UC Davis

Campus Child Care Center

Tiered Initial Study and Mitigated Negative Declaration

State Clearinghouse No. 2005092017

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

Prepared By:

Office of Resource Management and Planning

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1 PROJECT INFORMATION

Project title:
Campus Child Care Center

Project location:
University of California, Davis
Yolo County

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, Director of Environmental Planning, 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 will guide 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/
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 project’s consistency with existing, applicable land use controls, and name of persons who prepared study.

2.2 TIERING PROCESS

This environmental analysis is a Tiered Initial Study for the proposed Campus Child Care Center (referred to as the “proposed project” throughout this document). This environmental analysis 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 will guide 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 an element of the growth that was anticipated in the 2003 LRDP and evaluated in the 2003 LRDP EIR.

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]).

Accordingly, the tiering of the environmental analysis for the proposed project allows this Tiered Initial Study to 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.

The purpose of this Tiered Initial Study is to 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 form in Section 6 of this document and based on the analysis contained in this Tiered 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 are not sufficiently addressed by the 2003 LRDP EIR. The analysis contained in this Tiered Initial Study concludes that the proposed project would result in the following categories of impacts, depending on the environmental issue involved: no impact; less-than-significant impact; less-than-significant impact with the implementation of 2003 LRDP EIR or project-specific mitigation measures; or contribution to a significant and unavoidable impact that was adequately analyzed in the 2003 LRDP EIR for which no new mitigation measures are available and no new analysis is proposed. The project would result in two new potentially significant impacts that were not previously identified in the 2003 LRDP EIR, but project-specific mitigation measures would reduce these impacts to less-than-significant levels. Therefore, preparation of a Mitigated Negative Declaration is appropriate (the 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. The appropriate reference to the LRDP Mitigation Monitoring Program will also be made. Since these mitigation measures are already being carried out as part of implementation of the 2003 LRDP, they will not be readopted. The benefits of these mitigation measures will be achieved independently of considering them 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.

Since none of the conditions described in CEQA or the CEQA Guidelines calling for preparation of a subsequent or supplemental EIR have occurred, this Tiered Initial Study includes only minor technical changes or additions to the analysis set forth in the 2003 LRDP EIR, and it does not raise important new issues about the significant effects on the environment analyzed in the 2003 LRDP EIR.

2.3 Public and Agency Review

This Draft Tiered Initial Study was circulated for public and agency review from September 2, 2005 to October 3, 2005. Copies of this document, the 2003 LRDP, and the 2003 LRDP EIR were 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 Draft Tiered Initial Study were required by 5:00 PM on October 3, 2005 and could have been e-mailed to environreview@ucdavis.edu or sent to:

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University of California
One Shields Avenue
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Davis, CA 95616

Comments received are presented in Appendix C, along with responses to each comment. Changes were made to Section 7.7, Hazards and Hazardous Materials, and are discussed further in Appendix D.

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. The University of California Office of the President would consider changing the land use designation of the proposed project site in winter 2005. Design approval of the proposed project has been delegated to the campus by The Board of Regents of the University of California (The Regents). The campus' Facilities and Enterprise Policy Committee would consider approving the project subsequent to Office of the President approval of a land use designation change.

2.5 ORGANIZATION OF THE TIERED INITIAL STUDY

This Tiered 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 Tiered 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 Tiered 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 and relevant impacts and mitigation measures from the 2003 LRDP EIR, and an explanation of all checklist answers.
Section 8 – References: lists references used in the preparation of this document.

Section 9 – Agencies and Persons Consulted: provides the names of individuals contacted in preparation of this document.

Section 10 – Report Preparers: lists the names of individuals involved in the preparation of this document.

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

Appendix B – Mitigation Monitoring Plan: summarizes implementation guidelines for the Project-Specific Mitigation Measures that were not previously identified in the 2003 LRDP EIR.

Appendix C – Comments and Responses to Comments: addresses comments received regarding the project.

Appendix D – Document Changes: presents substantive changes made in the Final Tiered Initial Study and Mitigated Negative Declaration.
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 south 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

UC Davis is proposing the Campus Child Care Center (the project), which would construct and operate a new campus childcare center on a vacant site immediately west of the Recreation Pool Lodge and north of Parking Lot 30, on the central campus (see Figures 2 and 3). The project would offer accessible, affordable, and high-quality childcare, which is a contributing factor to the recruitment, retention, and success of faculty, staff and students. The project would provide year-round childcare for approximately 95 infant through preschool-aged children. In addition, the facility would provide school holiday and summer day care for approximately 24 elementary school-aged children. The proposed Campus Child Care Center, shown in Figure 4, would include a building with approximately 9,200 gross square feet (gsf) or 7,100 assignable square feet (asf) and approximately 10,710 square feet of play yards. The project would also include a drop-off area and provide staff parking in the adjacent Parking Lot 30.

The approximately one-half acre proposed project site is currently designated in the 2003 LRDP for Physical Education/Intercollegiate Athletics/Recreation land use. This designation allows for “indoor and outdoor athletic facilities and fields” (2003 LRDP, 68). The conforming land use designation for the project would be Student Housing, which the 2003 LRDP identifies “for a variety of campus and privately-operated student housing types and densities, as well as campus childcare centers” (2003 LRDP, 63). Land to the north and west of the project site is designated Student Housing in the 2003 LRDP (see the 2003 LRDP map, “Land Use (Through 2015-2016),” page 55). The project would include changing the land use designation of the project site from Physical Education/Intercollegiate Athletics/Recreation to Student Housing to accommodate the proposed project by extending the existing Student Housing designation to include the one-half acre project site. The change in designation for

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1 Gross square feet (gsf) is the total floor or surface areas of rooms in a building. Assignable square feet (asf) is the total floor or surface areas of rooms that are assigned or available for assignment to an occupant or specific use, including every type of space functionally usable by an occupant. For example, restrooms or mechanical space do not have assignable space, and are not included in asf calculations. For similar buildings, asf is significantly lower than the corresponding “rentable square feet” used to describe commercial buildings.
the site would be reflected in future printings of the 2003 LRDP land use map. The proposed land use is compatible with adjacent land uses and would be appropriate within the campus context.
* The project would include changing the land use designation of the project site from Physical Education/Intercollegiate Athletics/Recreation to Student Housing to accommodate the proposed project by extending the existing, adjacent Student Housing designation to include the one-half project site.
Figure 3
Surrounding Area
Campus Child Care Center
3.3 **PROJECT SITE**

The proposed Campus Child Care Center site encompasses approximately one-half acre and is located to the west of the Recreation Pool Lodge, north of Parking Lot 30, east of The Colleges at LaRue parking lot and storage units and south of a fire lane and The Colleges at LaRue (CLR) student housing (apartments). The proposed site was used for sand volleyball courts, which were essentially shallow pits surrounded by sand berms with metal standards to hold the game nets across the courts. The courts were installed in the late 1960s, but had become defunct by the late 1980s/early 1990s, and were removed with the construction of CLR (Colberg 2005; Compton 2005). The site has been vacant since that time. The site is currently unvegetated with the exception of some trees around the perimeter of the site, including nine large beefwood trees row-planted along a wooden fence separating the fire lane from the site (see Figure 5). A six-inch thick layer of soil fill covers the site.

