The following Initial Study has been prepared in compliance with CEQA.

Prepared By:

OFFICE OF RESOURCE MANAGEMENT AND PLANNING

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November 2008

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1 PROJECT INFORMATION

Project title:

2008-2009 Central Campus Major Capital Improvement Projects

Project location:

University of California, Davis
Yolo

Lead agency’s name and address:

Office of Resource Management and Planning
University of California
One Shields Avenue
376 Mrak Hall
Davis, CA 95616-8678

Contact person:

A. Sidney England, Assistant Vice Chancellor for Environmental Stewardship and Sustainability, 530-752-2432

Project sponsor’s name and address:

See lead agency.

Location of administrative record:

See lead agency.

Identification of previous documents relied upon for tiering purposes:

This environmental analysis is tiered from the Environmental Impact Report (EIR) for the UC Davis 2003 Long Range Development Plan (2003 LRDP) (State Clearinghouse No. 2002102092). The 2003 LRDP is a comprehensive land use plan that guides physical development on campus to accommodate projected enrollment increases and expanded and new program initiatives through the 2015-16 academic year. Section 2.2 provides additional information about the tiering process. The 2003 LRDP and its EIR are available for review at the following locations:

- UC Davis Office of Resource Management and Planning in 376 Mrak Hall on the UC Davis campus
- Reserves at Shields Library on the UC Davis campus
- Yolo County Public Library at 315 East 14th Street in Davis
- Online at http://www.ormp.ucdavis.edu/environreview/
2 INTRODUCTION

2.1 INITIAL STUDY

Pursuant to Section 15063 of the California Environmental Quality Act (CEQA) Guidelines (Title 14, California Code of Regulations, Sections 15000 et seq.), an Initial Study is a preliminary environmental analysis that is used by the lead agency as a basis for determining whether an EIR, a Mitigated Negative Declaration, or a Negative Declaration is required for a project. The CEQA Guidelines require that an Initial Study contain a project description, description of environmental setting, identification of environmental effects by checklist or other similar form, explanation of environmental effects, discussion of mitigation for significant environmental effects, evaluation of the project’s consistency with existing, applicable land use controls, and the name of persons who prepared the study. As described in Section 3.0, this Initial Study has been prepared to evaluate the potential environmental impacts for a grouping of upcoming new buildings and campus infrastructure referred to as the proposed 2008/09 Central Campus Major Capital Projects (hereinafter referred to as the “proposed project”).

2.2 TIERING PROCESS

The CEQA concept of "tiering" refers to the evaluation of general environmental matters in a broad program-level EIR, with subsequent focused environmental documents for individual projects that implement the program. This environmental document incorporates by reference the discussions in the 2003 LRDP EIR (the Program EIR) and concentrates on project-specific issues. CEQA and the CEQA Guidelines encourage the use of tiered environmental documents to reduce delays and excessive paperwork in the environmental review process. This is accomplished in tiered documents by eliminating repetitive analyses of issues that were adequately addressed in the Program EIR and by incorporating those analyses by reference.

Section 15168(d) of the State CEQA Guidelines provides for simplifying the preparation of environmental documents on individual parts of the program by incorporating by reference analyses and discussions that apply to the program as a whole. Where an EIR has been prepared or certified for a program or plan, the environmental review for a later activity consistent with the program or plan should be limited to effects that were not analyzed as significant in the prior EIR or that are susceptible to substantial reduction or avoidance (CEQA Guidelines Section 15152[d]).

This Initial Study is tiered from the UC Davis 2003 LRDP EIR in accordance with Sections 15152 and 15168 of the CEQA Guidelines and Public Resources Code Section 21094. The 2003 LRDP EIR is a Program EIR that was prepared pursuant to Section 15168 of the CEQA Guidelines. The 2003 LRDP is a comprehensive land use plan that guides physical development on campus to accommodate projected enrollment increases and expanded and new program initiatives through the 2015-16 academic year. The 2003 LRDP EIR analyzes full implementation of uses and physical development proposed under the 2003 LRDP, and it identifies measures to mitigate the significant adverse program-level and cumulative impacts associated with that growth. The proposed project is consistent with the 2003 LRDP and is an element of the growth that was anticipated in the 2003 LRDP and evaluated in the 2003 LRDP EIR.

By tiering from the 2003 LRDP EIR for the following, this Initial Study will rely on the 2003 LRDP EIR for the following:

- a discussion of general background and setting information for environmental topic areas;
- overall growth-related issues;
• issues that were evaluated in sufficient detail in the 2003 LRDP EIR for which there is no significant new information or change in circumstances that would require further analysis; and
• assessment of cumulative impacts.

This Tiered Initial Study will evaluate the potential environmental impacts of the proposed project with respect to the 2003 LRDP EIR to determine what level of additional environmental review, if any, is appropriate. As shown in the Determination in Section 6 of this document, and based on the analysis contained in this Initial Study, it has been determined that the proposed project would not result in any potentially significant impacts that cannot be mitigated to less-than-significant levels or that were not previously adequately addressed by the 2003 LRDP EIR.

The proposed project would result in one new potentially significant impact that was not previously identified in the 2003 LRDP EIR, but implementation of an identified project-specific mitigation measure would reduce this impact to less-than-significant levels. Therefore, preparation of a Mitigated Negative Declaration is appropriate (the Proposed Mitigated Negative Declaration is presented in Appendix A).

This Initial Study concludes that many potentially significant project impacts are addressed by the measures that have been adopted as part of the approval of the 2003 LRDP. Therefore, those 2003 LRDP EIR mitigation measures that are related to, and may reduce the impacts of, this project will be identified in this Initial Study. Since these mitigation measures are already being carried out as part of implementation of the 2003 LRDP, they will not be readopted, but rather are incorporated as part of the project. The benefits of these mitigation measures will be achieved independently of considering them as specific mitigation measures of this project. Nothing in this Initial Study in any way alters the obligations of the campus to implement the LRDP mitigation measures.

2.3 PUBLIC AND AGENCY REVIEW

This Initial Study will be circulated for public and agency review from November 21 to December 22, 2008. Copies of this document, the 2003 LRDP, and the 2003 LRDP EIR are available for review at the following locations:

• UC Davis Office of Resource Management and Planning in 376 Mrak Hall on the UC Davis campus
• Reserves at Shields Library on the UC Davis campus
• Yolo County Public Library at 315 East 14th Street in Davis
• Online at http://www.ormp.ucdavis.edu/environreview/

Comments on this Initial Study must be received by 5:00 PM on December 22, 2008 and can be e-mailed to environreview@ucdavis.edu or sent to:

John A. Meyer
Vice Chancellor - Resource Management and Planning
University of California
One Shields Avenue
376 Mrak Hall
Davis, CA 95616
2.4 **PROJECT APPROVALS**

As a public agency principally responsible for approving or carrying out the proposed project, the University of California is the Lead Agency under CEQA and is responsible for reviewing and certifying the adequacy of the environmental document and approving the proposed project. It is anticipated that the UC Davis Facilities and Enterprise Policy Committee (FEPC) of the University of California will consider approval of the Chilled Water Phase 7 project component in January, 2009. The three building projects will be considered by the Committee on Grounds and Building for The Board of Regents of the University of California (The Regents) with consideration for the Segundo Services Center expected in March, 2009, the Student Community Center expected in May, 2009, and the Music Instruction and Recital Building expected in September, 2009. The Board of Regents is considering delegating approval authority for large projects to the campuses. If this occur, the UC Davis FEPC may consider approval of some or all of the proposed buildings.

2.5 **ORGANIZATION OF THE INITIAL STUDY**

This Initial Study is organized into the following sections:

**Section 1 – Project Information**: provides summary background information about the proposed project, including project location, lead agency, and contact information.

**Section 2 – Introduction**: summarizes the Initial Study's relationship to the 2003 LRDP EIR, the scope of the document, the project’s review and approval processes, and the document's organization.

**Section 3 – Project Description**: includes a description of the proposed project, including the need for the project, the project’s objectives, and the elements included in the project.

**Section 4 – Consistency with the 2003 LRDP**: describes the consistency of the proposed project with the 2003 LRDP and 2003 LRDP EIR.

**Section 5 – Environmental Factors Potentially Affected**: identifies which environmental factors, if any, involve at least one significant or potentially significant impact that has not been previously addressed in the 2003 LRDP EIR and cannot be reduced to a less-than-significant level.

**Section 6 – Determination**: indicates whether impacts associated with the proposed project are significant, and what, if any, additional environmental documentation is required.

**Section 7 – Evaluation of Environmental Impacts**: contains the Environmental Checklist form for each resource area. The checklist is used to assist in evaluating the potential environmental impacts of the proposed project with respect to the 2003 LRDP EIR. This section also presents a background summary for each resource area, the standards of significance, relevant impacts and mitigation measures from the 2003 LRDP EIR, and an explanation of all checklist answers.

**Section 8 – Fish and Game Determination**: indicates if the project has a potential to impact wildlife or habitat and if an associated Fish and Game filing fee would be paid.

**Section 9 – References**: lists references used in the preparation of this document.

**Section 10 – Agencies and Persons Consulted**: provides the names of individuals contacted in preparation of this document.
Section 11 – Report Preparers: lists the names of individuals involved in the preparation of this document.

Appendix A – Proposed Mitigated Negative Declaration: presents the Proposed Mitigated Negative Declaration for the project.

Appendix B – Mitigation Monitoring Plan: presents the draft Mitigation Monitoring Plan for the project-specific impact.
3 PROJECT DESCRIPTION

3.1 REGIONAL LOCATION

The approximately 5,300 acre UC Davis campus is located in Yolo and Solano Counties approximately 72 miles northeast of San Francisco, 15 miles west of the City of Sacramento, and adjacent to the City of Davis (see Figure 1). The campus is comprised of four campus units: the central campus, the south campus, the west campus, and Russell Ranch. Most academic and extracurricular activities occur within the central campus. The central campus is bounded generally by Russell Boulevard to the north, State Route 113 (SR 113) to the west, Interstate 80 (I-80) and the Union Pacific Railroad tracks to the south, and A Street to the east. The campus is located south of I-80 and north of the South Fork of Putah Creek. The west campus is bounded by SR 113 to the east, Putah Creek to the south, Russell Boulevard to the north, and extends approximately one-half mile west of County Road 98. The south and west campus units are contiguous with the central campus, and are used primarily for field teaching and research. The approximately 1,600 acre Russell Ranch portion of the campus lies to the west, separated from the west campus by approximately one and one-half miles of privately owned agricultural land. Russell Ranch was purchased in 1990 for campus uses including large-scale agricultural and environmental research, study of sustainable agricultural practices, and habitat mitigation. Russell Ranch is bordered roughly by County Road 96 on the east, Putah Creek on the south, Covell Boulevard on the north, and Russell Boulevard and privately owned agricultural land on the west and northwest.

3.2 PROJECT OVERVIEW

The proposed project consists of four components: three new buildings and an addition to the campus chilled water and steam supply underground utility infrastructure. In total, project would occur on approximately 6.5 acres within the Central Campus at UC Davis and the utility project would extend for approximately 3,500 feet through a corridor of ranging from 20 to 30 feet in width. The site location and surrounding areas are shown on Figures 1 through 6. The proposed conceptual development plan for each of the new buildings are shown in Figures 7-9. The following text provides details for each of the project components.

Segundo Services Center. The Segundo Services Center would provide a new building to serve ancillary functions for campus housing occupants and would install a new landscaped area within the core of the Segundo housing area on approximately 3.5 acres east of La Rue Road as shown on Figures 4 and 7. The Segundo Services Center development would involve the construction of a three-story building on a site immediately west of the original Segundo Dining commons (Figure 4) and occupying a portion of an existing parking lot that would be decreased from approximately 40 to approximately 10 spaces after construction. The original Segundo Dining Commons building would be demolished as a part of the project allowing for completion of a central quad area consistent with the district master plan. The development is approximately 33,300 gross square feet (gsf) and 23,100 assignable square feet (asf) and includes a new mechanical room for steam generation to serve the Segundo Services Center building and the for adjacent Segundo dormitory buildings.

Student Community Center. The Student Community Center would occupy a site of approximately 2 acres to provide space for student support functions such as food service, lounges, studying space, and counseling space. The Center would construct an approximately 40,000 gsf (26,300 asf) facility for several student service programs that focus on student life, campus diversity, and campus community development. The Center will enhance the quality of student life through the provision of inviting spaces that reinforce academic success while offering a relaxed, comfortable and informal environment. The Center would be located within the core campus as shown on Figures 5 and 8 and would include
landscaping along the perimeter of the development site. The site currently includes a collection of 15 one-story temporary buildings that would be demolished prior to construction.

**Music Instruction and Recital Building.** The Music Instruction and Recital Building (MIRB) would occupy a site of approximately one acre within the core campus near the existing Music Building. The MIRB would be located within the core campus as shown on Figures 5 and 9 and would include landscaping along the perimeter of the development site. The MIRB would provide approximately 18,000 gsf (10,100 asf) located adjacent to the existing Music Building on Hutchison Drive. The MIRB would include a recital hall designed for appropriate acoustical standards, built specifically to accommodate small to medium-sized instrumental and choral performances. The existing building at the site was previously a campus steam generation building but is currently unused and will be demolished as part of the development and an adjacent temporary building (the Old Firehouse) will also be demolished.

**Chilled Water Phase 7.** The Chilled Water Phase 7 development would extend underground chilled water and steam utilities through the core campus to provide increased distribution for the chilled water system (Figure 6). The Chilled Water Phase 7 would require approximately 3,500 linear feet of chilled water and steam piping and the construction process would occupy a corridor approximately 30 feet in width.
Figure 2
Project Locations

d:/data/arcmap_projects/cccp_project_location.mxp   11-19-08

0 400 800 Feet
Figure 3
Site Boundaries
Figure 5
Project Site Details
Student Community Center and
Music Instruction and Recital Building
Figure 7
Development Plan
Segundo Services Center

Project Boundary

New Landscaped Quad Area

Legend:
- Lobby
- Academic
- Student Space
- Office
- General Building
- Circulation & Core

Not to Scale
Conceptual planning for future landscaped area. Development not included in project area.
3.3 PROJECT SITES

The following text provides details for each of the sites described above.

**Segundo Services Center.** The Segundo Services Center development building and surrounding improvements would take place on approximately 3.5 acres east of La Rue Road as shown on Figures 4 and 7. The site is currently designated as *Housing* in the UC Davis 2003 Long Range Development Plan. The *Housing* designation provides campus land for student housing purposes such as residential buildings and facilities to support student housing. The site currently includes a parking lot for approximately 40 vehicles, the old Segundo Dining Commons building, and a landscaped area east of the old Segundo Dining Commons building. The old Segundo Dining Commons building is approximately 24,000 square feet and was replaced in 2005 with the completion of the new Segundo Dining Commons building. The site is surrounded by student dormitories to the north, east, and south. West of the development site is La Rue Road, campus arterial roadway that extends in a north/south direction from Russell Boulevard in the City of Davis into the central campus.

**Student Community Center.** The Student Community Center would occupy a site of approximately 2 acres to provide space for student support functions such as food service, lounges, studying space, and counseling space. The site is located within the core campus as shown on Figures 5 and 8 and the Center development would include landscaping along the perimeter of the site. The site is currently developed with a collection of 15 one-story temporary buildings that would be demolished prior to construction. The site is currently designated as *Academic and Administrative-High Density* in the UC Davis 2003 Long Range Development Plan. The *Academic and Administrative-High Density* designation provides campus land for academic and administrative buildings and uses. Uses surrounding the site include an academic building (Walker Hall) to the east and core campus roads to the north, south, and west.

**Music Instruction and Recital Building.** The MIRB would occupy a site of approximately one acre within the core campus near the existing Music Building. The development would be located within the core campus as shown on Figures 5 and 9, and would include landscaping along the perimeter of the development site. The site is currently developed with campus buildings that previously provided capacity for the campus steam generation system and a small temporary building known as the Old Firehouse building. The site is surrounded by Hutchison Drive to the north, the existing music building to the west, the UC Davis Arboretum to the south, and single-story academic building to the east. The project area is currently designated as *Academic and Administrative-High Density* in the UC Davis 2003 Long Range Development Plan. The *Academic and Administrative-High Density* designation provides campus land for academic and administrative buildings and uses.

**Chilled Water Phase 7.** The Chilled Water Phase 7 component of the project would extend underground chilled water and steam utilities through the core campus to provide increased distribution for the chilled water system (Figure 3). The Phase 7 improvements would require approximately 3,500 linear feet of trenching for chilled water and steam piping, would occupy a corridor approximately 30 feet in width, and would extend through campus land designated for *Academic and Administrative-High Density* and would provide long-term functionality to academic and administrative uses.

3.4 PROJECT NEED AND OBJECTIVES

The UC Davis 2008-2009 Central Campus Major Capital Improvement Projects will provide an assembly of new buildings and increased chilled water and steam distribution to serve the UC Davis campus. The new buildings are needed to serve student enrollment increases that have resulted in increased demand for student services. The increased chilled water and steam distribution are needed to serve existing and
future buildings to provide adequate building cooling and steam load. Specific objectives of the individual developments are described below.

**Segundo Services Center.** The objectives of the Segundo Services Center are to provide efficient space for serving the ancillary residential needs of students living in the Segundo housing area, to modernize the utility system for the four Segundo tower buildings, to demolish the outdated Segundo dining commons building, and to complete the landscaping plan for the Segundo quad area.

**Student Community Center.** For the Student Community Center, the project objectives are to provide student community building space to accommodate current enrollment and program levels and to increase the available space for student functions such as study areas, lounges, and counseling rooms. To serve students in the core campus, the building must be located convenient to other student facilities and has been planned for a location approximately mid-way between the Memorial Union center and bus terminal, and the Silo center and bus terminal. In addition, the building would include adequate space for extensive bike parking.

**Music Instruction and Recital Building.** The objectives for the Music Instruction and Recital Building are to provide specialized music instruction and recital space close to the existing music building. The specialized space must accommodate a variety of musical groups with carefully designed acoustics and room sizes to match the various ensembles.

**Chilled Water Phase 7.** The Chilled Water Phase 7 objectives are to provide increased chilled water distribution from the intersection of California Avenue and South La Rue Road to Hutchison Drive east of the Art Building. The distribution pipe and routing must be efficiently engineered for system performance and long-term maintenance efficiency.

### 3.5 PROJECT ELEMENTS

#### 3.5.1 Buildings

**Segundo Services Center.** The proposed Segundo Services Center component of the project would provide space for an academic advising center, recreational areas, administrative offices and centralized mail. Laundry service for the 1,825 residents living in the Segundo Precinct will be provided within the constructed building as well as the area convenience store for Segundo residents. Exterior casual recreational space and bike parking would be included in the new quad area directly to the east of the building. Design of the quad will focus on pedestrian connections among the residential building surrounding this new central open space.

**Student Community Center.** The proposed Student Community Center would provide an approximately 40,000 gsf (26,300 asf) facility for several student service programs that focus on student life, campus diversity, and campus community development. The building will enhance the quality of student life through the provision of inviting spaces that reinforce academic success while offering a relaxed, comfortable and informal environment. The design will be student centered, fully accessible, and responsive to the non-traditional schedules of students.

The building design will integrate five distinct program suites with large common areas to be shared by the programs. Suites will be occupied by the Cross Cultural Center, the Student Recruitment and Retention Center, the Lesbian Gay Bisexual and Transgender Resource Center, the Media Lab, and Undergraduate Research. Common areas will be located to facilitate use by these programs, by other student programs, and by individual students on a drop-in basis.
The facility will contain social gathering spaces, conference rooms, workrooms, offices, a media laboratory and computer classrooms, and study lounges.

**Music Instruction and Recital Building.** The new Music Instruction and Recital Building would provide approximately 18,000 gsf and 10,100 asf located adjacent to the existing Music Building on Hutchison Drive. The building would include a recital hall designed for appropriate acoustical standards, built specifically to accommodate small to medium-sized instrumental and choral performances. The hall would provide a venue with appropriate acoustics for teaching, practice, rehearsal and performance in the art of music. The remainder of the building would provide instructional studios, practice rooms, faculty studios and offices, administrative office space, and instrument storage.

**Chilled Water Phase 7.** The proposed components of the Chilled Water System Improvements Phase 7 project include:

- Extending main chilled water and steam distribution piping from the intersection of California and La Rue to Parking Lot 3 west of Mrak Hall.
- Extending main chilled water piping from Parking Lot 3 to Hutchison Drive.

These distribution improvements would allow expanded delivery of campus chilled water and steam to campus buildings. The chilled water and steam system improvements described above reflect the most critical campus utility needs based on preliminary engineering analysis.

### 3.5.2 Landscaping

**Segundo Services Center.** Landscaping is proposed along the perimeter of the new building and within the central quad of the Segundo Housing area, which would include removal of the existing landscaping. The existing landscaping includes a combination of groundcover, shrubs, and mature trees.

**Student Community Center.** The Student Community Center would provide new landscaping around the perimeter of the building and would include removal of the existing landscaping. The existing landscaping includes a combination of groundcover, shrubs, and mature trees.

**Music Instruction and Recital Building.** The new building would provide new perimeter landscaping and would include removal of the existing landscaping. The existing landscaping includes a combination of groundcover, shrubs, and mature trees.

**Chilled Water Phase 7.** The Chilled Water Phase 7 project would not include additional landscaping for the campus. The project would include removal and replacement of lawn, shrubs, and small trees. These items would be replaced after project completion.

### 3.5.3 Parking and Roadways

**Segundo Services Center.** The Segundo Services Center would reduce Parking Lot 24 from approximately 40 spaces to approximately 10 spaces. The redesigned parking lot would be used primarily for service vehicle parking to serve the Segundo housing area with no public access. During construction, the parking lot would be closed and would be used for construction parking and construction staging.
**Student Community Center.** The Student Community Center would be located within the core campus in an area that is closed to public automobile traffic. The development would not provide parking and would not introduce motorized vehicular traffic to the roadway other than building maintenance and delivery vehicles. The core campus roads and sidewalks would be used by bicyclists and pedestrians to access the building and the bicycle parking areas around the building will experience heavy use. During construction, the sidewalks surrounding the site will remain open with the perimeter construction fence located inside of the surrounding sidewalks. The Hutchison driveway to Walker Hall will be used during construction for all construction traffic and the sidewalk will remain open during most of the construction. For some delivery of some materials, the Hutchison sidewalk along the project site will be closed and a detour posted at a convenient crossing location for pedestrians to cross to the sidewalk on the south side of the street.

**Music Instruction and Recital Building.** The proposed Music Instruction and Recital Building will not include parking facilities or changes to existing parking facilities. The development will include construction fencing that would close the sidewalk on the south side of Hutchison Drive and pedestrian would be directed to a temporary sidewalk on the north side of the street so that pedestrians do not need to walk along the street for length of the construction site. Bike parking would be provided near the building entrance on the north side of the development site.

**Chilled Water Phase 7.** The Chilled Water Phase 7 project would have no effect on parking and roadways except during the construction period when the trenching project would cross roads, sidewalks, or bike paths. During these crossings, the project will provide a detour route with clear signs placed in advance of the road blockage.

### 3.5.4 Utilities and Infrastructure

As discussed briefly below and analyzed in Section 7.16, the proposed project would include connections to existing campus utilities and infrastructure including as described in the following table. The Chilled Water Phase 7 is a utility upgrade project for chilled water and steam and is not served by other utilities.

<table>
<thead>
<tr>
<th></th>
<th>Segundo Services Center</th>
<th>Student Community Center</th>
<th>Music Instruction and Recital Building</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Chilled Water</strong></td>
<td>See note 1.</td>
<td>109 tons</td>
<td>87 tons</td>
</tr>
<tr>
<td><strong>Steam</strong></td>
<td>See note 1.</td>
<td>1,394lbs/hr</td>
<td>882 lbs/hr</td>
</tr>
<tr>
<td><strong>Domestic Water</strong></td>
<td>See note 1.</td>
<td>48 gpm</td>
<td>20 gpm</td>
</tr>
<tr>
<td><strong>Fire Water</strong></td>
<td>See note 1.</td>
<td>500 gpm</td>
<td>500 gpm</td>
</tr>
<tr>
<td><strong>Utility Water</strong></td>
<td>See note 1.</td>
<td>16 gpm</td>
<td>14 gpm</td>
</tr>
<tr>
<td><strong>Sanitary Sewer</strong></td>
<td>See note 1.</td>
<td>7995 gpd</td>
<td>3289 gpd</td>
</tr>
<tr>
<td><strong>Storm Drainage</strong></td>
<td>See note 1.</td>
<td>0.78 cfs</td>
<td>0 cfs</td>
</tr>
<tr>
<td><strong>Natural Gas</strong></td>
<td>See note 1.</td>
<td>0</td>
<td>N/A</td>
</tr>
<tr>
<td><strong>Telecommunications</strong></td>
<td>See note 1.</td>
<td>171 voice</td>
<td>35 voice</td>
</tr>
<tr>
<td></td>
<td></td>
<td>205 data</td>
<td>35 data</td>
</tr>
<tr>
<td><strong>Electrical</strong></td>
<td>See note 1.</td>
<td>113 KVA</td>
<td>295 KVA</td>
</tr>
</tbody>
</table>

1. Segundo Services Center will connect to campus utilities. The anticipated demand will be calculated during the project design phase. The project would not require capacity increases from the campus systems to obtain adequate service but may require an extension to a connection point off-site.

The proposed projects would connect to most campus utilities within the project boundaries or at nearby connection points in the street adjacent to each project. The Segundo Services Center may require an off-
site extension to connect to domestic water. The need to complete the extension or utilize an on-site connection will be determined during the project design phase. If needed, the new connection would require installation of a new water main from the west side of the project site underneath La Rue Road. The new underground water main would be located underneath La Rue Road and would extend southward from the project site approximately 500 feet to the intersection of La Rue Road and Orchard Road.

### 3.5.5 Sustainable Design Elements

The proposed project would comply with UC Policy on Sustainable Practices and would meet the campus baseline\(^1\) as applicable to the project.

**Segundo Services Center.** The development will comply with the Sustainable Practices policy and will pursue LEED Gold certification.

**Student Community Center.** The development will comply with the Sustainable Practices policy.

**Music Instruction and Recital Building.** The development will comply with the Sustainable Practices policy.

**Chilled Water Phase 7.** The project is not subject to the Sustainable Practices policy.

### 3.5.6 Population

The proposed project components would provide the campus with new space for employees to serve student educational needs. The project would not increase enrollment and is not expected to result in an increase in the number of students. For employees, the projects could result in additional employees based on the eventual backfill of office space occupied by employees who will move to the new buildings. The total population growth expected from the program growth in backfill space is approximately 70 employees.

### 3.6 Construction Schedule and Staging

Construction of the proposed developments would begin in 2010 and is anticipated to end by 2014. The project components may be constructed simultaneously and the actual construction schedules will be determined during the project design phase.

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\(^1\) UC Davis has established a campus baseline, which is the minimum number of applicable Leadership in Energy and Environmental Design (LEED) rating system “points” that each project on the campus will achieve. With the passage of the UC Policy on Sustainable Practices, each campus in the UC System was required to devise a campus baseline. While the UC System does not require each system campus to apply for United States Green Building Council LEED certification, the UC has committed to achieving a level of building performance comparable to that of LEED certification. The campus baseline provides the starting level of building performance objectives for all campus projects, with the exception of medical facilities.
4 CONSISTENCY WITH THE 2003 LRDP AND 2003 LRDP EIR

In order to determine the proposed project’s consistency with the 2003 LRDP and 2003 LRDP EIR, the following questions must be answered:

- Is the proposed project included in the scope of the development projected in the 2003 LRDP?
- Is the proposed location of the project in an area designated for this type of use in the 2003 LRDP?
- Are the changes to campus population associated with the proposed project included within the scope of the 2003 LRDP’s population projections?
- Are the objectives of the proposed project consistent with the objectives adopted for the 2003 LRDP?
- Is the proposed project within the scope of the cumulative analysis in the 2003 LRDP EIR?

The following discussion describes the proposed project’s relationship to and consistency with the development projections, population projections, land use designations, objectives, and cumulative impacts analyses contained in the 2003 LRDP and the 2003 LRDP EIR.

4.1 2003 LRDP SCOPE OF DEVELOPMENT

The proposed project would provide space to serve the enrollment and employment levels anticipated in the 2003 LRDP. The project would provide approximately 36,000 asf of Academic/Administrative space. The 2003 LRDP anticipates academic and administrative space on campus will increase to approximately 7,175,000 asf through 2015-16. In fall 2002, the campus had only approximately 4,475,000 asf of academic and administrative space. The proposed project, with 36,000 asf of academic/administrative space, in combination with other recently approved and currently proposed projects, would not increase academic and administrative building space on campus to levels that would exceed those projected for 2015-16. Therefore, the proposed project is well within the 2003 LRDP’s scope of academic and administrative development.

4.2 2003 LRDP LAND USE DESIGNATION

The proposed project includes development on land designated for Housing and on land designated for Academic/Administrative-High Density on the 2003 LRDP. The Student Community Center would be on land designated for Housing. The project component is a function of the UC Davis Student Housing Office and is needed to provide residential services for student living in the Segundo housing area. The Student Community Center, Music Instruction and Recital Building, and the Chilled Water Phase 7 project components would be constructed within Academic and Administrative-High Density designations. These buildings would directly serve the academic needs of students and the chilled water components are needed to provide utilities to campus academic and administrative buildings. The proposed uses are consistent with these land use designations and the intent of the 2003 LRDP.
4.3 2003 LRDP POPULATION PROJECTIONS

The 2003 LRDP projects that, through 2015-16, the on-campus population will increase to include approximately 30,000 students, 14,500 faculty and staff, and 3,240 non-UC employees. In addition, the total number of household members associated with students and employees living in on-campus housing is expected to increase to approximately 29,803. The fall 2007 on-campus faculty and staff headcount was approximately 11,400, and the 2007-08 three-quarter average on-campus student population was approximately 27,839 (UC Davis ORMP 2003a and b). The proposed project, which would introduce no new students, but would accommodate the additional space needs of up to 70 new members of the faculty and staff population, in combination with other recently approved and currently proposed projects, would not increase the campus population to a level that would approach that projected for 2015-16. Therefore, the proposed project is well within the 2003 LRDP’s on-campus population projections.

4.4 2003 LRDP OBJECTIVES

The primary objective of the 2003 LRDP is to plan for the Davis campus’ share of the University of California’s short- and long-term enrollment demands. In addition, the 2003 LRDP aims to:

- create a physical framework to support the teaching, research, and public service mission of the campus;
- manage campus lands and resources in a spirit of stewardship for the future; and
- provide an environment that enriches campus life and serves the greater community.

The proposed project would support these main 2003 LRDP objectives by focusing on the campus core as an area of intensive physical development to support the academic goals of program efficiency and collaboration.

In addition, the 2003 LRDP includes specific objectives that are relevant to the proposed project, including the following:

**Academic Facilities Growth:** Provide flexibility to locate 2.5 million additional square feet in Academic and Administrative land use, largely through infill development in the Academic Core and Health Sciences District. LRDP/Administrative Land Use section, page 59.

**Student Housing—Community Spaces:** Include physical spaces in residential areas that foster a sense of community. LRDP Housing Land Use section, page 66.

**Campus Systems—Built Environment:** Cluster related programs geographically when feasible, to promote efficiencies and interaction.

The proposed project helps implement the goals of the 2003 LRDP by providing new academic support space within the core campus and by providing an improved physical space that will help develop a sense of community within the existing Segundo housing area. The locations of the Student Community Center

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2 The on-campus population includes students and employees on the UC Davis main campus and at other University owned and operated facilities in the City of Davis. The campus population is determined based on headcount, a method of counting faculty, staff, and students in which each person is counted as one unit regardless of whether he or she is employed or studying full-time or part-time. Student population figures represent student headcount averaged over the primary three academic quarters (i.e., fall, winter, spring).
and the Music Instruction and Recital Building help to cluster programs geographically near existing buildings and will help to develop the core campus as an efficient area for program growth and collaboration.

4.5 2003 LRDP EIR CUMULATIVE IMPACTS ANALYSES

In addition to evaluating the environmental effects directly associated with projected campus development, the 2003 LRDP EIR evaluates the cumulative effects of campus development combined with off-campus development through 2015-16. The cumulative context considered in the 2003 LRDP EIR varies, depending on the nature of the issue being studied, to best assess each issue’s geographic extent. For example, the cumulative impacts on water and air quality can be best analyzed within the boundaries of the affected resources, such as water bodies and air basins. For other cumulative impacts, such as hazard risks, traffic, and the need for new public service facilities, the cumulative impact is best analyzed within the context of the population growth and associated development that are expected to occur in the region.

As discussed in Sections 4.1 through 4.4 above, the proposed project is within the scope of campus development projected in the 2003 LRDP EIR. In addition, the campus is unaware of any changes to local growth plans or other changes in the region since certification of the 2003 LRDP EIR that would substantially change the document’s conclusions regarding cumulative impacts. Therefore, the proposed project would incrementally contribute to, but would not exceed, the cumulative impacts analyses included in the 2003 LRDP EIR.
5 ENVIRONMENTAL RESOURCES POTENTIALLY AFFECTED

The environmental resources, if checked below, would be potentially affected by this project and would involve at least one impact that is a significant or potentially significant impact that has not been previously addressed in the 2003 LRDP EIR and cannot be reduced to a less-than-significant level as indicated by the checklist on the following pages.

- Aesthetics
- Agricultural Resources
- Air Quality
- Biological Resources
- Cultural Resources
- Geology, Soils & Seismicity
- Hazards & Hazardous Materials
- Hydrology & Water Quality
- Land Use & Planning
- Mineral Resources
- Noise
- Population & Housing
- Public Services
- Recreation
- Transportation, Circulation & Parking
- Utilities/Service Systems
- Mandatory Findings of Significance

As indicated in the checklist above and based on the analysis presented in this Initial Study, it has been determined that for all resource areas, the proposed project would not result in any significant impacts that cannot be mitigated to a less-than-significant level or are not adequately addressed by the 2003 LRDP EIR. This Initial Study has concluded that the project would incrementally contribute to, but would not exceed, certain significant cumulative impacts previously identified in the 2003 LRDP EIR, and that for such impacts, no new mitigation measures, other than those previously identified in the 2003 LRDP EIR, have been identified to further reduce the impact. The project would require a project-specific mitigation measure to minimize to a less-than-significant level the construction effects of vehicles on core campus roadways.
6 DETERMINATION

On the basis of this initial evaluation:

☐ The proposed project COULD NOT have a significant effect on the environment that has not been previously addressed in the 2003 LRDP EIR, and no new mitigation measures, other than those previously identified in the 2003 LRDP EIR, are required. A **NEGATIVE DECLARATION** will be prepared.

☑ Although the proposed project COULD have a significant effect on the environment, the project impacts were adequately addressed in the earlier document or there will not be a significant effect in this case because revisions in the project have been made that will avoid or reduce any potential significant impacts to a less than significant level. A **MITIGATED NEGATIVE DECLARATION** will be prepared. The proposed Mitigated Negative Declaration is included in Appendix A.

