4.11 Public Services

This section characterizes existing and proposed demand for public services and evaluates changes to the physical environment that may result from the expansion of such services under the 2007 LRDP. The analysis that follows evaluates the on-campus population increases under the 2007 LRDP and the associated demand for public services on- and off-campus, and including police and fire, which could be provided by the campus and/or by the City of Irvine. Existing public services on campus are described below in the Environmental Setting to provide a context for the impact analysis. Effects associated with recreation services, such as parks, are evaluated in Section 4.12, Recreation; effects associated with telecommunications infrastructure and the capacity of the domestic water system to provide adequate fire protection are evaluated in Section 4.14, Utilities and Service Systems; and impacts related to emergency access are analyzed in Sections 4.6, Hazards and Hazardous Materials, and 4.13, Transportation, Traffic, and Parking.

4.11.1 Environmental Setting

4.11.1.1 UCI Emergency Management Plan

UCI has prepared an Emergency Management Plan that addresses the campus community's planned response to various levels of human-caused or natural emergency situations including fires, hazardous spills, earthquakes, flooding, explosion, and civil disorders. The purpose of the Plan is to provide information that will save lives during extraordinary emergency events and hasten the resumption of normal campus operations during the recovery process. An effective organizational emergency response depends on an informed campus community containing members who are familiar with campus procedures and understand their personal responsibility for emergency preparedness and response.

Upon declaration of an emergency, the Incident Management System (IMS) is immediately instituted. The IMS is a system that provides for clear command, control, and effective resource management during an emergency. Overall management of the event under the Incident Management System would be centralized in an Emergency Operations Center (EOC). The primary role of an EOC is to bring together all relevant information about the emergency into one place, organize that information into a useful format and facilitate the coordination of resources needed to respond to the emergency. The EOC Manager has the responsibility and authority to direct all EOC activity and is responsible for overall emergency policy and coordination of UCI actions with federal, state, and local agencies.

The EH&S Department provides a flip chart which provides simple procedures for the university community to following in case of an emergency. This flipchart provides procedures for such emergencies as civil disturbance, violence or crime in progress, airplane crash, suspicious package/mail, hazardous material incident, bomb threat, fire, and earthquake.

4.11.1.2 Fire Protection

UCI Fire Prevention

UCI does not have its own fire department, and relies on the Orange County Fire Authority to respond to all applicable emergencies. However, the campus employs a Fire Marshal and staff who are responsible for campus-wide fire prevention. The Fire Marshal and staff provide services such as plan review and construction inspections of new construction as well as alterations or renovations to existing buildings and facilities. Plan review and construction inspections are performed in accordance with California
building and fire codes. The Fire Marshal also issues permits for special events, such as concerts, or activities involving large groups.

The Fire Safety Division for the UCI campus, a program within the EH&S Department, conducted an analysis of the types of ignition sources and buildings involved that resulted in fires from March 2000 to May 2006. According to the analysis during the 6-year period, the majority of the fires on the UCI campus were chemical and electrical-caused fires. The rest of the fires on campus were caused by arson, candles, hydrogen gas, mechanical, welding, or smoking related fires. Fifty percent of the fires occurred in laboratory buildings and 25 percent occurred in residence halls. The remainder occurred on construction sites, in administration and assembly buildings, in a parking structure, at a parking lot, and in a storage bin.

When new development, redevelopment, or site improvements occur on campus, UCI is responsible for amending the campus emergency access route map to ensure that adequate fire protection equipment access is maintained on campus at all times. In addition, as part of site improvements associated with development, UCI is responsible for ensuring that the water supply for fire hydrants meets fire flow standards.

**Orange County Fire Authority**

The Orange County Fire Authority (OCFA) is one of the largest regional fire organizations in California and is responsible for responding to emergencies that occur on the UCI campus. OCFA provides fire prevention/suppression and emergency services to 23 jurisdictions (cities) including unincorporated areas and operates 60 fire stations, including seven fire stations within the City of Irvine. OCFA is responsible for protecting 511 square miles, including 178,000 acres of wildland, and more than 1.3 million residents. The policy of OCFA for fire protection and emergency services in Irvine, including the UCI campus, is a 5-minute travel response time for 80% of fire and basic life safety incidents in urban areas. For advance life support incidents, units shall be located and staff shall be available within an 8-minute travel response time, 80% percent of the time.