The Recreation Pool Lodge, located east of the project site and north of the Recreation Pool at the corner of Hutchison and La Rue, is rented for a variety of events including conferences, lectures, receptions, banquets, weddings, dances and other social functions throughout the year. Parking Lot 30, south of the project site, serves the area’s recreation facilities, as well as academic and administrative facilities. The parking lot and storage units to the west of the proposed project site are used exclusively by residents of CLR student housing. The fire lane running immediately north of the site is used by bicyclists.
3.4 **PROJECT NEED AND OBJECTIVES**

Accessible, affordable, and high-quality childcare is a critical need of both campus employees and students, and it contributes to the recruitment, retention, and success of staff, faculty, and students (viz. Wilson 2005).

Currently, there are two on-campus childcare centers: the LaRue Park Child Development Center located within the LaRue Park apartment complex that accommodates 95 children, and the Russell Park Child Development Center located within the Russell Park apartment complex that accommodates 92 children. Both of these centers are vendor-operated and provide year-round care for infants through kindergarten-age children. The LaRue Park and Russell Park housing complexes are labeled in Figure 2.

Both existing campus childcare centers are enrolled at capacity and have a combined waiting list of approximately 25 children (15 infants and 10 toddlers). Because a deposit is required to sign up for the waiting list, and parents may be unable or unwilling to pay the deposit, the unmet need for on-campus childcare services is likely much greater. In addition, additional on-campus childcare capacity will be needed to adequately serve anticipated future growth in campus employees and students.

The campus has identified the following objectives for the proposed Campus Child Care Center:

- Provide accessible, affordable, and high-quality childcare for the campus community.
- Provide safe and easy access by car, bicycle, and foot.
- Provide adequate automobile and bicycle drop-off space.
- Provide space for separate, age-appropriate play yards that meet state and federal compliance standards for health and safety.
- Meet building space standards established by the State Department of Social Services Community Care Licensing Division and the National Association for the Education of Young Children.
- Locate at a site with minimal exposure to environmental factors known to be health hazards to young children.
- Locate where adjacent uses will be minimally affected by noise from play yards.

3.5 **PROJECT ELEMENTS**

3.5.1 **Buildings**

The proposed approximately 9,200 gsf (7,100 asf) single-story childcare building would be designed to meet or exceed the space standards established by the State Department of Social Services Community Care Licensing. Specific building features would include energy efficient design, generous exterior and interior window space, half-walls and doors to aid staff in monitoring children's activities, and adequate space for full-size appliances.

The building would include the following types of spaces:

- **Infants Space**: Approximately 1,410 asf would accommodate 21 infants with classroom space, sleeping areas, diapering space, a kitchenette, and storage areas.
• **Toddlers Space:** Approximately 1,130 asf would accommodate 20 toddlers with classroom space, bathrooms, a full kitchen, and storage areas.

• **Preschoolers Space:** Approximately 2,710 asf would accommodate 54 preschoolers with classroom space, bathrooms, a full kitchen, and storage areas.

• **School-Aged/Multipurpose Space:** Approximately 1,260 asf would accommodate 24 elementary school-aged children during school holidays and summers. The space would include classroom space, a kitchenette, and storage. The space may also be used for rainy day activities and contracted extra-curricular programs such as dance, music, and gymnastics.

• **Support Space:** Approximately 590 asf of support space would be used for office space and a conference room for staff training, breaks, and parent meetings.

### 3.5.2 Play Yards and Landscaping

The proposed project would include approximately 10,710 square feet of separated, age-appropriate outdoor play yards for infants, toddlers, preschool-aged children, and school-aged children. The play yards would meet the state and federal compliance standards for health and safety. The vendor-operator of the proposed project would assume responsibility under contract for finishing out and maintaining the play yards, as has been done for the other two vendor-operated centers on campus (see Figure 5). Additional landscaping would be provided for the project entrance to create a pleasing appearance appropriate to the context of the project. Project landscaping would include drought-tolerant species to reduce irrigation.

### 3.5.3 Parking and Roadways

The proposed Campus Child Care Center would convert approximately 11 vehicular parking spaces in Parking Lot 30 adjacent to the facility to accommodate child pick-up and drop-off. In addition, the project would use approximately 20 parking spaces for childcare employees and visitors. Parking Lot 30 had a recent winter utilization rate of 66 percent (187 spaces used out of 283 spaces available) (UC Davis TAPS 2004), and therefore Lot 30 has adequate capacity for the proposed project. The drop-off area and parking options will be considered during project design.

### 3.5.4 Utilities and Infrastructure

As discussed briefly below and analyzed in Section 7.16, the proposed project would require connections to campus utilities and infrastructure including domestic and utility water, sanitary sewer, storm drainage, electricity, natural gas and telecommunications. Connecting to the campus's chilled water and steam systems would be prohibitively expensive given the small building demand of the project, and thus will not be undertaken for the proposed project.

- **Domestic Water:** The proposed point of connection is an existing 8-inch main on the north side of the project site. The fire department connection for the automatic fire sprinkler system would be on the south side of the building. Based on the Draft Domestic Water Master Plan, capacity appears to be adequate. There are two existing fire hydrants within 150 feet of the proposed childcare facility, to the northeast and south of the project site.

- **Utility Water:** Utility water would be used for irrigation. The proposed point of connection is an existing 6” line on the east side of the site. According to the Draft Utility Water Master Plan, capacity is adequate to serve the proposed project. The siting of the proposed facility would require relocation of an existing utility water main as part of the project.
• Sanitary Sewer: The proposed point of connection would be a 6” main to the north of the proposed site. Capacity is available at the Campus Wastewater Treatment Plant to accommodate the proposed project.

• Storm Drainage: The proposed point of connection is the existing 12” main north of the proposed site. The Draft Storm Water Master Plan indicates that the existing main in the area can adequately handle a 10-year storm event and has capacity to accommodate the proposed project.

• Electricity: The proposed point of connection would be at the southwest corner of the project site. The “pull box” may have to be enlarged or a new box added to allow connection. The project would provide one or more transformers, as necessary. Capacity is available to accommodate the added load.

• Natural Gas: The proposed point of connection would be at an existing 2” gas main to the east of the project site. System capacity is adequate to serve the proposed project.

• Telecommunications: The proposed point of connection for the copper wiring for land-lines would be to the existing manhole at the southeast corner of the site; the proposed point of connection for fiber optics to provide campus data network connection would be at the existing backbone in the Transportation and Parking Services (TAPS) trailer. Capacity is adequate.

3.5.5 Sustainable Design Elements

The proposed project would comply with the Regental Policy on Green Building Design and Clean Energy Standards and would meet the campus baseline as applicable to the project. In addition, the project would achieve the following sustainable design objectives:

• Design play yards layout to preserve as many existing site trees as possible, thereby reducing site disturbance.

• Design the facility with operable windows in order to both increase natural ventilation and increase daylighting, to improve indoor air quality, and to reduce energy use for lighting.