☐ The proposed project MAY have a potentially significant effect on the environment that was not previously addressed in the 2003 LRDP EIR. A **TIERED ENVIRONMENTAL IMPACT REPORT** will be prepared to address new impacts not previously identified in the 2003 LRDP EIR.
7 EVALUATION OF ENVIRONMENTAL IMPACTS

Introduction

The University has defined the column headings in the Initial Study checklist as follows:

- **Potentially Significant Impact**: This column is checked if there is substantial evidence that the project’s effect may be significant. If the project may result in one or more Potentially Significant Impacts, an EIR is required.

- **Less than Significant with Project-level Mitigation Incorporated**: This column is checked where the incorporation of project-specific mitigation measures will reduce an effect from “Potentially Significant Impact” to “Less-than-Significant Impact.” All project-level mitigation measures must be described, including a brief explanation of how the measures reduce the effect to a less than significant level.

- **Project Impact Adequately Addressed in 2003 LRDP EIR**: This column is checked where the potential impacts of the proposed project were adequately addressed in the 2003 LRDP EIR and mitigation measures identified in the LRDP EIR will mitigate any impacts of the proposed project to the extent feasible. All applicable LRDP EIR mitigation measures are incorporated into the project as proposed. The impact analysis in this document summarizes and cross references (including section numbers) the relevant analysis in the LRDP EIR.

- **Less than Significant Impact**: This column is checked when the project will not result in any significant effects. The effects may or may not have been discussed in the LRDP EIR. The project impact is less than significant without the incorporation of LRDP or project-level mitigation.

- **No Impact**: This column is checked when a project would not result in any impact in the category or the category does not apply. “No impact” answers need to be adequately supported by the information sources cited, which should substantiate that the impact does not apply to projects like the one involved (e.g., the project falls outside a fault rupture zone). A “No Impact” answer should be explained where it is based on project-specific factors as well as general standards (e.g., the project will not expose sensitive receptors to pollutants, based on project specific screening analysis.)
7.1 AESTHETICS

7.1.1 Background

Section 4.1 of the 2003 LRDP EIR addresses the aesthetics effects of campus growth under the 2003 LRDP. The following discussion summarizes information presented in the ‘Setting’ subsection of Section 4.1 of the 2003 LRDP EIR.

Campus

The campus is surrounded by extensive agricultural uses to the west and south, and by residential, institutional, and commercial land uses in the City of Davis to the north and east. Views within the Davis area are generally of two types: open views of agricultural land and supporting facilities with views of hills to the west, and views of developed areas within UC Davis and the City of Davis.

UC Davis consists of four general land units that have distinct visual characters. The central campus is the most developed area of campus and is characterized by varied architectural styles, large trees, and formal landscaping. The west and south campus units and Russell Ranch primarily include teaching and research fields with agricultural buildings (although the west and south campus units also include more developed areas including campus support facilities and academic and administrative facilities).

The 2003 LRDP identifies the following as valued visual elements of the central campus: the large, open lawn of the Quad at the heart of the campus; the framework of tree-lined streets, particularly around the Quad where the street tree branches arch to create a canopy overhead; the Arboretum, with its large trees and variety of landscapes along the waterway; the shingle-sided buildings from the founding years of the University Farm; buildings from the second era of campus development such as Hart Hall and Walker Hall; green open spaces that face the community along Russell Boulevard and A Street; bicycles as a distinct and valued visual emblem on campus; and the South Entry area, including the new entrance quad and the Robert and Margrit Mondavi Center for the Performing Arts.

Design review of campus development projects takes place during the project planning, design, review, and approval processes to sustain valued elements of the campus’ visual environment, to assure new projects contribute to a connected and cohesive campus environment, and to otherwise minimize adverse aesthetics effects as feasible. Formal design review by the campus Design Review Committee takes place for every major capital project. This Committee includes standing members from the Offices of Resource Management and Planning, Architects and Engineers, Grounds, and other departments concerned with potential aesthetic effects, as well as program representatives and invited design professionals with expertise relevant to the project type. Campus design standards and plans that provide the basis for design review include the 2003 LRDP, the Campus Standards and Design Guide manual, the campus Architectural Design Guidelines, and the Campus Core Study.

Project Site

The project includes three development sites and a corridor for underground utility extensions. The Segundo Services Center development site currently includes developed landscaping, a parking lot, and a large single-story building. The site does not include significant viewpoints and does not include important visual elements to the central campus. The Student Community Center development site currently includes 15 one-story temporary buildings. The site does not include significant viewpoints and does not include important visual elements to the central campus. The Music Instruction and Recital development site includes an old campus utility building and also includes view toward and is visible from the UC Davis Arboretum.
7.1.2 2003 LRDP EIR Standards of Significance

The 2003 LRDP EIR considers an aesthetic impact significant if growth under the 2003 LRDP would:

- Have a substantial adverse effect on a scenic vista.
  A scenic vista is defined as a publicly accessible viewpoint that provides expansive views of a highly valued landscape. On campus, the open view across agricultural lands west to the Coast Range is considered a scenic vista. This vista is primarily viewed from public viewpoints along SR 113, Hutchison Drive, La Rue Road, and Russell Boulevard.

- Substantially degrade the existing visual character or quality of the site and its surroundings.
  For the campus, this standard is interpreted in terms of the effect of development under the 2003 LRDP on the valued elements of the visual landscape identified in the LRDP, or the effect associated with allowing incompatible development in or near areas with high visual quality such as Putah Creek and the Arboretum Waterway.

- Create a new source of substantial light or glare that would adversely affect daytime or nighttime views in the area.

An additional standard from the CEQA Guidelines' Environmental Checklist (“b” in the checklist below) was found not applicable to campus growth under the 2003 LRDP.

7.1.3 2003 LRDP EIR Impacts and Mitigation Measures

Impacts of campus growth under the 2003 LRDP through 2015-16 on aesthetics are evaluated in Section 4.1 of the 2003 LRDP EIR. The proposed project is within the scope of analysis in the 2003 LRDP EIR and no significant impacts identified in the 2003 LRDP EIR related to aesthetics are relevant to the proposed project.

7.1.4 Environmental Checklist and Discussion

<table>
<thead>
<tr>
<th>AESTHETICS</th>
<th>Potentially Significant Impact</th>
<th>Less than Significant with Project-level Mitigation</th>
<th>Impact Adequately Addressed in 2003 LRDP EIR</th>
<th>Less than Significant Impact</th>
<th>No Impact</th>
</tr>
</thead>
<tbody>
<tr>
<td>Would the project…</td>
<td></td>
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</tr>
<tr>
<td>a) Have a substantial adverse effect on a scenic vista?</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>✔</td>
</tr>
<tr>
<td>b) Substantially damage scenic resources, including, but not limited to,</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>✔</td>
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<tr>
<td>trees, rock outcroppings, and historic buildings within a state scenic</td>
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<td>highway?</td>
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<tr>
<td>c) Substantially degrade the existing visual character or quality of the</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>✔</td>
</tr>
<tr>
<td>site and its surroundings?</td>
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</tr>
<tr>
<td>d) Create a new source of substantial light or glare which would</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>✔</td>
</tr>
<tr>
<td>adversely affect day or nighttime views in the area?</td>
<td></td>
<td></td>
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<td></td>
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</tbody>
</table>

a) The 2003 LRDP EIR defined a scenic vista as an expansive view of a highly valued landscape from a publicly accessible viewpoint, and identified the only scenic vista on the UC Davis campus to be the view west across agricultural land to the Coast Range. The proposed project would not affect views
to the Coast Range because the project components are within Central Campus areas that are surrounded by extensive building development and mature landscaping. Views to the Coast Range do not exist from the project sites because the buildings and landscaping block all long-distance views. No impact would occur.

b,c) The campus is not located near a state scenic highway. However, the 2003 LRDP EIR found that development on campus under the 2003 LRDP could degrade the visual character of the campus by substantially degrading the valued elements of the campus’ visual landscape, which are identified above in the background discussion and include specific treed areas, historic buildings, and open space areas (Impact 4.1-2 of the 2003 LRDP EIR). The proposed project would demolish an existing structure near the UC Davis Arboretum Waterway and would construct the new Music Instruction and Recital Building on the site. The building that will be demolished faces away from the arboretum waterway and presents an industrial service yard character to the viewing area. This existing character tends to detract from the aesthetic character of the Arboretum Waterway. The new building would be visible from the Arboretum Waterway and would be designed to improve the visual character of the waterway. The project design would be reviewed and approved by the campus Design Review Committee for consistency with the valued elements of the campus’ visual landscape, applicable planning guidelines, and the character of surrounding development. The new building and the planned design review process will greatly improve the visual character of the campus. The other two buildings are not near the arboretum and the chilled water project is underground. No impact would occur.

d) The proposed project will occur on developed areas that already include substantial night lighting. Because the project involves in-fill development and demolition of existing buildings, the lighting for the proposed developments would not expand the current light and glare effects. No impact would occur.

Summary

The project would have no impact to aesthetic resources. No LRDP EIR Mitigation Measures or project-specific mitigation measures related to aesthetic resources are required.
7.2 AGRICULTURAL RESOURCES

7.2.1 Background

Section 4.2 of the 2003 LRDP EIR addresses the agricultural resources effects of campus growth under the 2003 LRDP. The following discussion summarizes information presented in the ‘Setting’ subsection of Section 4.2 of the 2003 LRDP EIR.

Campus

As discussed in the 2003 LRDP EIR, of the approximately 5,300 acres of campus land, the California Department of Conservation’s Farmland Mapping and Monitoring Program (FMMP) designates approximately 3,700 acres as Prime Farmland and approximately 90 acres as Farmland of Local Importance. The FMMP designates the remaining 1,520 acres of campus land as Urban and Built-Up (approximately 1,400 acres) and Other Land (approximately 120 acres). Most of the campus’ agricultural lands are located on the west and south campuses and at Russell Ranch. The central campus includes land primarily designated as Urban and Built-Up, but small areas within the central campus that are used for teaching and research fields and community gardens are designated as Prime Farmland.

The 2003 LRDP EIR identifies that development under the 2003 LRDP through 2015-16 could result in conversion of approximately 745 acres of campus land that is considered prime farmland by the California Department of Conservation to nonagricultural uses. Approximately 330 acres of this land would be converted to habitat at Russell Ranch, which would not result in an irreversible loss of prime soil. Mitigation under the 2003 LRDP EIR requires the conservation of prime farmland at a one-to-one (1:1) ratio for prime farmland converted to developed uses and a one-third–to–one (1/3:1) ratio for prime farmland converted to habitat at Russell Ranch.

Project Site

The proposed project components would be constructed on land designated in the California Department of Conservation’s Farmland Mapping and Monitoring Program as Urban and Built Up Land.

7.2.2 2003 LRDP EIR Standards of Significance

The 2003 LRDP EIR considers an agricultural impact significant if growth under the 2003 LRDP would:

- Convert prime farmland, unique farmland or farmland of statewide importance, as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency to nonagricultural use.
- Involve other changes in the existing environment which, due to their location or nature, could result in conversion of farmland considered prime, unique, or of statewide importance to nonagricultural use.
- Conflict with existing zoning for agricultural use or a Williamson Act contract.
7.2.3 2003 LRDP EIR Impacts and Mitigation Measures

Impacts of campus growth under the 2003 LRDP through 2015-16 on agricultural resources are evaluated in Section 4.2 of the 2003 LRDP EIR. The proposed project is within the scope of analysis in the 2003 LRDP EIR and no significant impacts identified in the 2003 LRDP EIR related to agricultural resources are relevant to the proposed project.

7.2.4 Environmental Checklist and Discussion

<table>
<thead>
<tr>
<th>AGRICULTURAL RESOURCES</th>
<th>Potentially Significant Impact</th>
<th>Less than Significant with Project-level Mitigation</th>
<th>Impact Adequately Addressed in 2003 LRDP EIR</th>
<th>Less than Significant Impact</th>
<th>No Impact</th>
</tr>
</thead>
<tbody>
<tr>
<td>a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☑</td>
</tr>
<tr>
<td>b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☑</td>
</tr>
<tr>
<td>c) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland to non-agricultural use?</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☑</td>
</tr>
</tbody>
</table>

a) Each component of the proposed project would be constructed on land designated as Urban and Built Up Land on the FMMP mapping program and are proposed sites that have been previously developed. The project would not convert agricultural lands. No impact would occur.

b) Campus lands are state lands and are not eligible for Williamson Act agreements, nor are they subject to local zoning controls. No impact would occur.

c) The project would have no effect on agricultural resources because it would occur entirely within developed portions of the core campus at UC Davis and would have no relation to agricultural operations. No impact would occur.

Summary

The project would have no impact to agricultural resources. No LRPD EIR Mitigation Measures or project-specific mitigation measures related to agricultural resources are required.
7.3  **Air Quality**

7.3.1  **Background**

Section 4.3 of the 2003 LRDP EIR addresses the air quality effects of campus growth under the 2003 LRDP on air quality. The following discussion summarizes information presented in the ‘Setting’ subsection of Section 4.3 of the 2003 LRDP EIR.

**Campus**

The campus is subject to air quality regulation programs under both the federal Clean Air Act (CAA) and the California Clean Air Act (CCAA). Both the federal and state statutes provide for ambient air quality standards to protect public health, timetables for progressing toward achieving and maintaining ambient standards, and the development of plans to guide the air quality improvement efforts of state and local agencies. Within the campus vicinity, air quality is monitored, evaluated, and controlled by the U.S. Environmental Protection Agency (EPA), the California Air Resources Board (CARB), and the Yolo-Solano Air Quality Management District (YSAQMD). The YSAQMD is one of five air districts located in the Sacramento Valley Air Basin (SVAB) and has jurisdiction over air quality in the Yolo County and the northeastern portion of Solano County.

Historically, air quality laws and regulations have divided air pollutants into two broad categories: “criteria pollutants” and “toxic air contaminants.” Federal and state air quality standards have been established for the following ambient air pollutants, the criteria pollutants: ozone (O₃), carbon monoxide (CO), nitrogen dioxide (NO₂), sulfur dioxide (SO₂), particulate matter less than 10 microns in diameter (PM₁₀), lead (Pb), and particulate matter less than 2.5 microns in diameter (PM₂.₅). Ozone is evaluated by assessing emissions of its precursors: reactive organic gases (ROG) and NOₓ.

Toxic air contaminants (TACs) are airborne pollutants for which there are no air quality standards but which are known to have adverse human health effects. TACs are regulated under federal and state statutes, primarily with control technology requirements for stationary and mobile sources and mitigation established following human health risk assessments. TAC’s are generated by a number of sources, including stationary sources such as dry cleaners, gas stations, combustion sources, and laboratories; mobile sources such as automobiles; and area sources such as farms, landfills, construction sites, and residential areas.

Air quality on campus on any given day is influenced by both meteorological conditions and pollutant emissions. In general, meteorological conditions vary more than pollutant emissions from day to day, and tend to have a greater influence on changes in measured ambient pollutant concentrations. Ambient concentrations of CO and PM₁₀, however are particularly influenced by local emission sources. The EPA has classified the entire SVAB, which includes the campus, as a serious nonattainment area for O₃. Districts in the SVAB have requested a voluntary bump-up designation to “severe,” which would result in an attainment deadline of 2018. The EPA approval of the voluntary bump-up is still pending. The CARB has also designated the area as being in nonattainment under the state ambient air quality standards for O₃ and PM₁₀. The designation of an area as attainment or nonattainment is based on monitored data throughout the SVAB.

**Project Site**

The development sites contain no sensitive receptors or contaminant sources.
7.3.2 2003 LRDP EIR Standards of Significance

The 2003 LRDP EIR considers an air quality impact significant if growth under the 2003 LRDP would:

**Criteria Pollutants**

- Conflict with or obstruct implementation of the applicable air quality plan.
- Violate any air quality standard or contribute substantially to an existing or projected air quality violation. (According to the YSAQMD, emissions of NOx and ROG in excess of 10 tons per year, PM10 emissions of 80 pounds a day, or CO emissions violating a state ambient air standard for CO would be considered significant.)
- Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors).
- Expose sensitive receptors to substantial pollutant concentrations.
- Create objectionable odors affecting a substantial number of people.

**Toxic Air Contaminants**

- Contribute to the probability of contracting cancer for the Maximally Exposed Individual (MEI) exceeding the AB 2588 and Proposition 65 threshold of 10 in one million.
- Result in a noncarcinogenic (chronic and acute) health hazard index greater than the AB 2588 threshold of 1.0.

7.3.3 2003 LRDP EIR Impacts and Mitigation Measures

Impacts of campus growth under the 2003 LRDP through 2015-16 on air quality are evaluated in Section 4.3 of the 2003 LRDP EIR. The proposed project is within the scope of analysis in the 2003 LRDP EIR. Significant and potentially significant air quality impacts identified in the 2003 LRDP EIR that are relevant to the proposed project are presented below with their corresponding levels of significance before and after application of mitigation measures identified in the 2003 LRDP EIR.

<table>
<thead>
<tr>
<th>2003 LRDP EIR Impacts</th>
<th>Level of Significance Prior to Mitigation</th>
<th>Level of Significance After Mitigation</th>
</tr>
</thead>
<tbody>
<tr>
<td>AIR QUALITY</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4.3-1</td>
<td>Implementation of the 2003 LRDP would result in daily operational emissions above the YSAQMD thresholds that may contribute substantially to a violation of air quality standards or hinder attainment of the regional air quality plan.</td>
<td>S</td>
</tr>
<tr>
<td>4.3-3</td>
<td>Emissions from construction activities associated with the 2003 LRDP would exceed YSAQMD thresholds.</td>
<td>S</td>
</tr>
<tr>
<td>4.3-6</td>
<td>Implementation of the 2003 LRDP, in conjunction with other regional development, would result in a cumulatively considerable increase of non-attainment pollutants.</td>
<td>S</td>
</tr>
<tr>
<td>4.3-8</td>
<td>Regional growth could result in an increase in toxic air contaminants if compensating technological improvements are not implemented.</td>
<td>PS</td>
</tr>
</tbody>
</table>

Levels of Significance: LS=Less than Significant, S=Significant, PS=Potentially Significant, SU=Significant and Unavoidable
Mitigation measures in the 2003 LRDP EIR that are applicable to the proposed project are presented below. Since these mitigation measures are already being carried out as part of implementation of the 2003 LRDP, they are considered part of the project description and will not be readopted. Nothing in this Initial Study in any way alters the obligations of the campus to implement 2003 LRDP EIR mitigation measures.

### 2003 LRDP EIR Mitigation Measures

#### AIR QUALITY

4.3-1(a) **Vehicular Sources.** The following measures will be implemented to reduce emissions from vehicles, as feasible.

- The campus shall continue to actively pursue Transportation Demand Management to reduce reliance on private automobiles for travel to and from the campus.
- Provide pedestrian-enhancing infrastructure to encourage pedestrian activity and discourage vehicle use.
- Provide bicycle facilities to encourage bicycle use instead of driving.
- Provide transit-enhancing infrastructure to promote the use of public transportation.
- Provide facilities to accommodate alternative-fuel vehicles such as electric cars and CNG vehicles.
- Improve traffic flows and congestion by timing of traffic signals to facilitate uninterrupted travel.
- When the campus purchases new vehicles, the campus will evaluate the practicality and feasibility of acquiring low-pollution vehicles that are appropriate for the task and will purchase these types of vehicles when practical and feasible. When replacing diesel engines in existing equipment, the campus will install up-to-date technology.

4.3-1(b) **Area Sources.** The following measures will be implemented to reduce emissions from area sources, as feasible.

- Use solar or low-emission water heaters in new or renovated buildings.
- Orient buildings to take advantage of solar heating and natural cooling and use passive solar designs.
- Increase wall and attic insulation in new or renovated buildings.
- For fireplaces or wood-burning appliances, require low-emitting EPA certified wood-burning appliances, or residential natural-gas fireplaces.
- Provide electric equipment for landscape maintenance.

4.3-1(c) The campus will work with the YSAQMD to ensure that emissions directly and indirectly associated with the campus are adequately accounted for and mitigated in applicable air quality planning efforts. The YSAQMD can and should adopt adequate measures consistent with applicable law to ensure that air quality standard violations are avoided.
AIR QUALITY

4.3-3(a) The campus shall include in all construction contracts the measures specified below to reduce fugitive dust impacts, including but not limited to the following:

- All disturbed areas, including storage piles, which are not being actively utilized for construction purposes, shall be effectively stabilized of dust emissions using water, chemical stabilizer/suppressant, or vegetative ground cover.

- All on-site unpaved roads and off-site unpaved access roads shall be effectively stabilized of dust emissions using water or chemical stabilizer/suppressant.

- All land clearing, grubbing, scraping, excavation, land leveling, grading, cut and fill, and demolition activities shall be effectively controlled of fugitive dust emissions utilizing application of water or by presoaking.

- When demolishing buildings up to six stories in height, all exterior surfaces of the building shall be wetted during demolition.

- When materials are transported off-site, all material shall be covered, effectively wetted to limit visible dust emissions, or at least two feet of freeboard space from the top of the container shall be maintained.

- All operations shall limit or expeditiously remove the accumulation of mud or dirt from adjacent public streets at least once every 24 hours when operations are occurring. The use of dry rotary brushes is expressly prohibited except where preceded or accompanied by sufficient wetting to limit the visible dust emissions. Use of blower devices also is expressly forbidden.

- Following the addition of materials to, or the removal of materials from, the surface of outdoor storage piles, said piles shall be effectively stabilized of fugitive dust emissions by utilizing sufficient water or chemical stabilizer/suppressant.

4.3-3(b) The campus shall include in construction contracts for large construction projects near receptors, the following control measures:

- Limit traffic speeds on unpaved roads to 15 mph.

- Install sandbags or other erosion control measures to prevent silt runoff to public roadways from sites with a slope greater than one percent.

- To the extent feasible, limit area subject to excavation, grading, and other construction activity at any one time.

- Limit the area subject to excavation, grading, and other construction activity at any one time.

4.3-3(c) The campus shall implement the following control measures to reduce emissions of ozone precursors from construction equipment exhaust:

- To the extent that equipment is available and cost effective, the campus shall encourage contractors to use alternate fuels and retrofit existing engines in construction equipment.

- Minimize idling time to a maximum of 5 minutes when construction equipment is not in use.

- To the extent practicable, manage operation of heavy-duty equipment to reduce emissions.

- To the extent practicable, employ construction management techniques such as timing construction to occur outside the ozone season of May through October, or scheduling equipment use to limit unnecessary concurrent operation.

4.3-6 Implement LRDP Mitigation 4.3-1(a-c).

4.3-8 EPA and CARB are expected to continue the development and implement programs to reduce air toxics, and UC Davis will continue its efforts in this area.
### 7.3.4 Environmental Checklist and Discussion

<table>
<thead>
<tr>
<th><strong>AIR QUALITY</strong></th>
<th>Potentially Significant Impact</th>
<th>Less than Significant with Project-level Mitigation</th>
<th>Impact Adequately Addressed in 2003 LRDP EIR</th>
<th>Less than Significant Impact</th>
<th>No Impact</th>
</tr>
</thead>
<tbody>
<tr>
<td>Would the project…</td>
<td></td>
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</tr>
<tr>
<td>a) Conflict with or obstruct implementation of the applicable air quality plan?</td>
<td>☐</td>
<td>☐</td>
<td>☑</td>
<td>☐</td>
<td>☐</td>
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<tr>
<td>b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?</td>
<td>☐</td>
<td>☐</td>
<td>☑</td>
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<td>☐</td>
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<tr>
<td>c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is in non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?</td>
<td>☐</td>
<td>☐</td>
<td>☑</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>d) Expose sensitive receptors to substantial pollutant concentrations?</td>
<td>☐</td>
<td>☐</td>
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</tr>
<tr>
<td>e) Create objectionable odors affecting a substantial number of people?</td>
<td>☐</td>
<td>☐</td>
<td>☑</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>f) Result in greenhouse gas emissions that would hinder or delay the ability to meet climate change goals set by the State of California via AB 32?</td>
<td>☐</td>
<td>☐</td>
<td>☑</td>
<td>☐</td>
<td>☐</td>
</tr>
</tbody>
</table>

#### a,b,c,d) Construction

The 2003 LRDP EIR found that construction activities under the 2003 LRDP could exceed YSAQMD thresholds (Impact 4.3-3). The 24-hour PM$_{10}$ standards could be violated when multiple construction projects (especially those involving ongoing grading or excavation activities) occur simultaneously in the same area. Housing or other sensitive receptors located adjacent to construction areas could be affected by high concentrations of PM$_{10}$. In addition, exhaust pollutants would be emitted during use of construction equipment.

The development activities for the Segundo Services Building, Student Community Center, Music Instruction and Recital Building, and the Chilled Water Phase 7 project could take place simultaneously and over an extended period. Each building would require approximately 18 to 24 months to construct and the utility work would occur over an approximately 12 month period. These activities would involve substantial demolition, removal of materials, excavation, and construction of the new facilities. Emissions from dust and construction vehicle emissions could occur simultaneously as the projects proceed and the impact is therefore considered significant.

LRDP Mitigation 4.3-3(a) (requiring campus construction contracts to include measures to reduce fugitive dust impacts), and 4.3-3(b) (additional specific dust control measures for large projects), and 4.4-3(c) (requiring control measures to reduce emissions of ozone precursors from construction equipment exhaust) are relevant in the proposed project.

Even with the implementation of the above-reference mitigation measures, the 2003 LRDP EIR found that the impact of the cumulative emissions from the totality of projects under construction at any given time under the 2003 LRDP would be significant and unavoidable. The impact was adequately analyzed in the 2003 LRDP EIR, was fully addressed in the Findings and Statement of Overriding
Considerations adopted by The Regents in connection with its approval of the 2003 LRDP, and no new project-specific mitigation measures have been identified that could further reduce the impact.

Operation

Criteria Pollutants

During on-going project operation, an estimated increase of approximately 40 vehicles from new employees could be expected and the heating and cooling demand from the project would contribute to the overall campus emissions.

The 2003 LRDP EIR found that operational emissions under the 2003 LRDP could substantially contribute to violation of ambient state and federal air quality standards or hinder the attainment of the regional air quality plan (LRDP Impact 4.3-1). The project would contribute to this impact. The campus is located in an area that is in nonattainment of O\textsubscript{3} and PM\textsubscript{10} standards. The region is processing the 8 hour attainment plan for the SVAB, which is intended to implement regulations for ozone emissions and attainment of the federal air quality standard by 2018. LRDP Mitigation 4.3-1 (a-b), which includes measures that encourage alternative transportation and no- or low-emission building designs and operations, would help reduce daily emissions from campus vehicular and stationary sources. The development proposals would result in buildings that achieve a LEED Certified or higher rating and this effort would help to minimize operational emissions from the buildings through use of items such as increased insulation, energy efficient windows, and passive solar heating. LRDP Mitigation 4.3-1(c) would ensure that the campus will coordinate with the YSAQMD during the update of the Clean Air Plan and other applicable air quality planning efforts. However, given the likelihood of exceedance of O\textsubscript{3} standards even with mitigation, it appears that the implementation of the 2003 LRDP, including the proposed project, could potentially hinder the attainment of the regional air quality plan. The impact is therefore considered significant and unavoidable at the LRDP program level. This impact was adequately analyzed in the 2003 LRDP EIR and was fully addressed in the Findings and Statement of Overriding Considerations adopted by The Regents in connection with its approval of the 2003 LRDP. No conditions have changed and no new information has become available since certification of the 2003 LRDP EIR that would alter this previous analysis.

Toxic Air Contaminants

TAC Emissions from the buildings would primarily occur during construction with the release of chemical by-products of the construction processes. These could include diesel and gasoline by-products during construction equipment refueling or by-products of adhesive, sealants, or other construction materials. Health Risk Assessment (HRA) calculations performed as part of the 2003 LRDP EIR predicted that the cancer risk from campus operations through academic year 2015-16 will be below 10 in one million for both the off-campus and on-campus Maximally Exposed Individual, assuming a 70-year exposure period. The non-cancer health risk was calculated to be below 1.0 on the hazard index. Therefore, the 2003 LRDP EIR concluded that development under the 2003 LRDP would not exceed either health risk standard, and the impact associated with TAC generation would be less than significant.

Cumulative Development

The 2003 LRDP EIR found that implementation of the 2003 LRDP, in conjunction with other regional development, would contribute to emissions of criteria pollutants for which the region is in non-attainment status and could hinder attainment efforts (LRDP Impact 4.3-6). The YSAQMD has
accounted for a certain amount of regional growth in the existing Sacramento Regional Clean Air Plan. This plan is currently being updated to achieve attainment by 2018, and campus growth under the 2003 LRDP will be incorporated in the plan update. LRDP Mitigation 4.3-6, included in the proposed project, requires implementation of LRDP Mitigation 4.3-1 (a-c). Regardless, because the YSAQMD remains a nonattainment area for ozone, this cumulative impact is considered significant and unavoidable. This impact was adequately analyzed in the 2003 LRDP EIR, fully addressed in the Findings and Statement of Overriding Considerations adopted by The Regents in connection with its approval of the 2003 LRDP, and no new project-level mitigation measures have been identified that would further reduce the impact.

e) The 2003 LRDP EIR concluded that odor impacts associated with development under the 2003 LRDP would be less than significant. The proposed developments are not expected to generate substantial odors because the projects involve no cooking facilities or chemical fume hood vents that would be a source of odors. Additionally, the projects will not include waste-grease handling because they don’t include cooking facilities. The Segundo Services Center project will include sales of packaged food items but is not expected to generate any type of objectionable odors. Similarly, the Student Services Center will consist mainly of meeting space and office spaces but will not include odor producing activities. The Music Instruction and Recital Building will include no odor generating activities. Any occasional odors from items maintenance painting would be temporary and not disrupt the building users or other campus members. The potential impact would be less-than-significant.

f) Project activities will result in greenhouse gas emissions from construction equipment and long-term operation of the project. Although the development proposal would result in buildings that achieve a LEED Certified or higher rating and this effort would help to minimize operational emissions from the buildings, the project would contribute to greenhouse gas emissions that are producing global climate change.

In 2006, after certification of the 2005 LRDP EIR, California passed Assembly Bill 32 (AB 32), which requires CARB to design and implement emission limits, regulations, and other measures, such that feasible and cost-effective statewide greenhouse gas emissions are reduced to 1990 levels by 2020 (representing an approximate 25 percent reduction in emissions). The principal greenhouse gases of concern are carbon dioxide (CO2), methane (CH4), nitrous oxide (N2O), sulfur hexafluoride (SF6), perfluorocarbons (PFCs), hydrofluorocarbons (HFCs), and water vapor (H2O). CO2 is the reference gas for climate change because it is the predominant greenhouse gas emitted.

As of the date of this analysis, neither SCAQMD, CARB nor any federal agency has implemented an emissions threshold for the purposes of identifying a significant contribution to global climate change. Nor are there rules or regulations in place from CARB, SCAQMD, Governor’s Office of Planning and Research (OPR) or other resource agency applicable to the proposed project that define what is a “significant” source of greenhouse gas emissions, and there are no applicable facility-specific greenhouse gas emission limits or caps.

Pursuant to Senate Bill 97, the OPR is in the process of developing CEQA Guidelines “for the mitigation of greenhouse gas emissions or the effects of greenhouse gas emissions.” OPR is required to “prepare, develop, and transmit” the guidelines to the Resources Agency on or before July 1, 2009. The Resources Agency must certify and adopt the guidelines on or before January 1, 2010. (CARB 2007c). In addition, UC Davis is currently developing a Climate Action Plan to demonstrate greenhouse gas emission reductions that would support the goals of AB 32.

In the interim, the California Air Pollution Control Officers Association (CAPCOA) has prepared a white paper that considers options for evaluating and addressing greenhouse gas emissions under
CEQA (CAPCOA, 2008). CARB staff has provided an early action list, which includes 44 greenhouse gas reduction measures (CARB, 2007d). The 44 recommended early actions have the potential to reduce greenhouse gas emissions by about 25 percent of the estimated reductions needed by 2020. These strategies are almost entirely targeted at emissions from fuel production and storage, transportation of goods (via haul trucks and ports), cement plants, and energy facilities.

In lieu of any official regulatory directive or precedent for identifying significant greenhouse gas emissions, a project could be deemed to have a significant air quality impact if it would conflict with the 44 greenhouse gas reduction measures, set forth by the timetable established in AB 32. If a project complies with the state’s strategies to reduce greenhouse gasses to the level proposed by the governor, it follows that the project would have a less-than-significant cumulative impact to global climate change. If a project does not or cannot comply with reduction strategies, the applicant can alternatively reduce its cumulative contribution to greenhouse gas emissions to less-than-significant levels by contributing to available regional, state, national, or international mitigation programs, such as reforestation, tree planting, or carbon trading.

In considering applicable directives to reduce greenhouse gas emissions, three types of analyses are used to determining whether the proposed project could be in conflict with the state goals for reducing greenhouse gas emissions. The analysis includes a review of:

A. The potential conflicts with the CARB 44 early action strategies (CARB, 2007b);
B. The relative size of the project in comparison to the estimated greenhouse reduction goal of 174 MMT eCO2 by 2020 and in comparison to the size of major facilities that are required to report greenhouse gas emissions (25,000 metric tons of eCO2/yr), (CAPCOA Significance Threshold 2.3); and
C. The basis parameters of a project to determine whether its design is inherently energy efficient.

With regard to item A, the proposed project does not pose any apparent conflict with the most recent list of CARB’s 44 early action strategies. As previously noted, these strategies are almost entirely targeted at emissions from fuel production and storage, transportation of goods (via haul trucks and ports), cement plants, and energy facilities. The strategies that do address light-duty motor vehicles are directed toward regulatory agencies and not land use development.

With regard to item B, CO2 emissions from construction and operation have not been quantified as this process of emission quantification is being developed concurrently with the UC Davis Climate Action Plan. The magnitude of the proposed project in relation to the overall operations at UC Davis is fairly small and is not anticipated to disrupt future emission reduction programs. The project helps to centralize the core area development at UC Davis and is expected to minimize vehicle trips by employees and students. The project will be served by energy efficient building design and centralized heating and cooling facilities. Hence, this impact is considered less than significant. Additionally, consistent with item C above, the new construction would also be required to meet California Energy Efficiency Standards in the state Building Code, helping to reduce future energy demand as well as reduce the project’s contribution to regional greenhouse gas emissions. As a result, the proposed project would have a less than significant impact on greenhouse gas emissions.

Summary

The proposed project would not exceed the levels of significance of air quality impacts previously addressed in the 2003 LRDPEIR, nor would it introduce any new significant impacts that were not previously addressed. Mitigation measures 4.3-1 (a-c), 4.3-3 (a-c), 4.3-6, and 4.3-8 from the 2003
LRDP EIR are relevant to the proposed project and reduce the significance of air quality impacts to the extent feasible. No new mitigation measures were identified that would further reduce the impacts of the project.
7.4 **BIOLOGICAL RESOURCES**

7.4.1 **Background**

Section 4.4 of the 2003 LRDP EIR addresses the effects of campus growth under the 2003 LRDP on biological resources. The following discussion summarizes information presented in the ‘Setting’ subsection of Section 4.4 of the 2003 LRDP EIR.

