of new stormwater drainage facilities or the expansion of existing facilities, the construction of which could cause significant environmental effects?***

Development of the Proposed Project may increase the amount of impervious surfaces, which decreases runoff travel time and increases runoff volumes. **Figure 3.11-3** depicts the existing drainage patterns, drainage basins, storm drains, inlets, and the proposed development footprint for the Proposed Project. In order to evaluate the Proposed Project's impact on the existing stormwater flow, a hydrologic analysis of the 100-year storm event was prepared, utilizing the San Diego County Hydrology Manual, to determine approximate peak flows. The rational method was used to determine the flow contributions from each of the Project site's six basins. Projected stormwater flows are summarized in **Table 3.11-17, Summary of Existing and Projected Stormwater ($Q_{100}$) Flow**. Please see **Appendix 3.11** for a complete description of storm water drainage calculation methodology.

**Table 3.11-17**
**Summary of Existing and Projected Stormwater ($Q_{100}$) Flow**

| Basin | Existing | Projected | Δ Stormwater Flow |
|---|---|---|---|
| 1 | 9.24 | 11.93 | 2.69 |
| 2 | 10.24 | 10.24 | 0.0 |
| 3 | 20.84 | 23.24 | 2.4 |
| 4 | 7.90 | 7.13 | -0.77 |
| 5 | 4.54 | 4.10 | -0.44 |
| 6 | 10.05 | 6.30 | -3.75 |
| **Total** | **62.81** | **62.94** | **+0.13** |

Source: *Hydrology and Water Quality Technical Report*, San Diego State University Plaza Linda Verde Project, May 2009.

As shown on **Table 3.11-17**, changes in stormwater flow from existing conditions to post-Project conditions would be approximately +0.13 cubic feet per second (+0.99%). While the increase is minimal, any increase in stormwater flow generated by the Proposed Project would be potentially significant. (See **Section 3.6, Hydrology and Water Quality**.) To ensure that Project site runoff does not exceed existing stormwater flows, the Proposed Project would be required to implement several low impact design ("LID") elements into the final project design. The inclusion of the design features outlined in Mitigation Measure HWQ-4 and HWQ-6 would ensure that the 0.13 cubic feet per second increase in runoff would not occur. Therefore, with implementation of the mitigation measures identified in **Section 3.6**, the Proposed Project would not require or result in the construction of new stormwater drainage facilities or the expansion of existing facilities, the construction of which may cause significant environmental effects. (Note: As part of the Proposed Project, the existing 18-inch storm drain currently located beneath Building 1 would need to be relocated to an appropriate location to accommodate the project design.)

### 3.11.5.12 Water Supply

***Would the project have insufficient water supplies available to serve the project from existing entitlements and resources, or require new or expanded entitlements?***

#### 3.11.5.12.1 Regional Supply and Demand Projections

According to the City of San Diego's *Long Range Water Resources Plan*, SANDAG has projected that the City's population will increase to 1.9 millions residents by the year 2030. (City of San Diego, 2002b.) SANDAG also calculated that the applicable water demand in 2030 would be 297,000 acre feet per year under normal weather conditions (an increase of 18 percent over 2010 projected water demand). (*Ibid.*) SANDAG's 2030 water demand projection assumes that the City would maintain an aggressive water conservation program throughout the forecasted timetable. Under dry weather conditions, 2030 water demand is projected to be 350,000 acre feet per year. (*Ibid.*) As shown in **Table 3.11-12, Existing and Projected Daily Water Demand**, at build-out, the Proposed Project would result in a projected net increase in water demand over existing uses of approximately 68,000 gallons per day, or approximately 76 acre feet per year, which represents 0.0002 percent of the total regional demand.

As previously noted, the current UWMPs prepared by the City of San Diego and San Diego County Water Authority both conclude that adequate water supplies exist for future planned development within the San Diego region through 2030. Both UWMPs utilized SANDAG's 2030 regional growth forecast for water supply planning purposes; these forecasts are based on the General and Community Plans of each of the San Diego region's 19 jurisdictions, including the City of San Diego. (SANDAG, 2009.) According to the County Water Authority UWMP, the use of demographic and economic projection data "ensures a strong linkage between local general plan land use forecasts and water demand projections for the San Diego region." (San Diego County Water Authority, 2005.)