Fire Station #4, located just north of the campus and University Town Center on the corner of California and Harvard Avenues, is the primary responder that serves the UCI main campus. Fire Station #4 was built in 1966 and there are no plans for expansion. According to an analysis conducted by OCFA in November 2006 (OCFA 2006), this station has adequate capacity to accommodate existing demand on the main campus. The capacity of service for Station #4, as determined by OCFA, is approximately 3,500 calls per year. During 2005, UCI generated 664 calls. The total 2005 call volume for Station #4 was approximately 2,100 calls, of which UCI’s 664 calls accounted for 32 percent of Station #4 calls. The adjacent areas (e.g., University Town Center) generated an additional 372 calls. Therefore, approximately 50 percent of the calls within Fire Station #4's service area are located on or adjacent to the UCI campus. The 80% travel response time in 2005 for Station #4 is 5 minutes 27 seconds at the UCI main campus (OCFA 2007).

The UCI North Campus is within the service area of Fire Station #28, located west of the Main Street and Jamboree Road intersection. The 80% travel response time in 2005 for Station #28 exceeds 5 minutes in the vicinity of the UCI North Campus (OCFA 2007). As a result of projected regional growth, in particular the projected increase in higher density residential areas north of UCI in the Irvine Business Complex (IBC), OCFA is conducting feasibility studies to locate a site for a new fire station in the vicinity of IBC/UCI North Campus.
Fire Station #4 staffs three Battalion Chiefs, six Captains, six Engineers, and 15 firefighters and operates Battalion 5, Engine 4, Truck 4, MedEvac 4, and Hazmat 4 apparatuses. A Battalion Chief is a staff officer who serves as the incident commander on the scene of fire and medical incidents and has authority over equipment on scene and will respond with both lights and siren to the scene of incidents. The Battalion Chief’s vehicle is a utility vehicle (Battalion 5) configured to serve as an incident command post. Engine 4 is a pumper that typically carries 500 gallons of water, hoses, pumps, and 48 feet of ground ladders. The primary task of a fire engine crew is search and rescue, which requires locating, confining and extinguishing fires and, when warranted, responding to 911 medical incidents. Fire engines are frequently responding to both fire and medical incidents. Truck 4 is a mobile piece of fire equipment which carries a full complement of ladders, including a long (70' to 100') chassis mounted aerial ladder, ground ladders, and other various equipment. In addition, the engine also carries specialized rescue and salvage equipment. Medivac 4 is an ambulance type vehicle staffed with two certified paramedics. This unit carries a full complement of paramedic equipment and is used to transport patients under extreme conditions or when fire personnel are injured. Hazmat 4 is a vehicle used to respond to hazardous material incidents. Firefighters operating this type of vehicle are specially trained in hazardous material response.

4.11.1.3 POLICE SERVICES

Pursuant to California Education Code Section 67381, the UCI Police Department and the Irvine Police Department (IPD) have adopted and signed, as of June 29, 1999, a written agreement that clarifies and affixes operational responsibilities for the investigation of violent and non-violent crimes occurring on UCI property. The agreement recognizes the UCI Police Department as the primary reporting and investigating law enforcement agency for all crimes occurring on campus, including Part I violent crimes such as homicide, forcible rape, robbery, and aggravated assault. UCI Police Department has primary jurisdiction over all UCI-administered properties and University leased properties located outside of established campus boundaries. IPD is recognized as the primary reporting and investigating agency for crimes that have occurred in the City of Irvine. However, both agencies continue to provide mutual aid assistance as appropriate, and when requested.