**Campus**

The 5,300-acre campus is located in a region that is composed primarily of urban areas and agricultural lands that include remnant riparian areas. Habitat types on campus can be classified as Agricultural Lands (including Cropland/Pasture, and Orchard/Vineyard), Valley Foothill Riparian Woodland, Ruderal/Annual Grassland, Open Water Ponds, Riverine, and Urban Landscaping/Developed.

The 2003 LRDP EIR considers special status species to be those taxa that are: (1) listed as threatened or endangered under either the California or Federal Endangered Species Acts; (2) candidates for either state or federal listing; (3) species afforded protection under the Fish and Game Code of California; (4) federal and California Department of Fish and Game (CDFG) “Species of Special Concern”; (5) CDFG “Species of Special Concern” highest and second priority lists; or (6) California Native Plant Society (CNPS) List 1-3 plants.

A database search identified 15 special status plant species, 8 special status invertebrates, 11 special status fish, 3 special status amphibians, 3 special status reptiles, 26 special status birds, and 7 special status mammals that have the potential to occur on or within a 10-mile radius of the campus. However, only a few of these species are known to occur on campus or have potential habitat present on campus, including: northern California black walnut, burrowing owl, Swainson’s hawk, valley elderberry longhorn beetle, California tiger salamander, chinook salmon, giant garter snake, steelhead, and northwestern pond turtle.

**Project Site**

The development areas are all previously developed sites within the core campus. The sites include a combination of building and infrastructure improvements within a habitat type described in the 2003 LRDP as Urban Landscaping/Developed.

**Habitat**

Urban Landscaping/Developed. Urban habitat includes landscaped areas that are vegetated with trees, shrubs, and maintained grassy areas. While the University Arboretum contains a significant collection of botanical specimens, it is included within this habitat designation because it is essentially a landscaped park with many non-native plantings, and is subject to regular maintenance as well as high frequency use by people (picnicking, jogging, walking, etc.).

Central campus landscaped areas, with their abundance of mature trees, provide wildlife habitat values (food and cover) within the developed areas of central campus. Many species of birds (including the Swainson’s hawk) are known to nest in central campus trees. Other resident and migratory hawks, owls, songbirds, and woodpeckers are also known to use landscaped areas on the campus for nesting, food, and cover.
**Special Status Species**

The Swainson’s hawk (*Buteo swainsoni*) is listed as a threatened species under the California Endangered Species Act and is fully protected against take pursuant to Section 3503.5 of the California Fish and Game Code. The Swainson’s hawk is a relatively large bird of prey that typically nests in large trees in riparian corridors as well as isolated trees remaining in or adjacent to agricultural fields in the Central Valley. However, in the City of Davis, and on the central campus, these hawks also nest in the large trees among buildings, roads, and dwellings.

This species forages in open grassland habitats and has adjusted to foraging in certain types of agricultural lands. The value of foraging habitat can be affected by a variety of characteristics, including density and availability of prey, proximity to disturbing features, and distance to nesting territories. Published information indicates these raptors typically forage within a 10 mile radius of nest sites but may range up to 18 miles from a nest site in search of suitable foraging habitat and available prey. Formal studies have shown that Swainson’s hawks will spend the majority of foraging time in close proximity to the nest site when high quality foraging habitat (measured by the abundance and availability of prey) is present.

The occurrence of the Swainson’s hawk in and around the campus is well documented. UC Davis conducted yearly surveys for Swainson’s hawk nests on the campus and within one half mile of the campus from 1991 through 1998. Project-specific surveys have been conducted annually since 1998. The results of these surveys documented approximately 20 active nests per year and a total of approximately 50 total nests on or within one-half mile of the campus over the decade. Most of the Swainson’s hawk nests are located in the Putah Creek riparian corridor.

**Trees**

Tree surveys of the project sites were conducted in accordance with the campus practice for identifying trees to preserve during a development or redevelopment project. The proposed developments will incorporate many existing trees into the development plan.

**Segundo Services Center.** The proposed building will remove no valley oak trees and no trees rated as **Most Important** in the campus tree rating program. The proposed project will remove one hackberry tree that was rated in **Good** condition.

**Student Community Center.** The proposed building will remove no valley oak trees and no trees rated as **Most Important** in the campus tree rating program. The Student Community Center will relocate a unique Yucca tree (*Yucca gloriosa*) to a new location near the proposed building. The project will remove approximately 30 trees rated as **Average Importance** or **Least Important** in the campus tree rating program and will remove 2 or 3 trees rated as **Important** in the campus tree rating program.

**Music Instruction and Recital Building.** The Music Instruction and Recital Building will preserve all trees within the project site.

**Chilled Water Phase 7.** The Chilled Water Phase 7 project will preserve all trees within the project site.

**7.4.2 2003 LRDP EIR Standards of Significance**

The 2003 LRDP EIR considers a biological resources impact significant if growth under the 2003 LRDP would:
• Result in a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game (CDFG) or U.S. Fish and Wildlife Service (USFWS).

• Result in the “take” (defined as kill, harm, or harass) of any listed threatened or endangered species or the habitat of such species.

• Result in a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the CDFG or USFWS.

• Result in a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, or coastal wetland) through direct removal, filling, hydrological interruption, or other means.

• Interfere substantially with the movement of any native resident or migratory fish, or wildlife species or with established native, resident, or migratory wildlife corridors, or impede the use of native wildlife nursery sites.

• Conflict with any applicable local policies protecting biological resources such as a tree protection policy or ordinance.

An additional standard from the CEQA Guidelines’ Environmental Checklist (“f” in the checklist below) was found not applicable to campus growth under the 2003 LRDP.

7.4.3 2003 LRDP EIR Impacts and Mitigation Measures

Impacts of campus growth under the 2003 LRDP through 2015-16 on biological resources are evaluated in Section 4.4 of the 2003 LRDP EIR. The proposed project is within the scope of analysis in the 2003 LRDP EIR and the significant and potentially significant biological resources impacts identified in the 2003 LRDP EIR that are relevant to the proposed project are presented below with their corresponding levels of significance before and after application of mitigation measures identified in the 2003 LRDP EIR.

<table>
<thead>
<tr>
<th>2003 LRDP EIR Impacts</th>
<th>Level of Significance Prior to Mitigation</th>
<th>Level of Significance After Mitigation</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>BIOLOGICAL RESOURCES</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4.4-4</td>
<td>Development allowed under the 2003 LRDP could result in the failure of nesting efforts by nesting raptors, including Swainson’s hawks or other birds of prey.</td>
<td>PS</td>
</tr>
<tr>
<td>4.4-5</td>
<td>Development allowed under the 2003 LRDP would result in the loss of active nest sites for Swainson’s hawk.</td>
<td>PS</td>
</tr>
<tr>
<td>4.4-11</td>
<td>Development under the 2003 LRDP could result in the removal of trees recognized to meet the campus’ standards for important trees, including:</td>
<td>PS</td>
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<tr>
<td></td>
<td>a. Heritage Trees: Healthy valley oak trees with trunk diameters of 33 inches or greater at a height of 54 inches from the ground.</td>
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<td></td>
<td>b. Specimen Trees: Healthy trees or stands of trees that are of high value to the campus due to their size, species, extraordinary educational and research value, and/or other exceptional local importance.</td>
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</tbody>
</table>

Levels of Significance: LS=Less than Significant, S=Significant, PS=Potentially Significant, SU=Significant and Unavoidable
Mitigation measures in the 2003 LRDP EIR that are applicable to the proposed project are presented below. Since these mitigation measures are already being carried out as part of implementation of the 2003 LRDP, they are considered part of the project description and will not be readopted in this Initial Study or Negative Declaration. Nothing in this Initial Study in any way alters the obligations of the campus to implement 2003 LRDP EIR mitigation measures.

**2003 LRDP EIR Mitigation Measures**

**BIOLOGICAL RESOURCES**

4.4-4(a) The campus shall conduct a pre-construction survey of trees on and adjacent to a project site during the raptor breeding season (approximately March 1 to August 31). Additionally, the campus shall conduct surveys within a ½-mile radius of the site to determine the presence or absence of any nesting Swainson’s hawks. The surveys shall be conducted by a qualified biologist during the same calendar year that the proposed activity is planned to begin to determine if any nesting birds-of-prey would be affected. If phased construction procedures are planned for the proposed activity, the results of the above survey shall be valid only for the season when it is conducted.

If any Swainson’s hawks are nesting within a one-half-mile radius of the project site or if other raptors are nesting in, on or adjacent to the project site, a qualified biologist shall determine the potential for disturbance to nesting raptors, including Swainson’s hawks. If the biologist determines that there is a significant potential for disturbance, the campus shall implement feasible changes in the construction schedule or make other appropriate adjustments to the project in response to the specific circumstances. If feasible project changes are not readily identifiable, the campus will consult with CDFG to determine what actions should be taken to protect the nesting efforts. If, after five years, a previously recorded nest site remains unoccupied by a Swainson’s hawk, it will no longer be considered as a Swainson’s hawk nest site subject to this mitigation.

4.4-4(b) The campus shall continue to conduct annual surveys to determine the location of nesting Swainson’s hawks and other birds of prey on the campus outside the Putah Creek corridor. If nesting Swainson’s hawks are found during the survey at a previously unknown location within one-half mile of a project site and/or at a location closer to the project or more visually exposed to the project site than a nearby previously documented site, a qualified biologist shall, prior to project construction, determine the potential for disturbance to nesting Swainson’s hawks. If the biologist determines that there is a significant potential for disturbance, the campus shall implement feasible changes in the construction schedule or make other appropriate adjustments to the project in response to the specific circumstances (e.g., relocating noisy equipment or creating temporary sound barriers).

The implementation of LRDP Mitigations 4.4-4(a) and (b) shall be conducted under the supervision of a biologist whose qualifications include:

- A bachelor’s degree in biology or a related field;
- Two years of field experience related to nesting raptors; and
- Prior construction monitoring experience.

Further:

- All decisions of the qualified biologist shall be made in consultation with the California Department of Fish and Game;
- Monitoring shall be conducted for a sufficient time (minimum of 3 consecutive days following the initiation of construction) to verify that the nesting pair does not exhibit significant adverse reaction to construction activities (i.e., changes in behavioral patterns, reactions to construction noise, etc.); and
- Nest site monitoring will continue for a minimum of once a week through the nesting cycle at that nest.

4.4-5 Mitigation 4.4-4(a) and (b) will be implemented, including pre-construction survey of trees on and adjacent to a project site during the raptor breeding season (approximately March 1 to August 31). If a Swainson’s hawk nest tree is present, the tree will be removed outside the nesting season (March-May).

4.4-11 Before a project is approved under the 2003 LRDP, the campus will perform a tree survey of the project site.

Grounds, the Office of Resource Management and Planning, and the Office of Architects and Engineers will provide input about tree classifications and will modify project design to avoid important trees if feasible. If a project cannot avoid an important tree, the following will apply:
BIOLOGICAL RESOURCES

a. If a project would necessitate removal of a Heritage Tree, no mitigation would be available to fully mitigate the impact, and the impact would be significant and unavoidable. However, implementation of Mitigation 4.4-2 would restore Valley Foothill Riparian Woodland habitat at Russell Ranch, and plantings in this area would include valley oaks.

b. If a project would necessitate removal of a Specimen Tree, the project would relocate the tree if feasible, or would replace the tree with the same species or species of comparable value (relocation or replacement should occur within the project area if feasible). This would reduce the impact to a less-than-significant level.

7.4.4 Environmental Checklist and Discussion

BIOLOGICAL RESOURCES

<table>
<thead>
<tr>
<th>Would the project…</th>
<th>Potentially Significant Impact</th>
<th>Less than Significant with Project-level Mitigation</th>
<th>Impact Adequately Addressed in 2003 LRDP EIR</th>
<th>Less than Significant Impact</th>
<th>No Impact</th>
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</thead>
<tbody>
<tr>
<td>a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?</td>
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<tr>
<td>b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or US Fish and Wildlife Service?</td>
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<td>c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?</td>
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<tr>
<td>d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☑</td>
<td>☐</td>
</tr>
<tr>
<td>e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?</td>
<td>☐</td>
<td>☐</td>
<td>☑</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☑</td>
<td>☐</td>
</tr>
</tbody>
</table>

a) The 2003 LRDP EIR found that development under the 2003 LRDP could result in the loss of special-status plant species (LRDP Impact 4.4-1), and could affect several wildlife species, including the burrowing owl, Swainson’s hawk, the valley elderberry longhorn beetle, the western pond turtle,
and special-status fish species (LRDP Impacts 4.4-2 through 4.4-7 and 4.4-12 through 4.4-14). Under the proposed project, construction would be limited to a previously developed areas within the core campus. The proposed project would redevelop fully developed sites that currently support buildings, walkways, bicycle parking, and limited horticultural landscaping. Swainson’s hawks could possibly nest in trees on or adjacent to the sites. Since the early 1990s, Swainson’s hawks have not nested in any trees on the sites, but have been seen nesting within a ½-mile of the project sites. All except four nesting attempts have been over ¼-mile from the sites, screened from the project site by buildings and/or vegetation, and in areas where nesting birds have habituated to high levels of human activity. However, it is possible they could nest in the area before construction starts. Implementation of LRDP Mitigation Measures 4.4-4(a)-(b) and 4.4-5 requires actions to ensure that active nests are not disturbed. Implementation of LRDP Mitigation Measures 4.4-4(a)-(b) and 4.4-5 would reduce potential impacts to nesting Swainson’s Hawks to a less-than-significant level. The site does not provide suitable habitat for any special status plant or animal species. No additional impacts would occur to special status species.

b,c) The proposed project would have no effect on riparian or wetland areas. The development sites include no natural drainage or other types of aquatic features. No impact would occur.

d) The Putah Creek corridor, which is the southern boundary of the campus, is the principal corridor for the movement of native resident and migratory fish and wildlife through the UC Davis campus. It is the regional connection between the hills in western Yolo County and the Sacramento River. The project is approximately 2 miles north of the Putah Creek corridor. Therefore, the project would not interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites. No impact would occur.

e) Pursuant to LRDP Mitigation Measure 4.4-11, the campus performs a tree survey of a project site prior to project approval, and modifies the project design to the extent feasible to avoid tree removal or provide additional mitigation if removal of heritage or specimen trees cannot be avoided. The campus performed a tree survey of the development areas and the results of the tree surveys are summarized below.

**Segundo Services Center.** The proposed building will remove no valley oak trees and no trees rated as *Most Important* in the campus tree rating program. The proposed project will remove one Chinese hackberry tree that was rated in *Good* condition.

**Student Community Center.** The proposed building will remove no valley oak trees and no trees rated as *Most Important* in the campus tree rating program. The Student Community Center will relocate a unique Yucca tree (*Yucca Gloriosa*) to a new location near the proposed building. The project will remove approximately 30 trees rated as *Average Importance or Least Important* in the campus tree rating program and will remove 2 or 3 trees rated as *Important* in the campus tree rating program.

**Music Instruction and Recital Building.** The Music Instruction and Recital Building will preserve all trees within the project site.

**Chilled Water Phase 7.** The Chilled Water Phase 7 project will preserve all trees within the project site.

The proposed project will result in removal of trees that were surveyed and rated according to the campus tree rating system. The trees identified for removal do not include *Heritage or Specimen*
trees. Removal of the identified trees would be a less-than-significant impact, and no mitigation measures are included to decrease the less than significant impact.

f) The campus does not fall within the boundaries of, nor is it adjacent to, an adopted regional Habitat Conservation Plan (HCP) or Natural Community Conservation Plan (NCCP). The campus has implemented two low effects HCPs for Valley Elderberry Longhorn Beetle at Russell Ranch. The proposed project is not located at the Russell Ranch and would have no effect on an adopted HCP or NCCP. No impact would occur.

Summary

Mitigation measures 4.4-4 (a,b) and 4.4-5 from the 2003 LRDP EIR are relevant to the proposed project and reduce the significance of impacts on biological resources to a less than significant level. The proposed project would not exceed the levels of significance of biological resources impacts previously addressed in the 2003 LRDP EIR and no new mitigation measures have been identified that would further reduce the previously identified impacts, nor would it introduce any new significant impacts that were not previously addressed.
7.5  CULTURAL RESOURCES

7.5.1  Background

Section 4.5 of the 2003 LRDP EIR addresses the effects of campus growth under the 2003 LRDP on cultural resources. The following discussion summarizes information presented in the ‘Setting’ subsection of Section 4.5 of the 2003 LRDP EIR.

Campus

Cultural resources on campus include prehistoric and historic resources. Prehistoric resources are those sites and artifacts associated with the indigenous, non-Euroamerican population, generally dating prior to contact with people of European descent. Historic resources include structures, features, artifacts, and sites that date from Euroamerican settlement of the region.

Archaeological Resources

The campus lies in the ethnographic territory of the Patwin. Since 1991, extensive archaeological investigations (survey, testing, monitoring, and/or excavation) have been conducted on campus in conjunction with the development of campus projects (Nadolski 2003). Patwin sites, including burials, have been identified at several locations on the central campus. Areas within 800 feet of the banks of the historic channel of Putah Creek and its tributaries and slough channels, and within 800 feet of specific known archaeological sites, have been identified as archaeologically sensitive zones on campus.

Historic Resources

The earliest direct historic contacts in the Davis area probably occurred during 1806 to 1808. Farming on a large scale began in the Davis area in the 1850s. A “university farm” was established at Davis in 1906, classes began in 1909, and Davis became a general University of California campus in 1959. No properties within the campus are listed on the National Register of Historic Places. Six properties on or near the campus have been recorded with the California Inventory of Historic Resources. Historic architectural features typically must be at least 50 years of age to be considered for listing on the California Register of Historical Resources (CRHR).

Project Site

Segundo Services Center. The development area was previously disturbed during construction of the existing Segundo Dining Commons and the surrounding parking areas. The area was surveyed for potential cultural resources by a professional archaeologist and the screening survey did not reveal the presence of archaeological materials (Pacific Legacy 2001). The area includes the existing Segundo Dining Commons building that was constructed in 1960 and is not eligible for listing as a historic resource because it is less than 50 years old.

Student Community Center. The development area was previously disturbed during construction of the existing temporary building and the surrounding landscaping and is outside the zone of cultural sensitivity. The project site includes 15 temporary buildings that were constructed in 1965 and are not eligible for listing as a historic resource because they are less than 50 years old (JRP 2004).

Music Instruction and Recital Building. The development area was previously disturbed during construction of the existing buildings, surrounding landscaping, and the roadway improvements. The development area is within the zone of cultural resources sensitivity near the Arboretum Waterway. The
development area was surveyed for potential cultural resources by a professional archaeologist and the screening survey did not reveal the presence of archaeological materials. In addition, the site buildings (Central Heating Plant; Building No. 3215 and the Old Firehouse; Building No. 3316) were surveyed for historical significance and were determined to not qualify as potentially historic resources (JRP 1998).

**Chilled Water Phase 7.** The development area is partially within the zone of cultural resources sensitivity near the Arboretum Waterway. The development area was surveyed for potential cultural resources by a professional archaeologist and the screening survey did not reveal the presence of archaeological materials. The utility routing and project construction would have no effect on historic resources (Pacific Legacy 2003; Pacific Legacy 2004).

### 7.5.2 2003 LRDP EIR Standards of Significance

In addition to the following archaeological and historical standards of significance identified in the 2003 LRDP EIR, an additional standard from the CEQA Guidelines’ Environmental Checklist (“c” in the checklist below) was found not applicable to campus growth under the 2003 LRDP.

#### Archaeological Resources

The 2003 LRDP EIR considers an impact on archaeological resources significant if growth under the 2003 LRDP would:

- Cause a substantial adverse change in the significance of a unique archaeological resource pursuant to CEQA Guideline § 15064.5.
- Disturb any human remains, including those interred outside of formal cemeteries.

A “unique archaeological resource” is defined under CEQA through Public Resources Code Section 21083.2(g). A unique archaeological resource implies an archaeological artifact, object, or site about which it can be clearly demonstrated that there is a high probability that it meets one of the following criteria:

- The archaeological artifact, object, or site contains information needed to answer important scientific questions and there is a demonstrable public interest in that information, or
- The archaeological artifact, object, or site has a special and particular quality, such as being the oldest of its type or the best available example of its type, or
- The archaeological artifact, object, or site is directly associated with a scientifically recognized important prehistoric or historic event or person.

For a resource to qualify as a unique archaeological resource, the agency must determine that there is a high probability that the resource meets one of these criteria without merely adding to the current body of knowledge (PRC § 21083.2(g)). An archaeological artifact, object, or site that does not meet the above criteria is a nonunique archaeological resource (PRC § 21083.2(h)). An impact on a nonunique resource is not a significant environmental impact under CEQA (CEQA Guidelines § 15064.5(c)(4)). If an archaeological resource qualifies as a historical resource under CRHR or other criteria, then the resource is treated as a historical resource for the purposes of CEQA (CEQA Guidelines § 15064.5(c)(2)).
Section 15064.5 of the CEQA Guidelines assigns special importance to human remains and specifies procedures to be used when Native American remains are discovered. These procedures are detailed under PRC § 5097.98. California Health and Safety Code § 7050.5(b) prohibits disturbance of human remains uncovered by excavation until the Coroner has made a finding relative to PRC § 5097 procedures.

**Historical Resources**

For the purposes of this EIR, as mandated by PRC § 21083.2, impacts of the proposed project on an historical resource would be considered significant if it would:

- cause a significant adverse change in the significance of a historical resource as defined in CEQA Guidelines § 15064.5.

The standards of significance for historical resources are based on Appendix G and § 15064.5 of the CEQA Guidelines. Accordingly, historical resources include resources listed in, or determined to be eligible for listing in, the CRHR; resources included in a qualifying local register (such as the City of Davis Register of Historic Resources); and resources that the lead agency determines to meet the criteria for listing in the CRHR. These criteria may apply to any historic built environmental feature, and to historic or prehistoric archaeological sites. Properties or sites that are eligible for inclusion in the CRHR are termed “historical resources.” Under the provisions of CEQA Guidelines § 15064.5(a)(3), generally a lead agency should find that a property is historically significant if it determines that the property meets one or more of the criteria for listing on the CRHR, which extend to any building, structure, feature or site that:

- is associated with events that have made a significant contribution to the broad patterns of California’s history and cultural heritage;
- is associated with lives of persons important in our past;
- embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values; or
- has yielded, or may be likely to yield, information important in prehistory or history.

With few exceptions, to qualify as a historical resource a property must be at least 50 years old and also must retain physical integrity and integrity to its period of significance. For historic structures and buildings, significantly altering the setting, remodeling, or moving the structure may diminish or destroy its integrity. However, under some conditions, a building that has been moved or altered may still retain its historic significance. Landscaping or landscape features may in some cases contribute to the significance of an historic architectural property. Such elements would be assessed as part of the evaluation of the related historic architectural property. Archaeological sites may also qualify as historical resources under CEQA Guideline Section 15064.5(a)(3). Archaeological sites most often are assessed relative to CRHR Criterion D (for potential to yield data important to history or prehistory). An archaeological deposit that has been extensively disturbed and archaeological artifacts found in isolation may not be eligible for listing on the CRHR, because the lack of stratigraphic context may reduce the potential for the resource to yield significant data. A resource that does not meet one of the criteria for eligibility to the CRHR is not a historical resource under CEQA, and impacts to such a property are not significant.
7.5.3 2003 LRDP EIR Impacts and Mitigation Measures

Impacts of campus growth under the 2003 LRDP through 2015-16 on cultural resources are evaluated in Section 4.5 of the 2003 LRDP EIR. The proposed project is within the scope of analysis in the 2003 LRDP EIR and significant and potentially significant cultural resources impacts identified in the 2003 LRDP EIR that are relevant to the proposed project are presented below with their corresponding levels of significance before and after application of mitigation measures identified in the 2003 LRDP EIR. Mitigation measures are included to reduce the magnitude of LRDP-level impacts 4.5-3 and 4.5-5, but these impacts are identified as significant and unavoidable because they cannot be fully mitigated.

<table>
<thead>
<tr>
<th>2003 LRDP EIR Impacts</th>
<th>Level of Significance Prior to Mitigation</th>
<th>Level of Significance After Mitigation</th>
</tr>
</thead>
<tbody>
<tr>
<td>CULTURAL RESOURCES</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4.5-1</td>
<td>Implementation of the 2003 LRDP could damage or destroy an archaeological resource or historic building or structure as the result of grading, excavation, ground disturbance or other project development.</td>
<td>PS</td>
</tr>
<tr>
<td>4.5-2</td>
<td>Implementation of the LRDP could cause a substantial adverse change in the significance of a historical resource or unique archaeological resource, as defined in CEQA guidelines 15064.5, as the result of ground disturbance, alteration, removal or demolition associated with project development.</td>
<td>PS</td>
</tr>
<tr>
<td>4.5-3</td>
<td>Implementation of the LRDP could cause a substantial adverse change in the significance of a historical resource or unique archaeological resource, as defined in CEQA guidelines 15064.5, and the values that contribute to the significance of the resource cannot be preserved through documentation and data recovery.</td>
<td>S</td>
</tr>
<tr>
<td>4.5-4</td>
<td>Implementation of the 2003 LRDP could disturb human remains, including those interred outside of formal cemeteries.</td>
<td>PS</td>
</tr>
<tr>
<td>4.5-5</td>
<td>Development under the 2003 LRDP would contribute to cumulative damage to and loss of the resource base of unique archaeological resources and historical resources (including archaeological sites and historic buildings and structures) in Yolo and Solano counties.</td>
<td>S</td>
</tr>
</tbody>
</table>

Levels of Significance: LS=Less than Significant, S=Significant, PS=Potentially Significant, SU=Significant and Unavoidable

Mitigation measures in the 2003 LRDP EIR that are applicable to the proposed project are presented below. Since these mitigation measures are already being carried out as part of implementation of the 2003 LRDP, they are considered part of the project description and will not be readopted in this Initial Study or Negative Declaration. Nothing in this Initial Study in any way alters the obligations of the campus to implement 2003 LRDP EIR mitigation measures.

2003 LRDP EIR Mitigation Measures

<table>
<thead>
<tr>
<th>CULTURAL RESOURCES</th>
</tr>
</thead>
<tbody>
<tr>
<td>4.5-1(a)</td>
</tr>
</tbody>
</table>

As early as possible in the project planning process, the campus shall define the project’s area of potential effects (APE) for archaeological resources and, if structures are present on the site, for historic structures. The campus shall determine the potential for the project to result in cultural resource impacts, based on the extent of ground disturbance and site modification anticipated for the proposed project. Based on this information, the campus shall:

(i) Prepare an inventory of all buildings and structures within the APE that will be 50 years of age or older at the time of project construction for review by a qualified architectural historian. If no structures are present on the site, there would be no impact to historic built environment resources from the project. If potentially historic structures are present, LRDP Mitigation 4.5-1(c) shall be implemented.
(ii) Determine the level of archaeological investigation that is appropriate for the project site and activity, as follows:

- Minimum: excavation less than 18 inches deep and in a relatively small area (e.g., a trench for lawn irrigation, tree planting, etc.). Implement LRDP Mitigation 4.5-1(b)(i).

- Moderate: excavation below 18 inches deep and/or over a large area on any site that has not been characterized and is not suspected to be a likely location for archaeological resources. Implement LRDP Mitigation 4.5-1 (b)(i) and (ii).

- Intensive: excavation below 18 inches and/or over a large area on any site that is within 800 feet of the historic alignment of Putah Creek, or that is adjacent to a recorded archaeological site. Implement LRDP Mitigation 4.5-1 (i), (ii) and (iii).

4.5-1(b) During the planning phase of the project, the campus shall implement the following steps to identify and protect archaeological resources that may be present in the APE:

(i) For project sites at all levels of investigation, contractor crews shall be required to attend an informal training session prior to the start of earth moving, regarding how to recognize archaeological sites and artifacts. In addition, campus employees whose work routinely involves disturbing the soil shall be informed how to recognize evidence of potential archaeological sites and artifacts. Prior to disturbing the soil, contractors shall be notified that they are required to watch for potential archaeological sites and artifacts and to notify the campus if any are found. In the event of a find, the campus shall implement item (vi), below.

(ii) For project sites requiring a moderate or intensive level of investigation, a surface survey shall be conducted by a qualified archaeologist during project planning and design and prior to soil disturbing activities. For sites requiring moderate investigation, in the event of a surface find, intensive investigation will be implemented, as per item (iii), below. Irrespective of findings, the qualified archaeologist shall, in consultation with the campus, develop an archaeological monitoring plan to be implemented during the construction phase of the project. The frequency and duration of monitoring shall be adjusted in accordance with survey results, the nature of construction activities, and results during the monitoring period. In the event of a discovery, the campus shall implement item (vi), below.

(iii) For project sites requiring intensive investigation, irrespective of subsurface finds, the campus shall retain a qualified archaeologist to conduct a subsurface investigation of the project site, to ascertain whether buried archaeological materials are present and, if so, the extent of the deposit relative to the project’s area of potential effects. If an archaeological deposit is discovered, the archaeologist will prepare a site record and file it with the California Historical Resource Information System.

(iv) If it is determined through step (iii), above, that the resource extends into the project’s area of potential effects, the resource will be evaluated by a qualified archaeologist, who will determine whether it qualifies as a historical resource or a unique archaeological resource under the criteria of CEQA Guidelines § 15064.5. If the resource does not qualify, or if no resource is present within the project area of potential effects (APE), this will be noted in the environmental document and no further mitigation is required unless there is a discovery during construction (see (vi), below).

(v) If a resource within the project APE is determined to qualify as an historical resource or a unique archaeological resource (as defined by CEQA), the campus shall consult with the qualified archaeologist to consider means of avoiding or reducing ground disturbance within the site boundaries, including minor modifications of building footprint, landscape modification, the placement of protective fill, the establishment of a preservation easement, or other means that will permit avoidance or substantial preservation in place of the resource. If avoidance or substantial preservation in place is not possible, the campus shall implement LRDP Mitigation 4.5-2(a).

(vi) If a resource is discovered during construction (whether or not an archaeologist is present), all soil disturbing work within 100 feet of the find shall cease. The campus shall contact a qualified archaeologist to provide and implement a plan for survey, subsurface investigation as needed to define the deposit, and assessment of the remainder of the site within the project area to determine whether the resource is significant and would be affected by the project. LRDP Mitigation 4.5-1(b), steps (iii) through (vii) shall be implemented.

(vii) A written report of the results of investigations will be prepared by a qualified archaeologist and filed with
4.5-1(c) (i) Before altering or otherwise affecting a building or structure 50 years old or older, the campus shall retain a qualified architectural historian to record it on a California Department of Parks and Recreation DPR 523 form or equivalent documentation. Its significance shall be assessed by a qualified architectural historian, using the significance criteria set forth for historic resources under CEQA Guidelines Section 15064.5. The evaluation process shall include the development of appropriate historical background research as context for the assessment of the significance of the structure in the history of the University system, the campus, and the region. For historic buildings, structures or features that do not meet the CEQA criteria for historical resource, no further mitigation is required and the impact is less than significant.

(ii) For a building or structure that qualifies as a historic resource, the architectural historian and the campus shall consult to consider measures that would enable the project to avoid direct or indirect impacts to the building or structure. These could include preserving a building on the margin of the project site, using it “as is,” or other measures that would not alter the building. If the project cannot avoid modifications to a significant building or structure, the campus shall implement LRDP Mitigation 4.5-2.

4.5-2(a) For an archaeological site that has been determined by a qualified archaeologist to qualify as an historical resource or a unique archaeological resource through the process set forth under LRDP Mitigation 4.5-1(b), and where it has been determined under LRDP Mitigation 4.5-1(b) that avoidance or preservation in place is not feasible, a qualified archaeologist, in consultation with the campus, shall:

(i) Prepare a research design and archaeological data recovery plan for the recovery that will capture those categories of data for which the site is significant, and implement the data recovery plan prior to or during development of the site.

(ii) Perform appropriate technical analyses, prepare a full written report and file it with the appropriate information center, and provide for the permanent curation of recovered materials.

(iii) If, in the opinion of the qualified archaeologist and in light of the data available, the significance of the site is such that data recovery cannot capture the values that qualify the site for inclusion on the CRHR, the campus shall reconsider project plans in light of the high value of the resource, and implement more substantial modifications to the proposed project that would allow the site to be preserved intact, such as project redesign, placement of fill, or project relocation or abandonment. If no such measures are feasible, the campus shall implement LRDP Mitigation 4.5 3.

4.5-2(b) For a structure or building that has been determined by a qualified architectural historian to qualify as an historical resource through the process set forth under LRDP Mitigation 4.5-1(c), and where it has been determined under LRDP Mitigation 4.5-1(c) that avoidance is not feasible, documentation and treatment shall be carried out as described below:

(i) If the building or structure can be preserved on site, but remodeling, renovation or other alterations are required, this work shall be conducted in compliance with the “Secretary of the Interior’s Standards for the Treatment of Historic Properties with Guidelines for Preserving, Rehabilitating, Restoring, and Reconstructing Historic Buildings” (Weeks and Grimmer 1995).

(ii) If a significant historic building or structure is proposed for major alteration or renovation, or to be moved and/or demolished, the campus shall ensure that a qualified architectural historian thoroughly documents the building and associated landscaping and setting. Documentation shall include still and video photography and a written documentary record of the building to the standards of the Historic American Building Survey (HABS) or Historic American Engineering Record (HAER), including accurate scaled mapping, architectural descriptions, and scaled architectural plans, if available. A copy of the record shall be deposited with the University archives, Shields Library Special Collections. The record shall be accompanied by a report containing site-specific history and appropriate contextual information. This information shall be gathered through site specific and comparative archival research, and oral history collection as appropriate.

(iii) If preservation and reuse at the site are not feasible, the historical building shall be documented as described in item (ii) and, when physically and financially feasible, be moved and preserved or reused.

(iv) If, in the opinion of the qualified architectural historian, the nature and significance of the building is such that its demolition or destruction cannot be fully mitigated through documentation, the campus shall reconsider project plans in light of the high value of the resource, and implement more substantial modifications to the proposed project that would allow the structure to be preserved intact. These could
2003 LRDP EIR Mitigation Measures

CULTURAL RESOURCES

include project redesign, relocation or abandonment. If no such measures are feasible, the campus shall implement LRDP Mitigation 4.5-3.

4.5-3 If a significant historic resource or unique archaeological resource cannot be preserved intact, before the property is damaged or destroyed the campus shall ensure that the resource is appropriately documented, as follows.

(i) For a built environment feature, appropriate documentation is described under LRDP 4.5-2 (b)

(ii) For an archaeological site, a program of research-directed data recovery shall be conducted and reported, consistent with LRDP Mitigation 4.5-2(a).

4.5-4(a) Implement LRDP Mitigation 4.5-1, 4.5-2 and 4.5-3 to minimize the potential for disturbance or destruction of human remains in an archaeological context and to preserve them in place, if feasible.

4.5-4(b) Provide a representative of the local Native American community an opportunity to monitor any excavation (including archaeological excavation) within the boundaries of a known Native American archaeological site.