The increase in density that would occur under the Proposed Project is consistent with the increased density envisioned by the City's General Plan, College Area Community Plan and College Area Redevelopment Plan. (See **Section 3.7, Land Use and Planning.**) By relying on locally supplied data, including growth accounted for in local general plans and community plans, the UWMPs provide an accurate assessment of water supply in relation to planned development occurring within the various jurisdictions in the San Diego region. Recognizing that the San Diego region presently is under Stage 2 Drought Alert conditions, and based on the City and County UWMPs, because the Proposed Project is consistent with the densities

envisioned for this portion of the College Area, there would be sufficient water supplies available to serve the projected water demands of the Proposed Project from existing entitlements and resources. Therefore, the potential impacts of the Proposed Project relative to water supply would be less than significant.

It also is noted that CSU policy on energy conservation and utilities management 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, 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.

#### 3.11.5.12.2 Effect of LEED Silver Rating

SDSU is committed to obtaining a LEED Silver rating for the four mixed-use retail/student housing buildings, two student apartment buildings, and parking facilities. To obtain a LEED rating, a project is assessed and given points on the basis of environmentally responsible features incorporated into the project design. A project checklist identifying applicable project features and applicable point worth has been established for the LEED for Home Ratings System. Due to multiple stories of construction, the Proposed Project would be subject to the LEED for Homes for Mid-Rise Buildings (applicable to building with 4-6 stories), which acts as an addendum to the LEED for Homes Rating System (as an addendum, most of the credits and pre-requisites for LEED for Homes still apply to the LEED for Homes Mid-Rise Building program). The LEED for Homes for Mid-Rise Buildings is currently a Pilot Program.

In order to obtain points towards a LEED Silver rating, the Proposed Project can implement a variety of water efficiency features into the project design. As identified in the LEED for Homes Rating System, water efficiency elements include features associated with water reuse, irrigation systems, and indoor water use. Applicable water reuse features may include installation of a rainwater harvesting system or a graywater reuse system. With regard to irrigation systems, LEED points can be obtained by installation of a high-efficiency irrigation system featuring elements, such as drip-irrigation, timer-controlled watering devices, and the use of high-efficiency spray nozzles. In addition, a project may obtain LEED points by reducing overall irrigation demand by at least 45 percent, which usually is achieved by the use of native, drought-tolerant landscaping. Lastly, a project may obtain LEED points by installation of very high-or high-efficiency (low-flow) fixtures and fittings to lavatory faucets, showers, and toilets. Indoor water use points also can be obtained through the installation of efficient water distribution systems and appliances. The commitment to obtaining a LEED Silver rating ensures that the Proposed Project would be designed, constructed and operated to maximize water efficiency.

### 3.11.5.13 Wastewater Treatment Capacity

***Would the project 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?***

Wastewater generated by the Proposed Project would be conveyed through the City of San Diego Metropolitan Wastewater Department's collection system and eventually treated at the Point Loma Wastewater Treatment Plant. As stated previously, the Point Loma Wastewater Treatment Plant currently treats approximately 175 million gallons of wastewater per day and has capacity to treat up 240 million gallons of wastewater per day. According to the City of San Diego General Plan Public Facilities and Services Element, the City's wastewater treatment system (which includes the Point Loma Wastewater Treatment Plant and two water reclamation plants) has sufficient capacity to meet the projected needs of the San Diego Metropolitan Wastewater Department's service area through at least 2020. (City of San Diego, 2008c.)

The projected wastewater needs of the Metropolitan Wastewater Department's service area are based on land uses identified in local planning documents, including general plans and community plans. Because the Proposed Project is consistent with the intensification of land uses outlined for the Project site in the City of San Diego General Plan, College Area Community Plan and College Community Redevelopment Plan, the Proposed Project would

not result in a determination by the wastewater treatment provider that serves or may serve the Proposed Project that it does not have adequate capacity to serve the Project demand in addition to the provider's existing commitments; therefore, impacts would be less than significant.