UCI Police Department

UCI provides its own police service for the UCI campus. The UCI Police Department is empowered pursuant to Section 830.2 (b) of the California Penal Code and fully subscribes to the standards of the California Commission on Peace Officer Standards and Training (POST). There are 30 sworn officers, 11 full-time non-sworn dispatchers and administrative workers, and 20 part-time student workers in the department. The 30 sworn police officers are armed and possess the same authority under the law as municipal police officers. UCI Police Officers have peace officer authority anywhere in the State of California. They receive the same basic training as city and county peace officers throughout the state, plus additional training to meet the unique needs of a campus community environment.

The UCI Police Department has no published performance objectives for police protection such as service ratios or response times; however, according to the 2005 Annual Report and Crime Statistics, UC campuses have a general goal of one police officer for every 1,000 persons in the population. UCI’s 2005-06 population was approximately 30,618 students, faculty, and staff, as shown in Table 3-1. Therefore, because 30 sworn officers are in the department, the UCI Police Department meets the general goal of acceptable levels of service.

Within the UCI Police Department, there are six divisions serving the campus including communications, community service officers, crime prevention, patrol officers, investigations, and records/administration. The department handles all patrol, investigation, crime prevention education, and related law enforcement duties for the campus community and operates 24 hours a day, seven days a week. The UCI Police
4.11 Public Services

Department is located in the Public Services Building on the East Campus and provides immediate response to all police, fire, and medical emergencies. The UCI Police Department also provides fingerprinting services, report copies upon request, and lost and found. On-campus accidents involving automobiles and bicycles are investigated by the UCI Police Department.

The University of California publishes an annual summary of criminal activity that includes all UC campuses (\textit{Annual Report and Crime Statistics}). This report identified a total of 26 Part I violent crimes and 499 Part I property crimes, including burglary, larceny, motor vehicle theft, and arson at UCI in 2005. Part I crimes committed at UCI in 2005 declined 25\% from those committed in 2004. Over 800 Part II crimes, including fraud, stolen property, vandalism, drug abuse violations, DUI, and disorderly conduct, occurred at UCI in 2005. Comparative data from previous years are not available due to a change in the reporting format.

\textbf{City of Irvine Police Department}

In 2003, the Irvine Police Department implemented geographic policing by dividing the city into three areas. Area commanders and staffing were assigned to each of the three areas with a team of patrol officers, traffic officers, detectives, civilian service officers, civilian traffic officers, school resource officers and crime prevention officers. The geographic area that includes and surrounds the UCI campus is known as the University Area. The University Area employs 32 full-time officers and 5 civilian staff members dedicated to serving the UCI campus and the communities of Rancho San Joaquin, Turtle Rock, University Park, University Town Center, Quail Hill, Shady Canyon and Turtle Ridge. The University Area is bordered by the I-405 on the north, SR-133 on the east, and SR 73 on the south. The University Area also includes the Irvine Business Complex (IBC) which is bordered by the San Diego Creek on the east, Barranca Parkway on the north, SR-55 on the west, and MacArthur Boulevard on the south.

The Irvine Police Department rarely responds to on-campus calls for police services. As discussed above and outlined in the 1999 Police Services Agreement, the UCI Police Department has primary jurisdiction over crimes that occur on UCI-owned property and would be the first to respond to any on-campus situation.

\textbf{4.11.1.4 SCHOOLS}

The Irvine Unified School District (IUSD) provides kindergarten through 12\textsuperscript{th} grade school services for the majority of the City’s residential neighborhoods. As of September 2006, the IUSD educates a student population numbering over 24,000 with 22 elementary schools, 5 middle schools, 4 comprehensive high schools, and 1 continuing high school. The Tustin Unified School District (TUSD) serves residents that live in the western and northern areas of Irvine. The TUSD has 18 elementary schools, 5 middle schools, 4 comprehensive high schools, and 1 continuing high school. The UCI North Campus residential area is located within the boundaries of the Santa Ana Unified School District (SAUSD). There are no SAUSD schools located within the vicinity of the North Campus available to serve children living in this area. As a result most children living in City of Irvine residential areas surrounding the North Campus attend IUSD schools through a petition process.