3.5.6 Population

The proposed project would add up to 20 new non-UC employees to the campus population. In addition, the project would provide year-round daycare for approximately 95 children, and it would provide school holiday and summer daycare for an additional 24 children.

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2 The campus baseline is a determination of the applicable Leadership in Energy and Environmental Design (LEED) rating system “points” that each project on the UC Davis campus will achieve. With the passage of the Regental Policy on Green Building Design and Clean Energy Standards, 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 comparable level of building performance to that of LEED certified. The campus baseline provides the starting level of building performance objectives for all campus projects, with the exception of medical facilities.
3.6 **Construction Schedule and Staging**

Construction of the proposed project is anticipated to begin in spring 2006 and be completed by the end of 2006. Construction staging and contractor parking associated with the proposed project would occur on the project site and in Parking Lot 30.
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.

4.1 2003 LRDP SCOPE OF DEVELOPMENT

The proposed Campus Child Care Center would provide much needed childcare services for the campus population. Existing childcare facilities on campus occur within land designated in the 2003 LRDP for Student Housing. The 2003 LRDP does not identify any specific growth targets for childcare facilities, but it indicates that the Student Housing land use category provides for childcare centers in addition to a variety of student housing types and densities.

4.2 2003 LRDP LAND USE DESIGNATION

The approximately one-half acre proposed project site is currently designated in the 2003 LRDP for Physical Education/Intercollegiate Athletics/Recreation land use. This designation allows for “indoor and outdoor athletic facilities and fields” (2003 LRDP, 68). The conforming land use designation for the project would be Student Housing, which the 2003 LRDP identifies “for a variety of campus and privately-operated student housing types and densities, as well as campus childcare centers” (2003 LRDP, 63). Land to the north and west of the project site is designated Student Housing in the 2003 LRDP (see the 2003 LRDP map, “Land Use (Through 2015-2016),” page 55). The project would include changing the land use designation of the project site from Physical Education/Intercollegiate Athletics/Recreation to Student Housing to accommodate the proposed project by extending the existing Student Housing designation to include the one-half acre project site. The change in designation for the site would be reflected in future printings of the 2003 LRDP land use map. The proposed land use is compatible with adjacent land uses and would be appropriate within the campus context.

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. 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...
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 2003 on-campus faculty and staff headcount was approximately 10,500, and the 2002-03 three-quarter average on-campus student population was approximately 26,650 (UC Davis ORMP 2003a and b). The proposed project, which would introduce 20 new non-UC employees, in combination with other recently approved and currently proposed projects, would not increase the campus population to a level that would exceed 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 providing childcare services for campus employees and students, thereby enhancing work and study on campus and enriching campus life. In particular, by providing additional childcare spaces on campus to faculty, student and staff who need such service, the proposed project would enhance the accessibility and inclusivity of the campus environment, as well as aid in the recruitment of excellent faculty, students and staff, which promotes enhanced academic excellence at UC Davis.

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

Circulation Systems – Reduce Conflict: Plan pedestrian, bicycle, transit, and automobile systems to avoid conflicts between different modes (Resource Objective, page 34).

Keep ‘Edge Uses’ in Close Proximity to Academic Core Activities – Student Housing: Provide campus housing for all first year undergraduate students (both at the freshman and transfer levels) within the central campus to enable an integrated residential and educational experience. Create physical spaces (plazas gathering spaces, retail, food service, parks, daycare, etc.) within and around residential communities that foster a sense of community, and provide essential health and human services. Include options for a range of transportation modes within and adjacent to residential areas that provide convenient access to the campus and to off-campus retail and service areas (Planning Area Objective, page 41).

Student Housing – Community Spaces: Include physical spaces in residential areas that foster a sense of community (Land Use Objective, page 67).

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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).
The proposed project would support the 2003 LRDP’s “Circulation Systems – Reduce Conflicts” objective by including roadway and bicycle path improvements to reduce conflicts between pedestrians, bicycles, and vehicles.

The proposed project would support the 2003 LRDP’s “Keep ‘Edge Uses’ in Close Proximity to Academic Core Activities – Student Housing” and “Student Housing – Community Spaces” objectives by creating a physical space (a daycare center) adjacent to a student housing community that would help to foster a sense of community and would provide a much-needed human service.

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.

The environmental resource discussions that follow in this document conclude that the project would result in the following types of cumulative impacts.

- The proposed project would not contribute to significant and unavoidable cumulative impacts identified in the 2003 LRDP EIR related to: loss of scenic vistas (Section 7.1); conversion of prime farmland (Section 7.2); loss of habitat for Swainson’s hawks and burrowing owls (Section 7.4); loss of wetland and riparian habitat (Section 7.4); and loss of valley elderberry beetle habitat (Section 7.4).

- The proposed project would incrementally contribute to, but would not exceed, significant and unavoidable cumulative impacts identified in the 2003 LRDP EIR related to: degradation of visual character or quality (Section 7.1); increases in light and glare (Section 7.1); increases in criteria pollutant emissions (Section 7.3); loss of archaeological and historical resources (Section 7.5); degraded receiving water quality (Section 7.8); increased water extraction from the deep aquifers (Section 7.8); increased water extraction from the shallow/intermediate aquifers (Section 7.8); increased ambient noise levels (Section 7.11); construction of police and fire service facilities (Section 7.13); construction of school facilities (Section 7.13); development of recreation facilities (Section 7.14); degraded intersection and freeway operations (Section 7.15); and construction of wastewater treatment facilities (Section 7.16).

The proposed project would incrementally contribute to, but would not exceed, less-than-significant cumulative impacts identified in the 2003 LRDP EIR related to: exposure to carbon monoxide concentrations (Section 7.3); increased toxic air contaminants (Section 7.3); exposure to seismic ground shaking (Section 7.6); use and transport of hazardous materials and generation of hazardous
wastes (Section 7.7); discharge of treated effluent to Putah Creek (Section 7.8); potential conflicts with land use plans, policies, or regulations (Section 7.9); inability to meet housing demand (Section 7.11); construction of libraries (Section 7.12); and expansion of water, solid waste, energy, and natural gas systems (Section 7.16).
5 ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED

The environmental factors, 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 Tiered 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 sufficiently addressed by the 2003 LRDP EIR. This Tiered Initial Study has concluded that the project would incrementally contribute to, but would not exceed, certain significant 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, are required. This Tiered Initial Study has identified two potential impacts that require project-specific mitigation: potential impacts from exposure to toxic air contaminants introduced by diesel-fueled generators within 500 feet of the proposed project site; and potential impacts from risk of exposure in upset or accident conditions resulting in the release of gaseous chlorine into the environment. These impacts and mitigations are described in greater detail in Section 7.3, Air Quality, and Section 7.7, Hazards and Hazardous Materials, of this Initial Study. Therefore, preparation of a Mitigated Negative Declaration is appropriate. The Mitigated Negative Declaration is presented in Appendix A of this document.
6 DETERMINATION

On the basis of this initial evaluation:

☐ I find that 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.