#### 3.11.5.14 Waste Disposal

***Would the project be served by a landfill with insufficient permitted capacity to accommodate the project's solid waste disposal needs?***

***Would the project not comply with federal, state, and local statutes and regulations related to solid waste?***

##### 3.11.5.14.1 Capacity

The Proposed Project's solid waste disposal needs would be served by Allied Waste Services, Inc. Allied Waste would transport solid waste to a nearby waste disposal facility, possibly the Miramar Landfill or Sycamore Canyon Landfill. The Miramar Landfill is nearing capacity and will likely close in 2018. According to the City of San Diego Environmental Services Department staff, as of December 31, 2008, the Miramar Landfill had a remaining capacity of approximately 22 million cubic yards. (Clay, personal communication, March 11, 2009.) When the Miramar Landfill closes, Allied Waste would be responsible for disposing the solid waste generated by the Proposed Project at a landfill in the region with sufficient permitted capacity. As of September 2006, the Sycamore Canyon landfill (located in Santee) had a remaining capacity of approximately 47 million cubic yards.

Although current estimates of remaining permitted capacity would suggest sufficient permitted capacity exists to serve the Proposed Project, the Countywide Siting Element (California Integrated Waste Management Plan) states that existing landfills do not have the necessary throughput (amount of and rate at which waste material can enter the disposal facility) to accommodate the projected waste disposal needs in the region past 2017. (County of San Diego, 2005.) The projected waste disposal needs of the region were developed using General Plan growth data obtained from jurisdictions throughout the County.

The County's Siting Element discusses several strategies for increasing or extending regional landfill capacity, including: (i) continuation of diversion programs for recyclable materials, (ii) improvement of landfill technology and space management, (iii) construction of enhanced recycling facilities, (iv) export of waste out of the County, and (v) increase of maximum daily

permitted throughput rates at County landfills. (County of San Diego, 2005.) In addition to the recommendations included in the County Siting Element, the County and all jurisdictions in the County, and state agencies (including SDSU) are expected to implement and maintain waste diversion programs to prolong the operation of County landfill facilities.

Demolition of existing buildings, excavation, and other related construction activities associated with the Proposed Project would generate construction wastes. In addition, operation of the Proposed Project would generate an increased demand for solid waste disposal services. **Table 3.11-18, Existing and Projected Annual Solid Waste Generation**, provides a summary of the anticipated solid waste generation of the Proposed Project.

**Table 3.11-18**
**Existing and Projected Annual Solid Waste Generation**

| Project Component | Waste Factor | Existing | | Projected | | Net Increase | |
|---|---|---|---|---|---|---|---|
| | | Dwelling Units/ Square footage | Annual Solid Waste Generation | Dwelling Units/ Square Footage | Annual Solid Waste Generation | Dwelling Unit/ Square footage | Annual Solid Waste Generation |
| Residential | 1.2 tons per year/ dwelling unit | 30 units | 36.0 tons/year | 390 units | 468.0 tons/year | 360 | 432 tons/year |
| Commercial/ Retail | 0.0028 tons per year/ square foot | 44,200 square feet | 123.8 tons/year | 77,209 square feet | 216.9 tons/year | 33,009 square feet | 92.4 tons/year |

1 Source: City of San Diego Environmental Services Department Waste Generation Factors, Occupancy Phase, 2003.

As shown in the table, the Proposed Project is projected to generate a net increase of 524.4 annual tons of solid waste over the existing residential and retail/commercial uses located on the Project site. Because the regional solid waste disposal landfills currently available are expected to reach capacity within the next decade and because existing throughput rates are inadequate to meet projected disposal demand beyond 2017, any increase in solid waste generation could be potentially significant. Therefore, the Proposed Project would be served by landfill(s) with insufficient permitted capacity to accommodate its solid waste disposal needs; this is a potentially significant impact.

#### 3.11.5.14.2 Compliance with Solid Waste Regulations

SDSU typically diverts over 50 percent of their yearly on-campus generated solid waste to a licensed recycling facility. The Proposed Project would be incorporated into the SDSU campus boundary. Solid waste generated from construction and operation of the Proposed Project would be subject to the existing on-campus solid waste diversion program, which historically has been successful at diverting at least 50 percent of on-campus generated solid waste from a landfill to an appropriate recycling facility. Maintaining the existing diversion rate would ensure compliance with AB 75 which requires all large state facilities to divert at least 50 percent of solid waste from landfills.

The Proposed Project would include recycling bins within the on-campus student housing and retail components of the Proposed Project. Recyclable materials would be transported to a certified recycling facility by a certified recyclable materials collector at least once per week. Therefore, the project would not impede the City's ability to implement the City's efforts to promote and enforce recycling.

In summary, the Proposed Project would comply with federal, state, and local statutes and regulations related to solid waste; therefore, impacts would be less than significant.