4.5-4(c) In the event of a discovery on campus of human bone, suspected human bone, or a burial, all excavation in the vicinity will halt immediately and the area of the find will be protected until a qualified archaeologist determines whether the bone is human. If the qualified archaeologist determines the bone is human, or if a qualified archaeologist is not present, the campus will notify the Yolo or Solano County Coroner (depending on the county of the find) before additional disturbance occurs. Consistent with California Health and Safety Code § 7050.5(b), which prohibits disturbance of human remains uncovered by excavation until the Coroner has made a finding relative to PRC 5097 procedures, the campus will ensure that the remains and vicinity of the find are protected against further disturbance. If it is determined that the find is of Native American origin, the campus will comply with the provisions of PRC § 5097.98 regarding identification and involvement of the Native American Most Likely Descendant (MLD).

4.5-4(d) If human remains cannot be left in place, the campus shall ensure that the qualified archaeologist and the MLD are provided opportunity to confer on archaeological treatment of human remains, and that appropriate studies, as identified through this consultation, are carried out prior to reinterment. The campus shall provide results of all such studies to the local Native American community, and shall provide an opportunity of local Native American involvement in any interpretative reporting. As stipulated by the provisions of the California Native American Graves Protection and Repatriation Act, the campus shall ensure that human remains and associated artifacts recovered from campus projects on state lands are repatriated to the appropriate local tribal group if requested.

4.5-5 Implement LRDP Mitigations 4.5-1 through 4.5-4.

7.5.4 Environmental Checklist and Discussion

<table>
<thead>
<tr>
<th>CULTURAL RESOURCES</th>
<th>Potentially Significant Impact</th>
<th>Less than Significant with Project-level Mitigation</th>
<th>Impact Adequately Addressed in 2003 LRDP EIR</th>
<th>Less than Significant Impact</th>
<th>No Impact</th>
</tr>
</thead>
<tbody>
<tr>
<td>Would the project…</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>a)</td>
<td>Cause a substantial adverse change in the significance of a historical resource as defined in Section 15064.5?</td>
<td>[ ]</td>
<td>[✓]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>b)</td>
<td>Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5?</td>
<td>[ ]</td>
<td>[✓]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>c)</td>
<td>Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?</td>
<td>[ ]</td>
<td>[ ]</td>
<td>[ ]</td>
<td>[✓]</td>
</tr>
<tr>
<td>d)</td>
<td>Disturb any human remains, including those interred outside of formal cemeteries?</td>
<td>[ ]</td>
<td>[✓]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
</tbody>
</table>
a) The proposed project is not expected to adversely affect historic resources. The existing resources at each development site and proposed change to each site are described below.

**Segundo Services Center.** The development area contains no historic buildings. The project would include demolition of the old Segundo Dining Commons building which was constructed in 1960 and does not qualify as a historical resource because it is less than 50 years old (Pacific Legacy 2001).

**Student Community Center.** The development area contains no potentially historic buildings. The 15 existing temporary buildings at the site would be demolished, were constructed in 1965, and evaluated in 2004 for potential historical significance. The buildings were determined to have no qualities that would contribute to a potentially significant historical resource and would not be eligible for listing as a historical resource (JRP 2004).

**Music Instruction and Recital Building.** The development area contains two potentially historic buildings: the Central Heating Plant (Building 3215) that provided heat for the core campus utilities and the Old Firehouse (Building 3316). The building was constructed in 1928 and is currently unused. The building was evaluated for eligibility as a historic structure and was determined to not qualify as a historic resource. While the building includes a few elements of architectural interest and was designed by a prominent architect, the building does not qualify as potentially historic resource and is not eligible for listing as a historic resource. As described in the building evaluation, the buildings are not unique from an architectural or engineering perspective and have been modified from their original design (JRP 1998).

**Chilled Water Phase 7.** The utility routing and project construction would have no effect on historic resources. The development would not affect structures and would repair all damaged sidewalks and paved areas.

For these development sites, the proposed project would not result in the removal of or damage to potentially significant historical resources. In accordance with LRDP EIR Mitigation Measure 4.5-1(c), the campus completed a historic resource evaluation and determined that the Old Heat Plant (Mech 1) was not a historic resource. The potential impact would be less-than-significant and no mitigation measures are needed.

b) The proposed project is not expected to adversely affect archaeological resources. The existing resources at each development site and proposed change to each site are described below.

**Segundo Services Center.** The development area was previously disturbed during construction of the existing Segundo Dining Commons and the surrounding parking areas. The area was surveyed for potential cultural resources by a professional archaeologist and the screening survey did not reveal the presence of archaeological materials (Pacific Legacy 2001). Significant archaeological resources are not expected at the development area.

**Student Community Center.** The development area was previously disturbed during construction of the existing temporary building and the surrounding landscaping and is outside the zone of cultural sensitivity.

**Music Instruction and Recital Building.** The development area was previously disturbed during construction of the existing Central Heating Plant building and the surrounding landscaping and roadway improvements. The development area is within the zone of cultural resources sensitivity near the Arboretum Waterway. The development area was surveyed for potential cultural resources by a professional archaeologist and the screening survey did not reveal the presence of archaeological
materials. However, because of the close proximity to the Arboretum Waterway, the project site could contain archaeological resources that were missed during the survey (Pacific Legacy 1998).

**Chilled Water Phase 7.** The utility routing and project construction would have no effect on historic resources. The development would not affect structures and would repair all damaged sidewalks and paved areas. The project route was surveyed for potential archaeological materials and the site surveys did not reveal the presence of archaeological materials (Pacific Legacy 2003; Pacific Legacy 2004).

The proposed project will continue implementation of the mitigation details described in the LRDP EIR Mitigation Measures 4.5-1(b) and, if necessary, 4.5-2 and 4.5-3. These measures would ensure that if significant resources are uncovered during construction, the campus would minimize the loss of the significant resources to the extent feasible. However, the potential damage to such resources cannot be fully mitigated and the 2003 LRDP EIR found that such impacts would remain significant and unavoidable even with the incorporation of the identified mitigation measures.

The 2003 LRDP EIR identified that development under the 2003 LRDP would contribute to the cumulative damage and loss of archaeological resources in Yolo and Solano counties (LRDP Impact 4.5-5). Because any disturbance of native soils involves the potential to result in impacts to archaeological resources, the proposed project could contribute to this impact, however such an impact is not anticipated. LRDP Mitigation Measure 4.5-5, which is relevant to the proposed project, requires the campus to implement the measures discussed above to survey and protect cultural resources. If cultural resources are impacted as a result of the project the impact would be significant and unavoidable. This impact was adequately analyzed in the 2003 LRDP EIR and was fully addressed in the Findings and Statement of Overriding Considerations adopted by The Regents in connection with its approval of the 2003 LRDP. No new mitigation measures are available to further reduce this potential cumulative impact.

c) During the course of development at UC Davis, extensive excavation for buildings and infrastructure, and extensive agricultural operations have not revealed the presence of unique paleontological or geological resources. It appears that the campus lacks unique paleontological and geological resources due to the deep alluvial deposition of fairly uniform soil types in the area. No impact would occur, and no additional analysis is required.

d) The 2003 LRDP EIR found the potential for development under the 2003 LRDP to disturb human remains, including those interred outside of formal cemeteries (LRDP Impact 4.5-4). LRDP Mitigation 4.5-4(a-d), included in the proposed project, would ensure that human remains in archaeological and isolated contexts would be protected from destruction that might take place from development through measures including identification, Native American consultation, preservation in place or recovery, respectful treatment and study, and reinterment. Therefore, this impact would be less than significant.

**Summary**

The proposed project would not exceed the levels of significance of cultural resources impacts previously addressed in the 2003 LRDP EIR, nor would it introduce any new significant impacts that were not previously addressed. Mitigation measures 4.5-1 (a-c), 4.5-2 (a,b), 4.5-3, 4.5-4 (a-d), and 4.5-5 from the 2003 LRDP EIR are relevant to the proposed project and reduce the significance of impacts on cultural resources to the extent feasible. No new mitigation measures were identified that would further reduce the impacts of the project.
7.6  **GEOLOGY, SOILS, & SEISMICITY**

7.6.1  **Background**

Section 4.6 of the 2003 LRDP EIR addresses the geology, soils, and seismicity effects of campus growth under the 2003 LRDP. The following discussion summarizes information presented in the ‘Setting’ subsection of Section 4.6 of the 2003 LRDP EIR.

**Campus**

The campus is located within the Putah Creek Plain of California’s Great Valley geomorphic province. Except for the somewhat raised elevation along the levee adjacent to Putah Creek, the campus is topographically flat. Soils on campus generally contain a high amount of silt and clay, and as a result, are moderately to slowly permeable and have slow runoff rates, minimal erosion hazards, and moderate to high shrink-swell potential (the potential for soil volume to change with a loss or gain in moisture). The predominant soil constraint to construction on campus is soil shrink-swell potential.

A series of low foothills, including the Dunnigan Hills, the Capay Hills, and the English Hills, lie approximately 20 miles west of the campus at the eastern base of the Coast Range. The presence of subsurface thrust faults within these regional foothills and within 100 miles of the campus indicates the potential for seismic ground shaking in the Davis region. The Davis region is not located within an Alquist-Priolo Fault Zone as defined in the Alquist-Priolo Earthquake Fault Zoning Act, which is designed to prohibit the construction of structures for human occupancy across active faults. According to the California Geological Survey’s Probabilistic Seismic Hazard Assessment for the State of California, the peak ground acceleration with a 10 percent probability of being exceeded in 50 years is 0.2 to 0.3g on the central campus, increasing to 0.3 to 0.4g on the western portion of Russell Ranch (CDOC 1996). By comparison, in most parts of the San Francisco Bay Area, the peak ground acceleration is 0.5g or greater. Likely effects of ground shaking during a probable maximum intensity earthquake for the area could include structural damage to stucco, masonry walls, and chimneys, which could expose people to risks associated with falling objects and potential building collapse.

**Project Site**

The engineering and design process for the project facilities will incorporate the findings from the geotechnical survey to ensure adequate design for compliance with the California Building Code. To design the foundation and related structural elements of the development, the campus will complete a site specific geotechnical investigation and apply the results of the investigation to the project design.

7.6.2  **2003 LRDP EIR Standards of Significance**

The 2003 LRDP EIR considers an impact related to geology, soils, and seismicity significant if growth under the 2003 LRDP would:

- Expose people or structures to potential substantial adverse effects involving strong seismic ground shaking.
- Expose people or structures to potential substantial adverse effects involving seismic-related ground failure.
- Result in substantial soil erosion or the loss of topsoil. (Impacts associated with the effect of erosion on water quality are addressed in Section 7.8 Hydrology & Water Quality.)
- Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse.
- Be located on expansive soil, creating substantial risks to life or property.
- Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater.

Additional standards from the CEQA Guidelines’ Environmental Checklist (a,i) and (a,iv) in the checklist below) were found not applicable to campus growth under the 2003 LRDP.

7.6.3 2003 LRDP EIR Impacts and Mitigation Measures

Impacts of campus growth under the 2003 LRDP through 2015-16 related to geology, soils, and seismicity are evaluated in Section 4.6 of the 2003 LRDP EIR. As analyzed in Section 4 of this Initial Study, the proposed project is within the scope of analysis in the 2003 LRDP EIR. No significant impacts identified in the 2003 LRDP EIR related to geology, soils, and seismicity are relevant to the proposed project and therefore no LRDP mitigation measures related to geology, soils, and seismicity have been incorporated into the project.

7.6.4 Environmental Checklist and Discussion

<table>
<thead>
<tr>
<th>GEOLOGY, SOILS, &amp; SEISMICITY</th>
<th>Potentially Significant Impact</th>
<th>Less than Significant with Project-level Mitigation</th>
<th>Impact Adequately Addressed in 2003 LRDP EIR</th>
<th>Less than Significant Impact</th>
<th>No Impact</th>
</tr>
</thead>
<tbody>
<tr>
<td>Would the project…</td>
<td></td>
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</tr>
<tr>
<td>a)  Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:</td>
<td></td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.</td>
<td>☐</td>
<td>☐</td>
<td>☑</td>
<td>☐</td>
<td>☑</td>
</tr>
<tr>
<td>ii) Strong seismic ground shaking?</td>
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<td>☐</td>
<td>☑</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>iii) Seismic-related ground failure, including liquefaction?</td>
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<td>☐</td>
<td>☑</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>iv) Landslides?</td>
<td>☐</td>
<td>☐</td>
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<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>b) Result in substantial soil erosion or the loss of topsoil?</td>
<td>☐</td>
<td>☐</td>
<td>☑</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?</td>
<td>☐</td>
<td>☐</td>
<td>☑</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?</td>
<td>☐</td>
<td>☐</td>
<td>☑</td>
<td>☐</td>
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</tr>
</tbody>
</table>
e) Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?

a,i) The UC Davis campus and the surrounding area are not located within an Alquist-Priolo Earthquake Fault Zone, and the closest known active fault rupture zones are over 30 miles away. Therefore, no impact would occur and no further analysis is required.

a,ii) The campus is located in a seismically active area that could experience ground shaking, liquefaction, and settlement. The peak ground acceleration for the main campus is estimated to be 0.2 to 0.3g, and 0.3 to 0.4g on the western portion of Russell Ranch. This intensity of seismic ground shaking has the potential to dislodge objects from shelves and to damage or destroy buildings and other structures. In the case of such a seismic event, people on campus and in the area would be exposed to these hazards. The campus minimizes hazards associated with damage or destruction to buildings and other structures by reviewing and approving all draft building plans for compliance with the California Building Code (CBC), which includes specific structural seismic safety provisions. The campus also adheres to the University of California Seismic Safety Policy, which requires anchorage for seismic resistance of nonstructural building elements such as furnishings, fixtures, material storage facilities, and utilities that could create a hazard if dislodged during an earthquake. Campus EH&S provides guidance for preparing department-level Illness and Injury Prevention Plans that emphasize methods for minimizing seismic hazards in laboratories, for example, by properly securing chemical containers and gas cylinders. Each campus department has a Safety Coordinator who develops and maintains a departmental emergency response plan. The departmental emergency response plans must be submitted to the Emergency Preparedness Policy Group for annual review to assure consistency with the campus Emergency Operations Plan, which includes seismic safety and building evacuation procedures. The emergency procedures incorporated into the departmental emergency response plans further reduce the hazards from seismic shaking by preparing faculty, staff, and students for emergencies. All of these procedures would be implemented as part of the proposed project. Therefore, the project-level impact associated with risks due to seismic ground shaking would be less than significant. In addition, it is reasonable to assume that all regional jurisdictions would enforce the seismic provisions of the CBC, and therefore the cumulative impact is also considered less than significant.

a,iii) See the discussion in item (c) below.

a,iv) The UC Davis campus and the surrounding area are characterized by flat topography and therefore would not be subject to landslides. No impact would occur and no further analysis is required.

b) The soil types that occur on the UC Davis campus generally, including the project site, contain a high amount of silt and clay, and these soil types have minimal erosion hazard associated with them (see pages 4.6-1,2 and Figure 4.6-1 of the 2003 LRDP EIR). Therefore, this impact was determined to be less than significant in the 2003 LRDP EIR. The relationship between receiving water quality and potential soil erosion as a result of construction activities is addressed in items (a) and (c) in Section 7.8 Hydrology & Water Quality.

c) The potential for liquefaction on the campus is generally low because the depth to groundwater is relatively large (30 to 80 feet, depending on the season). Furthermore, as discussed above for (a,ii), campus policy requires compliance with the CBC and the University of California Seismic Safety Policy, which include structural and nonstructural seismic safety provisions. Complying with the
provisions of the CBC requires that a geotechnical investigation be performed to provide data for the architect and/or engineer to responsibly design the project. Geotechnical investigations address the potential for liquefaction, lateral spreading, and other types of ground failure. Therefore, because the project will comply with the CBC and the University of California Seismic Safety Policy, impacts associated with seismic-related ground failure would be less than significant.

The Davis area subsided by approximately 2 inches between 1999 and 2002. Because the subsidence is regional, unlike local differential settlement, it would not affect building foundations. Subsidence can adversely affect utilities such as storm drains which rely on gradient for gravity-driven flow if the differential subsidence across the length of the pipeline causes the gradient of the pipelines to change direction. On the campus, the differential subsidence is about 0.4 inch per mile. Thus, over a period of 10 years, the gradient of a pipeline could change by as much as 4 inches per mile. Gravity-driven pipelines typically used for wastewater and storm water are designed with gradients between 0.5 and 1 percent (27 to 53 feet drop per mile). Given these gradients, the small potential change of about 4 inches per mile over a period of 10 years would not affect the functioning of existing and proposed storm drains or other utilities.

d) The soils in several areas of the campus have high shrink/swell potential and could, on a site-specific basis, have the potential to create risk to life or property. Campus policy requires compliance with the CBC, which includes provisions for construction on expansive soils such as proper fill selection, moisture control, and compaction during construction. Complying with the provisions of the CBC requires that a geotechnical investigation be performed to provide data for the architect and/or engineer to responsibly design the project. The project will comply with the CBC, which will ensure that this impact is less than significant.

e) The 2003 LRDP EIR identifies that an impact would result if soils are incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems. No septic tanks or alternative wastewater disposal systems are included in the proposed project, and there would be no impact.

Summary

No LRDP EIR Mitigation Measures are included in the proposed project. The proposed project would not exceed the levels of significance of geology, soils, and seismicity impacts previously addressed in the 2003 LRDP EIR and would not result in any new significant impacts that were not previously addressed.
7.7 HAZARDS & HAZARDOUS MATERIALS

7.7.1 Background

Section 4.7 of the 2003 LRDP EIR addresses the hazards and hazardous materials effects of campus growth under the 2003 LRDP. The following discussion summarizes information presented in the ‘Setting’ subsection of Section 4.7 of the 2003 LRDP EIR.

Campus

A variety of hazardous materials are used on campus during the course of daily operations. Hazardous chemicals used on campus include: chemical solvents, reagents, and aromatic hydrocarbons that are used in campus laboratories; pesticides, fungicides, and herbicides used by agricultural programs and in landscape maintenance; relatively small amounts of solvents, paints, and acids used by fine arts programs; gasoline and diesel fuels, oils and lubricants, antifreeze, cleaning solvents and corrosives, paints and paint thinners, and freon refrigerants used in vehicle and building maintenance. In addition, radioactive materials, biohazardous materials, and laboratory animals are used in teaching and research activities. The use of hazardous materials on campus generates hazardous byproducts that must eventually be handled and disposed of as hazardous wastes.

Generation, transportation, and disposal of hazardous wastes are regulated by various agencies. The lead federal regulatory agency is the Environmental Protection Agency. The State Department of Toxic Substances Control (DTSC) has primary state regulatory responsibility but can delegate enforcement authority to local jurisdictions that enter into agreements with the state agency, as it did with Yolo County Department of Environmental Health (YCDEH) under the Certified Unified Program Agency (CUPA) program.

The campus’ Office of Environmental Health and Safety (EH&S) coordinates most local, state, and federal regulatory compliance functions related to the campus’ health, safety, and environmental issues. EH&S performs safety education and training, regulatory interpretation and applicability, approval of potentially hazardous procedures, resolution of safety problems, surveillance, and monitoring. In addition, EH&S provides guidance for several campus safety programs, including: the Chemical Inventory System, which tracks inventory and use of hazardous materials on campus; the CUPA Self-Audit Program, which complies with the terms of an agreement with the YCDEH; development of laboratory-specific Chemical Hygiene Plans; the Radiation and X-Ray Safety Programs; and the Biological Safety Administrative Advisory Committee. EH&S is also a working partner in such campus administrative advisory groups as the Chemical Safety Committee, the Radiation Safety Committees, the Animal Use and Care Committee, and the Biological Safety Committee. External administrative and benchmarking reviews of the EH&S programs are conducted periodically to identify means of further improving the programs. Benchmarking performed by the Campus Safety, Health, and Environmental Management Association (CSHEMA) in 2000 honored the UC Davis EH&S with a “Unique or Innovative Program Award” for its daily on-call program.

Project Site

The development sites for the proposed project are previously developed areas with a history of use by UC Davis for educational purposes. The sites have been assessed for potential contamination of materials containing lead and asbestos and all three building sites contain lead and asbestos materials. The project demolition and construction plans will include the detailed requirements for proper removal and disposal of such materials. The potential for other environmental contamination at each project site will be
assessed during the design process for each project and will include a due diligence report for each project site to evaluate the site-specific prior uses and potential for contamination.

7.7.2 2003 LRDP EIR Standards of Significance

The 2003 LRDP EIR considers a hazards and hazardous materials impact significant if growth under the 2003 LRDP would:

- Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials.
- Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment.
- Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within ¼ mile of an existing or proposed school.
- Be located on a site that is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, create a significant hazard to the public or the environment.
- For a project within an airport land use plan or, where such a plan has not been adopted, within 2 miles of a public airport or public use airport, result in a safety hazard for people residing or working in the project area.
- Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan.

Additional standards from the CEQA Guidelines’ Environmental Checklist (“f” and “h” in the checklist below) were found not applicable to campus growth under the 2003 LRDP.

7.7.3 2003 LRDP EIR Impacts and Mitigation Measures

Impacts of campus growth under the 2003 LRDP through 2015-16 related to hazards and hazardous materials are evaluated in Section 4.7 of the 2003 LRDP EIR. The proposed project is within the scope of analysis in the 2003 LRDP EIR and potentially significant hazards and hazardous materials impacts identified in the 2003 LRDP EIR that are relevant to the proposed project are presented below with their corresponding levels of significance before and after application of mitigation measures identified in the 2003 LRDP EIR. In addition, LRDP Impacts 4.7-1, 4.7-2, 4.7-8, 4.7-9, 4.7-12, and 4.7-13, presented below, are considered less than significant prior to mitigation, but the 2003 LRDP EIR identified mitigation to further reduce the significance of these impacts. Less than significant impacts without mitigation measures are not presented here.

<table>
<thead>
<tr>
<th>2003 LRDP EIR Impacts</th>
<th>Level of Significance Prior to Mitigation</th>
<th>Level of Significance After Mitigation</th>
</tr>
</thead>
<tbody>
<tr>
<td>4.7-1</td>
<td>Implementation of the 2003 LRDP would increase routine hazardous chemical use on campus by UC Davis laboratories and departments and in maintenance and support operations, which would not create significant hazards to the public or the environment.</td>
<td>LS</td>
</tr>
<tr>
<td>4.7-2</td>
<td>Implementation of the 2003 LRDP could increase routine generation of hazardous wastes on campus by UC Davis laboratories and departments and from</td>
<td>LS</td>
</tr>
</tbody>
</table>
Mitigation measures in the 2003 LRDP EIR that are applicable to the proposed project are presented below. Since these mitigation measures are already being carried out as part of implementation of the 2003 LRDP, they are considered part of the project description and will not be readopted in this Initial Study or Negative Declaration. Nothing in this Initial Study in any way alters the obligations of the campus to implement 2003 LRDP EIR mitigation measures.

### 2003 LRDP EIR Mitigation Measures

<table>
<thead>
<tr>
<th>HAZARDS &amp; HAZARDOUS MATERIALS</th>
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</thead>
<tbody>
<tr>
<td><strong>2003 LRDP EIR Impacts</strong></td>
</tr>
<tr>
<td><strong>HAZARDS &amp; HAZARDOUS MATERIALS</strong></td>
</tr>
<tr>
<td>maintenance and support operations, which would not create significant hazards to the public or the environment.</td>
</tr>
<tr>
<td>Implementation of the 2003 LRDP would increase the routine transport of hazardous materials to and from campus, which would not significantly increase hazards to the public or the environment.</td>
</tr>
<tr>
<td>Implementation of the 2003 LRDP would not create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment.</td>
</tr>
<tr>
<td>Construction activities on campus under the 2003 LRDP would not expose construction workers and campus occupants to contaminated soil or groundwater.</td>
</tr>
<tr>
<td>Demolition or renovation of buildings under the 2003 LRDP would not expose construction workers or campus occupants to contaminated building materials.</td>
</tr>
<tr>
<td>Campus development under the 2003 LRDP could physically interfere with the campus' Emergency Operations Plan.</td>
</tr>
</tbody>
</table>

Levels of Significance: LS=Less than Significant, S=Significant, PS=Potentially Significant, SU=Significant and Unavoidable

- The campus shall continue to implement the same (or equivalent) safety plans, programs, practices, and procedures related to the use, storage, and disposal of hazardous chemical materials during the 2003 LRDP planning horizon, including, but not necessarily limited to, the Business Plan, Hazardous Materials Communication Program, Chemical Inventory System, CUPA Self-Audit program, Injury and Illness Prevention Program, Chemical Hygiene Plans, Medical Surveillance Program, Chemical Safety Advisory Committee, Chemical Carcinogen Safety Program, and EH&S audits and safety training. These programs may be replaced by other programs that incorporate similar health and safety measures.

- The campus shall continue to implement the same (or equivalent) hazardous waste management programs during the 2003 LRDP planning horizon, including, but not necessarily limited to, hazardous waste storage and handling procedures, the waste minimization program, the pretreatment program, and the Waste Exclusion Program. These programs may be subject to modification as more stringent standards are developed or if the programs become obsolete through replacement by other programs that incorporate similar health and safety protection measures.

- The campus shall continue to require that packaging of chemicals to be transported on public roads conform with all legal requirements.

- Implement LRDP Mitigations 4.7-1 through 4.7-8.

- The campus shall perform due diligence assessments of all sites where ground-disturbing construction is proposed.

- The campus shall survey buildings for potential contamination before any demolition or renovation work is performed.
2003 LRDP EIR Mitigation Measures

HAZARDS & HAZARDOUS MATERIALS

4.7-17 To the extent feasible, the campus shall maintain at least one unobstructed lane in both directions on campus roadways. At any time only a single lane is available due to construction-related road closures, the campus shall provide a temporary traffic signal, signal carriers (i.e., flagpersons), or other appropriate traffic controls to allow travel in both directions. If construction activities require the complete closure of a roadway, the campus shall provide appropriate signage indicating alternative routes. To ensure adequate access for emergency vehicles when construction projects would result in temporary lane or roadway closures, the campus shall inform emergency services, including the UC Davis Police and Fire Departments, and American Medical Response, of the closures and alternative travel routes.

7.7.4 Environmental Checklist and Discussion

### HAZARDS & HAZARDOUS MATERIALS
Would the project…

<table>
<thead>
<tr>
<th>a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?</th>
<th>Potentially Significant Impact</th>
<th>Less than Significant with Project-level Mitigation</th>
<th>Impact Adequately Addressed in 2003 LRDP EIR</th>
<th>Less than Significant Impact</th>
<th>No Impact</th>
</tr>
</thead>
<tbody>
<tr>
<td>b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?</td>
<td>☐</td>
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<tr>
<td>c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?</td>
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</tr>
<tr>
<td>d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?</td>
<td>☐</td>
<td>☐</td>
<td>☑</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?</td>
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</tr>
<tr>
<td>f) For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?</td>
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<tr>
<td>g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?</td>
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<tr>
<td>h) Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?</td>
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</tr>
</tbody>
</table>
a) The proposed project would involve construction of three buildings and an extension of the underground utility system. The construction effort would include typical hazardous materials that are used at construction sites such as paints, glue, and adhesives for the building components and grease and equipment fuel for the construction equipment. During operation, the project would include office space, administrative space, and classroom space. These building uses would include regular cleaning activities that could use a minor amount of potentially hazardous cleaning materials and the long-term maintenance of the building would include activities such as repainting that could include the use of hazardous materials.

**Hazardous Chemicals**

The 2003 LRDP EIR found that implementation of the 2003 LRDP would increase routine hazardous chemical use (Impact 4.7-1), routine generation of hazardous chemical wastes (Impact 4.7-2), and routine hazardous materials transport to and from the campus (Impact 4.7-8) by UC Davis laboratories, departments, and maintenance/support operations, which would not create significant hazards to the public or the environment. The campus achieves a high level of compliance with regulatory standards and campus policies relevant to use, transport, and disposal of hazardous materials, as discussed further in the ‘Setting’ subsection to Section 4.7 of the 2003 LRDP EIR. Hazardous waste treatment, storage, and disposal facilities currently have available capacity to accept and safely manage UC Davis chemical waste. The campus will continue to implement relevant safety programs and meet relevant standards regarding hazardous materials use, transport, and waste management for the proposed project, as well as for other projects proposed under the 2003 LRDP. Therefore, these project-level impacts would be less than significant. To ensure that safety policies Mitigations 4.7-1, 4.7-2(a-b), and 4.7-8 are included as part of the proposed project.

Given the campus’ and local jurisdiction’s existing policies and compliance with state and federal regulations, the 2003 LRDP EIR found that cumulative impacts related to the use and transport of hazardous materials and the generation of hazardous waste are less than significant.

**Radioactive Materials**

No radioactive materials would be used as part of the proposed project.

**Biohazardous Materials**

No biohazardous materials would be used as part of the proposed project.

**Laboratory Animals**

No laboratory animals would be used as part of the proposed project.

b) The 2003 LRDP EIR found that implementation of the 2003 LRDP would not create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment (Impact 4.7-9). The proposed buildings and the underground utilities could include use of hazardous materials during construction, cleaning, or maintenance activities. Anticipated materials include petroleum fuels and lubricants, sealants, solvents, and other common materials. Compliance with all applicable federal and state laws, as well as campus programs, practices, and procedures related to the transportation, storage, and use of hazardous materials, would continue for the proposed project as well as other projects proposed under the 2003 LRDP, minimizing the potential for an accidental release of hazardous materials.
materials and providing for prompt and effective cleanup if an accidental release occurs. Therefore, this impact is considered less than significant. To ensure continued compliance with relevant laws and campus policies and to further reduce this less-than-significant impact, the LRDP Mitigation 4.7-9 is included as part of the project.

c) Hazardous materials associated with the proposed project are described above in item (a). Existing schools within ¼ mile of campus include Martin Luther King High School on B Street in downtown Davis; Emerson Junior High School on Calaveras Avenue; Rivendell Nursery School; Parkside Children’s House (formerly Davis Montessori School); Redbud Montessori School north of the west campus; the Grace Valley Christian Academy on County Road 98; and the Fairfield Elementary School on Russell Boulevard at County Road 96. There are no proposed new Davis Joint Unified School District (DJUSD) school sites within ¼ mile of the campus boundaries. The future west campus neighborhood is planned to include DJUSD elementary and high school facilities on the campus. Childcare centers are currently located on the campus.

Although hazardous materials associated with the proposed project could be handled within ¼ mile of existing and proposed schools and childcare centers, these materials would not be handled in quantities sufficient to pose a risk to occupants of the schools or to members of the campus and surrounding community. Therefore, the impact to those attending existing or proposed schools would be less than significant.

d) The Laboratory for Energy-Related Health Research/South Campus Disposal site is the only campus site that is listed as a hazardous materials site pursuant to Government Code Section 65962.5. The proposed project is over a mile to the north and would not disturb this site.

The 2003 LRDP EIR found that construction activities under the 2003 LRDP would not expose construction workers and campus occupants to contaminated soil or groundwater (Impact 4.7-12) and that demolition or renovation of buildings under the 2003 LRDP would not expose construction workers or campus occupants to contaminated building materials (Impact 4.7-13). Campus policy requires that due diligence surveys be performed for all proposed project sites as part of the project planning process prior to ground disturbance, construction, or demolition activities. Federal and state regulations require that workers who may be exposed to contaminants during the course of their jobs know of the presence of contamination and be properly trained. In addition, these regulations require that appropriate engineering and administrative controls and protective equipment be provided to reduce exposure to safe levels. Current campus due diligence policy and Cal/OSHA regulations minimize the exposure of construction workers to contaminants. In addition, if contaminants are identified on project sites, the campus would coordinate site remediation. Remediation for lead and asbestos will be required for the three building sites. Therefore, the impacts would be less than significant. To ensure that due diligence surveys are performed and to further reduce this less-than-significant impact, LRDP Mitigations 4.7-12 and 4.7-13 will be implemented as part of the proposed project.

e) The 2003 LRDP EIR found that development of certain projects on the west campus under the 2003 LRDP could result in safety hazards associated with aircraft. However, the proposed project is not one of these projects and would not conflict with airport operations. Therefore, the impact would be less than significant.

f) The University Airport is a public use airport, not a private airstrip. No other airport facilities are within the immediate vicinity of the campus. The proposed project is over 1.5 miles to the east, and no impact would occur. Refer to item e) above for a discussion of potential safety hazards associated with the University airport, a local public use airport.
g) The 2003 LRDP EIR found that implementation of the 2003 LRDP could interfere with the campus’ Emergency Operations Plan through construction-related road closures (Impact 4.7-17). The proposed project would include temporary lane closures and the project may need to include temporary road closures during specific portions of the construction. Under current campus procedures, if there are changes in traffic patterns resulting from construction lane or roadway closures, the UC Davis Office of Architects and Engineers initiates notification of emergency services, including the UC Davis Fire Department and Police Department, and American Medical Response, which provides regional ambulance services to the campus. In addition, to ensure that the proposed project would not impair implementation of or physically interfere with emergency response and evacuation efforts, LRDP Mitigation 4.7-17, which requires the campus to keep at least one lane open in both directions to the extent feasible, will be included as part of the proposed project. No other potential impacts associated with interference of an adopted emergency response plan or emergency evacuation plan would occur.

h) The proposed project is not within an area that is subject to wildlife fires. No impact would occur.

Summary

Mitigation measures 4.7-1, 4.7-2 (a,b), 4.7-8, 4.7-9, 4.7-12, 4.7-13, and 4.7-17 from the 2003 LRDP EIR are relevant to the proposed project and reduce the significance of hazards and hazardous materials impacts to the extent feasible. The proposed project would not exceed the levels of significance of hazards and hazardous materials impacts previously addressed in the 2003 LRDP EIR and no new mitigation measures have been identified that would further reduce the previously identified impacts, nor would it introduce any new significant impacts that were not previously addressed.
7.8 HYDROLOGY & WATER QUALITY

7.8.1 Background

Section 4.8 of the 2003 LRDP EIR addresses the hydrology and water quality effects of campus growth under the 2003 LRDP. The following discussion summarizes information presented in the ‘Setting’ subsection of Section 4.8 of the 2003 LRDP EIR.

Campus

Surface Water Resources

The UC Davis campus is located in the Lower Sacramento watershed. Putah Creek, the principal waterway in the Davis area, originates from springs in the Mayacamas Mountains northwest of the campus, flows into Lake Berryessa, through Winters, along the southern boundary of Russell Ranch, along the southern boundary of UC Davis’ west and south campuses, and eventually into the Yolo Bypass, an overflow channel for the Sacramento River. The North Fork Cutoff and the Arboretum Waterway on campus follow the historic channel of Putah Creek, but currently have no natural flow. The North Fork Cutoff is a typically dry stream channel on the west campus that is currently occupied by sheep and cattle programs in the Department of Animal Science. The Arboretum Waterway serves as the storm water detention basin for the central campus.