Demand for kindergarten through 12\textsuperscript{th} grade public education facilities generated by the UCI on-campus population is associated primarily with married student, faculty, and staff households. As of November 2006, approximately 563 school-age children were living on the UCI campus in faculty/staff or graduate and family student housing. Approximately 75 percent of those children were connected to faculty and staff, while children of UCI students accounted for approximately 25 percent. Approximately 60 percent of the school-age children were in kindergarten through 6\textsuperscript{th} grades, 15 percent in 7\textsuperscript{th} or 8\textsuperscript{th} grades, and 25 percent in 9\textsuperscript{th} – 12\textsuperscript{th} grades.
The children living on campus would likely attend schools in the vicinity of UCI. University Hills, Verano Place Apartments, and Palo Verde Apartments would be served by Turtle Rock Elementary School (K-6), Vista Verde (K-8, year-round), Rancho San Joaquin Middle School (7-8), and University High School (9-12). However, students who live within the IUSD attendance boundaries may enroll in any school within the district on a space available basis. In the IUSD, the average size of an elementary school is 700 students, a middle school is 900 students, and a high school is 2,200 students. The maximum enrollment at an elementary school is 1,000 students, a middle school is 1,200 students, and a high school is 2,400 students. As of September 18, 2006, all of these schools are open to other students within the IUSD attendance boundaries, with the exception of the 1st and 5th grades at Turtle Rock Elementary. Therefore, attendance at these schools is below capacity.

It is not known how many students, faculty, and staff that live off campus have children; however, based on the 2003 Census, California averages 1.01 children (under the age of 18) per family. This ratio is likely to be lower for the UCI-related student population because it is comprised mostly of single students without children. Kindergarten through 12th grade students living in off-campus households would typically attend the schools designated for their area by the school district. The distribution of the students, faculty, and staff living off campus, provided in Section 4.10, provides some insight as to which areas of Orange County could receive kindergarten through 12th grade students associated with UCI related populations.

4.11.1.5 Parks and Other Public Services

Refer to Section 4.12, Recreation, for a discussion of on- and off-campus open space and parks. No other public services were identified in the 2007 LRDP that are relevant to the analysis in this EIR.

4.11.2 Regulatory Framework

4.11.2.1 State

State Fire Regulations

State fire regulations are set forth in Sections 13000 et seq. of the California Health and Safety Code, which include regulations concerning building standards (as also set forth in the California Building Code), fire protection and notification systems, fire protection devices such as extinguishers and smoke alarms, high-rise building and childcare facility standards, and fire suppression training. The State Fire Marshal enforces these regulations and building standards in all state-owned buildings, state-occupied buildings, and state institutions throughout California, including the University of California. The UCI Fire Marshal has been delegated the responsibility of enforcing the fire regulations and building standards on the UCI campus.
4.11.3 PROJECT IMPACTS AND MITIGATION

4.11.3.1 ISSUE 1 – FIRE PROTECTION

Public Services Issue 1 Summary

Would implementation of the 2007 LRDP have a substantial adverse physical impact on maintaining acceptable service ratios, response times, or other performance objectives for fire protection that would require the provision of new or altered facilities?

**Impact:** Implementation of the 2007 LRDP would not impact the service capacity of Fire Station #4, but would increase demand at Fire Station #28, along with other regional growth in the vicinity, to a level that would require new facilities or substantial alterations to existing facilities; however, this is considered a cumulative impact and is addressed in Section 4.11.4.

**Mitigation:** No mitigation is required.

**Significance Before Mitigation:** Less than significant.

**Significance After Mitigation:** Not applicable.

Standards of Significance

Based on Appendix G of the CEQA Guidelines, implementation of the 2007 LRDP may have a significant adverse impact if the demand for fire capacity would 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 fire protection.