☒ I find that the proposed project COULD have a significant effect on the environment that has not been previously addressed in the 2003 LRDP EIR, and two new project-specific mitigation measures, in addition to those previously identified in the 2003 LRDP EIR, are required to reduce this effect to such a point that clearly no significant impact would occur. A MITIGATED NEGATIVE DECLARATION has been prepared. The Mitigated Negative Declaration in presented in Appendix A of this document.

☐ I find that 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.

__________________________________________  _________________
John A. Meyer        Date
Vice Chancellor – Resource Management and Planning
7 EVALUATION OF ENVIRONMENTAL IMPACTS

Introduction

The following Environmental Checklist form is based on the checklist suggested in Appendix G of the CEQA Guidelines, and it has been adapted to assist in evaluating the environmental effects of the proposed project with respect to the analysis in the 2003 LRDP EIR.

The Environmental Checklist identifies potential project effects as corresponding to the following categories of impacts:

- **Potentially Significant Impact:** An effect that it was not previously addressed in the 2003 LRDP EIR and may be significant based on substantial evidence and the significant criteria. If the project may result in one or more Potentially Significant Impacts, an EIR is required.

- **Less than Significant with Mitigation Incorporated:** An effect that was not adequately addressed in the 2003 LRDP EIR, but with the implementation of project-specific mitigation measures, is reduced from potentially significant to less than significant. This Tiered Initial Study identifies two potentially significant impacts that were not previously addressed in the 2003 LRDP EIR and presents two project-specific mitigation measures that would reduce the effects to a less-than-significant level.

- **Impact for Which the 2003 LRDP EIR is Sufficient:** An effect that was adequately addressed and mitigated to the extent feasible in the 2003 LRDP EIR (the Program EIR). For these effects, the Tiered Initial Study explains how the effect was addressed in the 2003 LRDP EIR and why the criteria for supplemental environmental review under CEQA Section 21166 (project changes, changed circumstances, and/or new information) have not been triggered. Effects correspond to this category under the following circumstances:
  a) The 2003 LRDP EIR found the impact would be reduced to a less-than-significant level with the implementation of applicable 2003 LRDP EIR mitigation measures;
  b) The impact is significant and unavoidable at a cumulative level, and the 2003 LRDP EIR fully addressed the cumulative impact; or
  c) The impact is significant and unavoidable at a project level, but the LRDP EIR contained an adequate project-level analysis for the impact.

- **Less than Significant Impact:** An effect for which no significant impacts, only less than significant impacts, result.

- **No Impact:** The project does not create an impact.
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 proposed project site is currently vacant and largely devoid of vegetation (see Figure 6 in Section 3.3). The site has some large beefwood trees row-planted along a wooden post-and-rail fence at the northern edge of the site, adjacent to the fire lane that serves The Colleges at LaRue (CLR) student housing. The project site can be seen from the Recreation Pool Lodge to the east and Parking Lot 30 to the south. The large beefwood trees partially obscure the site view of CLR to the north and from CLR onto the site, and the storage unit buildings to the west obscure views of the site from the west, and likewise obscure westerly views off-site. There are no views of the Coast Range from the site.
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. As analyzed in Section 4 of this Initial Study, the proposed project is within the scope of analysis in the 2003 LRDP EIR. Significant and potentially significant aesthetics 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 relevant to reduce the magnitude of cumulative impacts 4.1-5 and 4.1-6, but these impacts are identified as significant and unavoidable because the feasibility and/or implementation of mitigation falls within other jurisdictions and therefore cannot be guaranteed by the University of California.

<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>AESTHETICS</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4.1-2 Development on campus from implementation of the 2003 LRDP could degrade the visual character of the campus by substantially degrading the valued elements of the visual landscape identified in the 2003 LRDP.</td>
<td>PS</td>
<td>LS</td>
</tr>
<tr>
<td>4.1-3 Development under the 2003 LRDP could create substantial light or glare on campus that could adversely affect daytime or nighttime views in the area.</td>
<td>PS</td>
<td>LS</td>
</tr>
<tr>
<td>4.1-5 Development allowed under the 2003 LRDP, in conjunction with other development in the region could substantially degrade the existing visual character or quality of the region.</td>
<td>S</td>
<td>SU</td>
</tr>
<tr>
<td>4.1-6 Implementation of the 2003 LRDP together with cumulative development in the region would create new sources of light and glare that could adversely affect daytime or nighttime views in the region.</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
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 will not be readopted in this Initial Study or Negative Declaration. 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 2003 LRDP EIR mitigation measures.

### 2003 LRDP EIR Mitigation Measures

**AESTHETICS**

4.1-2(a) New structures, roads, and landscaping at UC Davis shall be designed to be compatible with the visual elements and policies identified in the 2003 LRDP.

4.1-2(b) Prior to design approval of development projects under the 2003 LRDP, the campus Design Review Committee must determine that project designs are consistent with the valued elements of the visual landscape identified in the 2003 LRDP, applicable planning guidelines, and the character of surrounding development so that the visual character and quality of the project area are not substantially degraded.

4.1-3(a) Design for specific projects shall provide for the use of textured nonreflective exterior surfaces and nonreflective glass.

4.1-3(b) Except as provided in LRDP Mitigation 4.1-3(c), all new outdoor lighting shall utilize directional lighting methods with shielded and cutoff type light fixtures to minimize glare and upward directed lighting.

4.1-3(c) Non-cutoff, non-shielded lighting fixtures used to enhance nighttime views of walking paths, specific landscape features, or specific architectural features shall be reviewed by the Campus Design Review Committee prior to installation to ensure that: (1) the minimum amount of required lighting is proposed to achieve the desired nighttime emphasis, and (2) the proposed illumination creates no adverse effect on nighttime views.

4.1-3(d) The campus will implement the use of the specified lighting design and equipment when older lighting fixtures and designs are replaced over time.

4.1-5(a) Implement LRDP Mitigation 4.1-2(a) and (b).

4.1-5(b) The cities of Davis, Woodland, Winters, and Dixon, and Yolo and Solano counties can and should implement policies in their plans that address the protection of scenic resources and maintenance of visual quality.

4.1-6(a) Implement LRDP Mitigation 4.1-3(a) and (b).

4.1-6(b) The City of Davis and other surrounding jurisdictions can and should adopt (if necessary) and implement development standards and guidelines, which support the minimal use of site lighting for new developments.