UC Davis is a member of the Solano Project, and currently has rights to purchase 4,000 acre-feet of Putah Creek water from Lake Berryessa per year, although reductions in deliveries can occur during drought conditions. The water is delivered to the southwest corner of the campus via an underground pipeline. UC Davis also has rights to surface water from Putah and Cache Creeks. The campus has not used this water in the recent past, but the tenant farmer at Russell Ranch uses approximately 3,750 acre-feet of water per year from Putah and Cache Creeks (via Willow Canal) for irrigation of commercial crops.

The quantity and quality of flows in Putah Creek are highly variable and depend on releases from Lake Berryessa, precipitation, storm water runoff, and treated effluent discharge. The campus’ tertiary level Wastewater Treatment Plant (WWTP) is the largest discharger of treated effluent to Putah Creek. The plant is regulated under a National Pollutant Discharge Elimination System (NPDES) Waste Discharge Requirement (WDR) permit issued by the Central Valley Regional Water Quality Control Board (CVRWQCB).

Groundwater Resources

The campus is underlain by sand and gravel alluvial deposits that include deep and shallow/intermediate depth aquifers. Deep gravel and sand aquifers underlie the campus between 600 to 1,500 feet below ground surface and supply the campus domestic/fire system. Historic annual domestic water use on campus over the past three decades has ranged from less than 600 million gallons per year (mgy) during drought conditions to nearly 900 mgy (UC Davis 1997). Despite the campus’ significant growth in recent decades, the campus’ deep aquifer demands have not significantly increased since the late 1960s (Ludorff and Scalmanini 2003), a trend that reflects the success of the campus’ water conservation efforts.

Shallow/intermediate depth sand and gravel aquifers underlie the campus at depths from 150 to 800 feet below ground surface and supply the campus utility water system, main campus agricultural water needs, and campus and tenant farmer irrigation needs at Russell Ranch. Over the past ten years, an average of approximately 2,657 acre-feet per year of shallow/intermediate aquifer water was used for agricultural purposes on campus, including approximately 1,813 acre-feet on the main campus and approximately 844
acre-feet at Russell Ranch (UC Davis Agricultural Services 2003, UC Davis ORMP 2003c). Water levels in the shallow/intermediate aquifer vary seasonally and strongly correlate to precipitation. A generally upward recharge trend over the period from 1957 to 2002 indicates that there has not been long-term overdraft of the shallow/intermediate depth aquifers (Ludorff and Scalmanini 2003).

Regional groundwater quality is generally characterized as having high mineral content. Calcium, magnesium, and sulfates have been identified as the dominant problematic constituents.

Flooding & Drainage

On campus, the South Fork of Putah Creek, the North Fork Cutoff, and the Arboretum Waterway channels are designated as FEMA 100-year floodplain areas. In addition, a portion of Russell Ranch along County Road 31 and a portion of the west campus along County Road 98 are also subject to flooding during a 100-year storm event.

The central campus drainage system intercepts and collects runoff and directs this water via underground pipes to the Arboretum Waterway. During large storm events, water rises in the Arboretum Waterway, overtops the weir at the west end of the waterway, and flows into the pump pond located north of the weir. From the pump pond, water is pumped through an underground storm drain to the South Fork of Putah Creek. The peak discharge from the Arboretum Waterway to Putah Creek since December 1999 was 65 cubic feet per second (cfs). The majority of land in the west and south campuses and at Russell Ranch is used as teaching and research fields and is not drained by a storm drainage system. Irrigation practices on campus teaching and research fields typically do not generate surface runoff. However, large storm events may result in shallow overland flows that flow to temporary shallow ponds in places such as road and field edges. In addition, developed areas on the west and south campuses include storm water conveyance systems that drain to Putah Creek.

To protect the quality of storm water on campus that ultimately drains to Putah Creek, UC Davis construction and industrial activities are subject to the NPDES storm water requirements. Routine maintenance and minor construction activities on campus are subject to the campus’ Phase II Storm Water Management Plan (SWMP).

Project Site

The four redevelopment areas have on-site drainage that connects to the campus storm water drainage system. The project design process will include grading details for each area to ensure that the proposed developments have adequate site drainage.

7.8.2 2003 LRDP EIR Standards of Significance

The 2003 LRDP EIR considers a hydrology and water quality impact significant if growth under the 2003 LRDP would:

- Violate any water quality standards or waste discharge requirements.
- Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level.
- Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on site or off site.
• Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on site or off site.

• Create or contribute runoff water that would exceed the capacity of existing or planned storm water drainage systems or provide substantial additional sources of polluted runoff.

• Otherwise substantially degrade water quality.

• Place within a 100-year flood hazard area structures that would impede or redirect flood flows.

• Expose people or structures to a significant risk of loss, injury, or death involving flooding.

Additional standards from the CEQA Guidelines’ Environmental Checklist (“g” and “j” in the checklist below) were found not applicable to campus growth under the 2003 LRDP.

### 7.8.3 2003 LRDP EIR Impacts and Mitigation Measures

Impacts of campus growth under the 2003 LRDP through 2015-16 on hydrology and water quality are evaluated in Section 4.8 of the 2003 LRDP EIR. The proposed project is within the scope of analysis in the 2003 LRDP EIR. Significant and potentially significant hydrology and water quality impacts identified in the 2003 LRDP EIR that are relevant to the proposed project are presented below with their corresponding levels of significance before and after application of mitigation measures identified in the 2003 LRDP EIR. In addition, Impact 4.8-1, presented below, is considered less than significant prior to mitigation, but mitigation measures were identified in the 2003 LRDP EIR to further reduce the significance of this impact. Other less than significant impacts that do not include mitigation measures are not presented here. Mitigation measures are included to reduce the magnitude of project-level impacts 4.8-5 and 4.8-6 and cumulative impacts 4.8-13 and 4.8-14, but these impacts are identified as significant and unavoidable because they cannot be fully mitigated. Mitigation is also relevant to reduce the magnitude of cumulative impact 4.8-10, but this impact is identified as significant and unavoidable because mitigation falls within other jurisdictions to enforce and monitor and therefore cannot be guaranteed by the University of California.

<table>
<thead>
<tr>
<th>2003 LRDP EIR Impacts</th>
<th>HYDROLOGY &amp; WATER QUALITY</th>
<th>Level of Significance Prior to Mitigation</th>
<th>Level of Significance After Mitigation</th>
</tr>
</thead>
<tbody>
<tr>
<td>4.8-1</td>
<td>Campus construction activities associated with implementation of the 2003 LRDP would not contribute substantial loads of sediment or other pollutants in storm water runoff that could degrade receiving water quality.</td>
<td>LS</td>
<td>LS</td>
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<tr>
<td>4.8-2</td>
<td>Development under the 2003 LRDP would increase impervious surface on the campus and could alter drainage patterns, thereby increasing runoff and loads of pollutants in storm water, which could affect water quality.</td>
<td>PS</td>
<td>LS</td>
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<tr>
<td>4.8-3</td>
<td>Implementation of the 2003 LRDP could alter drainage patterns in the project area and increase impervious surfaces, which could exceed the capacity of storm water drainage systems and result in localized flooding and contribution to offsite flooding.</td>
<td>PS</td>
<td>LS</td>
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<tr>
<td>4.8-4</td>
<td>Campus growth under the 2003 LRDP would increase discharge of treated effluent from the campus wastewater treatment plant into the South Fork of Putah Creek, which could exceed waste discharge requirements and degrade receiving water quality.</td>
<td>PS</td>
<td>LS</td>
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<td>4.8-5</td>
<td>Campus growth under the 2003 LRDP would increase the amount of water extracted from the deep aquifer and would increase impervious surfaces. This</td>
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### 2003 LRDP EIR Impacts

#### HYDROLOGY & WATER QUALITY

<table>
<thead>
<tr>
<th>Description</th>
<th>Level of Significance Prior to Mitigation</th>
<th>Level of Significance After Mitigation</th>
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<tr>
<td>Campus growth under the 2003 LRDP could increase the amount of water</td>
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<td>extracted from the shallow/intermediate aquifer and would increase impervious</td>
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<td>surfaces. Extraction from the shallow/intermediate aquifer could deplete</td>
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<td>groundwater levels and could contribute to local subsidence, and increased</td>
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<td>impervious coverage could interfere substantially with recharge. This could</td>
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<td>result in a net deficit in the intermediate aquifer volume or a lowering of the</td>
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<td>local groundwater table.</td>
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<td>Development under the 2003 LRDP, in conjunction with construction activities,</td>
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<td>increased impervious surfaces, and alterations to drainage patterns</td>
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<td>associated with other development in the region that would increase</td>
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<td>impervious surface coverage in the watershed, could increase storm water</td>
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<td>runoff, and could provide substantial sources of polluted runoff, which</td>
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<td>could affect receiving water quality.</td>
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<td>Implementation of the 2003 LRDP in combination with regional development</td>
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<td>could alter drainage patterns and increase the rate or amount of surface</td>
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<td>runoff, which could exceed the capacity of storm water drainage systems</td>
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<td>and result in flooding within the Putah Creek watershed.</td>
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<tr>
<td>Growth under the 2003 LRDP and other development in the region would</td>
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<td>increase discharge of treated effluent to the Putah Creek watershed, which</td>
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<td>could degrade receiving water quality.</td>
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<td>increase the amount of water extracted from the deep aquifer and increase</td>
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<td>impervious surfaces. This could result in a net deficit in the deep aquifer</td>
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<td>volume or a lowering of the local groundwater table but would not interfere</td>
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<td>substantially with recharge of the deep aquifer.</td>
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<tr>
<td>Growth under the 2003 LRDP and other development in the region would</td>
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<td>increase the amount of water extracted from shallow/intermediate aquifers</td>
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<td>and increase impervious surfaces. This could contribute to local subsidence</td>
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<td>substantially deplete groundwater supplies, and could interfere</td>
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<td>substantially with recharge of the shallow/intermediate depth aquifer,</td>
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<td>resulting in a net deficit in the shallow/intermediate aquifer volume or</td>
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<td>a lowering of the local groundwater table.</td>
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**Levels of Significance:**
- LS = Less than Significant
- S = Significant
- PS = Potentially Significant
- SU = Significant and Unavoidable

Mitigation measures in the 2003 LRDP EIR that are applicable to the proposed project are presented below. Since these mitigation measures are already being carried out as part of implementation of the 2003 LRDP, they are considered part of the project description and will not be readopted in this Initial Study or Negative Declaration. Nothing in this Initial Study in any way alters the obligations of the campus to implement 2003 LRDP EIR mitigation measures.

### 2003 LRDP EIR Mitigation Measures

#### HYDROLOGY & WATER QUALITY

<table>
<thead>
<tr>
<th>Description</th>
<th>Details</th>
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<tbody>
<tr>
<td>The campus shall continue to comply with the NPDES state-wide General</td>
<td>The campus shall continue to comply with the NPDES state-wide General</td>
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<td>Permit for Discharge of Storm Water Associated with Construction Activity</td>
<td>Permit for Discharge of Storm Water Associated with Construction Activity</td>
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<td>by implementing control measures and BMPs required by project-specific</td>
<td>by implementing control measures and BMPs required by project-specific</td>
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<td>SWPPPs and with the Phase II SWMP to eliminate or reduce non-storm and</td>
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<td>storm water discharges to receiving waters.</td>
<td>storm water discharges to receiving waters.</td>
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4.8-2 The campus shall comply with the measures in the Phase II SWMP to ensure that project design includes a combination of BMPs, or equally effective measures as they become available in the future, to minimize the contribution of pollutants to receiving waters.

4.8-3(a) Prior to approval of specific projects under the 2003 LRDP, the campus shall perform a drainage study to evaluate each specific development to determine whether project runoff would exceed the capacity of the existing storm drainage system, cause ponding to worsen, and/or increase the potential for property damage from flooding.

4.8-3(b) If it is determined that existing drainage capacity would be exceeded, ponding could worsen, and/or risk of property damage from flooding could increase, the campus shall design and implement necessary and feasible improvements. Such improvements could include, but would not be limited to, the following:

(i) The expansion or modification of the existing storm drainage system.

(ii) Single-project detention or retention basins incorporated into project design with features including but not limited to: small onsite detention or retention basins; rooftop ponding; temporary flooding of parking areas, streets and gutters; landscaping designed to temporarily retain water; and gravel beds designed to collect and retain runoff.

(iii) Multi-project storm water detention or retention basins.

4.8-3(c) Campus development west of County Road 98 shall incorporate single- or multi-project basins in order to reduce storm event drainage flows to the Covell Drain.

4.8-4(a) The campus shall continue to monitor and modify its pretreatment program, WWTP operation, and/or treatment processes as necessary to comply with WDRs.

4.8-4(b) The campus shall implement a monitoring program specifically targeted at the following constituents: copper, cyanide, iron and nitrate + nitrite, and make appropriate modifications as necessary to the campus pretreatment program to avoid exceedance of permit limits for these constituents.

4.8-5(a) The campus shall continue to implement water conservation strategies to reduce demand for water from the deep aquifer. Domestic water conservation strategies shall include the following or equivalent measures:

(i) Install water efficient shower heads and low-flow toilets that meet or exceed building code conservation requirements in all new campus buildings, and where feasible, retrofit existing buildings with these water efficient devices.

(ii) Continue the leak detection and repair program.

(iii) Continue converting existing single-pass cooling systems to cooling tower systems.

(iv) Use water-conservative landscaping on the west and south campuses where domestic water is used for irrigation.

(v) Replace domestic water irrigation systems on the west and south campuses with an alternate water source (shallow/intermediate or reclaimed water), where feasible.

(vi) Install water meters at the proposed neighborhood to encourage residential water conservation.

(vii) Identify and implement additional feasible water conservation strategies and programs including a water awareness program focused on water conservation.

4.8-5(b) The campus shall continue hydrogeologic monitoring and evaluation efforts to determine the long-term production and quality trends of the deep aquifer.

4.8-5(c) To the extent feasible, new water supply wells in the deep aquifer should be located on the west campus in sands and gravels that are not used by or available to the City of Davis for deep water extraction.

4.8-5(d) If continued hydrogeologic monitoring and evaluation efforts identify constraints in the deep aquifer’s ability to provide for the campus’ long-term water needs, the campus will treat shallow/intermediate aquifer and/or surface water from the Solano Project to serve domestic water demand.

4.8-6(a) The campus shall continue to implement water conservation strategies to reduce demand for water from the intermediate aquifer. Utility water conservation strategies shall include the following or equivalent measures:

(i) Landscape, where appropriate, with native, drought resistant plants and use lawns only where needed for
2003 LRDP EIR Mitigation Measures
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pedestrian traffic, activity areas, and recreation.

(ii) Install efficient irrigation systems including centrally controlled automatic irrigation systems and low-flow spray systems.

(iii) Apply heavy applications of mulch to landscaped areas to reduce evaporation

(iv) Use treated wastewater for landscape irrigation where feasible.

4.8-6(b) The campus shall continue to monitor shallow/intermediate aquifer water elevations at existing campus wells to ascertain whether there is any long-term decline in water levels.

4.8-6(c) The campus shall continue to participate in regional subsidence monitoring, including by installing an extensometer, to determine the vertical location of local subsidence.

4.8-6(d) If shallow/intermediate aquifer monitoring or subsidence monitoring indicate that campus water use from the intermediate aquifer is contributing to a net deficit in aquifer volume and/or significant subsidence, the campus will reduce use of water from the aquifer by using surface water and/or treated wastewater effluent to irrigate campus recreation fields.

4.8-6(e) The campus shall incorporate the following or equally effective measures into project designs under the 2003 LRDP where feasible, to increase percolation and infiltration of precipitation into the underlying shallow/intermediate aquifers:

(i) Minimize paved surfaces.

(ii) Use grassy swales, infiltration trenches, or grass filter strips to intercept storm water runoff.

(iii) Implement LRDP Mitigation 4.8-3(b), which specifies construction of detention and infiltration facilities in those areas that do not discharge storm water to the Arboretum.

4.8-10(a) Implement LRDP Mitigation 4.8-1 and 4.8-2.

4.8-10(b) Jurisdictions within the Putah Creek watershed should comply with Phase II NPDES Municipal Storm Water Permit requirements for small municipalities in order to minimize the contribution of sediment and other pollutants associated with development in the region.

4.8-10(c) Comprehensive SWPPPs and monitoring programs should be implemented by all storm water dischargers associated with specified industrial and construction activities, in compliance with the state’s General Permits. Such plans shall include BMPs or equally effective measures.

4.8-11 The campus shall implement LRDP Mitigation 4.8-3(a-c) in order to prevent flooding on campus.

4.8-12 The campus shall implement LRDP Mitigation 4.8-4(a) and (b) to minimize the potential for degradation of receiving water quality.

4.8-13(a) Implement LRDP Mitigation 4.8-5(a-d).

4.8-13(b) The City of Davis is expected to implement measures to reduce the amount of water withdrawn from the deep aquifer consistent with policies adopted in its General Plan.

- Give priority to demand reduction and conservation over additional water resource development (Policy WATER 1.1)
- Require water conserving landscaping (Policy WATER 1.2)
- Provide for the current and long-range water needs of the Davis Planning Area, and for protection of the quality and quantity of groundwater resources (Policy WATER 2.1)
- Manage groundwater resources so as to preserve both quantity and quality (Policy WATER 2.2)
- Research, monitor and participate in issues in Yolo County and the area of origin of the City’s groundwater that affect the quality and quantity of water (Policy WATER 4.1)

4.8-14(a) The campus should implement LRDP Mitigation 4.8-6(a-e) to minimize its withdrawal from the shallow/intermediate aquifer and maximize the potential for infiltration.
2003 LRDP EIR Mitigation Measures
HYDROLOGY & WATER QUALITY

4.8-14(b) Consistent with current water planning policies, the City of Davis is expected to implement measures to reduce impervious surfaces and reduce the amount of water withdrawn from the shallow/intermediate aquifer, consistent with, but not limited to, the water policies listed in LRDP Mitigation 4.8-13(b).

7.8.4 Environmental Checklist and Discussion

<table>
<thead>
<tr>
<th>HYDROLOGY &amp; WATER QUALITY</th>
<th>Potentially Significant Impact</th>
<th>Less than Significant with Project-level Mitigation</th>
<th>Impact Adequately Addressed in 2003 LRDP EIR</th>
<th>Less than Significant Impact</th>
<th>No Impact</th>
</tr>
</thead>
<tbody>
<tr>
<td>Would the project…</td>
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<tr>
<td>a) Violate any water quality standards or waste discharge requirements?</td>
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<tr>
<td>b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?</td>
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<tr>
<td>c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site?</td>
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<td>d) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?</td>
<td>☐</td>
<td>☐</td>
<td>☑</td>
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</tr>
<tr>
<td>e) Create or contribute runoff water which would exceed the capacity of existing or planned storm water drainage systems or provide substantial additional sources of polluted runoff?</td>
<td>☐</td>
<td>☐</td>
<td>☑</td>
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<td>☐</td>
</tr>
<tr>
<td>f) Otherwise substantially degrade water quality?</td>
<td>☐</td>
<td>☐</td>
<td>☑</td>
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<td>☐</td>
</tr>
<tr>
<td>g) Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?</td>
<td>☐</td>
<td>☐</td>
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</tr>
<tr>
<td>h) Place within a 100-year flood hazard area structures which would impede or redirect flood flows?</td>
<td>☐</td>
<td>☐</td>
<td>☑</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>i) Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?</td>
<td>☐</td>
<td>☐</td>
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</tr>
<tr>
<td>j) Inundation by seiche, tsunami, or mudflow?</td>
<td>☐</td>
<td>☐</td>
<td>☑</td>
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<td>☐</td>
</tr>
</tbody>
</table>

a,f) Construction
The 2003 LRDP EIR found that construction on campus under the 2003 LRDP would not contribute substantial loads of sediment or other pollutants to storm water runoff (Impact 4.8-1). Construction on campus is covered under the NPDES state-wide General Permit for Discharge of Storm Water Associated with Construction Activity. As part of this permit, campus construction projects managed by outside contractors and/or disturbing over one acre (including the proposed project) must implement Storm Water Pollution Prevention Plans (SWPPPs), which specify Best Management Practices (BMPs) to reduce the contribution of sediments, spilled and leaked liquids from construction equipment, and other construction-related pollutants to storm water runoff. All routine maintenance activities and any construction projects disturbing less than one acre that are not managed by outside contractors are covered under the campus’ Phase II Municipal Storm Water Management Plan, which requires BMPs to reduce contribution of pollutants to storm water runoff. Because the UC Davis campus is required to comply with the NPDES state-wide permit and Phase II requirements, the water quality effects associated with construction activities on campus are considered to be less than significant. In addition, LRDP Mitigation 4.8-1, included as part of the project, requires the campus to implement BMPs to reduce construction-related water quality impacts.

**Operation**

The 2003 LRDP EIR found that campus growth under the 2003 LRDP would increase discharge of treated effluent from the campus WWTP into the South Fork of Putah Creek, which could exceed waste discharge requirements and degrade receiving water quality (Impact 4.8-4). The project is expected to result in minor increases in wastewater effluent through the population increase of approximately 70 employees. With current and future discharge control programs and possible operational changes, the increased discharge from the WWTP associated with the proposed project as well as other projects under the 2003 LRDP is expected to comply with NPDES regulations, and therefore will not cause degradation of receiving water quality. The campus will continue to monitor effluent discharge in compliance with the applicable WDRs for the WWTP, and if effluent limits are exceeded, the campus will modify its pretreatment program and WWTP operation as appropriate. These practices are further confirmed in LRDP Mitigation 4.8-4(a), which is included as part of the project. In compliance with LRDP Mitigation 4.8-4(b), also relevant to part of the project, the campus will target monitoring and pretreatment for the contaminants specifically identified as of potential concern by the CVRWQCB. These measures would reduce the impact to a less-than-significant level.

The 2003 LRDP EIR found that growth under the 2003 LRDP and other development in the region would increase the cumulative discharge of treated effluent to the Putah Creek watershed, which could degrade receiving water quality (Impact 4.8-12). However, UC Davis is currently the largest discharger of treated effluent to Putah Creek, and no other major dischargers are expected in the future. LRDP Mitigation 4.8-12, included as part of the project, requires implementation of LRDP Mitigation 4.8-4(a-b), discussed above, which would reduce the impact of increased effluent discharge from the campus WWTP to Putah Creek to a less-than-significant level. Therefore, with implementation of LRDP Mitigation 4.8-12, which is included in the proposed project, the cumulative impact would be less than significant.

b) **Deep Aquifer**

The proposed project is expected to result in increased water demand to serve the replacement buildings at the Segundo Services Center, the Student Community Center, and the Music Instruction and Recital Building. The net increase in water demand will be minor for the water supply system. The 2003 LRDP EIR found that campus growth under the 2003 LRDP would increase the amount of
water extracted from the deep aquifer and would increase impervious surfaces, which could result in a net deficit in the deep aquifer volume or a lowering of the local groundwater table but would not interfere substantially with recharge of the deep aquifer (Impact 4.8-5). The deep aquifer is confined with limited lateral and vertical recharge and is overlain by thick clay layers that are relatively impermeable. Because of these characteristics, increased impervious surfaces associated with development under the 2003 LRDP will not significantly affect the recharge capacity of the deep aquifer. The 2001 demand for water from the deep aquifer was approximately 2,671 acre-feet. The annual demand for deep aquifer water under the 2003 LRDP, including demand associated with the proposed project, is expected to increase to approximately 5,301 acre-feet through 2015-16 (UC Davis ORMP 2003c). In 2007-08, the campus used 2,419 acre-feet from the deep aquifer. LRDP Mitigation 4.8-5(a-c), included as part of the project, would require continued water conservation efforts, efforts to determine the ability of the deep aquifer to provide for the campus' long-term water needs, and efforts to minimize withdrawals by UC Davis and the City of Davis from the same deep aquifers. If monitoring identifies that the aquifer is unable to meet the campus’ long-term needs, consistent with LRDP Mitigation 4.8-5(d), the campus would treat intermediate aquifer water and/or surface water to serve domestic water needs. Regardless of these mitigation measures, if UC Davis’ future demand for water from the deep aquifer increases, groundwater levels in the deep aquifer could lower, contributing to a net deficit in the overall groundwater budget. The effects of increased demand on the volume of the deep aquifer are currently not well understood (although consistent with LRDP Mitigation 4.8-5(b), the campus will continue to study these effects). Therefore, this impact is considered cumulatively significant and unavoidable. This cumulative impact was adequately analyzed in the 2003 LRDP EIR and was fully addressed in the Findings and Statement of Overriding Considerations adopted by The Regents in connection with its approval of the 2003 LRDP. No conditions have changed and no new information has become available since certification of the 2003 LRDP EIR that would alter this previous analysis.

The 2003 LRDP EIR found that growth under the 2003 LRDP and other development in the region would cumulatively increase the amount of water extracted from the deep aquifer and would increase impervious surfaces, which could result in a net deficit in the deep aquifer volume or a lowering of the local groundwater table, but would not interfere substantially with recharge of the deep aquifer (Impact 4.8-13). The long-term reliability of the deep aquifer could be at risk if both UC Davis and the City of Davis rely on the aquifer to meet their future needs. In compliance with LRDP Mitigation 4.8-13(a), included in the proposed project, the campus would take the following actions: minimize withdrawals from those aquifers shared with the City of Davis by locating new wells on the west campus when feasible; monitor the deep aquifer; conserve water; and manage water supplies efficiently. LRDP Mitigation 4.8-13(b) recognizes the City of Davis General Plan’s objectives regarding reduction of water extraction from the deep aquifer. However, regardless of mitigation, because the effects of increased demand on the volume of the deep aquifer are currently not well understood, this impact is considered significant and unavoidable. This impact was adequately analyzed in the 2003 LRDP EIR and was fully addressed in the Findings and Statement of Overriding Considerations adopted by The Regents in connection with its approval of the 2003 LRDP. No conditions have changed and no new information has become available since certification of the 2003 LRDP EIR that would alter this previous analysis.

**Shallow/Intermediate Aquifer**

The proposed project would result in a minimal increase in the overall surface area at the development sites. The exact increase in impervious surface is not known at this time. The 2003 LRDP EIR found that the campus’ extraction from shallow/intermediate aquifers could deplete groundwater levels and could contribute to local subsidence. In addition, increased impervious
coverage could interfere with recharge of the shallow/intermediate aquifers. This could result in a net deficit in the intermediate aquifer volume or a lowering of the local groundwater table (Impact 4.8-6).

The 2001 baseline annual campus demand (including irrigation demand associated with the tenant farmer at Russell Ranch) for water from the shallow/intermediate aquifers was approximately 3,827 acre-feet. Under the 2003 LRDP, due to conversion of teaching and research fields to other uses with reduced irrigation requirements, overall annual demand for water from the shallow/intermediate aquifers is anticipated to decrease to approximately 3,362 acre-feet through 2015-16 (UC Davis ORMP 2003c). However, these projections do not address the potential identified in LRDP Mitigation 4.8-5(d) for intermediate aquifer water to be used to serve the campus’ domestic water needs. If this mitigation is implemented, demand for water from the intermediate aquifer could increase. In addition, recent monitoring efforts indicate subsidence in the campus vicinity. Due to the short history of subsidence monitoring in the area, the extent and cause of this subsidence is currently unknown, however, extraction from the shallow/intermediate aquifer could be a contributing factor. Additionally, development under the 2003 LRDP, including the proposed project, would increase the amount of impervious surfaces on campus. However, because the soils underlying the campus generally have low permeability and would provide limited recharge, new impervious surfaces are not likely to significantly reduce the amount and rate of groundwater recharge. Most recharge in the area is associated with streams and waterways, which would not be affected by the project.

LRDP Mitigation 4.8-6(a-c), included as part of the proposed project, would require continued utility water conservation efforts, monitoring of the intermediate aquifer, and subsidence monitoring efforts. Furthermore, implementation of LRDP Mitigation 4.8-6(e), included in the proposed project, would encourage project designs on campus that increase percolation and infiltration to the shallow/intermediate aquifer. Through the project design process and inclusion of LEED design features to improve stormwater infiltration, the three building projects are expected to include stormwater detention and percolation facilities that would decrease peak storm flows and decrease the overall storm water flows. If the monitoring efforts required by LRDP Mitigation 4.8-6(b) or (c) identify that campus intermediate aquifer use is contributing to a net deficit in aquifer volume or significant subsidence, LRDP Mitigation 4.8-6(d) would be implemented to reduce campus utility water use by requiring use of Solano Project surface water and/or tertiary treated wastewater effluent from the campus WWTP for irrigation of campus recreation fields. Regardless of mitigation, the combination of effects from continued demand for water from the shallow/intermediate aquifer, local subsidence trends, and increased coverage could potentially result in a significant impact on intermediate aquifer groundwater levels. Therefore, Impact 4.8-6 is considered cumulatively significant and unavoidable. This impact was adequately analyzed in the 2003 LRDP EIR and was fully addressed in the Findings and Statement of Overriding Considerations adopted by The Regents in connection with its approval of the 2003 LRDP. No conditions have changed and no new information has become available since certification of the 2003 LRDP EIR that would alter this previous analysis.

The 2003 LRDP EIR found that growth under the 2003 LRDP and other development in the region would cumulatively increase the amount of water extracted from shallow/intermediate aquifers and would increase impervious surfaces. This could contribute to local subsidence, substantially deplete groundwater supplies, and could interfere substantially with recharge of the shallow/intermediate depth aquifer, resulting in a net deficit in the shallow/intermediate aquifer volume or a lowering of the local groundwater table (Impact 4.8-14). Although campus extraction of water from the shallow/intermediate aquifers is anticipated to continue to decrease through 2015-16, a potential increase in extraction in the Davis area could cause well levels to decrease. In addition, extraction from these aquifers could be causing subsidence that has been observed in the area, and increases in
impervious surfaces could impede the amount of groundwater recharge. Implementation of LRDP Mitigation 4.8-13(a) and (b) would reduce the campus and City extractions from the shallow/intermediate aquifers, would reduce the amount of new impervious surfaces in the area, and would continue groundwater level and subsidence monitoring efforts. Regardless of mitigation, the combination of effects from continued local demand for water from the shallow/intermediate aquifers, local subsidence trends, and increased coverage could result in a significant and unavoidable impact on the aquifers. This impact was adequately analyzed in the 2003 LRDP EIR and was fully addressed in the Findings and Statement of Overriding Considerations adopted by The Regents in connection with its approval of the 2003 LRDP. No conditions have changed and no new information has become available since certification of the 2003 LRDP EIR that would alter this previous analysis.

c) Through the project design process and inclusion of LEED design features to improve stormwater infiltration, the three building projects are expected to include stormwater detention and percolation facilities that would decrease the overall storm water flows and would reduce the pollutants in storm water entering the Arboretum Waterway. The 2003 LRDP EIR found that development under the 2003 LRDP would increase impervious surfaces on the campus and could alter drainage patterns, thereby increasing runoff and loads of pollutants in storm water, which could adversely affect surface water quality (Impact 4.8-2). Discharge of storm water to the Arboretum Waterway is covered under a NPDES Phase II permit for small municipal storm water systems, which requires BMPs to reduce pollutants in storm water discharge to the maximum extent practicable. LRDP Mitigation 4.8-2 requires the campus to comply with Phase II regulations. As described in item (a) above, both construction and operation activities are required to employ BMPs. With implementation of Phase II requirements, increases in storm water runoff and levels of contaminants in runoff associated with implementation of the 2003 LRDP, including the proposed project, would have a less than significant impact on receiving waters.

The 2003 LRDP EIR found that development under the 2003 LRDP, in conjunction with construction activities, increased impervious surfaces, and alterations to drainage patterns associated with other development in the watershed could increase storm water runoff and could provide substantial sources of polluted runoff, which could adversely affect receiving water quality (Impact 4.8-10). LRDP Mitigations 4.8-10 (a-c) require the campus and regional jurisdictions to comply with NPDES Phase II requirements and implement SWPPPs for specified industrial and construction activities. However, implementation of LRDP Mitigation 4.8-10(b) and (c) cannot be guaranteed by the University of California because it falls within other jurisdictions to enforce and monitor. Therefore, the impact is currently considered significant and unavoidable. This impact was adequately analyzed in the 2003 LRDP EIR and was fully addressed in the Findings and Statement of Overriding Considerations adopted by The Regents in connection with its approval of the 2003 LRDP. No conditions have changed and no new information has become available since certification of the 2003 LRDP EIR that would alter this previous analysis.

d,e) The 2003 LRDP EIR found that implementation of the 2003 LRDP would alter drainage patterns in the project area and would increase impervious surfaces, which could exceed the capacity of storm water drainage systems and result in localized flooding and contribution to offsite flooding (Impact 4.8-3). The proposed project is not located within a floodway designated by the California Department of Water Resources and is not within 10 feet of the levees along the South Fork of Putah Creek. Therefore, the project does not require an encroachment permit from the Reclamation Board. Campus runoff is not expected to significantly increase peak flows in Putah Creek under the 2003 LRDP because anticipated development represents only a minor increase in the percentage of impervious area in the watersheds. Campus discharges from the Arboretum Waterway to Putah Creek are not expected to exceed the existing pumping capacity of approximately 80 cfs (the current NPDES permit has a maximum discharge limit of 130 cfs). Pursuant to the campus Stormwater
Management Plan, the current campus standard for storm water management is a 10-year storm event (Wengler 2005). However, under existing conditions, localized flooding on some portions of the campus occurs during a 2-year storm event. In most cases, this flooding consists of temporary water ponding at storm drain inlets and along roads that does not result in property damage or other serious consequences. Without any improvements, increased runoff associated with development under the 2003 LRDP, including the proposed project, would increase the likelihood of localized flooding (West Yost & Associates 2000). In accordance with LRDP Mitigation 4.8-3(a), included in the project, a drainage study has been performed for the proposed project to determine if capacity in the existing storm drainage system exists. The existing storm drainage system is adequate to serve the proposed development sites. Therefore, this impact would be less than significant.

The 2003 LRDP EIR also found that implementation of the 2003 LRDP in combination with regional development could alter drainage patterns and increase the rate or amount of surface runoff, which could cumulatively exceed the capacity of storm water drainage systems and result in flooding within the Putah Creek watershed (Impact 4.8-11). In most cases, this flooding consists of temporary water ponding at storm drain inlets and along roads that does not result in property damage or other serious consequences. With implementation of LRDP Mitigation 4.8-11, storm water discharges from the campus would be reduced to a less than significant level and would not contribute to regional flooding problems.

Storm water runoff pollution is evaluated further in items (a,f) and (c) above.

g) Under the 2003 LRDP, housing (including on-campus student housing and housing within the proposed West Village neighborhood) would be constructed outside the 100-year flood zones on campus (see 2003 LRDP EIR, Figure 4.8-4, 100-Year Floodplain). The proposed project includes no housing. Therefore, no impact would occur.

h, i) The 2003 LRDP EIR found that development under the 2003 LRDP could place non-residential structures within a 100-year floodplain, which could expose people and structures to risks associated with flooding and/or could impede or redirect flows, contributing to flood hazards (LRDP Impact 4.8-9). The proposed project would not be located in a floodplain and the potential impact would be less than significant impact.