Impact Analysis

On-Campus Demand for Fire Services

The 2007 LRDP would result in an increase of approximately 39 percent in the on-campus population of students, faculty, and staff by 2025, compared to the 2005-06 on-campus population. Assuming that the increase in call generation for fire protection services would be equivalent to the increase in campus population, the number of calls for such services can be expected to increase by approximately 39 percent. Therefore, the projected call volume from UCI would increase by an estimated 259 calls, for a total of 923 estimated annual UCI calls for fire protection services. Added to the existing call volume, the total projected call volume would be an estimated 3,023 calls, which would be within the determined Station #4 capacity of 3,500 calls for fire protection services. Therefore, Fire Station #4 would be able to accommodate the increased demand for fire protection services at the UCI main campus, and implementation of the 2007 LRDP is not anticipated to increase demand at Fire Station #4 to a level that would require new facilities or substantial alterations to existing facilities that would result in adverse impacts on the physical environment.

As stated in Section 4.11.1.2, the 80% travel response time for Fire Station #28 already exceeds OCFA’s 5-minute response threshold at the UCI North Campus. Therefore, any development on the North Campus would increase demand at this fire station, along with other regional growth in the vicinity, to a level that
would require new facilities or substantial alterations to existing facilities. However, this is considered a cumulative impact, and is addressed in Section 4.11.4.

Laboratory space is anticipated to increase under the 2007 LRDP; however, the construction of these facilities would adhere to applicable safety and fire protection regulations. As of June 2007, the engineering and science buildings comprise approximately 3,103,000 gsf of space on campus. The 2007 LRDP proposes an increase in engineering, science, and research and development space to approximately 7,444,000 gsf, for an increase of approximately 4,341,000 gsf. Accordingly, it was assumed that the laboratory chemical usage would increase by approximately 140 percent by 2025-26. Because the laboratory space would be constructed in accordance with fire protection regulations, it is anticipated that these additional spaces would not greatly increase the demand of fire protection services.

Further, the campus Fire Marshal reviews and approves all development plans to ensure adequate fire access, as well as fire prevention, for each new project in accordance with California building and fire codes. The campus would also continue to implement the UCI Emergency Management Plan, which addresses the campus community’s planned response to emergency situations, including fire, and emergency access on the campus. Further, the UCI Fire Marshal and his or her staff would continue to implement campus-wide fire prevention programs. These actions, mandated by state and federal law, would limit the number of incidents requiring the Orange County Fire Authority to respond to on-campus calls. The control of on-campus demand for fire services would reduce the need for new off-campus fire facilities or expansions of existing facilities. Therefore, impacts to the physical environment associated with providing these fire services would be less than significant.

Off-Campus Demand for Fire Services

Increases in off-campus population associated with the implementation of the 2007 LRDP would result in an increase in the demand for off-campus housing (see Section, 4.10, Population and Housing for more information concerning this topic), which in turn would result in increased demand for fire service. However, as concluded in the Population and Housing section there would be a less than significant direct and indirect population growth impact to the region from the 2007 LRDP. Furthermore, this impact is described as occurring on a small incremental basis throughout the region. The increased population from implementation of the LRDP would not be great enough to trigger the construction of new fire protection facilities. Therefore, no significant physical impact associated with the provision of fire service for housing in the region would occur because of the 2007 LRDP.

Mitigation Measures

The 2007 LRDP would have a less than significant impact on fire protection services; therefore, no mitigation measures are required.
4.11.3.2 **ISSUE 2 – POLICE PROTECTION**

**Public Services Issue 2 Summary**

*Would implementation of the 2007 LRDP impact maintenance of acceptable service ratios, response times, or other performance objectives for police protection that would require the provision of new or altered facilities, the construction of which could cause an adverse physical environmental effect?*

**Impact:** As campus population increases as a result of implementation of the 2007 LRDP, UCI would increase the number of officers within the UCI Police Department, which may require the construction of additional police service facilities, which would undergo environmental review.

**Mitigation:** No mitigation is required.

**Significance Before Mitigation:** Less than significant.  
**Significance After Mitigation:** Not applicable.

**Standards of Significance**

Based on Appendix G of the CEQA Guidelines, implementation of the 2007 LRDP may have a significant adverse impact if the demand for police capacity would 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 police protection.