### 7.1.4 Environmental Checklist and Discussion

#### AESTHETICS

<table>
<thead>
<tr>
<th>Would the project…</th>
<th>Potentially Significant Impact</th>
<th>Less than Significant with Mitigation</th>
<th>Impact for which 2003 LRDP EIR is Sufficient</th>
<th>Less than Significant Impact</th>
<th>No Impact</th>
</tr>
</thead>
<tbody>
<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, trees, rock outcroppings, and historic buildings within a state scenic highway?</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☑</td>
</tr>
<tr>
<td>c) Substantially degrade the existing visual character or quality of the site and its surroundings?</td>
<td>☐</td>
<td>☐</td>
<td>☑</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?</td>
<td>☐</td>
<td>☐</td>
<td>☑</td>
<td>☐</td>
<td>☐</td>
</tr>
</tbody>
</table>
a, b) A scenic vista is defined as an expansive view of a highly valued landscape from a publicly accessible viewpoint. On and near campus, viewpoints along SR 113, Hutchison Drive, La Rue Road, and Russell Boulevard provide scenic vistas to the west across agricultural land to the Coast Range. The proposed project site is surrounded by development and has no views from or across the site to the Coast Range, and therefore would have no effect on scenic vistas. The campus is not located near a state scenic highway. No impacts would occur.

c) 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 tree areas, historic buildings, and open space areas (Impact 4.1-2). The proposed project would not conflict with any of these visual elements. The project would require a wall or other type of fence to be built around the play yards, which would alter the view from off-site. In compliance with LRDP Mitigation 4.1-2(a), the proposed project would be designed to be compatible with the visual elements and policies identified in the 2003 LRDP. In compliance with LRDP Mitigation 4.1-2(b), the campus Design Review Committee would review the project design, including the proposed wall or fence, for consistency with the valued elements of the campus' visual landscape, applicable planning guidelines, and the character of surrounding development. The project's potential impact on visual character would be less than significant, and implementation of these measures would further reduce any impact.

The 2003 LRDP EIR found that development under the 2003 LRDP with other development in the region could substantially degrade the existing visual character or quality of the region (Impact 4.1-5). LRDP Mitigation 4.1-5(a), included in the proposed project, requires the campus to implement Mitigation Measure 4.1-2(a-b), discussed above. LRDP Mitigation 4.1-5(b) indicates that local jurisdictions can and should implement policies that protect scenic resources and visual quality. However, the feasibility and/or implementation of LRDP Mitigation 4.1-5(b) cannot be guaranteed by the University of California because enforcement and monitoring fall within other jurisdictions. For this reason, the 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 is available since certification of the 2003 LRDP EIR that would alter this previous analysis.

d) The 2003 LRDP EIR found that development on campus under the 2003 LRDP could create substantial light or glare that could adversely affect daytime or nighttime views in the area (Impact 4.1-3). The proposed project would include indoor and outdoor lighting that would increase the daytime and nighttime lighting on the project site. In compliance with LRDP Mitigation 4.1-3(a), the project would use textured nonreflective exterior surfaces and nonreflective glass to minimize glare. In compliance with LRDP Mitigation 4.1-3(b-c), new outdoor lighting associated with the project would use directional lighting methods with shielded and cutoff type light fixtures to minimize glare and upward directed lighting, except in specific, limited locations to enhance nighttime views of walking paths, specific landscape features, or specific architectural features. In compliance with this measure, the Campus Design Review Committee will also review the proposed project's use of non-directional lighting design to ensure that no adverse effects on nighttime views occur. In compliance with LRDP Mitigation 4.1-3(d), the campus will replace older lighting fixtures over time with directional lighting. With implementation of LRDP Mitigation 4.1-3(a-d), which is included in the proposed project, the project's impact associated with light and glare would be less than significant.

The 2003 LRDP EIR found that campus development under the 2003 LRDP in conjunction with other development in the region would add new sources of light and glare that could adversely affect daytime or nighttime views in the area (Impact 4.1-6). LRDP Mitigation 4.1-6(a), included
in the proposed project, requires the campus to implement Mitigation Measure 4.1-3(a) and (b), discussed above. LRDP Mitigation 4.1-6(b) indicates that local jurisdictions can and should adopt and implement development standards and guidelines that support reduced lighting. However, the feasibility and/or implementation of LRDP Mitigation 4.1-6(b) cannot be guaranteed by the University of California because enforcement and monitoring fall within other jurisdictions. For this reason, the 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 is available since certification of the 2003 LRDP EIR that would alter this previous analysis.

Summary

Mitigation measures 4.1-2(a-b), 4.1-3(a-d), 4.1-5(a-b), and 4.1-6(a-b) from the 2003 LRDP EIR are relevant to the proposed project and reduce the significance of aesthetics impacts to the extent feasible. The proposed project would not exceed the levels of significance of aesthetics impacts previously addressed in the 2003 LRDP EIR, nor would it introduce any new significant aesthetics impacts that were not previously addressed.
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

There are no agricultural resources on or adjacent to the project site. The proposed site is currently vacant and was formerly used for recreational purposes. The nearest agricultural resource is the Student Experimental Farm, approximately 500 feet from the proposed project site, and located across Orchard Park Drive.

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. As analyzed in Section 4 of this Initial Study, the proposed project is within the scope of analysis in the 2003 LRDP EIR. None of the significant agricultural impacts identified in the 2003 LRDP EIR are relevant to the proposed project and none of the mitigation measures in the 2003 LRDP EIR are applicable to the project. The proposed project is evaluated in the checklist and discussion below.

### 7.2.4 Environmental Checklist and Discussion

<table>
<thead>
<tr>
<th>AGRICULTURAL RESOURCES</th>
<th>Potentially Significant Impact</th>
<th>Less than Significant with Mitigation</th>
<th>Impact for which 2003 LRDP EIR is Sufficient</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) The proposed project site is designated as “Urban and Built-up Land” under the Farmland Mapping and Monitoring Program. Thus, the project would not contribute to either a project-level or a cumulative impact associated with loss of prime farmland.

b) Campus lands are state lands and are not eligible for Williamson Act agreements, nor are they subject to local zoning controls. The project site is designated as “Urban and Built-up Land” by the State of California Department of Conservation, and is designated for Physical Education/Intercollegiate Athletics/Recreation land uses in the 2003 LRDP. The conforming land use designation for the project would be Student Housing, which the 2003 LRDP identifies “for a variety of campus and privately-operated student housing types and densities, as well as campus childcare centers” (2003 LRDP, 63). Land to the north and west of the project site is designated Student Housing in the 2003 LRDP. The project would include changing the land use designation of the project site from Physical Education/Intercollegiate Athletics/Recreation to Student Housing to accommodate the proposed project by extending the existing Student Housing designation to include the one-half acre project site, but such a change would not conflict with an existing zoning for agricultural use or a Williamson Act contract, and no impact would occur.

c) The proposed project site is located approximately 500 feet east of the Student Experimental Farm. The project would not encroach into this area and is separated by an existing parking lot, therefore no impact would occur.

**Summary**

The proposed project would not exceed the levels of significance of agricultural impacts previously addressed in the 2003 LRDP EIR, nor would it introduce any new significant agricultural impacts that were not previously addressed.
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, which are called 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 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. Air toxics 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 therefore, tend to have a greater influence on changes in measured ambient pollutant concentrations. Ambient concentrations of CO and PM₁₀ are particularly influenced by local emission sources. The EPA has classified the entire SVAB, which includes the campus, as a severe nonattainment area for O₃. 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 and nonattainment is based on monitored data throughout the SVAB.