The campus is located approximately 23 miles downstream of the Monticello Dam (forming Lake Berryessa) and approximately 15 miles downstream of the Putah Diversion Dam. An inundation study prepared by the U.S. Bureau of Reclamation shows that, in the highly unlikely case of a dam breach, the campus (as well as the City of Davis) would be inundated under a maximum of 3 to 9 feet of water approximately 3.5 to 4 hours following the breach (USBR 1998). However, the probability of such a release is far less than one in one million (USBR 2000). As of June 2000, Monticello Dam was determined to be in satisfactory condition, and the dam exhibited no unusual cracks, seeps, or deformations. In addition, the State Department of Dam Safety evaluates dams regularly, which would give adequate time to respond to any deterioration in the safety of the structure. Therefore, the risk of flooding on campus as a result of a dam failure is considered to be a less-than-significant impact.

j) The campus is not subject to inundation by seiche, tsunami, or mudflow. The campus is generally flat and is not located in close proximity to any large water bodies. Therefore, no impact would occur.
Summary

The proposed project would not exceed the levels of significance of hydrology and water quality impacts previously addressed in the 2003 LRDP EIR, nor would it introduce any new significant impacts that were not previously addressed. Mitigation Measures 4.8-1, 4.8-2, 4.8-3 (a-c), 4.8-4 (a,b), 4.8-5 (a-d), 4.8-6 (a-e), 4.8-9, 4.8-10 (a-c), 4.8-11, 4.8-12, 4.8-13 (a,b), and 4.8-14 from the 2003 LRDP EIR are relevant to the proposed project and reduce the significance of hydrology and water quality impacts to the extent feasible. No new mitigation measures were identified that would further reduce the impacts of the project.
7.9  LAND USE & PLANNING

7.9.1  Background

Section 4.9 of the 2003 LRDP EIR addresses the land use and planning effects of campus growth under the 2003 LRDP. The following discussion summarizes information presented in the ‘Setting’ subsection of Section 4.9 of the 2003 LRDP EIR.

Campus

The approximately 5,300-acre UC Davis campus is located within Yolo and Solano counties. Local land use is predominantly agricultural, with small cities and towns. The campus is surrounded by extensive agricultural uses to the west and south and by residential, institutional, and commercial land uses in the City of Davis, to the north and east. The City of Davis is a university-oriented community with over 62,000 residents. The UC Davis campus consists of four general units: the central campus, the south campus, the west campus, and Russell Ranch. In addition, the University of California owns several properties in the City of Davis, including buildings in downtown Davis and buildings and vacant parcels in the South Davis Research Park, located south of I-80.

As a state entity, UC Davis is not subject to municipal policies such as the City of Davis General Plan. Nevertheless, such policies are of interest to the campus. The campus has a tradition of working cooperatively with the local communities and it is University policy to seek consistency with local plans and policies, where feasible.

The 2003 LRDP is the campus’ primary land use planning guide. It designates campus lands for the following uses through 2015-16: Academic and Administrative (High and Low Density); Teaching and Research Fields; Teaching and Research Open Space; Parking; Physical Education, Intercollegiate Athletics, and Recreation (PE/ICA/Recreation); Research Park (High and Low Density); Formal Open Space; Community Gardens; Faculty/Staff Housing, Student Housing; Mixed Use Housing; and Elementary School.

Project Site

Segundo Services Center. The Segundo Services Center development would take place on approximately 3.5 acres east of La Rue Road as shown on Figure 3. The project area is currently designated as Housing in the UC Davis 2003 Long Range Development Plan. The Housing designation provides campus land for student housing purposes such as residential buildings and facilities to support student housing including small parking lots. The site currently includes a parking lot for approximately 40 vehicles, the existing Segundo Dining Commons building, and a landscaped area east of the existing Segundo Dining Commons building. The existing Segundo Dining Commons building is approximately 24,000 square feet and was replaced in 2005 with completion of the new Segundo Dining Commons building. The development site is surrounded by student dormitories to the north, east, and south. West of the development site is La Rue Road, campus arterial roadway that extends in a north/south direction from Russell Boulevard in the City of Davis into the central campus.

Student Community Center. The Student Community Center building would occupy a site of approximately 2 acres within the core campus as shown on Figure 3 and would include landscaping along the perimeter of the development site. The currently developed site includes a collection of 15 one-story temporary buildings that would be demolished prior to construction. The project area is designated as Academic and Administrative-High Density in the UC Davis 2003 Long Range Development Plan. The Academic and Administrative-High Density designation provides campus land for academic and
administrative buildings and uses. Uses surrounding the project site include an academic building (Walker Hall) to the east and core campus roads to the north, south, and west.

**Music Instruction and Recital Building.** The Music Instruction and Recital Building would occupy a site of approximately one acre within the core campus near the existing Music Building as shown on Figure 3 and would include landscaping along the perimeter of the development site. The site is surrounded by Hutchison Drive to the north, the existing music building to the west, the UC Davis Arboretum to the south, and a single-story academic building to the east. The project area is currently designated as *Academic and Administrative-High Density* in the UC Davis 2003 Long Range Development Plan. The *Academic and Administrative-High Density* designation provides campus land for academic and administrative buildings and uses.

**Chilled Water Phase 7.** The Chilled Water Phase 7 project would extend underground chilled water utilities through the core campus to provide increased distribution for the chilled water system. The project would require approximately 3,500 linear feet of chilled water piping and the construction process would occupy a corridor approximately 30 feet in width. The project would extend through campus land designated for *Academic and Administrative-High Density* and would provide long-term functionality to academic and administrative uses.

### 7.9.2 2003 LRDP EIR Standards of Significance

The 2003 LRDP EIR considers a land use and planning impact significant if growth under the 2003 LRDP would:

- Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project adopted for the purpose of avoiding or mitigating an environmental effect.
- Result in development of land uses that are substantially incompatible with existing adjacent land uses or with planned uses.
- Conflict with any applicable habitat conservation plan or natural community conservation plan.

An additional standard from the CEQA Guidelines’ Environmental Checklist ("a" in the checklist below) was found not applicable to campus growth under the 2003 LRDP.

### 7.9.3 2003 LRDP EIR Impacts and Mitigation Measures

Impacts of campus growth under the 2003 LRDP through 2015-16 related to land use and planning are evaluated in Section 4.9 of the 2003 LRDP EIR. As analyzed in Section 4 of this Initial Study, the proposed project is within the scope of analysis in the 2003 LRDP EIR. The 2003 LRDP EIR did not identify any potentially significant or significant land use and planning impacts. The less than significant land use and planning impacts identified in the 2003 LRDP EIR do not require mitigation.

### 7.9.4 Environmental Checklist and Discussion

<table>
<thead>
<tr>
<th><strong>LAND USE &amp; PLANNING</strong></th>
<th>Potentially Significant Impact</th>
<th>Less than Significant with Project-level Mitigation</th>
<th>Impact Adequately Addressed in 2003 LRDP EIR</th>
<th>Less than Significant Impact</th>
<th>No Impact</th>
</tr>
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<tbody>
<tr>
<td>Would the project…</td>
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<tr>
<td>a) Physically divide an established community?</td>
<td>☐</td>
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<td>☐</td>
<td>☐</td>
<td>✓</td>
</tr>
</tbody>
</table>
a) The proposed project would have no potential to physically divide an established community. No impact would occur and no additional analysis is required.

b) The applicable land use plan for the campus is the 2003 LRDP. The proposed project is consistent with the land use designations in the 2003 LRDP. The proposed developments would support the objectives of the Housing and the Academic/Administrative land uses categories by providing buildings that serve key functions of these land use categories. The buildings would be designed to complement existing development on adjacent sites. No impact would occur.

c) The campus does not fall within the boundaries of, nor is it adjacent to, an adopted regional HCP or NCCP. The campus has implemented two low effects HCPs for VELB at Russell Ranch. The project is located more than three miles from these sites. Therefore, the proposed project would not conflict with an adopted HCP or NCCP. No impact would occur.

d) The 2003 LRDP EIR identifies that an impact could result if land uses are developed under the 2003 LRDP EIR that are substantially incompatible with existing adjacent land uses or with planned uses. As described above in item (b), the proposed project is consistent with the 2003 LRDP and with the existing land uses that are adjacent to the development sites. No impact would occur.

**Summary**

The project would have no land use impacts. No LRDP EIR Mitigation Measures or project-specific mitigation measures related to land use are required.
7.10  MINERAL RESOURCES

7.10.1  Background

Section 4.6, Geology, Soils, and Seismicity, of the 2003 LRDP EIR briefly addresses mineral resources issues. The 2003 LRDP EIR concludes that development on campus would not impede extraction or result in the loss of availability of mineral resources.

Sand and gravel are important mineral resources in the region (CDOC 2000). However, natural gas is the only known or potential mineral resource that has been identified on campus. Natural gas can be extracted at wells placed considerable distances from deposits. No other known or potential mineral resources have been identified on the UC Davis campus. Therefore, development on campus does not impede extraction or result in the loss of availability of mineral resources.

7.10.2  2003 LRDP EIR

Because development on campus would not impede extraction or result in the loss of availability of mineral resources, the 2003 LRDP EIR did not identify any standards of significance, impacts, or mitigation measures associated with mineral resources. As analyzed in Section 4 of this Initial Study, the proposed project is within the scope of analysis in the 2003 LRDP EIR.

7.10.3  Environmental Checklist and Discussion

<table>
<thead>
<tr>
<th>MINERAL RESOURCES</th>
<th>Potentially Significant Impact</th>
<th>Less than Significant with Project-level Mitigation</th>
<th>Impact Adequately Addressed in 2003 LRDP EIR</th>
<th>Less than Significant Impact</th>
<th>No Impact</th>
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<td>Would the project…</td>
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<tr>
<td>a)</td>
<td>Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?</td>
<td>☐</td>
<td>☒</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>b)</td>
<td>Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?</td>
<td>☐</td>
<td>☒</td>
<td>☐</td>
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a, b)  Natural gas is the only known or potential mineral resource that has been identified on campus. Natural gas can be extracted at wells placed considerable distances from deposits. Therefore, development on campus would not impede extraction or result in the loss of availability of a known mineral resource. No impact would occur and no further analysis is required.

Summary

The project would have no impact to mineral resources. No LRDP EIR Mitigation Measures or project-specific mitigation measures related to mineral resources are required.
7.11 Noise

7.11.1 Background

Section 4.10 of the 2003 LRDP EIR addresses the noise effects of campus growth under the 2003 LRDP. The following discussion summarizes information presented in the ‘Setting’ subsection of Section 4.10 of the 2003 LRDP EIR.

Campus

The primary noise source in the vicinity of the campus is vehicular traffic using I-80, SR 113, and local roads. Other sources of noise include occasional aircraft over-flights associated with the University Airport located on the west campus and another small airport in the vicinity, agricultural activities, railroads, and landscaping activities. Land use surrounding the campus is primarily agricultural, with residential, commercial, and other uses concentrated along the northern and eastern boundaries of the main campus.

Sound is technically described in terms of amplitude (loudness) and frequency (pitch). The standard unit of sound amplitude measurement is the decibel (dB), and the decibel scale adjusted for A-weighting (dBA) is a special frequency-dependent rating scale that relates to the frequency sensitivity of the human ear. Community noise usually consists of a base of steady “ambient” noise that is the sum of many distant and indistinguishable noise sources, as well as more distinct sounds from individual local sources. A number of noise descriptors are used to analyze the effects of community noise on people, including the following:

- $L_{eq}$, the equivalent energy noise level, is the average acoustic energy content of noise, measured during a prescribed period, typically one hour.
- $L_{day}$, the Day-Night Average Sound Level, is a 24-hour-average $L_{eq}$ with a 10 dBA “penalty” added to noise occurring during the hours of 10:00 PM to 7:00 AM to account for greater nocturnal noise sensitivity.
- CNEL, the Community Noise Equivalent Level, is a 24-hour-average $L_{eq}$ with a “penalty” of 5 dB added to evening noise occurring between 7:00 PM and 10:00 PM, and a “penalty” of 10 dB added to nighttime noise occurring between 10:00 PM and 7:00 AM.

Noise monitoring over a 24-hour period in 2003 at sites located in urban areas on and adjacent to the campus (including areas next to freeways, roads, residences, and academic buildings) reflected CNEL levels ranging from 63 to 65 dBA CNEL. Ambient noise levels measured over a short period at various urban sites on campus varied from 49 to 63 dBA $L_{eq}$.

Project Site

The project development areas include noise sources from typical campus operations such as traffic noise, building operations, and human activity. The Segundo Services Building and the Student Community Center would occupy sites with typical noise levels and would not include noise sensitive uses. During construction, these developments would include construction noise that would be adjacent to sites with noise sensitive uses such as residential and academic buildings. The site of the Music Instruction and Recital Building includes typical noise levels and has exposure to episodic noise events from bus operations along Hutchison Drive. The uses inside the building will include noise sensitive music performances, recordings, and rehearsals. During construction of the Music Instruction and Recital
Building, the adjacent Music Building will continue to operate and could be exposed to construction noise during performances, recordings, or rehearsals.

### 7.11.2 2003 LRDP EIR Standards of Significance

The 2003 LRDP EIR considers a noise impact significant if growth under the 2003 LRDP would result in the following:

- Exposure of persons to or generation of noise levels in excess of levels set forth in Table 4.10-3 of the 2003 LRDP EIR. Thresholds that are applicable to the proposed project are listed below.

#### Table 7.11.2: Thresholds of Significance for Noise Evaluations

<table>
<thead>
<tr>
<th>Noise Sourcea</th>
<th>Criterion Noise Levelb</th>
<th>Substantial Increase in Noise Levelb</th>
</tr>
</thead>
<tbody>
<tr>
<td>Road Traffic and Other Long-Term Sources</td>
<td>65 dBA CNEL</td>
<td>&gt;=3 dBA if CNEL w/project is &gt;= 65 dBA</td>
</tr>
<tr>
<td></td>
<td></td>
<td>&gt;=5 dBA if CNEL w/project is 50-64 dBA</td>
</tr>
<tr>
<td></td>
<td></td>
<td>&gt;=10 dBA if CNEL w/project is &lt; 50 dBA</td>
</tr>
<tr>
<td>Construction (temporary)</td>
<td>80 dBA L_{eq(8h)}c daytime (7:00 a-7:00 p) 80 dBA L_{eq(8h)}c evening (7:00 p-11:00 p) 70 dBA L_{eq(8h)}c nighttime (11:00 p-7:00 a)</td>
<td>Not Applicable</td>
</tr>
</tbody>
</table>

Source: 2003 LRDP EIR

a The 2003 LRDP would not substantially increase rail activity; therefore, a threshold of significance for rail noise is not included in this table.

b At noise-sensitive land use unless otherwise noted. Noise-sensitive land uses include residential and institutional land uses.

c L_{eq(8h)}c is an average measurement over an eight-hour period.

d Screening analysis distance criterion from FTA 1995.

e L_{eq(8h)}c is an average measurement over a one-hour period.

- Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels.
- A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project.
- A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project.
- For a project within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, exposure of people residing or working in the project area to excessive noise levels.

### 7.11.3 2003 LRDP EIR Impacts and Mitigation Measures

Impacts of campus growth under the 2003 LRDP through 2015-16 related to noise are evaluated in Section 4.10 of the 2003 LRDP EIR. The proposed project is within the scope of analysis in the 2003 LRDP EIR and significant and potentially significant noise impacts identified in the 2003 LRDP EIR that are relevant to the proposed project are presented below with their corresponding levels of significance before and after application of mitigation measures identified in the 2003 LRDP EIR. Mitigation measures are included to reduce the magnitude of project-level impact 4.10-2 and cumulative impact 4.10-5, but these impacts are identified as significant and unavoidable because of the uncertainty regarding mitigation feasibility and effectiveness, and because mitigation falls within other jurisdictions to enforce and monitor and therefore cannot be guaranteed by the University of California.
2003 LRDP EIR Impacts

<table>
<thead>
<tr>
<th>Level of Significance</th>
<th>Prior to Mitigation</th>
<th>After Mitigation</th>
</tr>
</thead>
<tbody>
<tr>
<td>PS</td>
<td>LS</td>
<td></td>
</tr>
<tr>
<td>S</td>
<td>SU</td>
<td></td>
</tr>
<tr>
<td>S</td>
<td>SU</td>
<td></td>
</tr>
</tbody>
</table>

Levels of Significance: LS=Less than Significant, S=Significant, PS=Potentially Significant, SU=Significant and Unavoidable

Mitigation measures in the 2003 LRDP EIR that are applicable to the proposed project are presented below. Since these mitigation measures are already being carried out as part of implementation of the 2003 LRDP, they are considered part of the project description and will not be readopted in this Initial Study or Negative Declaration. Nothing in this Initial Study in any way alters the obligations of the campus to implement 2003 LRDP EIR mitigation measures.

2003 LRDP EIR Mitigation Measures

**NOISE**

4.10-1 Prior to initiation of construction, the campus shall approve a construction noise mitigation program including but not limited to the following:

- Construction equipment shall be properly outfitted and maintained with feasible noise-reduction devices to minimize construction-generated noise.
- Stationary noise sources such as generators or pumps shall be located 100 feet away from noise-sensitive land uses as feasible.
- Laydown and construction vehicle staging areas shall be located 100 feet away from noise-sensitive land uses as feasible.
- Whenever possible, academic, administrative, and residential areas that will be subject to construction noise shall be informed a week before the start of each construction project.
- Loud construction activity (i.e., construction activity such as jackhammering, concrete sawing, asphalt removal, and large-scale grading operations) within 100 feet of a residential or academic building shall not be scheduled during finals week.
- Loud construction activity as described above within 100 feet of an academic or residential use shall, to the extent feasible, be scheduled during holidays, Thanksgiving breaks, Christmas break, Spring break, or Summer break.
- Loud construction activity within 100 feet of a residential or academic building shall be restricted to occur between 7:30 AM and 7:30 PM.

4.10-2(a) For noise-sensitive uses adjacent to Russell Boulevard between Arlington Boulevard and Arthur Street, the existing soundwall (approximately 6.5 feet in height) could be increased slightly in height and extended to include the daycare center to the east.

For noise-sensitive uses adjacent to Russell Boulevard between Arthur Street and SR 113, and from SR 113 to La Rue/Anderson Road and from La Rue Road to Oak Street, soundwalls may be constructed for exterior residential and recreational land uses within approximately 100 feet of the centerline of Russell Boulevard, where construction of such walls would not interfere with driveway access.

The campus shall reimburse the City of Davis the campus’ fair share of the cost of a City of Davis’ noise abatement program for reducing interior noise levels in homes along Russell Boulevard that are significantly
2003 LRDP EIR Mitigation Measures

NOISE

affected by noise from 2003 LRDP-related traffic growth. The campus’ contribution to the City’s noise abatement program could be used to extend sound walls as described above or for other noise abatement measures such as retrofit of homes. The campus’ fair share shall be determined based on the volume of traffic added to Russell Boulevard by the campus as a result of 2003 LRDP implementation and the percentage that 2003 LRDP-related traffic increases constitute of the average daily traffic on the roadway.

4.10-2(b) For components of the 2003 LRDP having future noise-sensitive land uses such as the Neighborhood and Research Park, building and area layouts shall incorporate noise control as a design feature; including increased setbacks, landscaped berms, and using building placement to shield noise-sensitive exterior areas from direct roadway views.

4.10-5 Implement LRDP Mitigations 4.10-1 and 4.10-2.

7.11.4 Environmental Checklist and Discussion

<table>
<thead>
<tr>
<th>NOISE</th>
<th>Potentially Significant Impact</th>
<th>Less than Significant with Project-level Mitigation</th>
<th>Impact Adequately Addressed in 2003 LRDP EIR</th>
<th>Less than Significant Impact</th>
<th>No Impact</th>
</tr>
</thead>
<tbody>
<tr>
<td>Would the project…</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>a) Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☑</td>
<td>☐</td>
</tr>
<tr>
<td>b) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☑</td>
<td>☐</td>
</tr>
<tr>
<td>c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?</td>
<td>☐</td>
<td>☐</td>
<td>☑</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?</td>
<td>☐</td>
<td>☐</td>
<td>☑</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?</td>
<td>☐</td>
<td>☐</td>
<td>☑</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>f) For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☑</td>
<td>☐</td>
</tr>
</tbody>
</table>

a) During operation, the proposed project would generate minimal noise levels and the overall noise exposure would be similar to the existing noise levels. The Segundo Services Center and the Student Community Center would not be a sensitive receptor for noise considerations and is not expected to produce noise above the levels currently occurring at the project sites. The Music Instruction and Recital Building would be exposed to bus noise that could disrupt the noise sensitive musical activities taking place inside the proposed building. This issue was identified during the preliminary design process for the building and the detailed design process will include careful consideration of the building materials and building openings to achieve an indoor noise standard that will be appropriate for planned music performance needs. The potential impact would be less than significant.
b,d) The proposed project would include substantial construction noise generation at each development site and these activities would be within 100 feet of noise sensitive uses and buildings. Demolition of the existing buildings at the redevelopment sites and construction activity such as excavation, concrete pumping, steel installation, and operation of heavy equipment under substantial load and using warning beepers while reversing would produce substantial noise that could exceed the noise thresholds identified in Table 7.11.2. The 2003 LRDP EIR found that construction of campus facilities pursuant to the 2003 LRDP could expose nearby receptors to excessive groundborne vibration and airborne or groundborne noise (Impact 4.10-1). Construction under the 2003 LRDP, including the proposed project, would require temporary construction activities using conventional construction techniques and equipment that would not generate substantial levels of vibration or groundborne noise. Routine noise levels from conventional construction activities (with the normal number of equipment operating on the site) range from 75 to 86 dBA Leq at a distance of 50 feet, from 69 to 80 dBA Leq at a distance of 100 feet, from 55 to 66 dBA Leq at a distance of 500 feet, and 48 to 60 dBA Leq at a distance of 1,000 feet (although noise levels would likely be lower due to additional attenuation from ground effects, air absorption, and shielding from miscellaneous intervening structures). LRDP Mitigation 4.10-1 including preparation of a site specific noise control plan, would be implemented to control construction noise and the potential impact would be less than significant after implementation of the noise control plan.

c) Generation of noise levels on or adjacent to the project site associated with items such as new vehicle trips or mechanical equipment, would contribute to ambient noise levels on campus. The 2003 LRDP EIR found that implementation of the 2003 LRDP would result in increased vehicular traffic on the regional road network, which would substantially increase ambient noise levels at the following locations through 2015-16: Russell Boulevard, just west of Arlington; the west campus neighborhood site adjacent to SR 113; and on Hutchison Drive west of SR 113 (Impact 4.10-2). The proposed project would result contribute to increased trips on these roadways. LRDP Mitigation 4.10-2(a-b) would address this impact by requiring specific noise abatement and noise control programs on campus and in the City of Davis. However, the campus cannot ensure that LRDP Mitigation 4.10-2(a) would be implemented by the City, and it is uncertain whether this measure would effectively reduce noise to acceptable levels. Therefore, the impact would still be considered significant and unavoidable. This impact was adequately analyzed in the 2003 LRDP EIR and was fully addressed in the Findings and Statement of Overriding Considerations adopted by The Regents in connection with its approval of the 2003 LRDP. No conditions have changed, no new information has become available since certification of the 2003 LRDP EIR that would alter this previous analysis, and no new mitigation measures have been identified that would further reduce this impact.

The 2003 LRDP EIR also recognized that development under the 2003 LRDP in combination with other regional development would cumulatively increase ambient noise levels (4.10-5). Cumulative development would increase the number of people in the region who would be exposed to temporary construction-related noise. LRDP Mitigation 4.10-5, included as part of the proposed project, would require application of the recommended noise control measures detailed in LRDP Mitigation 4.10-1. The 2003 LRDP EIR found that, with this mitigation, the cumulative impact associated with construction noise would be less than significant. LRDP Impact 4.10-2 addresses traffic noise impacts on and adjacent to the campus associated with the 2003 LRDP and cumulative growth. LRDP Mitigation 4.10-5 would require implementation of the noise control and abatement measures identified in LRDP Mitigation 4.10-2(a-b). However, as discussed above, the effectiveness and implementation of LRDP Mitigation 4.10-2(a) cannot be ensured. Therefore, the cumulative impact is considered significant and unavoidable. This impact was adequately analyzed in the 2003 LRDP EIR and was fully addressed in the Findings and Statement of Overriding Considerations adopted by The Regents in connection with its approval of the 2003 LRDP. No conditions have changed, no new
information has become available since certification of the 2003 LRDP EIR that would alter this previous analysis, and no new mitigation measures have been identified that would further reduce this impact.

e) The proposed project development areas are approximately two miles from the campus airport. The 2003 LRDP, including the proposed project, does not propose changes to University Airport operations, nor does it propose occupied uses within the airport’s 65 CNEL noise contour. Therefore, the project would not expose people to excessive noise levels associated with this public use airport, and the impact is less than significant.

f) The University Airport is a public use airport, not a private airstrip. No other private airport facilities are within the immediate vicinity of the campus. No impact would occur. Refer to item e) above for discussion of potential noise impacts associated with the campus’ public use airports.

Summary

The proposed project would not exceed the levels of significance of noise impacts previously addressed in the 2003 LRDP EIR, nor would it introduce any new significant impacts that were not previously addressed. Mitigation measures 4.10-1, 4.10-2 (a,b), and 4.10-5 from the 2003 LRDP EIR are relevant to the proposed project and reduce the significance of noise impacts to the extent feasible. No new mitigation measures were identified that would further reduce the impacts of the project.
7.12  POPULATION & HOUSING

7.12.1  Background

Section 4.11 of the 2003 LRDP EIR addresses the population and housing effects of campus growth under the 2003 LRDP. The following discussion summarizes information presented in the ‘Setting’ subsection of Section 4.11 of the 2003 LRDP EIR.

The on-campus population at UC Davis includes students, faculty/staff, and non-UC Davis affiliates working on campus. The current and projected campus population figures are presented in Table 1 of this Tiered Initial Study. As of 2003, approximately 80 percent of the student population and 50 percent of the employee population lived in the Davis area, and approximately 94 percent of students and 90 percent of employees lived within the three-county area of Yolo, Solano, and Sacramento counties. Outside the City of Davis, the predominant residence locations of students and employees are Woodland, West Sacramento, Winters, Dixon, Vacaville, and Fairfield (UC Davis ORMP 2003d).

Vacancy rates in the City of Davis are considered low, and housing costs in the City are generally higher than those elsewhere in the region. Since 1994, the campus has been working toward the goals of maintaining a UC Davis housing supply that can accommodate 25 percent of the on-campus enrolled students and can offer housing to all eligible freshmen. The 2003 LRDP focuses on providing additional on-campus student housing that will accommodate a total of approximately 7,800 students on the core campus (or 26 percent of the peak student enrollment through 2015-16) and an additional 3,000 students in a west campus neighborhood. The campus currently offers one faculty and staff housing area (Aggie Village), which includes 21 single-family units (17 of which have cottages) and 16 duplexes. The 2003 LRDP plans to provide an additional 500 faculty and staff housing units within the west campus neighborhood through 2015-16.

Project Site

One component of the proposed project would upgrade the student housing services provided at UC Davis through the construction of the Segundo Services Building. This building would increase the appeal of student housing facilities to serve UC Davis students.

7.12.2  2003 LRDP EIR Standards of Significance

The 2003 LRDP EIR considers an impact related to population and housing significant if growth under the 2003 LRDP would:

- Directly induce substantial population growth in the area by proposing new housing and employment.
- Create a demand for housing that could not be accommodated by local jurisdictions.
- Induce substantial population growth in an area indirectly (for example, through extension of roads or other infrastructure).

Additional standards from the CEQA Guidelines’ Environmental Checklist (“b” and “c” in the checklist below) was found not applicable to campus growth under the 2003 LRDP.
7.12.3 2003 LRDP EIR Impacts and Mitigation Measures

Impacts of campus growth under the 2003 LRDP through 2015-16 related to population and housing are evaluated in Section 4.11 of the 2003 LRDP EIR. The proposed project is within the scope of analysis in the 2003 LRDP EIR. A significant population and housing impact identified in the 2003 LRDP EIR that is relevant to the proposed project is presented below with its corresponding levels of significance. No mitigation was available to reduce the magnitude of this impact, so the impact is considered significant and unavoidable.

<table>
<thead>
<tr>
<th>2003 LRDP EIR Impacts</th>
<th>Level of Significance Prior to Mitigation</th>
<th>Level of Significance After Mitigation</th>
</tr>
</thead>
<tbody>
<tr>
<td>POPULATION &amp; HOUSING</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4.11-1</td>
<td>S</td>
<td>SU</td>
</tr>
</tbody>
</table>

Levels of Significance: LS=Less than Significant, S=Significant, PS=Potentially Significant, SU=Significant and Unavoidable

No mitigation is available to reduce the magnitude of this impact.

7.12.4 Environmental Checklist and Discussion

<table>
<thead>
<tr>
<th>POPULATION &amp; HOUSING</th>
<th>Potentially Significant Impact</th>
<th>Less than Significant with Project-level Mitigation</th>
<th>Impact Adequately Addressed in 2003 LRDP EIR</th>
<th>Less than Significant Impact</th>
<th>No Impact</th>
</tr>
</thead>
<tbody>
<tr>
<td>Would the project…</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>a) Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?</td>
<td>☐</td>
<td>☐</td>
<td>☑</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☑</td>
</tr>
<tr>
<td>c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☑</td>
</tr>
<tr>
<td>d) Create a demand for housing that cannot be accommodated by local jurisdictions?</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☑</td>
<td>☐</td>
</tr>
</tbody>
</table>

The proposed project is expected to increase the campus population by approximately 70 people. The 2003 LRDP EIR found that implementation of the 2003 LRDP would directly induce substantial population growth in the area by proposing increased enrollment and additional employment (Impact 4.11-1). The impact analyses for all of the resource areas covered in this Initial Study address the campus population increases associated with the project. Where possible, this document mitigates associated environmental impacts to the extent feasible. In certain circumstances, impacts that are associated with campus population growth are identified as significant and unavoidable. Accordingly, the effect of direct population growth associated with the 2003 LRDP, including the proposed project, is also considered a significant and unavoidable impact. This impact was adequately analyzed in the 2003 LRDP EIR and was fully addressed in the Findings and Statement of Overriding Considerations adopted by The Regents in connection with its approval of the 2003 LRDP. No conditions have changed and no new information has become available since certification of the 2003 LRDP EIR that would alter this previous analysis.
The project includes no roadway extensions. However, the 2003 LRDP EIR found that implementation of the 2003 LRDP, including the proposed project, would not induce substantial population growth in the area indirectly through the extension of roads or other infrastructure because these extensions would not be provided with excess capacity in an area where lack of infrastructure is an obstacle to growth.

b) The proposed project would not displace any existing housing. Therefore, no impact would occur.

c) The proposed project would not displace substantial numbers of people. Therefore, no impact would occur.

d) The 2003 LRDP EIR found that future housing in the region is anticipated to adequately accommodate population growth associated with the 2003 LRDP, including the proposed project, as well as other population growth in the region. Therefore, the 2003 LRDP EIR found that the potential for campus growth to create a demand for housing that could not be accommodated by local jurisdictions is a less than significant impact.

Summary

The project would have no impact to population and housing. No LRDP EIR Mitigation Measures or project-specific mitigation measures related to population and housing are required.
7.13 PUBLIC SERVICES

7.13.1 Background

Section 4.12 of the 2003 LRDP EIR addresses the public services effects of campus growth under the 2003 LRDP. The following discussion summarizes information presented in the ‘Setting’ subsection of Section 4.13 of the 2003 LRDP EIR.

In accordance with the CEQA Guidelines, this Public Services analysis evaluates the environmental effects associated with any physical changes required to meet increases in demand for public services, including police, fire protection, schools, and libraries. Project-level public services impacts are addressed by evaluating the effects of on-campus population growth on public services that directly serve the on-campus population (primarily UC Davis services). Cumulative public services impacts are addressed by evaluating the effects of off-campus population growth on the public services in the Cities of Davis, Dixon, Winters, and Woodland.

UC Davis provides most public services needed on campus, including fire protection, police protection, and library services. The Davis Joint Unified School District serves the City of Davis and portions of Yolo and Solano counties. These services are discussed further below:

- **Fire Protection:** The UC Davis Fire Department provides primary fire response and prevention, natural disaster response, hazardous materials incident response, and emergency medical service to the main campus. The fire department’s goal is to respond to 90 percent of campus emergency calls within 6 minutes (UC Davis Fire Department 2003). As of 2003, the UC Davis Fire Department achieves its stated standard of response (Chandler 2003).

- **Police:** In 2001-02, the UC Davis Police Department employed approximately 32 sworn officers to provide 24-hour service to the main campus and facilities owned and leased by UC Davis in the City of Davis, a service area including a campus population of approximately 36,445 people (including UC and non-UC employees, students, and dependents living in on-campus housing) (Chang 2001). Although the campus does not currently rely on any level-of-service standards, the Police Department has indicated that it would like to reach and maintain 1 sworn officer on the main campus per 1,000 members of the campus population. In 2001-02, the campus was just under this level, with approximately 0.9 sworn officers per 1,000 members of the campus population.

- **Schools:** In 2001-02 a total of approximately 8,677 students were enrolled in the DJUSD’s nine elementary schools, two junior high schools, one high school, one continuation high school, and one independent study program. The DJUSD estimates student enrollment based on a rate of 0.69 student per single-family residential unit and 0.44 student per multi-family residential unit in its service area.

- **Libraries:** UC Davis currently has four main libraries, distributed among the academic centers of the central campus, which serve students, faculty, staff, and the general public, including: Shields Library (the main campus library located centrally on the core campus), the Carlson Health Sciences Library, the Law Library, and the Physical Sciences and Engineering Library.

**Project Site**

The project sites currently provide no public services.
7.13.2  2003 LRDP EIR Standards of Significance

The 2003 LRDP EIR considers a public services impact significant if growth under the 2003 LRDP would:

- Result in substantial adverse physical impacts associated with the provision of 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 public services.

Effects associated with recreation services are evaluated in Section 7.14, Recreation, and effects associated with the capacity of the domestic fire water system to provide adequate fire protection are evaluated in Section 7.16, Utilities.

7.13.3  2003 LRDP EIR Impacts and Mitigation Measures

Impacts of campus growth under the 2003 LRDP through 2015-16 on public services are evaluated in Section 4.12 of the 2003 LRDP EIR. The proposed project is within the scope of analysis in the 2003 LRDP EIR. Significant public services impacts identified in the 2003 LRDP EIR that are relevant to the proposed project are presented below with their corresponding levels of significance before and after application of mitigation measures identified in the 2003 LRDP EIR. Mitigation measures are included to reduce the magnitude of project-level impact 4.12-3 and cumulative impacts 4.12-6 and 4.12-7, but these impacts are identified as significant and unavoidable because they cannot be fully mitigated.