**Impact Analysis**

**On-Campus Demand for Police Services**

Under the 2007 LRDP, the UCI Police Department would continue to have primary jurisdiction over all UCI administered properties and have enforcement capabilities on all University-leased property located off-campus. Increases in campus population and activities associated with the implementation of the 2007 LRDP could result in an increased demand on police services on the campus. UCI's campus population in 2005-06 was 23,155 students and 7,463 faculty and staff, for a total campus population of 30,618. The UCI Police Department employs 30 sworn officers. Based on the general goal of one officer per 1,000 people in the population, the UCI Police Department meets the general goal of acceptable levels of service. Under the 2007 LRDP, the student and faculty and staff populations would grow to approximately 35,324 and 11,443, respectively, for a total of 46,767. This growth would require an additional 16 officers by 2025-26. However, the one officer per 1,000 people is a general goal and the police department bases its staffing needs on a number of factors such as campus population, calls for service, activity levels, and crime levels. As a result, as the campus population grows, the UCI Police Department would hire additional police officers to serve the community. Therefore, because the UCI Police Department would hire additional officers as needed in accordance with UC policies, there would be no impact to police services due to an increase in campus population.

The increase in officers may impact the capacity of existing facilities and resources. The Public Services Building, which houses the UCI Police Department, was recently remodeled. With the current configuration, the existing facility is expected to be adequate through 2012. The horizon year of the 2007 LRDP is 2025-26. With the growth of the UCI Police Department in response to the growth in campus population, expansion and renovation of the existing facilities or construction of a new facility may be
required. Such a project would be subject to the requirements of CEQA, which would evaluate the physical environmental effects of the project and mitigate any adverse impacts. Therefore, because the 2007 LRDP does not specifically delineate further expansion of this building or the construction of an additional building and because any future plans for such construction would be evaluated in accordance with CEQA requirements, there would be no physical impact on the environment as a result of construction of new police services facilities or the expansion of existing police facilities.

Off-Campus Demand for Police Services

Increases in off-campus population associated with the implementation of the 2007 LRDP would result in an increase in the demand for off-campus housing (see Section, 4.10, Population and Housing for more information concerning this topic), which in turn would require police service. However, the Population and Housing section concludes that there would be a less than significant direct and indirect population growth impact to the region from the 2007 LRDP. Furthermore, this impact is described as occurring on a small incremental basis throughout the region with the majority of the campus population, including students, faculty, and staff, living in new or existing homes in a variety of off-campus locations in Orange County. These homes would be served by jurisdictions that provide police service that has already been accounted for in the development and operation of police protection service in those communities. Hence, the demand for police protection follows the demand for housing, rather than increased 2007 LRDP population. Police protection facilities would be provided for these households through property taxes and developer agreements and other general fund revenue sources for the jurisdictions providing the police service. This incremental effect within the various jurisdictions that provide police service would not be great enough to trigger the construction of new police protection facilities. Therefore, no significant physical impact associated with the provision of police service for housing in the region would occur because of the 2007 LRDP.

Mitigation Measures

The 2007 LRDP would have a less than significant impact on police services; therefore, no mitigation measures are required.

4.11.3.3 ISSUE 3 – PUBLIC SCHOOLS

Public Services Issue 3 Summary

Would implementation of the 2007 LRDP result in impacts associated with maintaining acceptable service ratios or other performance objectives for schools that would require the provision of new or altered facilities, the construction of which could cause an adverse physical environmental effect?

Impact: The increase of school-age children living on-campus as a result of implementation of the 2007 LRDP would not require the construction of additional schools because the increase attributable to the 2007 LRDP would be a small proportion to the number of children enrolled in the Irvine Unified School District.

Mitigation: No mitigation is required.

Significance Before Mitigation: Less than significant. Significance After Mitigation: Less than significant.

Standards of Significance

Based on Appendix G of the CEQA Guidelines, implementation of the 2007 LRDP may have a significant impact if the demand for school capacity would result in a substantial adverse physical impact
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 or other performance objectives for public schools.

**Impact Analysis**

**On-Campus Demand for Schools**

The implementation of the 2007 LRDP would result in an increase in the UCI campus population, including students, faculty, and staff. Some of the new students, faculty, and staff would live on campus and have school-aged children that would create additional demand for local public school seating capacity.