Project Site

Sensitive receptors in the vicinity of the proposed project site include The Colleges at La Rue student apartment complex to the north. Additionally, the proposed project would bring sensitive receptors to the area. There are four diesel-fired emergency generators in the surrounding vicinity of the project site, the closest of which is approximately 480 feet from the southern boundary of the project site, and is associated with the Plant Reproductive Biology facility.
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 82 pounds a day, CO emissions in excess of 550 pounds a day, and 150 pounds a day for PM10 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. As analyzed in Section 4 of this Initial Study, 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. Mitigation is relevant to reduce the magnitude of project-level impact 4.3-1 and cumulative impact 4.3-6, but these impacts are identified as significant and unavoidable because they cannot be fully mitigated. Mitigation is identified to reduce the magnitude of project-level impact 4.3-3, but this impact is identified as significant and unavoidable due to uncertainty about the effectiveness of the mitigation.

<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>
</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 will not be readopted in this Initial Study or Negative Declaration. 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 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.

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 purpose,
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.

### Environmental Checklist and Discussion

<table>
<thead>
<tr>
<th>AIR QUALITY</th>
<th>Potentially Significant Impact</th>
<th>Less than Significant with Mitigation</th>
<th>Impact for which 2003 LRDP EIR is Sufficient</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>
</tbody>
</table>

7.3.4 Environmental Checklist and Discussion
a) Conflict with or obstruct implementation of the applicable air quality plan? □ □ ☑ □ □
b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation? □ □ ☑ □ □
c) 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)? □ □ ☑ □ □
d) Expose sensitive receptors to substantial pollutant concentrations? □ □ ☑ □ □
e) Create objectionable odors affecting a substantial number of people? □ □ □ □ ☑

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 state 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. However, construction of the proposed project would disturb only an approximately one-half acre site. The Colleges at La Rue student apartment complex, which is the sensitive receptor in the vicinity of the proposed project site, could be affected by high concentrations of PM$_{10}$ generated during project construction. In addition, exhaust pollutants would be emitted during use of construction equipment.

Construction activities associated with the project would not require a large amount of construction equipment, nor would the activities last long-term, as project construction is anticipated to last for approximately one year and site preparation work using heavy equipment would last only a few weeks. The proposed project would employ typical, basic construction activities, such as grading, foundation pouring, framing and finishing, to accomplish the building phase of the project. At peak construction, it is estimated that about 10 construction vehicles would be on the project site. Rough site grading would likely last one month for construction related to the building, and the facility operator would perform final grading to finish the play yards before opening for business. It is likely that the nearest projects with concurrent construction activities to the proposed project would be the Multi-use Stadium (estimated construction period of late spring 2005 through late fall 2006) and the Hutchison Drive widening and signalization projects (estimated construction period of summer 2006). The proposed project would involve the short-term emission of exhaust pollutants from construction equipment, which would be near sensitive receptors at the adjacent student housing. LRDP Mitigation 4.3-3(a) (requiring campus construction contracts to include measures to reduce fugitive dust impacts), 4.3-3(b) (requiring additional specific dust control measures due to proximity to sensitive receptors), and 4.4-3(c) (requiring control measures to reduce emissions of ozone precursors from construction equipment exhaust) are therefore relevant to the proposed project.

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 could be significant and unavoidable. The 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 is available since certification of the 2003 LRDP EIR that would alter this previous analysis.

Operation

Criteria Pollutants

The proposed project would add approximately 20 new non-UC employees to the campus population: this increase in campus population is well within the 2003 LRDP's on-campus population projections (see Section 4.3 for additional discussion). As discussed further in Section 7.15, operation of the proposed project would generate vehicle trips associated with staff and the drop-off and pick-up of children. A total of approximately 230 vehicle trips to and from the facility are expected during the AM and PM peak hours (Fehr & Peers 2005). These trips are included within the level of trips analyzed in the 2003 LRDP EIR with respect to air quality impacts. 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 O₃ and PM₁₀ standards. The Sacramento Regional Clean Air Plan, which covers the campus, contains strategies for lowering the region's emissions to meet the O₃ standard by 2005. However, campus growth under the 2003 LRDP through 2015-16 is not addressed by the current Clean Air Plan. 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. 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 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 is available since certification of the 2003 LRDP EIR that would alter this previous analysis.

Toxic Air Contaminants

There are four diesel-fueled generators within approximately 1,000 feet of the project site boundaries. The closest of these is located approximately 480 feet from the southern boundary of the site. The next closest is 670 feet from the site boundary and behind a one-story building. The closest generator was run for a total of 11.8 hours during 2004 as part of the regular testing program and any emergency needs; the next closest was run a total of 7.7 hours in 2004 (Kermoyan 2005). In general, the campus Operations & Maintenance generator crew tries to test engines across the campus from 6:00 to 8:00 am to avoid odor complaints from campus community (Kermoyan 2005). A November 2004 update of the California Air Resource Board Air Toxic Control Measure, Title 17 of the California Code of Regulations, requires that: stationary emergency standby diesel-fueled engines shall not be operated for non-emergency use, including maintenance and testing, during 7:30am to 3:30pm on days when school is in session, if the engine is located within 500 feet of school grounds. While the proposed childcare center is not a school, and therefore not subject to the regulations pertaining to schools, and the O&M testing crew already observes this practice, in order to ensure that any non-emergency generator operation occurs either before 7:30am or after 3:30pm on days the childcare center is open to care for children, Project-Specific Mitigation Measure 1 will be implemented. The 2003 LRDP EIR
found that the impact associated with TAC generation would be less than significant, and implementation of the Project-Specific Mitigation Measure 1 will further reduce any impact.

Project-Specific Mitigation Measure 1: No stationary emergency standby diesel-fueled generators within 500 feet of the childcare center (both the building and the associated play yards) shall be operated for non-emergency uses, including testing or maintenance, between 7:30AM and 3:30PM on days when the childcare center is open to care for children.

The project would involve construction and operation of indoor classrooms and related space as well as outdoor play yards for the purpose of providing childcare. The project would not include lab space and would not emit toxic air contaminants. The project would result in 120 additional AM Peak hour vehicle trips and 110 PM peak hour vehicle trips, which are within the levels analyzed in the 2003 LRDP EIR. 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 extend beyond the year 2005, 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 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 is available since certification of the 2003 LRDP EIR that would alter this previous analysis.

e) The proposed project would not generate additional objectionable odors on campus and would not expose users to objectionable odors. No impact would occur.

Summary

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. In addition, the project would introduce a new significant air quality impact that was not previously addressed in the 2003 LRDP EIR. Project-specific Mitigation Measure 1, included in the proposed project, would reduce this impact to a less-than-significant level.
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 agricultural lands that include remnant riparian areas and urban 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; (6) and 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: the northern California black walnut, burrowing owl, Swainson’s hawk, valley elderberry longhorn beetle, California tiger salamander, chinook salmon, giant garter snake, steelhead, and the northwestern pond turtle.

Project Site

The project site is currently vacant, largely bare dirt, and devoid of any native vegetation. The site supports some landscape trees along the perimeter. A biological site survey was not conducted because the site is currently barren and clearly supports no special-status plant species. Prior to construction, a survey for nesting raptors will be conducted, as discussed in Section 7.4.4.

Special Status Species

The Swainson’s Hawk (*Buteo swainsoni*) is listed as a threatened species under the California Endangered Species Act and is also fully protected against take pursuant to Section 3503.5 of the Fish and Game Code of California. 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 conduced annually since 1998. The results of these surveys documented approximately 20 active nests per year and a total of approximately 50 total nests 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.