<table>
<thead>
<tr>
<th>2003 LRDP EIR Impacts</th>
<th>Level of Significance Prior to Mitigation</th>
<th>Level of Significance After Mitigation</th>
</tr>
</thead>
<tbody>
<tr>
<td>PUBLIC SERVICES</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4.12-6</td>
<td>Implementation of the 2003 LRDP, in conjunction with regional growth, could generate a cumulative demand for new or expanded police and fire service facilities in the region, the construction of which could result in significant adverse environmental impacts to prime farmland and habitat.</td>
<td>S</td>
</tr>
<tr>
<td>4.12-7</td>
<td>Implementation of the 2003 LRDP, in conjunction with regional growth, would increase the number of school-age children living in the area. This could generate a cumulative demand for new school facilities, the construction of which could result in significant environmental impacts to agricultural prime farmland and habitat.</td>
<td>S</td>
</tr>
</tbody>
</table>

Levels of Significance: LS=Less than Significant, S=Significant, PS=Potentially Significant, SU=Significant and Unavoidable

Mitigation measures in the 2003 LRDP EIR that are applicable to the proposed project are presented below. Since these mitigation measures are already being carried out as part of implementation of the 2003 LRDP, they are considered part of the project description and will not be readopted in this Initial Study or Negative Declaration. Nothing in this Initial Study in any way alters the obligations of the campus to implement 2003 LRDP EIR mitigation measures.

2003 LRDP EIR Mitigation Measures

PUBLIC SERVICES

| 2003 LRDP EIR Mitigation Measures |                                           |                                       |
|------------------------|------------------------------------------|                                       |
| PUBLIC SERVICES |                                           |                                       |
| 4.12-6 | If documented unmitigated significant environmental impacts are caused by the construction of police or fire facilities in the Cities of Davis, Dixon, Woodland, and/or Winters that are needed in part due to implementation of the 2003 LRDP, UC Davis shall negotiate with the appropriate local jurisdiction to determine the campus’ fair |
2003 LRDP EIR Mitigation Measures
PUBLIC SERVICES

share (as described in Section 4.12.2.3) of the costs to implement any feasible and required environmental mitigation measures so long as the unmitigated impacts have not been otherwise reduced to less-than-significant levels through regulatory requirements, public funding, or agreements. This mitigation measure shall not apply to any other costs associated with implementation of public service facilities.

4.12-7 If documented unmitigated significant environmental impacts are caused by the construction of school facilities in the Cities of Davis, Dixon, Woodland, and/or Winters that are needed in part due to implementation of the 2003 LRDP, UC Davis shall negotiate with the appropriate local jurisdiction to determine the campus’ fair share (as described in Section 4.12.2.3) of the costs to implement any feasible and required environmental mitigation measures so long as the unmitigated impacts have not been otherwise reduced to less-than-significant levels through regulatory requirements, public funding, or agreements. This mitigation measure shall not apply to any other costs associated with implementation of public service facilities.

7.13.4 Environmental Checklist and Discussion

<table>
<thead>
<tr>
<th>PUBLIC SERVICES</th>
<th>Potentially Significant Impact</th>
<th>Less than Significant with Project-level Mitigation</th>
<th>Impact Adequately Addressed in 2003 LRDP EIR</th>
<th>Less than Significant Impact</th>
<th>No Impact</th>
</tr>
</thead>
<tbody>
<tr>
<td>Would the project…</td>
<td></td>
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<td></td>
</tr>
<tr>
<td>a) Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, 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 public services:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>i) Fire protection?</td>
<td>□</td>
<td>□</td>
<td>✓</td>
<td>□</td>
<td>□</td>
</tr>
<tr>
<td>ii) Police protection?</td>
<td>□</td>
<td>□</td>
<td>✓</td>
<td>□</td>
<td>□</td>
</tr>
<tr>
<td>iii) Schools?</td>
<td>□</td>
<td>□</td>
<td>✓</td>
<td>□</td>
<td>□</td>
</tr>
<tr>
<td>iv) Parks?</td>
<td>□</td>
<td>□</td>
<td>✓</td>
<td>□</td>
<td>□</td>
</tr>
<tr>
<td>v) Other public facilities?</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>✓</td>
<td>□</td>
</tr>
</tbody>
</table>

a, i&ii) UC Davis Fire and Police Protection

The proposed development areas and an associated increase 70 employees to the campus population would incrementally contribute to the demand for campus fire and police services that is anticipated under the 2003 LRDP.

In order to continue to meet the UC Davis Fire Department’s standard of responding to 90 percent of campus emergency calls within 6 minutes and the UC Davis Police Department’s service level, the 2003 LRDP EIR found that the campus may need to expand or renovate existing or provide new facilities, supply technologically improved equipment, implement improved management techniques, or hire additional staff for the Department.

While the expansion and construction of police and fire facilities under the 2003 LRDP could contribute to the 2003 LRDP’s effects on air, noise, traffic, agriculture, biological resources, cultural
resources, utilities, and other resource areas, with the implementation of mitigation in the 2003 LRDP EIR and due to the relatively small areas that would be disturbed, the construction of these facilities would not individually result in significant environmental impacts. Therefore, the environmental impact associated with constructing new or altered facilities in order to maintain adequate levels of UC Davis fire and police services is considered less than significant.

Regional Fire and Police Protection

The 2003 LRDP EIR found that implementation of the 2003 LRDP, in conjunction with regional growth, could generate a cumulative demand for new or expanded police and fire service facilities in the region, the construction of which could result in significant adverse environmental impacts to prime farmland and habitat (Impact 4.12-6). To the extent that an increase in off-campus population associated with the 2003 LRDP, including the proposed project, could contribute to the demand for new police and fire facilities, in compliance with LRDP Mitigation 4.12-6, the campus would negotiate with respective jurisdictions to determine the University’s fair share of costs for feasible mitigation to reduce associated significant environmental impacts. The campus’ contribution to mitigation for such effects could include implementation of preservation mechanisms for on-campus prime farmland and/or habitat conservation. However, impacts associated with an irreversible loss of prime farmland and habitat could not be mitigated to less-than-significant levels. Therefore, the cumulative impacts related to police and fire facility construction in the Cities of Davis, Winters, Dixon, and Woodland would be significant and unavoidable. This impact was adequately analyzed in the 2003 LRDP EIR and was fully addressed in the Findings and Statement of Overriding Considerations adopted by The Regents in connection with its approval of the 2003 LRDP. No conditions have changed and no new information has become available since certification of the 2003 LRDP EIR that would alter this previous analysis.

a, iii) Schools

The projected increase of 70 employees to the campus population could contribute to the number of school-age person living in the region. The 2003 LRDP EIR recognized that implementation of the 2003 LRDP, in conjunction with regional growth, would increase the number of school-age children living in the area. This could generate a cumulative demand for new school facilities, the construction of which could result in significant environmental impacts (Impact 4.12-7). Construction of new schools in the Cities of Davis, Winters, Dixon, and Woodland could result in development of agricultural areas, which could result in the permanent loss of prime farmland and habitat. Other potentially significant environmental impacts are too speculative to determine at this time. To the extent that the school-age dependents of new campus employees could contribute to the demand for new school facilities in these cities, in compliance with LRDP Mitigation 4.12-7, the campus would negotiate with respective school districts to determine the University’s fair share of costs for feasible mitigation to reduce associated significant environmental impacts. The campus’ contribution to mitigation for such effects could include implementation of preservation mechanisms for on-campus prime farmland and/or habitat conservation. However, impacts associated with an irreversible loss of prime farmland and habitat could not be mitigated to less-than-significant levels. Therefore, the impact related to school construction in the Cities of Davis, Winters, Dixon, and Woodland would be significant and unavoidable. This impact was adequately analyzed in the 2003 LRDP EIR and was fully addressed in the Findings and Statement of Overriding Considerations adopted by The Regents in connection with its approval of the 2003 LRDP. No conditions have changed and no new information has become available since certification of the 2003 LRDP EIR that would alter this previous analysis.

a, iv) Effects associated with parks are evaluated in Section 7.14, Recreation.
a, v) Libraries

The projected increase of 70 employees to the campus population could contribute to the demand for library services in the region. UC Davis provides extensive academic library facilities in four general libraries that serve students, faculty, staff, and the general public, as well as in specialized libraries on campus. With its extensive existing libraries and ongoing update processes, UC Davis has adequate facilities to provide sufficient library services to serve the campus and general population’s needs through 2015-16. Therefore, construction of additional library facilities on campus as the result of campus growth under the 2003 LRDP is not anticipated. Furthermore, due to the small scale and infill nature of minor library expansions and renovations that could occur in the Cities of Davis, Dixon, Woodland, and Winters to serve cumulative growth through 2015-16, significant environmental impacts are not anticipated to result. Therefore, project-level and cumulative impacts associated with library services are considered less than significant.

Summary

The proposed project would not exceed the levels of significance of public-service related impacts previously addressed in the 2003 LRDP EIR, nor would it introduce any new significant impacts that were not previously addressed. Mitigation measures 4.12-6 and 4.12-7 from the 2003 LRDP EIR are relevant to the proposed project and reduce the significance of public service-related impacts to the extent feasible. No new mitigation measures were identified that would further reduce the impacts of the project.
7.14 RECREATION

7.14.1 Background

Section 4.13 of the 2003 LRDP EIR addresses the environmental effects associated with modifying recreational resources to meet campus growth under the 2003 LRDP. The following discussion summarizes information presented in the ‘Setting’ subsection of Section 4.13 of the 2003 LRDP EIR.

UC Davis contains many park-like areas and recreation facilities. Park facilities at UC Davis range in size from small picnic and landscaped areas within campus housing areas to extensively landscaped areas in the academic core of the central campus, such as the Arboretum. Areas such as the Quad, the landscaped areas along A Street and Russell Boulevard, the Putah Creek Riparian Reserve in the west campus, and many areas within the Arboretum are used regularly by members of the UC Davis campus and visitors to the campus.

Recreation facilities on the campus include structures, bike paths, and fields used for physical education, intercollegiate athletics, intramural sports, sports clubs, and general recreation. Recreation structures include Hickey Gym, Recreation Hall, the Recreation Swimming Pool, and Recreation Lodge. In addition, two major campus recreation facilities are currently under construction: the Activities and Recreation Center and the Schaal Aquatic Center. The general public may purchase privilege cards to use some campus recreation facilities, or may join community or campus organizations that have access to some facilities.

Project Site
The project development areas currently do not include recreational facilities and the proposed project will not provide recreational facilities.

7.14.2 2003 LRDP EIR Standards of Significance

The 2003 LRDP EIR considers a recreation impact significant if growth under the 2003 LRDP would:

- Increase the use of existing neighborhood and regional parks or other recreation facilities such that substantial physical deterioration of the facility would occur or be accelerated.
- Propose the construction of recreation facilities or require the expansion of recreation facilities, which might have an adverse physical effect on the environment.

7.14.3 2003 LRDP EIR Impacts and Mitigation Measures

Impacts of campus growth under the 2003 LRDP through 2015-16 associated with recreation are evaluated in Section 4.13 of the 2003 LRDP EIR. The proposed project is within the scope of analysis in the 2003 LRDP EIR. A significant recreation impact identified in the 2003 LRDP EIR that is relevant to the proposed project is presented below with its corresponding levels of significance before and after application of mitigation measures identified in the 2003 LRDP EIR. Mitigation measures are included to reduce the magnitude of cumulative impact 4.13-2 but this impact is identified as significant and unavoidable because it cannot be fully mitigated.
2003 LRDP EIR Impacts

| Level of | Level of |
| Significance | Significance |
| Prior to Mitigation | After Mitigation |

4.13-2 Implementation of the 2003 LRDP, together with the cumulative impacts of other regional development, could increase the use of off-campus recreation facilities, the development of which could result in significant environmental impacts.

Levels of Significance: LS=Less than Significant, S=Significant, PS=Potentially Significant, SU=Significant and Unavoidable

Mitigation measures in the 2003 LRDP EIR that are applicable to the proposed project are presented below. Since these mitigation measures are already being carried out as part of implementation of the 2003 LRDP, they are considered part of the project description and will not be readopted in this Initial Study or Negative Declaration. Nothing in this Initial Study in any way alters the obligations of the campus to implement 2003 LRDP EIR mitigation measures.

2003 LRDP EIR Mitigation Measures

<table>
<thead>
<tr>
<th>RECREATION</th>
</tr>
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<tbody>
<tr>
<td>4.13-2</td>
</tr>
<tr>
<td>If documented unmitigated significant environmental impacts are caused by the construction of recreation facilities in the Cities of Dixon, Woodland, and/or Winters that are needed in part due to implementation of the 2003 LRDP, UC Davis shall negotiate with the appropriate local jurisdiction to determine the campus’ fair share (as described in Section 4.12.2.3) of the costs to implement any feasible and required environmental mitigation measures so long as the unmitigated impacts have not been otherwise reduced to less-than-significant levels through regulatory requirements, public funding, or agreements. This mitigation measure shall not apply to any other costs associated with implementation of recreation facilities.</td>
</tr>
</tbody>
</table>

7.14.4 Environmental Checklist and Discussion

<table>
<thead>
<tr>
<th>RECREATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Would the project…</td>
</tr>
<tr>
<td>Potentially Significant Impact</td>
</tr>
</tbody>
</table>

a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated? [☐] [☐] [☑] [☐] [☐]

b) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment? [☐] [☐] [☑] [☐] [☐]

a,b) The project is projected to contribute an additional 70 employees to the campus population and this would contribute to demand for parks and recreation facilities on and off campus. The project includes no additional recreational facilities for campus users.

The 2003 LRDP EIR found that increased population at UC Davis under the 2003 LRDP, including the population growth associated with the proposed project, is expected to result in increased demand for and usage of campus recreation facilities. However, to counteract the effects of increased usage, it is campus practice to increase maintenance levels of recreation facilities in response to increases in demand. In addition, the 2003 LRDP designates approximately 18 acres of land west of SR 113 for future recreation fields. The 2003 LRDP also designates land for greenbelts to the west of State Route 113, expansion of the campus Arboretum, expansion of the Putah Creek Riparian Reserve, and
enhanced formal open space (garden walks and formal courtyards) within the central campus. The construction of new facilities would take place when warranted by increased demand and when financially feasible. The campus practice of increasing maintenance activities and the planned construction of new facilities would prevent the deterioration of existing recreation facilities, resulting in a less than significant impact.

The 2003 LRDP EIR found that implementation of the 2003 LRDP, together with other regional growth, could result in the development of parks and recreation facilities off-campus that could result in significant environmental impacts (Impact 4.13-2). Depending on the site, development of new parks and recreation facilities in the cities of Dixon, Winters, and Woodland could result in impacts such as loss of prime farmland or valuable habitat. However, environmental impacts are too speculative to determine at this time. In compliance with LRDP Mitigation 4.13-2, the campus would negotiate with respective jurisdictions to determine the University’s fair share of costs for feasible mitigation to reduce associated significant environmental impacts, if any. Due to the speculative nature of this cumulative impact, it is considered significant and unavoidable. This impact was adequately analyzed in the 2003 LRDP EIR and was fully addressed in the Findings and Statement of Overriding Considerations adopted by The Regents in connection with its approval of the 2003 LRDP. No conditions have changed and no new information has become available since certification of the 2003 LRDP EIR that would alter this previous analysis.

Summary

The proposed project would not exceed the levels of significance of recreation related impacts previously addressed in the 2003 LRDP EIR, nor would it introduce any new significant impacts that were not previously addressed. Mitigation measure 4.13-2 from the 2003 LRDP EIR are relevant to the proposed project to reduce the significance of recreation-related impacts to the extent feasible. No new mitigation measures were identified that would further reduce the impacts of the project.
7.15 TRANSPORTATION, CIRCULATION, & PARKING

7.15.1 Background

Section 4.14 of the 2003 LRDP EIR addresses the transportation, circulation, and parking effects of campus growth under the 2003 LRDP. The following discussion summarizes information presented in the ‘Setting’ subsection of Section 4.14 of the 2003 LRDP EIR.

Campus

UC Davis is served by six main campus roadways or “gateways” that connect the campus to residential and downtown areas in the City of Davis, and two gateways that provide direct access to regional freeways (I-80 and SR 113). Circulation within the central campus is accommodated primarily by the campus “loop” roadway system, which includes Russell Boulevard, A Street, New and Old Davis Roads, California Avenue, and La Rue Road. Other roadways within the core campus area are restricted to transit and emergency vehicles, bicyclists, and pedestrians. Primary vehicular access to the south campus is provided by Old Davis Road, to the west campus by Hutchison Drive, and to Russell Ranch by Russell Boulevard.

Level of service (LOS) is a general measure of traffic operating conditions whereby a letter grade, from A (the best) to F (the worst), is assigned to roadway intersections. These grades represent the comfort and convenience associated with driving from the driver’s perspective. To assess the worst-case traffic conditions, LOS is measured during morning (7 to 9 AM) and afternoon (4 to 6 PM) peak commute times. The LOS of campus roadways varies. Monitoring of campus intersections during peak hours in Fall 2001 and Fall 2002 found that the Hutchison Drive/Health Sciences Drive intersection (with LOS E during the PM peak hour) was the only study intersection to operate below the campus’ operation standard (standards are identified in the following section). The campus is planning on installing a traffic signal at this intersection by fall 2006.

Bicycles are a major component of the transportation system at UC Davis and in the City of Davis. UC Davis has an extensive system of bicycle paths, which makes bicycles a popular form of travel on campus. The UC Davis Bicycle Plan (UC Davis 2002) estimates that 15,000 to 18,000 bicycles travel to the campus on a typical weekday during the Fall and Spring sessions when the weather is good.

Parking at UC Davis is provided by a combination of surface lots and parking structures. UC Davis Transportation and Parking Services (TAPS) oversees parking services on campus including selling parking passes, providing traffic control at special events, ticketing violators, and measuring parking utilization throughout campus on a quarterly basis. Approximately 14,500 parking spaces were provided on campus as of 2001-02.

Project Site

**Segundo Services Center.** The development area is accessed via La Rue Road by motorized vehicles and by bikepaths and sidewalks that connect the Segundo student housing area to the core campus. The main bike and pedestrian routes traverse the perimeter of the Segundo area. During construction, primary routes would remain open and only minor detours would be needed to maintain campus access.

**Student Community Center.** The development area is within the core campus at UC Davis and is not accessible by private motorized vehicle. Service access to the building for motorized vehicles is provided along California Avenue and Shields Avenue. Access for pedestrians and bicycles is provided by California Avenue, Shields Avenue, and Hutchison Drive.
Music Instruction and Recital Building. The development area is within the core campus at UC Davis with the south side of the building accessible to private motorized vehicles and service vehicles but the north side of the building providing pedestrian and bicycle access only.

Chilled Water Phase 7. The development area is a linear route of approximately 3,500 feet extending from the south side of the core campus northward. The route crosses many bike paths and sidewalks but does not include construction within a roadway.

7.15.2 2003 LRDP EIR Standards of Significance

The 2003 LRDP EIR considers a transportation, circulation, and parking impact significant if growth under the 2003 LRDP would:

- Cause an increase in the traffic that may be substantial in relation to the existing roadway capacity of the street system as indicated by LOS standards for congestion at intersections.

The addition of project traffic causing a LOS change from acceptable to unacceptable would have a significant impact. The following LOS thresholds apply to the study intersections.

- LOS D is the minimum acceptable LOS for UC Davis.
- LOS E is the minimum acceptable LOS for the City of Davis. LOS F is acceptable for the City of Davis Core Area.
- LOS E is the minimum acceptable LOS for I-80 and its associated interchanges.
- LOS C is the minimum acceptable LOS for SR 113 and its associated interchanges.

In addition, the project would have a significant impact if the project adds 10 or more vehicles to the volume of a study intersection that is expected to operate unacceptably without the project. For intersections that operate unacceptably without the project, even a small amount of additional traffic could increase the delay. For this EIR, future volumes are rounded to the nearest 10; therefore, 10 vehicles is the minimum amount of traffic that could be added to an intersection already operating at an unacceptable level.

Increased intersection congestion would also be a significant impact if it would exceed a LOS standard established by the county congestion management agency (or any affected agency or jurisdiction) for designated roads or highways.

- LOS E is the minimum acceptable LOS for roadways and intersections in Solano County.
- LOS E is the minimum acceptable LOS for I-80 and its associated interchanges between the Solano County limit and Olive Drive.
- LOS E is the minimum acceptable LOS for SR 113 and its associated interchanges within the Davis city limits.
- LOS E is the minimum acceptable LOS for Russell Boulevard between SR 113 and B Street.
- LOS E is the minimum acceptable LOS for Richards Boulevard between First Street and I-80.
- LOS E is the minimum acceptable LOS for First Street between B Street and Richards Boulevard.
- LOS E is the minimum acceptable LOS for B Street between First Street and 5th Street.

- Result in inadequate parking capacity.
For parking, a project would be considered to have a significant impact if it is expected to increase the winter utilization rate to over 90 percent on the central campus, Health Sciences District, and/or major facilities of the west and south campus without adequate time (usually 24 months) to implement a parking solution to campus construction standards.

- Conflict with applicable adopted policies, plans, or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks).

Impacts related to safety risks associated with the UC Davis airport and emergency access are discussed in Section 7.7 Hazards and Hazardous Materials. The 2003 LRDP would make only limited changes to the roadway network and would not create or increase hazards due to design features such as dangerous intersections.

7.15.3 2003 LRDP EIR Impacts and Mitigation Measures

Impacts of campus growth under the 2003 LRDP through 2015-16 on traffic, circulation, and parking are evaluated in Section 4.14 of the 2003 LRDP EIR. The proposed project is within the scope of analysis in the 2003 LRDP EIR, and significant and potentially significant traffic, circulation, and parking impacts identified in the 2003 LRDP EIR that are relevant to the proposed project are presented below with their corresponding levels of significance before and after application of mitigation measures identified in the 2003 LRDP EIR. Mitigation measures are included to reduce the magnitude of impact 4.14-2, but this impact is identified as significant and unavoidable because mitigation falls within other jurisdictions to enforce and monitor and therefore cannot be guaranteed by the University of California.

### 2003 LRDP EIR Impacts

**TRANSPORTATION, CIRCULATION, & PARKING**

<table>
<thead>
<tr>
<th>Impact Description</th>
<th>Level of Significance Prior to Mitigation</th>
<th>Level of Significance After Mitigation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Implementation of the 2003 LRDP would cause unacceptable intersection operations at on-campus intersections.</td>
<td>S</td>
<td>LS</td>
</tr>
<tr>
<td>Implementation of the 2003 LRDP would cause unacceptable intersection and freeway LOS operations at off-campus facilities, including facilities contained in the Yolo County and Solano County Congestion Management Plans.</td>
<td>S</td>
<td>SU</td>
</tr>
<tr>
<td>Implementation of the 2003 LRDP would create additional parking demand.</td>
<td>PS</td>
<td>LS</td>
</tr>
<tr>
<td>Implementation of the 2003 LRDP would increase demand for transit services.</td>
<td>PS</td>
<td>LS</td>
</tr>
<tr>
<td>Growth in population levels in the core area of the central campus would result in increased conflicts between bicyclists, pedestrians, and transit vehicles, causing increased congestion and safety problems.</td>
<td>PS</td>
<td>LS</td>
</tr>
</tbody>
</table>

Levels of Significance: LS=Less than Significant, S=Significant, PS=Potentially Significant, SU=Significant and Unavoidable

Mitigation measures in the 2003 LRDP EIR that are applicable to the proposed project are presented below. Since these mitigation measures are already being carried out as part of implementation of the 2003 LRDP, they are considered part of the project description and will not be readopted in this Initial Study or Negative Declaration. Nothing in this Initial Study in any way alters the obligations of the campus to implement 2003 LRDP EIR mitigation measures.
### 2003 LRDP EIR Mitigation Measures

**TRANSPORTATION, CIRCULATION, & PARKING**

<table>
<thead>
<tr>
<th>4.14-1(a)</th>
<th>UC Davis shall continue to actively pursue Transportation Demand Management strategies to reduce vehicle-trips to and from campus.</th>
</tr>
</thead>
<tbody>
<tr>
<td>4.14-1(b)</td>
<td>UC Davis shall continue to monitor AM and PM peak hour traffic operations at critical intersections and roadways on campus.</td>
</tr>
<tr>
<td>4.14-1(c)</td>
<td>UC Davis shall review individual projects proposed under the 2003 LRDP as they advance through the environmental clearance phase of development to determine if intersection or roadway improvements are needed with the additional traffic generated by the proposed project. If intersection operations are found to degrade to unacceptable levels, UC Davis shall construct physical improvements such as adding traffic signals or roundabouts at affected study intersections.</td>
</tr>
<tr>
<td>4.14-2(a)</td>
<td>UC Davis shall continue to actively pursue Transportation Demand Management strategies to reduce vehicle-trips to and from campus.</td>
</tr>
<tr>
<td>4.14-2(b)</td>
<td>UC Davis shall continue to monitor AM and PM peak hour traffic operations at critical intersections and roadways in the campus vicinity at least every three years to identify locations operating below UC Davis, City of Davis, Yolo County, Solano County, or Caltrans LOS thresholds and to identify improvements to restore operations to an acceptable level.</td>
</tr>
<tr>
<td>4.14-2(c)</td>
<td>UC Davis shall review individual projects proposed under the 2003 LRDP as they advance through the environmental clearance phase of development to determine if intersection or roadway improvements are needed with the additional traffic generated by the proposed project. If intersection operations are found to degrade to unacceptable levels, UC Davis shall contribute its fair share towards roadway improvements at affected study intersections.</td>
</tr>
<tr>
<td>4.14-3(a)</td>
<td>UC Davis shall continue to actively pursue Transportation Demand Management strategies to reduce parking demand.</td>
</tr>
<tr>
<td>4.14-3(b)</td>
<td>UC Davis shall continue to monitor parking demand on a quarterly basis to identify campus parking areas with a parking utilization over 90 percent. UC Davis shall provide additional parking if a proposed project is expected to increase the winter utilization rate to over 90 percent on the central campus, Health Sciences District, and/or major facilities of the west and south campus.</td>
</tr>
<tr>
<td>4.14-4</td>
<td>UC Davis shall monitor transit ridership to identify routes operating over capacity with increased campus growth. UC Davis shall work with transit providers to identify additional service required with campus growth or new transit routes needed to serve future development areas.</td>
</tr>
<tr>
<td>4.14-5</td>
<td>UC Davis shall monitor core area pedestrian and bike activity and accidents. UC Davis shall improve bike and pedestrian facilities or alter transit operations to avoid increased bicycle accident rates or safety problems.</td>
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</table>
### 7.15.4 Environmental Checklist and Discussion

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<tr>
<td>Would the project…</td>
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</tr>
<tr>
<td>a) Cause an increase in traffic which is substantial in relation to the existing traffic load and capacity of the street system (i.e., result in a substantial increase in either the number of vehicle trips, the volume to capacity ratio on roads, or congestion at intersections)?</td>
<td>☐</td>
<td>☐</td>
<td>☑</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>b) Exceed, either individually or cumulatively, a level of service standard established by the county congestion management agency for designated roads or highways?</td>
<td>☐</td>
<td>☐</td>
<td>☑</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?</td>
<td>☐</td>
<td>☐</td>
<td></td>
<td>☑</td>
<td>☐</td>
</tr>
<tr>
<td>d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?</td>
<td>☐</td>
<td>☑</td>
<td></td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>e) Result in inadequate emergency access?</td>
<td>☐</td>
<td>☐</td>
<td>☑</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>f) Result in inadequate parking capacity?</td>
<td>☐</td>
<td>☐</td>
<td>☑</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>g) Conflict with applicable adopted policies, plans, or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks)?</td>
<td>☐</td>
<td>☐</td>
<td>☑</td>
<td>☐</td>
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</table>

| a,b) The projected increase in 70 employees to the campus population from the proposed project would result in a minor increase to the number of motorized vehicle trips in and around campus. |

The 2003 LRDP EIR found that implementation of the 2003 LRDP, including the proposed project, would cause unacceptable intersection operations at on-campus intersections (Impact 4.14-1). LRDP Mitigation 4.14-1(a-c), included in the proposed project, requires that the campus continue to pursue Transportation Demand Management strategies to reduce vehicle-trips, monitor peak hour traffic operations at critical locations, review individual projects to determine if intersection operations will degrade to unacceptable levels, and implement physical improvements when intersection operations degrade. The 2003 LRDP EIR found that additional vehicle trips under the 2003 LRDP would cause the LOS at ten on-campus intersections to drop below acceptable levels. With implementation of measures identified in the 2003 LRDP EIR, the impact associated with the project’s contribution to degraded on-campus intersection operations would be less than significant.

The 2003 LRDP EIR also identified that implementation of the 2003 LRDP would cause unacceptable intersection and freeway operations off-campus (Impact 4.14-2). LRDP Mitigation 4.14-2(a-c), included in the proposed project, requires that the campus continue to pursue Transportation Demand Management strategies to reduce vehicle-trips, monitor peak hour traffic operations at critical locations, review individual projects to determine if operations will degrade to unacceptable levels, and contribute fair share costs to roadway improvements if operations degrade. Because the feasibility and/or implementation of off-campus roadway and intersection improvements is ultimately within the jurisdiction of other authorities and cannot be guaranteed by the University,
this impact is considered significant and unavoidable. This impact was adequately analyzed in the 2003 LRDP EIR and was fully addressed in the Findings and Statement of Overriding Considerations adopted by The Regents in connection with its approval of the 2003 LRDP. No conditions have changed and no new information has become available since certification of the 2003 LRDP EIR that would alter this previous analysis.

c) Impacts related to safety risks associated with the UC Davis airport are discussed in Section 7.7, Hazards and Hazardous Materials.

d) During construction of the Student Community Center, the Music Instruction and Recital Building, and the Chilled Water Phase 7 developments, campus sidewalks and bikepaths could be closed. These closures may result in inadequate access to campus facilities resulting in increased use of roadways or landscaping areas for pedestrian and bicyclist access. Use of roadways and landscaped areas for campus circulation may conflict with the capacity and designed operation of these areas and could result in hazards to pedestrians or cyclists in the core campus.

The 2003 LRDP EIR identified that growth under the 2003 LRDP would increase conflicts between bicyclists, pedestrians, and transit vehicles on the core campus, resulting in increased congestion and safety problems (Impact 4.14-5). LRDP Mitigation 4.14-5, included in the proposed project, requires UC Davis to continue to monitor pedestrian and bike activity and accidents on the core campus, and to improve bike and pedestrian facilities or alter transit operations to reduce accident rates or safety problems.

LRDP Mitigation 4.14-5 addressed the potential core campus circulation hazards that could result from campus growth but did not address hazards resulting from construction activities. Project-Specific Mitigation Measure 1 would provide detours and a required campus approval for all detour plans associated with the proposed project. The proposed detours would provide pedestrians and other users with a path of travel meeting wheelchair, pedestrian, and bicyclist needs and would be designed to accommodate the volume of users in the UC Davis core campus.

*Project-Specific Mitigation Measure 1*: The proposed project shall include a detour plan for all sidewalk and bikepath closures. The detour plan will be approved by the campus Facilities and Enterprise Policy Coordinating Committee and will include appropriate signage, surfacing, and width to accommodate the expected volume of pedestrians, wheelchairs, and bikes.

With these mitigation measures, the impact would be less than significant.

e) Impacts related to emergency access are discussed in Section 7.7, Hazards and Hazardous Materials.

f) The proposed project would include a projected increase of approximately 70 employees to the campus population. In addition, the project would reduce the overall supply of campus parking spaces by approximately 30 spaces because of the redesign of Parking Lot 24 west of the Segundo Services building. The 2003 LRDP EIR identified that implementation of the 2003 LRDP would create additional parking demand (Impact 4.14-3). In compliance with LRDP Mitigation 4.14-3(a-b), included in the proposed project, the campus will: continue to pursue Transportation Demand Management strategies to reduce parking demand; monitor parking demand on a quarterly basis; and provide additional parking if a proposed project is expected to increase winter parking utilization rates over 90 percent on the central campus, at the Health Sciences District, and/or at major facilities on the west or south campuses. The recent winter parking utilization rate was 82% and the projected increase of approximately 40 vehicles would not require additional parking facilities. With
implementation of measures identified in the 2003 LRDP EIR, this impact would be less than significant.

g) The projected increase in 70 employees to the campus population would result in an increase in demand for transit services. The 2003 LRDP EIR identified that growth under the 2003 LRDP would increase demand for transit services (LRDP Impact 4.14-4), and that an impact could result if development under the 2003 LRDP could cause conflicts with applicable adopted policies, plans, or programs supporting alternative transportation. LRDP Mitigation 4.14-4, included in the proposed project, requires the campus to monitor transit ridership to identify routes that operate over capacity and work with transit providers to identify additional service needed to serve future growth. With implementation of this measure, the impact would be less than significant.

Summary

The proposed project would not exceed the levels of significance of transportation and circulation impacts previously addressed in the 2003 LRDP EIR, nor would it introduce any new significant impacts that were not previously addressed. Mitigation measures 4.14-1 (a-c), 4.14-2 (a-c), 4.14-3 (a,b), 4.14-4, and 4.14-5 from the 2003 LRDP EIR and Project-Specific Mitigation 1 are relevant to the proposed project and reduce the significance of transportation, circulation, and parking impacts to the extent feasible. No new mitigation measures were identified that would further reduce the impacts of the project.
7.16  UTILITIES & SERVICE SYSTEMS

7.16.1  Background

Section 4.15 of the 2003 LRDP EIR addresses the effects of campus growth on utility systems under the 2003 LRDP. The campus provides the following utility and service systems to campus projects:

- Domestic/Fire Water
- Utility Water
- Agricultural Water
- Storm Drainage
- Wastewater
- Solid Waste
- Chilled Water
- Steam
- Electricity
- Natural Gas
- Telecommunications

The campus is required to comply with a UC-wide green building policy and clean energy standard. The policy encourages principles of energy efficiency and sustainability in the planning, financing, design, construction, renewal, maintenance, operation, space management, facilities utilization, and decommissioning of facilities and infrastructure to the extent possible, consistent with budgetary constraints and regulatory and programmatic requirements. In addition, the policy aims to minimize increased use of non-renewable energy by encouraging programs addressing energy efficiency, local renewable power and green power purchases from the electrical grid (UC Office of the President 2003).

Project Site

The proposed project would use campus utilities and service systems including: These utilities and service systems are discussed below:

- **Domestic Water:** The campus’ domestic/fire water system obtains water from six deep aquifer wells to serve the needs of campus buildings, landscape irrigation on the west and south campuses, and heating and cooling systems at the Central Heating and Cooling Plant (CHCP). The system includes approximately 144,000 linear feet of distribution pipelines, a water tower and a ground storage tank with a combined capacity of approximately 500,000 gallons, an underground storage reservoir with a capacity of approximately 1.3 million gallons, and a booster pump station. In 2007-08, annual domestic water consumption was approximately 2,419 acre-feet and peak demand was 3,100 gpm.

- **Utility Water:** The campus’ utility water system obtains water from six intermediate-depth aquifer wells to provide water for landscape irrigation, greenhouse irrigation, and some laboratories. The system includes one 100,000-gallon water tower. In 2007-08, annual utility water consumption was approximately 493 acre-feet and peak demand was 1.0 mgd.

- **Wastewater:** UC Davis operates a campus wastewater conveyance and treatment system that is independent from regional facilities. The campus Wastewater Treatment Plant (WWTP) is located in the south campus, and treated effluent from the plant discharges to Putah Creek. The peak month capacity of the campus WWTP, as regulated under the existing NPDES permit issued by the CVRWQCB, is 2.7 mgd average dry weather monthly. Recent upgrades have raised the capacity to 3.85 mgd average dry weather monthly. The maximum monthly flow in 2007 was 2.4 mgd.