### 3.11.5.15 Energy

***Would the project result in the use of excessive amounts of fuel or energy?***

***Would the project result in the use of excessive amounts of power?***

#### 3.11.5.15.1 Natural Gas

**Table 3.11-19, Existing and Projected Natural Gas Use**, provides a summary of the existing natural gas usage of the residences and retail business currently located on the Project site. In addition, **Table 3.11-19** provides the calculation of projected natural gas use attributable to the Proposed Project. Natural Gas usage rates were obtained from Table A9-12-A of the South Coast Air Quality Management District's *CEQA Air Quality Handbook*. (South Coast Air Quality Management District, 1993.) As shown in **Table 3.11.3-19**, the Proposed Project would use an additional 18,876,661 cubic feet of natural gas per year when compared to the natural gas usage of existing uses located on the Project site.

**Table 3.11-19**
**Existing and Projected Annual Natural Gas Use**

| Project Component | Usage Rate | Existing | | Projected | | Net Increase | |
|---|---|---|---|---|---|---|---|
| | | Dwelling Units/Square footage | Annual Natural Gas Use | Dwelling Units/ Square Footage | Annual Natural Gas Use | Dwelling Unit/Square footage | Annual Natural Gas Use |
| Residential | 4,012 cubic feet/square foot/month | 30 units | 1,444,320 cubic feet | 390 units | 18,776,160 cubic feet | 360 units | 17,331,840 cubic feet |
| Commercial/Retail | 2.9 cubic feet/square foot/month | 44,200 square feet | 598,910 kilowatt hours | 77,209 square feet | 1,046,182 kilowatt hours | 33,009 square feet | 1,544,821 cubic feet |

Note: Since usage rates are given in a per month format, annual natural gas use was calculated by first multiplying the dwelling unit/square footage data by the applicable usage rate and then multiplying by 12 (12 months in a year).

As previously discussed, the campus currently consumes approximately 9.5 millions therms of natural gas on an annual basis. (Martin, personal communication, March 17, 2009.) Based on the data provided in **Table 3.11-19**, the Proposed Project would use approximately 188,766 therms per year (one therm equals 100 cubic feet), or approximately two percent of the current average annual natural gas consumption of the entire campus. Therefore, the Proposed Project would not result in the use of excessive amounts of natural gas and impacts would be less than significant.

Natural gas would be delivered to the Project site via the existing natural gas distribution system in the Project vicinity. Buildings 1 and 3 would be served from the existing, 1 ½-inch high pressure gas main located along Lindo Paseo, Buildings 2 and 5 would be served from the existing, 6-inch high pressure gas main located along College Avenue, Building 4 would be served from the existing, 2-inch high pressure main located east of the proposed building, and Buildings 6 and 7 would be served from the existing, 2-inch high pressure gas main located along the alley off of Campanile Road, between Montezuma Road and Lindo Paseo. According to SDGE, the existing natural gas pipelines (which are owned, managed, and maintained by SDGE) are sized adequately to accommodate the Proposed Project's natural gas demands (P2 S Engineering, pers. comm.) Therefore, the Proposed Project would not result in potentially significant impacts to the natural gas distribution system.

### 3.11.5.15.2 Electricity

**Table 3.11-20, Existing and Projected Annual Electricity Use**, provides a summary of the existing energy use of the residences and retail businesses currently occupying the Project site. In addition, **Table 3.11-20** calculates the projected annual electricity use attributable to the Proposed Project. Electricity usage rates were obtained from Table A9-11-A of the South Coast Air Quality Management District's *CEQA Air Quality Handbook*. (South Coast Air Quality Management District, 1993.)

**Table 3.11-20**
**Existing and Projected Annual Electricity Use**

| Project Component | Usage Rate | Existing | | Projected | | Net Increase | |
|---|---|---|---|---|---|---|---|
| | | Dwelling Units/Square footage | Annual Electricity Use | Dwelling Units/ Square Footage | Annual Electricity Use | Dwelling Unit/Square footage | Annual Electricity Use |
| Residential | 5,914 kilowatt hours/square foot/year | 30 units | 177,420 kilowatt hours | 390 units | 2,306,460 kilowatt hours | 360 units | 2,129,040 kilowatt hours |
| Commercial/ Retail | 13.55 kilowatt hours/square foot/year | 44,200 square feet | 598,910 kilowatt hours | 77,209 square feet | 1,046,182 kilowatt hours | 33,009 square feet | 447,272 kilowatt hours |

As shown in the table, the Proposed Project would use an additional 2,576,312 kilowatt hours of electricity per year when compared to the electrical usage of existing uses located on the Project site. Electricity to the Project would be provided by the SDSU Central Plant, which produces approximately 77 million kilowatt hours of electricity per year. Based on the annual production potential of the on-campus plant, 2,576,312 kilowatt hours per year (approximately 3.34 percent of the annual electricity generation of the SDSU Central Plant) would not be considered an excessive amount of electricity, and impacts would be less than significant.