Two Swainson’s Hawk nest trees have been identified within ½-mile of the project site over the last decade. Both were used for only one year. One nest is approximately ¼ mile to the west and has not
been used in approximately 10 years. The other nest is nearly ½ mile to the west and was used approximately 4 years ago. Both are screened from the project site by existing trees and structures.

Trees

A tree survey of the proposed site was conducted in accordance with the campus practice for identifying trees to preserve during a development or redevelopment project. The tree survey found two coast live oak trees of heritage or specimen status; however these trees are actually adjacent to, and not on, the project site. A grouping of nine beefwood trees was identified as worthy of preservation, if possible. The project design will incorporate these trees to the degree feasible, and the preliminary project plans do not require any existing site trees to be removed. Landscaping will be planted as part of the project.

Table 1: Results of Tree Survey of Campus Child Care Center Site

<table>
<thead>
<tr>
<th>Species</th>
<th>Number Present On or Near Site</th>
<th>Number to Be Removed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Beefwood (Casuarina cunninghamiana)</td>
<td>9</td>
<td>0</td>
</tr>
<tr>
<td>Deodar cedar (Cedrus deodara)</td>
<td>4</td>
<td>0</td>
</tr>
<tr>
<td>American hackberry (Celtis occidentalis)</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>Silver dollar gum (Eucalyptus polyanthemos)</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>Honey locust (Gleditsia triacanthos)</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>Crape myrtle (Lagerstroemia indica)</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>London plane (Platanus x acerifolia)</td>
<td>4</td>
<td>0</td>
</tr>
<tr>
<td>Prunus sp. (unknown, peach perhaps)</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>Coast live oak (Quercus agrifolia)</td>
<td>4 (2 are ranked as “heritage”)</td>
<td>0</td>
</tr>
<tr>
<td>Chinese tallow tree (Sapium sebiferum)</td>
<td>3</td>
<td>0</td>
</tr>
<tr>
<td>Total Trees</td>
<td>30</td>
<td>0</td>
</tr>
</tbody>
</table>

Source: UC Davis Grounds Division, 2005

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, coastal, etc.) 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 local applicable policies protecting biological resources.

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. As analyzed in Section 4 of this Initial Study, the proposed project is within the scope of analysis in the 2003 LRDP EIR. 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>4.4-4 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>
<td>LS</td>
</tr>
<tr>
<td>4.4-5 Development allowed under the 2003 LRDP would result in the loss of active nest sites for Swainson's hawk.</td>
<td>PS</td>
<td>LS</td>
</tr>
<tr>
<td>4.4-11 Development under the 2003 LRDP could result in the removal of trees recognized to meet the campus' standards for important trees, including: a. Heritage Trees: Healthy valley oak trees with trunk diameters of 33 inches or greater at a height of 54 inches from the ground. 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>
<td>PS</td>
<td>a. SU</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 will not be readopted in this Initial Study or Negative Declaration. 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 2003 LRDP EIR mitigation measures.

<table>
<thead>
<tr>
<th>2003 LRDP EIR Mitigation Measures</th>
<th>BIOLOGICAL RESOURCES</th>
</tr>
</thead>
<tbody>
<tr>
<td>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.</td>
<td></td>
</tr>
</tbody>
</table>
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:

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 Mitigation</th>
<th>Impact for which 2003 LRDP EIR is Sufficient</th>
<th>Less than Significant Impact</th>
<th>No Impact</th>
</tr>
</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>
<td>☐</td>
<td>☐</td>
<td>☑</td>
<td>☐</td>
<td>☐</td>
</tr>
<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>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☑</td>
</tr>
<tr>
<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>
<td>☐</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>
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</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>
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</tbody>
</table>

**a) Plants**

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). The proposed project site has been recently graded (within the last five years), fill material has been brought on site, and the site is barren of native vegetation, with some trees around the site perimeter, but no shrubs or other plantings on the site (see Figure 5 in Section 3 of this document). This impact is less than significant.

**Wildlife**

Swainson’s Hawk: The 2003 LRDP EIR found that development under the 2003 LRDP could interfere with nesting efforts of the Swainson’s Hawks or other birds of prey (LRDP impacts 4.4-4, and 4.4-5).

The project site lacks potential raptor nest trees, except along the northern border, and these tress would not be affected by the project. No raptor nests have been recorded in trees on the project site during past surveys. Two Swainson’s Hawk nest trees have been identified within ½-mile of the project site over the last decade. Both were used for only one year. One nest is approximately ¼ mile to the west and has not been used in approximately 10 years. The other nest is nearly ½ mile to the west and was used approximately 4 years ago. Both are screened from the project site.
by existing trees and structures and are in areas with high levels of human activities (one is adjacent to SR 113 and the other is on the core campus surrounded by academic and administrative buildings). Due to the distance, screening, and habituation of birds to high levels of human activities, no impacts to these nest sites are anticipated.

Implementation of LRDP Mitigation Measures 4.4-4(a-b) and 4.4-5 would require protection of active raptor nests through pre-construction surveys and avoidance of construction that would affect raptors during breeding season. These mitigation measures would reduce LRDP impacts to less than significant.

b,c) There are no riparian or wetland areas on the project site, thus the project would have no impact on these resources.

d) The Putah Creek corridor 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 site is approximately two-thirds of a mile from the Arboretum Waterway, and approximately 1.45 miles from the south fork of Putah Creek. 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 proposed 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 project site. The tree survey conducted for the project analyzed 30 trees on or adjacent to the project site. Two coast live oak trees adjacent to the project site were determined to be of specimen status, but would not be affected by the project. A row-planting of nine beefwood trees near the northern edge of the site were rated collectively as worthy of preservation. The project will be designed to preserve all of these beefwood trees in place. The play yards will be shaded, and to the extent possible, the shading plans will utilize existing trees to provide some of the required shading. Through implementation of LRDP Mitigation Measure 4.4-11, and the proposed project design to preserve all existing site trees, the potential impact would be less than significant.

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 VELB at Russell Ranch. None of the project facilities are located at Russell Ranch. Therefore, the proposed project would not conflict with an adopted HCP or NCCP.

Summary

Mitigation measures 4.4-4(a-b), 4.4-5, and 4.4-11 from the 2003 LRDP EIR are relevant to the proposed project and reduce the significance of impacts on biological resources to the extent feasible. The proposed project would not exceed the levels of significance of biological resource impacts previously addressed in the 2003 LRDP EIR, nor would it introduce any new significant biological resource 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**

No historic resources exist on or adjacent to the project site. The project area is approximately 500 feet from a recorded archaeological site, thus it is within an LRDP EIR archaeologically sensitive zone, as identified in the 2003 LRDP EIR. However, previous archaeological investigations for sites immediately adjacent to this parcel were found to be negative for the presence of cultural resources, therefore the project area was not recommended to be nor has been surveyed for archaeological resources.