- **Storm Drainage:** The central campus and developed parts of the west and south campuses are served by campus storm water drainage systems. The central campus drainage system involves a system of underground pipes that drain to the Arboretum Waterway (providing the only major
detention storage in the system), from which storm water it is pumped to the South Fork of Putah Creek during large storm events.

- **Solid Waste:** UC Davis provides solid waste collection and recycling services for the campus. All nonrecycled and nonhazardous solid wastes collected on campus are disposed at the campus owned and operated Class III sanitary landfill located in the west campus west of County Road 98 and north of Putah Creek. In 2007, the Davis campus sent approximately 8,100 tons of solid waste to the campus landfill per year (approximately 34 tons per working day). In addition, approximately 3,700 tons of wastes from the UC Davis Medical Center in Sacramento are disposed at the landfill each year. The permitted capacity of the landfill is 500 tons per day, and the landfill unit currently being used has anticipated capacity to serve the campus needs through 2023. In 2007 approximately 14,300 tons of materials were diverted for recycling and reuse. The amount of materials diverted represents approximately 60 percent of the total waste generated on the Davis campus.

- **Electricity:** The main campus currently receives electricity from the Western Area Power Administration (WAPA) through PG&E transmission lines at the campus substation located south of I-80. The campus electrical system has an available capacity of 64.4 megawatts (MW). Annual electrical usage on campus in 2007-08 was approximately 235 million kilowatt-hours (KWh) per year.

- **Natural Gas:** The campus purchases natural gas from outside vendors and provides it to the campus facilities through PG&E pipelines. Natural gas is provided to four locations on campus for use and distribution: the CHCP, the Primate Center Plant, the Cogeneration Plant, and the Master Meter #1.

- **Chilled Water & Steam:** The campus chilled water and steam systems produce and convey steam to provide heat and chilled water to cool several buildings on the central campus. Campus buildings that are not connected to the campus chilled water and steam systems use individual heating, ventilation, and air conditioning (HVAC) systems. The campus operates two main chilled water plants (the CHCP and the Thermal Energy Storage Plant) with a total system capacity of approximately 15,500 tons. The campus’ main steam plant is located in the CHCP. The total steam capacity at the CHCP is approximately 280,000 pounds per hour (pph) (including a 75,000 pph backup boiler for use in emergencies).

- **Telecommunications:** The majority of all telephone, data, video, and wireless infrastructure and facilities on campus are owned by the campus and operated by the UC Davis Communications Resources Department. The main campus switching facility is located in the Telecommunications Building. As new buildings are constructed, the Communications Resources Department coordinates with the UC Davis Office of Architects and Engineers to design and direct the installation of intra- and inter-building telecommunications facilities in accordance with established standards.
For the proposed developments, the utility needs are summarized in the following table.

<table>
<thead>
<tr>
<th></th>
<th>Segundo Services Center</th>
<th>Student Community Center</th>
<th>Music Instruction and Recital Building</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chilled Water</td>
<td>See note 1.</td>
<td>109 tons</td>
<td>87 tons</td>
</tr>
<tr>
<td>Steam</td>
<td>See note 1.</td>
<td>1,394 lbs/hr</td>
<td>882 lbs/hr</td>
</tr>
<tr>
<td>Domestic Water</td>
<td>See note 1.</td>
<td>48 gpm</td>
<td>20 gpm</td>
</tr>
<tr>
<td>Fire Water</td>
<td>See note 1.</td>
<td>500 gpm</td>
<td>500 gpm</td>
</tr>
<tr>
<td>Utility Water</td>
<td>See note 1.</td>
<td>16 gpm</td>
<td>14 gpm</td>
</tr>
<tr>
<td>Sanitary Sewer</td>
<td>See note 1.</td>
<td>7,995 gpd</td>
<td>3,289 gpd</td>
</tr>
<tr>
<td>Storm Drainage</td>
<td>See note 1.</td>
<td>.78 cfs</td>
<td>0 cfs</td>
</tr>
<tr>
<td>Natural Gas</td>
<td>See note 1.</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>Telecommunications</td>
<td>See note 1.</td>
<td>171 voice</td>
<td>35 voice</td>
</tr>
<tr>
<td></td>
<td></td>
<td>205 data</td>
<td>35 data</td>
</tr>
<tr>
<td>Electrical</td>
<td>See note 1.</td>
<td>113 KVA</td>
<td>295 KVA</td>
</tr>
</tbody>
</table>

1. Segundo Services Center will connect to campus utilities. The anticipated demand will be calculated during the project design phase. The project would not require capacity increases from the campus systems to obtain adequate service but may require an extension to a connection point off-site.

The proposed projects would connect to most campus utilities within the project boundaries or at nearby connection points in the street adjacent to each project. The Segundo Services Center may require an off-site upgrade of domestic water. The need to complete the upgrade or utilize an on-site connection will be determined during the project design phase. If needed, the new connection would require installation of a new water main from the west side of the project site underneath La Rue Road. The new underground water main would be located underneath La Rue Road and would extend southward from the project site to the intersection of La Rue Road and Orchard Road.

### 7.16.2 2003 LRDP EIR Standards of Significance

The 2003 LRDP EIR considers a utilities and service systems impact significant if growth under the 2003 LRDP would:

- Exceed the Central Valley Regional Water Quality Control Board’s wastewater treatment requirements.
- Require or result in the construction or expansion of water or wastewater treatment facilities, which would cause significant environmental effects.
- Require or result in the construction or expansion of storm water drainage facilities, which could cause significant environmental effects.
- Result in the need for new or expanded water supply entitlements.
- Exceed available wastewater treatment capacity.
- Be served by a landfill with insufficient permitted capacity to accommodate the project’s solid waste disposal needs.
- Fail to comply with applicable federal, state, and local statutes and regulations related to solid waste.
- Require or result in the construction or expansion of electrical, natural gas, chilled water, or steam facilities, which would cause significant environmental impacts.
- Require or result in the construction or expansion of telecommunication facilities, which would cause significant environmental impacts.

### 7.16.3 2003 LRDP EIR Impacts and Mitigation Measures

Impacts of campus growth under the 2003 LRDP through 2015-16 on utilities and service systems are evaluated in Section 4.15 of the 2003 LRDP EIR. The proposed project is within the scope of analysis in the 2003 LRDP EIR. Significant and potentially significant utilities and service systems impacts identified in the 2003 LRDP EIR that are relevant to the proposed project are presented below with their corresponding levels of significance before and after application of mitigation measures identified in the 2003 LRDP EIR. In addition, impacts 4.15-1, 4.15-2, 4.15-3, 4.15-4, 4.15-6, 4.15-8, and 4.15-9, presented below, are considered less than significant prior to mitigation, but mitigation measures were identified in the 2003 LRDP EIR to further reduce the significance of these impacts. Less than significant impacts that do not include mitigation are not presented here. Mitigation measures are included to reduce the magnitude of project-level impact 4.15-7 and cumulative impact 4.15-10, but these impacts are identified as significant and unavoidable because they cannot be fully mitigated.

<table>
<thead>
<tr>
<th>2003 LRDP EIR Impacts</th>
<th>UTILITIES &amp; SERVICE SYSTEMS</th>
<th>Level of Significance Prior to Mitigation</th>
<th>Level of Significance After Mitigation</th>
</tr>
</thead>
<tbody>
<tr>
<td>4.15-1</td>
<td>Implementation of the 2003 LRDP would require the expansion of campus domestic/fire water extraction and conveyance systems, which would not cause significant environmental impacts.</td>
<td>LS</td>
<td>LS</td>
</tr>
<tr>
<td>4.15-2</td>
<td>Implementation of the 2003 LRDP would require the expansion of campus utility water extraction and conveyance systems, which would not cause significant environmental impacts.</td>
<td>LS</td>
<td>LS</td>
</tr>
<tr>
<td>4.15-3</td>
<td>Implementation of the 2003 LRDP would require the expansion of wastewater treatment and conveyance facilities, the construction and operation of which would not result in significant environmental impacts.</td>
<td>LS</td>
<td>LS</td>
</tr>
<tr>
<td>4.15-4</td>
<td>Implementation of the 2003 LRDP would require the expansion of campus storm drainage conveyance and detention facilities, which would not result in significant environmental impacts.</td>
<td>LS</td>
<td>LS</td>
</tr>
<tr>
<td>4.15-6</td>
<td>Implementation of the 2003 LRDP would require the expansion of the campus electrical system, which would not result in significant adverse environmental impacts.</td>
<td>LS</td>
<td>LS</td>
</tr>
<tr>
<td>4.15-7</td>
<td>Implementation of the 2003 LRDP would require the expansion of natural gas transmission systems, which would result in environmental impacts.</td>
<td>LS</td>
<td>LS</td>
</tr>
<tr>
<td>4.15-8</td>
<td>Implementation of the 2003 LRDP would require the expansion of campus chilled water and steam generation and conveyance facilities, which would not result in significant environmental impacts.</td>
<td>LS</td>
<td>LS</td>
</tr>
<tr>
<td>4.15-9</td>
<td>Implementation of the 2003 LRDP would require expansion of campus communication facilities, which would not result in significant environmental impacts.</td>
<td>LS</td>
<td>LS</td>
</tr>
<tr>
<td>4.15-10</td>
<td>Implementation of the 2003 LRDP together with other regional development could generate a cumulative demand for wastewater treatment facilities in the region, the construction of which could result in significant environmental impacts on habitat.</td>
<td>S</td>
<td>SU</td>
</tr>
</tbody>
</table>

Levels of Significance: LS=Less than Significant, S=Significant, PS=Potentially Significant, SU=Significant and Unavoidable. 

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Mitigation measures in the 2003 LRDP EIR that are applicable to the proposed project are presented below. Since these mitigation measures are already being carried out as part of implementation of the 2003 LRDP, they are considered part of the project description and will not be readopted in this Initial Study or Negative Declaration. Nothing in this Initial Study in any way alters the obligations of the campus to implement 2003 LRDP EIR mitigation measures.

### 2003 LRDP EIR Mitigation Measures

#### UTILITIES & SERVICE SYSTEMS

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>4.15-1(a)</td>
<td>Once preliminary project design is developed, the campus shall review each project to determine if existing domestic/fire water supply is adequate at the point of connection. If the existing system is inadequate, the campus will upgrade the system to provide adequate water flow and pressure to the project site before constructing the project.</td>
</tr>
<tr>
<td>4.15-1(b)</td>
<td>Implement domestic water conservation strategies as indicated in LRDP Mitigation 4.8-5(a) (see Section 7.8 Hydrology and Water Quality of this Tiered Initial Study).</td>
</tr>
<tr>
<td>4.15-2(a)</td>
<td>Once preliminary project design is developed, the campus shall review each project to determine whether existing utility water supply is adequate at the point of connection. If the existing utility water supply is inadequate, the campus will upgrade the system to provide adequate water flow to the project site prior to occupation or operation.</td>
</tr>
<tr>
<td>4.15-2(b)</td>
<td>Implement utility water conservation strategies as indicated in LRDP Mitigation 4.8-6(a) (see Section 7.8 Hydrology and Water Quality of this Tiered Initial Study).</td>
</tr>
<tr>
<td>4.15-3</td>
<td>Once preliminary project design is developed, the campus shall review each project to determine whether existing capacity of the sanitary sewer line at the point of connection is adequate. If the capacity of the sewer line is determined inadequate, the campus will upgrade the system to provide adequate service to the project site prior to occupation or operation.</td>
</tr>
<tr>
<td>4.15-4</td>
<td>Once preliminary project design is developed, the campus shall review each project to determine whether existing storm drainage system is adequate at the point of connection. If the storm drainage system is determined inadequate, the campus will upgrade the system to provide adequate storm water drainage and/or detention prior to occupation or operation.</td>
</tr>
<tr>
<td>4.15-6(a)</td>
<td>Once preliminary project design is developed, the campus shall review each project to determine whether the existing electrical system is adequate at the point of connection. If the electrical system is determined inadequate, the campus will upgrade the system to provide adequate service to the project prior to occupation or operation.</td>
</tr>
<tr>
<td>4.15-6(b)</td>
<td>The campus would continue to meet or exceed Title 24 energy conservation requirements for new buildings, and it would continue to incorporate energy efficient design elements outlined in the UC Davis Campus Standards &amp; Design Guide in new construction and retrofit projects. These energy conservation standards may be subject to modification as more stringent standards are developed.</td>
</tr>
<tr>
<td>4.15-7(a)</td>
<td>Once preliminary project design is developed, the campus shall review each project to determine whether existing capacity of the natural gas supply pipeline at the point of connection is adequate. If the capacity of the pipeline is determined inadequate, the system will be updated to provide adequate service to the project site prior to occupation or operation.</td>
</tr>
<tr>
<td>4.15-7(b)</td>
<td>To minimize disturbance to archaeological resources associated with CA-Yol-118, PG&amp;E can and should implement directional drilling or other alternative means to trenching, or should have a qualified archaeological monitor present and provide a representative of the local Native American community an opportunity to monitor during construction.</td>
</tr>
<tr>
<td>4.15-8</td>
<td>Once preliminary project design is developed, the campus shall review each project to determine whether existing capacity of the chilled water and/or steam system at the point of connection is adequate. If the capacity of the pipelines is determined inadequate, the campus will upgrade the system to provide adequate service to the project site prior to occupation or operation.</td>
</tr>
<tr>
<td>4.15-9</td>
<td>Once preliminary project design is developed, the campus shall review each project to determine whether existing capacity of the telecommunications system is adequate. If the capacity is determined to be inadequate, the campus...</td>
</tr>
</tbody>
</table>
2003 LRDP EIR Mitigation Measures

Utilities & Service Systems

will upgrade the system to provide adequate service to the project site prior to occupation or operation.

4.15-10 If documented unmitigated significant environmental impacts are caused by the construction of wastewater treatment facilities in the Cities of Davis, Dixon, Woodland, and/or Winters that are needed in part due to implementation of the 2003 LRDP, UC Davis shall negotiate with the appropriate local jurisdiction to determine the campus’ fair share (as described in Section 4.12.2.3) of the costs to implement any feasible and required environmental mitigation measures so long as the unmitigated impacts have not been otherwise reduced to less-than-significant levels through regulatory requirements, public funding, or agreements. This mitigation measure shall not apply to any other costs associated with implementation of utilities or service systems.

7.16.4 Environmental Checklist and Discussion

Utilities & Service Systems

Would the project…

<table>
<thead>
<tr>
<th>Potentially Significant Impact</th>
<th>Less than Significant with Project-level Mitigation</th>
<th>Impact Adequately Addressed in 2003 LRDP EIR</th>
<th>Less than Significant Impact</th>
<th>No Impact</th>
</tr>
</thead>
<tbody>
<tr>
<td>a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>✓</td>
</tr>
<tr>
<td>b) 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?</td>
<td>☐</td>
<td>☐</td>
<td>✓</td>
<td>☐</td>
</tr>
<tr>
<td>c) Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?</td>
<td>☐</td>
<td>☐</td>
<td>✓</td>
<td>☐</td>
</tr>
<tr>
<td>d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?</td>
<td>☐</td>
<td>☐</td>
<td>✓</td>
<td>☐</td>
</tr>
<tr>
<td>e) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project’s projected demand in addition to the providers existing commitments?</td>
<td>☐</td>
<td>☐</td>
<td>✓</td>
<td>☐</td>
</tr>
<tr>
<td>f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>✓</td>
</tr>
<tr>
<td>g) Comply with federal, state, and local statutes and regulations related to solid waste?</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>h) Require or result in the construction or expansion of electrical, natural gas, chilled water, or steam facilities, which would cause significant environmental impacts?</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>✓</td>
</tr>
<tr>
<td>i) Require or result in the construction or expansion of telecommunication facilities, which would cause significant environmental impacts?</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>✓</td>
</tr>
</tbody>
</table>

a) The proposed project would contribute effluent to the campus wastewater treatment plant. The contribution would consist of typical campus effluent. The permitted peak monthly average capacity
of the campus WWTP is currently 2.7 mgd, and growth under the 2003 LRDP, including the proposed project, is anticipated to increase the volume of discharge to 3.85 mgd through 2015-16. Recently completed upgrades to the plant increased the capacity to 3.85 mgd. As discussed further in item “a,f” in Section 7.8, Hydrology and Water Quality, with continuation of current practices and implementation of 2003 LRDP EIR mitigation measures, the campus anticipates meeting the WWTP’s permit requirements. Therefore, the impact associated with possible exceedances of WWTP requirements would be less than significant.

b) Domestic Water Facilities

The Student Community Center and the Music Instruction and Recital Building would connect to the campus domestic water system within the project boundaries or at a nearby connection underneath the adjacent street. The Segundo Services Center may require an off-site extension to connect to domestic water. The need to complete the extension or utilize an on-site connection will be determined during the project design phase. If needed, the new connection would require installation of a new water main from the west side of the project site underneath La Rue Road. The new underground water main would be located underneath La Rue Road and would extend southward from the project site to the intersection of La Rue Road and Orchard Road.

The 2003 LRDP EIR identified that campus development under the 2003 LRDP would require the expansion of campus domestic/fire water extraction and conveyance systems, the construction of which would not cause significant environmental impacts (LRDP Impact 4.15-1). The domestic water lines associated with the project would be constructed within existing rights-of-way where cultural and biological resources would not likely occur. In addition, the campus would survey the site before construction and perform monitoring during construction (in compliance with 2003 LRDP Mitigations 4.4-1 and 4.5-1) to avoid inadvertent biological and cultural resource impacts. Therefore, effects associated with domestic water utility extensions would be less than significant. LRDP Mitigation 4.15-1(a-b), included in the proposed project, would further reduce the significance of this impact by requiring the water conservation strategies outlined in LRDP Mitigation 4.8-5(a) (see Hydrology and Water Quality section) and by requiring the campus to review the project to determine if the domestic/fire water supply is adequate at the point of connection and if any upgrades to the system are required. The utility analyses for the proposed developments indicate that no upgrades to the campus system are required to serve the proposed developments.

Utility Water Facilities

The proposed developments will connect to the campus utility water systems within the development sites to receive water for landscaping purposes. The 2003 LRDP EIR identified that campus development under the 2003 LRDP would require the expansion of campus utility water extraction and conveyance systems, the construction of which would not cause significant environmental impacts (LRDP Impact 4.15-2). The utility water line(s) associated with the project would be constructed within a previously disturbed area where cultural and biological resources would not likely occur. In addition, the campus would survey the site before construction and perform monitoring during construction (in compliance with 2003 LRDP Mitigations 4.4-1 and 4.5-1) to avoid inadvertent biological and cultural resource impacts. Therefore, effects associated with domestic water utility extensions would be less than significant. LRDP Mitigation 4.15-2(a-b), included in the proposed project, would further reduce the significance of this impact by requiring the water conservation strategies outlined in LRDP Mitigation 4.8-6(a) (see Hydrology and Water Quality section) and by requiring the campus to review the project to determine if the utility water supply is adequate at the point of connection and if any upgrades to the system are required. The
utility evaluation for each project indicate that the existing points of connection are adequate to serve the proposed project.

**Wastewater Facilities**

The proposed project would contribute effluent to the campus wastewater treatment plant and would connect to the campus wastewater treatment system at a connection point within each project site or adjacent to each project site underneath the adjacent roadway. The 2003 LRDP EIR identified that implementation of the 2003 LRDP, including the proposed project, would require the expansion of campus wastewater treatment and conveyance facilities, the construction and operation of which would not result in significant environmental impacts (Impact 4.15-3). Future expansion of the existing WWTP and installation of new sanitary sewer conveyance lines would primarily occur on previously disturbed ground. In addition, the campus would survey the site before construction and perform monitoring during construction (in compliance with 2003 LRDP Mitigations 4.4-1 and 4.5-1) to avoid inadvertent biological and cultural resource impacts. Therefore, this impact would be less than significant. LRDP Mitigation 4.15-3, included in the proposed project, would further reduce the significance of this impact by ensuring the campus practice of reviewing projects to determine if there is adequate capacity to provide sanitary sewer service, and to upgrade the system as necessary. The utility studies for the development projects identified that the existing connections to the sanitary sewer system are adequate to serve the proposed project and that no upgrades to those connections are necessary.

The proposed project would contribute to regional population growth and this growth would contribute to the cumulative demand for wastewater treatment facilities in the region, which the 2003 LRDP EIR recognized could result in significant environmental impacts (Impact 4.15-10). Because expansion of wastewater treatment facilities in local jurisdictions could require development on agricultural land, loss of farmland and/or habitat could result. To the extent that an increase in off-campus population associated with the 2003 LRDP, including the proposed project, could contribute to the demand for wastewater treatment, in compliance with LRDP Mitigation 4.15-10, the campus would negotiate with the affected jurisdictions to determine the University’s fair share of costs for feasible mitigation to reduce associated significant environmental impacts. The campus’ contribution to mitigation could include implementation of preservation mechanisms for on-campus prime farmland and/or habitat conservation. However, impacts associated with an irreversible loss of prime farmland and habitat could not be mitigated to less-than-significant levels. Therefore, the cumulative impacts related to wastewater treatment facility construction in the Cities of Davis, Winters, Dixon, and Woodland would be significant and unavoidable. This impact was adequately analyzed in the 2003 LRDP EIR and was fully addressed in the Findings and Statement of Overriding Considerations adopted by The Regents in connection with its approval of the 2003 LRDP. No conditions have changed and no new information has become available since certification of the 2003 LRDP EIR that would alter this previous analysis.

c) The three buildings would connect to the campus storm drainage system using existing storm drainage pipes and inlets. Where necessary to account for revised grading within a project site, the projects may relocate drainage inlets to match the new site grading with a properly designed drainage system. The 2003 LRDP EIR identified that implementation of the 2003 LRDP would require the expansion of storm drainage conveyance and detention facilities, the construction and operation of which would not result in significant environmental impacts (Impact 4.15-4). In addition, the campus would survey the site before construction and perform monitoring during construction (in compliance with 2003 LRDP Mitigations 4.4-1 and 4.5-1) to avoid inadvertent biological and cultural resource
impacts. LRDP Mitigation 4.15-4, included in the proposed project, would further reduce this less-than-significant impact by ensuring the campus practice of reviewing projects to determine if there is adequate capacity to provide storm water drainage service for the proposed project, and to upgrade the system as necessary. The utility studies for the development projects identified that the existing connections to the drainage system are adequate to serve the proposed project and that no upgrades to those connections are necessary.

d) The proposed buildings would require connections from the campus domestic water system to receive adequate domestic water and water for fire fighting. The Student Community Center and the Music Instruction and Recital Building would connect to the campus domestic water system within the project boundaries or at nearby connections underneath the adjacent street. The Segundo Services Center may require an off-site extension to connect to domestic water. The need to complete the upgrade or utilize an on-site connection will be determined during the project design phase. If needed, the new connection would require installation of a new water main from the west side of the project site underneath La Rue Road. The new underground water main would be located underneath La Rue Road and would extend southward from the project site to the intersection of La Rue Road and Orchard Road.

Impacts associated with the project’s demand for water from the deep and shallow/intermediate aquifers are addressed in item (b) in Section 7.8, Hydrology and Water Quality. As addressed, mitigation measures would be implemented under the 2003 LRDP to reduce the campus’ demand for domestic/fire and utility water, to monitor impacts on the groundwater aquifers, and to manage water sources if impacts on the aquifers are identified. However, regardless of mitigation, because the effects of increased groundwater extraction are not currently well understood, impacts of increased water use are considered significant and unavoidable (LRDP Impacts 4.8-5 and 4.8-6). These impacts were adequately analyzed in the 2003 LRDP EIR and fully addressed in the Findings and Statement of Overriding Considerations adopted by The Regents in connection with its approval of the 2003 LRDP. No conditions have changed and no new information has become available since certification of the 2003 LRDP EIR that would alter this previous analysis.

e) The campus’ WWTP would provide wastewater treatment for the proposed project. As discussed in item (b) above, LRDP Mitigation 4.15-3, included in the proposed project, would ensure the campus practice of reviewing projects to determine if there is adequate capacity to provide sanitary sewer service, and to upgrade the system as necessary. The utility studies for the development projects identified that the existing connections to the sanitary sewer system are adequate to serve the proposed project and that no upgrades to those connections are necessary. Therefore, this impact would be less than significant.

f) The waste disposal needs of the proposed project would be served by the campus landfill. The proposed projects would generate typical campus waste during operation and would generate extensive solid waste during building demolition. Where practical, the campus will reuse and recycle demolition materials. As identified in the 2003 LRDP EIR, given the demands anticipated under the 2003 LRDP (including the proposed project), the life expectancy of the campus landfill is to 2023. Therefore, the campus landfill would have adequate capacity to serve the proposed project and the impact would be less than significant.

g) The project would generate typical solid waste that would not special handling or disposal requirements. The proposed project would comply with all applicable statutes and regulations related to solid waste. Therefore, no impact would occur.
h) The proposed project would generate demand for electricity, natural gas, chilled water, and/or steam. To serve the projects upgrades are needed for the campus chilled water and steam delivery systems. These upgrades are includes as part of the proposed project. The 2003 LRDP EIR identified that growth under the 2003 LRDP would require the expansion of the campus electrical system, campus/PG&E natural gas transmission systems, campus chilled water system, and campus steam system (LRDP Impacts 4.15-3, 4.15-4, and 4.15-5). Electrical/ natural gas/chilled water/ and steam utility extensions required by the proposed project would be constructed within existing rights-of-way or within a previously disturbed area. In addition, the campus would survey the site before construction and perform monitoring during construction (in compliance with 2003 LRDP Mitigations 4.4-1 and 4.5-1) to avoid inadvertent biological and cultural resource impacts. Therefore, environmental effects associated with utility extensions would be less than significant. LRDP Mitigations 4.15-6(a,b), 4.15-7(a), and 4.15-8, included in the proposed project, would further reduce the significance of this impact by requiring the campus to continue to incorporate energy efficient design elements, meet or exceed Title 24 energy conservation requirements, and review the project to determine if the relevant utility supply is adequate at the point of connection and if any upgrades to the utility system are required. Therefore, environmental effects associated with utility extensions would be less than significant. LRDP Mitigation 4.15-9, included in the proposed project, would further reduce the significance of this impact by requiring the campus to determine if the telecommunication capacity is adequate at the point of connection and if any upgrades to the system are required.

i) The project buildings would connect to the campus telecommunications system. The 2003 LRDP EIR identified that growth under the 2003 LRDP would require the expansion of the campus telecommunications system, which would not result in significant environmental impacts (LRDP Impact 4.15-9). Telecommunication extensions required by the proposed project would be constructed within existing right-of-ways or within a previously disturbed area. In addition, the campus would survey the site before construction and perform monitoring during construction (in compliance with 2003 LRDP Mitigations 4.4-1 and 4.5-1) to avoid inadvertent biological and cultural resource impacts. Therefore, environmental effects associated with utility extensions would be less than significant. LRDP Mitigation 4.15-9, included in the proposed project, would further reduce the significance of this impact by requiring the campus to determine if the telecommunication capacity is adequate at the point of connection and if any upgrades to the system are required.

Summary

The proposed project would not exceed the levels of significance of transportation and circulation impacts previously addressed in the 2003 LRDP EIR, nor would it introduce any new significant impacts that were not previously addressed. Mitigation measures 4.15-1(a,b), 4.15-2(a,b), 4.15-3, 4.15-4, 4.15-6(a,b), 4.15-7(a,b), 4.15-8, 4.15-9, and 4.15-10 from the 2003 LRDP EIR are relevant to the proposed project and reduce the significance of utility and service system impacts to the extent feasible. No new mitigation measures were identified that would further reduce the impacts of the project.
**MANDATORY FINDINGS OF SIGNIFICANCE**

<table>
<thead>
<tr>
<th>Would the project…</th>
<th>Potentially Significant Impact</th>
<th>Less than Significant with Project-level Mitigation</th>
<th>Impact Adequately Addressed in 2003 LRDP EIR</th>
<th>Less than Significant Impact</th>
<th>No Impact</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>a)</strong> Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?</td>
<td>☐</td>
<td>☐</td>
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<td>☐</td>
<td>☐</td>
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<td><strong>b)</strong> Does the project have impacts that are individually limited, but cumulatively considerable? (“Cumulatively considerable” means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?</td>
<td>☐</td>
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<tr>
<td><strong>c)</strong> Does the project have environmental effects that will cause substantial adverse effects on human beings, either directly or indirectly?</td>
<td>☐</td>
<td>☐</td>
<td>☑</td>
<td>☐</td>
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</table>

**a)** The proposed project would not significantly affect fish or wildlife habitat, nor would it eliminate examples of California history or prehistory. Potential impacts would be less-than-significant.

**b,c)** The proposed project would not contribute to significant unavoidable impacts identified in the 2003 LRDP EIR related to: aesthetics, agriculture resources, and population and housing,. It would incrementally contribute to, but would not exceed, significant and unavoidable impacts related to: air quality, biological resources, cultural resources, hydrology and water quality, noise, public services, recreation, transportation/circulation, and utilities and service systems. These impacts were adequately analyzed in the 2003 LRDP EIR and fully addressed in the Findings and Statement of Overriding Considerations adopted by The Regents in connection with its approval of the 2003 LRDP. No conditions have changed and no new information has become available since certification of the 2003 LRDP EIR that would alter this previous analysis.

**c)** The proposed project is not expected to have a substantial adverse effect on human beings either directly or indirectly. The project would help development facilities for educational purposes and would generally contribute to factors such as resource efficiency and economic development.
8 FISH & GAME DETERMINATION

Based on the information presented in this Tiered Initial Study, the project has a potential to adversely affect wildlife or the habitat upon which wildlife depend. Therefore, a filing fee will be paid.

___ Certificate of Fee Exemption

__X__ Pay Fee
9 REFERENCES


Chandler, Mike, UC Davis Fire Chief. 2003, February 27. Personal communication with Sarah Mattern; regarding achievement of stated standard of response.


UC Davis. 2002. UC Davis Bicycle Plan.

UC Davis. 1997, October. UC Davis Water Management Plan.
UC Davis Agricultural Services. 2003. UC Davis Irrigation Database (from Irrigation Services Billing) for crops and aquaculture.


UC Davis ORMP. 2003c. Campus Water Balance.

UC Davis ORMP. 2003d. Fall 2002 UC Davis Travel Behavior Survey.


10 AGENCIES & PERSONS CONSULTED

11 REPORT PREPARERS

Matt Dulcich, UC Davis, Office of Resource Management and Planning

Sid England, UC Davis, Office of Resource Management and Planning
APPENDIX A
PROPOSED MITIGATED NEGATIVE DECLARATION
PROPOSED MITIGATED NEGATIVE DECLARATION

Lead Agency: University of California

Project Proponent: University of California, Davis

Project Location: UC Davis Core Campus

Project Description: The proposed project consists of 3 new buildings (Segundo Services Building, Student Community Center, and the Music Instruction and Recital Building) and an addition to the campus chilled water underground utility infrastructure (Chilled Water Phase 7). In total, the building projects would occur on approximately 6.5 acres within the Core Campus at UC Davis and the utility project would extend for approximately 3,500 feet through a corridor of ranging from 20 to 30 feet in width.

Mitigation Measure: In addition to the relevant mitigation measures from the 2003 Long Range Development Plan Environmental Impact Report, the following project-specific mitigation measure was identified to reduce a potential transportation and circulation impact to a less-than-significant level.

Project-Specific Mitigation Measure 1: The proposed project shall include a detour plan for all sidewalk and bikepath closures. The detour plan will be approved by the campus Facilities and Enterprise Policy Coordinating Committee and will include appropriate signage, surfacing, and width to accommodate the expected volume of pedestrians, wheelchairs, and bikes.

Reference: This Proposed Mitigated Negative Declaration incorporates by reference in their entirety the text of the Initial Study prepared for the project, the 2003 LRDP, and the 2003 LRDP EIR.

Determination: In accordance with CEQA, an Initial Study has been prepared by UC Davis that evaluates the environmental effects of the proposed project. On the basis of the Initial Study the campus found that the proposed project could have a significant effect on the environment that has not been previously addressed in the 2003 LRDP EIR, and a new project-specific mitigation measure, in addition to those previously identified in the 2003 LRDP EIR that have been incorporated as part of the project, is required to reduce this effect to such a point that clearly no significant impact would occur.

Public Review: In accordance with Section 15073 of the CEQA Guidelines, the Initial Study for the project will be circulated for public and agency review from November 21, 2008 to December 22, 2008. Comments received during the review period and responses to these comments will be presented in the final Tiered Initial Study.
APPENDIX A
PROPOSED MITIGATED NEGATIVE DECLARATION
PROPOSED MITIGATION MONITORING PROGRAM

Section 15097(a) of the State CEQA Guidelines requires that the Lead Agency establish a program to report on and monitor measures adopted as part of the environmental review process to mitigate or avoid significant effects on the environment. This Mitigation Monitoring Program (MMP) is designed to ensure that the project-specific mitigation measures identified in this Tiered Initial Study are implemented. Applicable mitigation measures from the 2003 LRDP EIR will be implemented as part of the proposed project pursuant to the previous MMP adopted by the Regents as part of the 2003 LRDP on November 20, 2003.

The MMP for the proposed project, as outlined in the following table, describes monitoring and reporting procedures, monitoring responsibilities, and monitoring schedules for the project-specific mitigation measure identified in the Initial Study. All monitoring actions, once completed, will be reported in writing to or by the UC Davis Office of Resource Management and Planning, which will maintain mitigation monitoring records for the proposed project. The MMP will be considered by the campus in conjunction with project review and will be included as a condition of project approval.

The components of the MMP include:

a) **Project Specific Mitigation Measure:** The project-specific mitigation measure provides mitigation for the proposed project beyond the measures that will be implemented pursuant to the 2003 LRDP EIR.

b) **Monitoring and Reporting Procedure:** Identifies the action(s) that must be completed for the mitigation measure to be implemented.

c) **Mitigation Timing:** Identifies the timing for implementation of each action associated with the mitigation measure in order to effectively accomplish the intended outcome.

d) **Monitoring Responsibilities:** Identifies the UC Davis entity responsible for undertaking the required action and monitoring the mitigation measure.
### Project-Specific Mitigation Measure

1. **The proposed project shall include a detour plan for all sidewalk and bikepath closures.** The detour plan will be approved by the campus Facilities and Enterprise Policy Coordinating Committee and will include appropriate signage, surfacing, and width to accommodate the expected volume of pedestrians, wheelchairs, and bikes.

<table>
<thead>
<tr>
<th>Project-Specific Mitigation Measure</th>
<th>Monitoring and Reporting Procedure</th>
<th>Mitigation Timing</th>
<th>Mitigation Responsibility</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>1.</strong></td>
<td>The project design will include a detour routing plan and detail for review by the campus Coordinating Committee of the Facilities and Enterprise Policy Committee.</td>
<td>The detour routing plan for each project will be reviewed and approved prior the project proceeding to construction bidding.</td>
<td>UC Davis Architects and Engineers Office</td>
</tr>
</tbody>
</table>