### 3.11.5.15.3 SDSU Policies and Programs

As previously noted, SDSU has numerous energy efficiency programs presently in place on campus. The Proposed Project would incorporate measures and programs already in place at

existing residential halls and other on-campus building. Similarly, the Proposed Project would be required to comply with the system-wide CSU Policy Statement on Energy Conservation, Sustainable Building Practices and Physical Plant Management (Executive Order No. 917). Per Executive Order 917, the Proposed Project would be required to operate in the most energy efficient manner possible and construction of the Proposed Project would be designed with consideration of optimum energy utilization.

Further, SDSU is committed to obtaining a LEED Silver rating for the Proposed Project. In order to obtain points towards a LEED Silver rating, the Project can implement a variety of energy and atmosphere features into the project design. According to the U.S. Green Building Council, the LEED energy and atmosphere topic specifically addresses efficiency in energy-related systems including heating, ventilation, air conditions and refrigeration systems, domestic hot water systems and renewable energy systems (daylight and lighting controls are also included as part of the topic). (U.S. Green Building Council, http://www.usgbc.org/DisplayPage.aspx?CategoryID=19, accessed June 3, 2009.) Design features the Proposed Project can implement to receive LEED points towards a Silver rating include:

- Meeting the performance requirements of Energy Star for Homes;
- Designing and installing insulation to minimize heat transfer and thermal bridging;
- Minimizing uncontrolled duct air leakage into and out of conditioned spaces;
- Maximizing the energy performance of windows by installing windows that meet or exceed the window requirements of the Energy Star for Homes standard;
- Designing and installing Efficient Hot Water Distribution systems per the applicable LEED guidelines;
- Installing Energy Star labeled light fixtures or compact fluorescent light bulbs in high-use rooms; and
- Installing Energy Star appliances including refrigerators, ceiling fans, dishwashers, and clothes washers.

Compliance with the existing energy efficiency policies and conservation programs already in place on campus and LEED objectives would help reduce the Proposed Project's electricity demands.

Relatedly, an approximate 700-foot length of an existing electrical line running north-south and located east of proposed Buildings 4 and 5 would be relocated by SDSU in order to accommodate the Proposed Project. SDSU would coordinate with SDGE to ensure that relocation efforts would not result in electrical service disruptions to the surrounding community. Energy-related impacts generate by the Proposed Project would therefore be less than significant.

## 3.11.6 CUMULATIVE IMPACTS

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

## 3.11.7 MITIGATION MEASURES

The following mitigation measures are proposed to minimize the identified potential impacts to public utilities and service systems. With the implementation of mitigation, all potential impacts would be reduced to less than significant.

**PSF-1** Prior to occupancy of the Plaza Linda Verde Project, CSU/SDSU shall pay applicable City of San Diego water supply infrastructure connection fees and applicable fair-share capital facilities fees consistent with Government Code section 54999.3, to the extent the payment of such fees is made necessary by the Proposed Project.

**PSF-2** Prior to occupancy of the Plaza Linda Verde Project, CSU/SDSU shall pay applicable City of San Diego sewer infrastructure connection fees and applicable fair-share capital facilities fees consistent with Government Code section 54999.3, to the extent the payment of such fees is made necessary by the Proposed Project.

**PSF-3** During construction of the Plaza Linda Verde Project, CSU/SDSU, or its designee, shall dispose of all recyclable demolition waste products at a construction waste recycling facility. Following occupation of the Proposed

Project, CSU/SDSU, or its designee, shall maintain an active recycling program to reduce solid waste generated by the project.

### 3.11.8 LEVEL OF SIGNIFICANCE AFTER MITIGATION

Implementation of the proposed mitigation measures would reduce the potentially significant impacts to public services and utilities to a level of below significant.