The 2007 LRDP proposes an approximately additional 6,000 beds for upper division undergraduate and graduate student housing on East Campus and an additional 232 to 682 dwelling units for faculty and staff. Assuming that approximately 75% of the 563 school-age children living on the UCI campus are associated with faculty and staff, 422 are estimated to live in faculty and staff housing, which totals 1,018 dwelling units. The 2007 LRDP plans to add an additional 232 to 682 dwelling units of faculty and staff housing. Using the 2005-06 ratio of school-age children to dwelling units, the additional faculty and staff housing is estimated to generate an additional 96 to 283 school-age children. Likewise, approximately 141 school-age children live in graduate student housing, which has 1,514 dwelling units. The 2007 LRDP proposes to build an additional 600 dwelling units of married and graduate students. Using the 2005-06 ratio of school-age children to dwelling units, the additional graduate student housing is estimated to generate approximately 56 additional school-age children. Considering faculty/staff and graduate student housing, a total of approximately 152 to 339 additional school-age children could be expected to reside on-campus by 2025-26.

The 1989 LRDP allocated land for an IUSD school to be located on-campus to serve campus and community needs. As a result of decreasing district-wide demand and the IUSD decision to construct the new Vista Verde School immediately south of the UCI campus, UCI and IUSD determined that an on-campus public school site was not required, therefore the school site is no longer included in the LRDP. UCI faculty/staff housing development projects pay school fees to support local school construction and operations.

When compared to the over 24,000 students which already attend the IUSD, the additional 152 to 339 generated by the 2007 LRDP, distributed throughout the district through open enrollment, is a less than significant number of new students that may not even be perceivable within the yearly fluctuations of student enrollment. In addition, two elementary schools and two middle schools in IUSD are planned over the next several years. It is likely that public school demand generated by existing faculty and staff housing will decline as the population matures, consistent with other established communities in Irvine. Therefore, the increase in school-age children living on-campus is considered less than significant with regard to off-campus grade school facilities.

**Off-Campus Demand for Schools**

As discussed in Section 4.10, Population and Housing, although the 2007 LRDP is responding to the growth of California, minor increases in the population of the surrounding communities could be attributed to its implementation due to its contribution to the local job market. School-age children of these new UCI faculty, staff, and students may enroll in regional public schools, creating additional demands for public school seating capacity. However, as discussed above, it is unlikely that any
additional enrollment attributed to the 2007 LRDP would result in the need for new facilities or substantial alterations that would result in adverse physical impacts. In addition, the majority of the campus population, including students, faculty, and staff, would live in new or existing homes in a variety of off-campus locations in Orange and Los Angeles Counties. These homes would be served by school districts, which provide school service that has already been accounted for in the development and operation of schools serving those communities. Hence, the demand for schools would follow the demand for housing, rather than increased UCI population. School facilities would be provided for these households through school fees collected, property taxes, and developer agreements.

Mitigation Measures
The 2007 LRDP would have a less than significant impact on schools; therefore, no mitigation measures are required.

4.11.4 CUMULATIVE IMPACTS AND MITIGATION

<table>
<thead>
<tr>
<th>Public Services Cumulative Issue Summary</th>
</tr>
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<tbody>
<tr>
<td>Would implementation of the 2007 LRDP have a cumulatively considerable contribution to a cumulative public services impact considering past, present, and probable future projects?</td>
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<thead>
<tr>
<th>Cumulative Impact</th>
<th>Significance</th>
<th>LRDP Contribution</th>
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<tbody>
<tr>
<td><strong>Fire Protection:</strong> Construction of new fire protection facilities would undergo environmental review to address impacts to the physical environment.</td>
<td>Less than significant.</td>
<td>N/A</td>
</tr>
<tr>
<td><strong>Police Protection:</strong> Construction of new police protection facilities would undergo environmental review to address impacts to the physical environment.</td>
<td>Less than significant.</td>
<td>N/A</td>
</tr>
<tr>
<td><strong>Public Schools:</strong> Construction of new public schools would undergo environmental review to address impacts to the physical environment.</td>
<td>Less than significant.</td>
<td>N/A</td>
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4.11.4.1 FIRE PROTECTION
The geographic context for the analysis of cumulative impacts resulting from demand for fire protection services is the City of Irvine region that includes the UCI campus, IBC, and John Wayne Airport (JWA) area, where the fire protection facilities that may serve the campus are located. Regional projects that would impact OCFA's ability to adequately serve this area include an expansion at JWA, numerous residential development projects proposed in the IBC, implementation of UCI's 2007 LRDP, and other regional development. As discussed above in Section 4.11.3.1, the 2007 LRDP is expected to increase call volume at Station #4 by 39 percent (259 service calls). The expansion of JWA and the development of the IBC are expected to increase call volumes to Fire Stations #4 and #28 by 55 percent and 200 percent, respectively. OCFA estimates that at buildout of these projects, both of these fire stations would both experience times of excessive demand, impacting OCFA's ability to maintain acceptable performance levels. As a result of this regional increase in call volume, OCFA is considering the construction of a new fire station in the vicinity of the IBC/UCI North Campus, and has initiated the site selection process and budget process for a new station in consultation with the City, UCI, and private landowners in the vicinity. Therefore, as a result of the increase in regional demand for fire protection services, a new OCFA fire station may be constructed which could result in adverse physical impacts to the environment.
According to the OCFA, the planned fire station would be located on a site of approximately one acre in size and would include the construction of an approximately 9,000-square-foot building. Physical adverse impacts associated with the construction of a fire station would include short-term construction-related noise, air quality, and water quality impacts, and long-term operational impacts such as water quality, utility demand, and other physical impacts. As with other development projects and public service improvements in the region, the construction of a new fire station would be subject to CEQA review and compliance with local, state and federal environmental requirements related to water quality, noise, and other factors. OCFA would conduct an environmental analysis and require appropriate mitigation measures to reduce impacts to the physical environment. As a result, the adverse physical impacts resulting from construction and operation of a new fire station to serve cumulative regional demand would be less than significant.

4.11.4.2 Police Protection

The geographic context for the analysis of demand for police protection service cumulative impacts is the City of Irvine near the UCI campus, where the facilities that may serve the campus are located. Due to a projected increase in population growth, it can be assumed that additional police officers and police stations would be required to serve the growing Orange County population. These new facilities would result in adverse physical impacts to the environment. Therefore, because of the cumulative increased demand for police protection services, new police stations would be constructed which could result in adverse physical impacts to the environment.

However, as with other development projects and public service improvements in the region, the construction of new police service facilities would be subject to CEQA review and compliance with local, state and federal environmental requirements related to construction and operational impacts to the physical environment. As a result, the adverse physical impacts resulting from construction and operation of new police service facilities to serve cumulative regional demand would be less than significant.

4.11.4.3 Public Schools

The geographic context for demand for schools is the IUSD, which provides public school service for the UCI campus. The cumulative projects located in this area that could contribute public school age children to the IUSD schools in the vicinity of the campus are residential projects that would increase housing units in accordance with the applicable community plans. As discussed above in Section 4.11.3.3, current trends suggest that the IUSD system school capacity would increase in future years due to planned improvements as well as overall enrollment projections. New school facilities would result in adverse physical impacts to the environment. Therefore, because of the cumulative increased demand for public schools, new schools would be constructed which could result in significant cumulative impacts to the physical environment.

However, as with other development projects and public service improvements in the region, the construction of new public schools would be subject to CEQA review and compliance with local, state and federal environmental requirements related to construction and operational impacts to the physical environment. As a result, the adverse physical impacts resulting from construction and operation of new public schools to serve cumulative regional demand would be less than significant.

4.11.5 References


Monsanto, Steve, Administrative Sergeant, UCI Police Department. Personal communication via email to Kate Sanden, PBSJ. October 5, 2006.


____, 2006. “Regional Influences- Fire Station Need at Jamboree/Campus.” November.


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