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 Guideline § 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 Guideline § 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 they would:

- cause a significant adverse change in the significance of a historical resource as defined in CEQA Guideline § 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 Guideline Section
15064.5(a)(3) generally, a lead agency should find that a property is historically significant if it determines that it 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. As analyzed in Section 4 of this Initial Study, the proposed project is within the scope of analysis in the 2003 LRDP EIR. 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 project-level impact 4.5-3 and cumulative impact 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</td>
<td>S</td>
</tr>
</tbody>
</table>
2003 LRDP EIR Impacts
CULTURAL RESOURCES

| 4.5-4 | Implementation of the 2003 LRDP could disturb human remains, including those interred outside of formal cemeteries. | PS | LS |
| 4.5-5 | 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. | S | SU |

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 will not be readopted in this Initial Study or Negative Declaration. 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 2003 LRDP EIR mitigation measures.

2003 LRDP EIR Mitigation Measures
CULTURAL RESOURCES

4.5-1(a) 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)(ii) 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 the appropriate Information Center of the California Historical Resources Information System.

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.

4.5-3 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) 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

### CULTURAL RESOURCES

<table>
<thead>
<tr>
<th>Would the project…</th>
<th>Potentially Significant Impact</th>
<th>Less than Significant with Mitigation</th>
<th>Impact for which 2003 LRDP EIR is Sufficient</th>
<th>Less than Significant Impact</th>
<th>No Impact</th>
</tr>
</thead>
<tbody>
<tr>
<td>a) 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>
<td>☑</td>
</tr>
<tr>
<td>b) 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>
<td>☐</td>
</tr>
<tr>
<td>c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?</td>
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<td>☐</td>
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<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>d) Disturb any human remains, including those interred outside of formal cemeteries?</td>
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<td>☐</td>
</tr>
</tbody>
</table>

a) The site is vacant and there are no buildings on the site. No impact would occur.

b) The 2003 LRDP EIR identified that development under the 2003 LRDP could damage or destroy archaeological resources as a result of grading, excavation, ground disturbance or other project development (LRDP Impact 4.5-1). This risk is highest on campus along the historic banks of the tributaries and slough channels of Putah Creek and in the vicinity of previously discovered archaeological sites. The project site is not near the historic Putah Creek channel, but is near a known site (CA-YOL-134). However, areas immediately adjacent to the proposed project site have been subjected to archaeological survey and/or monitoring and findings have been consistently negative for the presence of cultural resources (Nadolski 1998; Shapiro 2003). As a result, in
order to implement Mitigation Measure 4.5-1(a), these studies were reviewed by a qualified archaeologist who concluded that, due to the negative findings from adjacent project areas, no additional pre-project survey or subsurface testing of the proposed project site was required (Shapiro 2005). Since the project site is within an archaeologically sensitive zone per the 2003 LRDP EIR, archaeological monitoring of the initial and deeper ground disturbing project construction activities will be conducted to insure that any potential cultural resources are protected was recommended, following the guidelines outlined in Mitigation Measure 4.5-1(b). If any archaeological resources are uncovered as a result of construction activities for the proposed project, Mitigation Measures 4.5-2(a) and 4.5-3 will be implemented to document and protect such resources to the extent possible.

The 2003 LRDP EIR identified that development under the 2003 LRDP would contribute to the cumulative damage to 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. 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 project cultural resources. However, the University cannot ensure that other regional jurisdictions would act to protect cultural resources. In addition, it is possible that significant archaeological resources on campus and/or the region could not be protected. Because this impact cannot be fully mitigated, this 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 and no new information is available since certification of the 2003 LRDP EIR that would alter this previous analysis.

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

Mitigation measures 4.5-1(a-b), 4.5-2(a), 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. The proposed project would not exceed the levels of significance of cultural resource impacts previously addressed in the 2003 LRDP EIR, nor would it introduce any new significant cultural resource impacts that were not previously addressed.
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 predominant soil constraint to construction on campus is soil shrink-swell potential (the potential for soil volume to change with a loss or gain in moisture).

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 proposed project site is topographically flat, having been rough-graded at some prior point. A site-specific geotechnical investigation was undertaken for the project in order to ensure that the project facilities comply with required building codes and that adequate consideration is given to specific site conditions. No unique site conditions were discovered. 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.

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 this standard 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 offsite 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 there are no mitigation measures in the 2003 LRDP EIR that are applicable to the proposed project.

### 7.6.4 Environmental Checklist and Discussion

#### GEOLOGY, SOILS, & SEISMICITY

<table>
<thead>
<tr>
<th>Would the project…</th>
<th>Potentially Significant Impact</th>
<th>Less than Significant with Mitigation</th>
<th>Impact for which 2003 LRDP EIR is Sufficient</th>
<th>Less than Significant Impact</th>
<th>No Impact</th>
</tr>
</thead>
<tbody>
<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>
<td></td>
<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>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☑</td>
<td>☐</td>
</tr>
<tr>
<td>iii) Seismic-related ground failure, including liquefaction?</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☑</td>
<td>☐</td>
</tr>
<tr>
<td>iv) Landslides?</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<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 offsite 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>
<td>☐</td>
</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 groundshaking 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. The existing on-campus childcare facilities at LaRue and Russell Park each have center-based evacuation plans for an emergency at that particular center, which is required as part of the licensing process (Chordas 2005). For campus or regional emergencies, the centers take their instruction from the campus as a whole, and that instruction is coordinated through a campus-designated emergency coordinator. For example, when a recent regional event (wildfires along SR 113 in 2004) happened, the centers were kept up-to-date on campus safety operations via a designated staff member from the apartment office (for Orchard Park and LaRue Park), who was directed by the Campus Security Coordinator, and the nearby ARC Recreation Center was the designated campus evacuation place for that area of the campus (Chordas 2005; Ashby 2005). The proposed Campus Child Care Center would be a licensed facility, and as part of the licensing process, the facility would develop a similar procedure as the existing childcare facilities in order to meet licensing requirements (Ashby 2005). The emergency procedures incorporated into the Campus Child Care Center emergency response plans would further reduce the hazards from seismic shaking by preparing faculty, staff, and students for emergencies. 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) 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, in compliance with campus procedure, 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.

a,iv) The UC Davis campus and the surrounding area are characterized by flat topography and therefore would not be subject to landslides. Therefore, 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 is considered to be less than significant. 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) See the discussion in item (a,iii) above.

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 geotechnical investigation conducted for the project indicates that the surface and near-surface soils across the site are relatively granular materials considered to be relatively non-expansive. 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, nor would it introduce 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

A Phase I Preliminary Site Assessment Due Diligence Survey was conducted for the proposed project site that included a site reconnaissance, soil sampling, and review of past and present land uses (Majewski and Kermoyan 2005). The survey identified the following site conditions. There are six existing 150-pound chlorine gas cylinders in a locked shed approximately 245 feet from the southern boundary of the project site, which are used for disinfection of the Recreation Pool. The proposed site has been used for agricultural purposes from at least 1937 until the early 1970’s. Soil sampling for chlorinated pesticides and heavy metals was undertaken on the proposed site, in the form of two
discrete samples each at two discrete depths (6 inches to 12 inches, and 2-½ feet to 3 feet). Results for heavy metals were within normal limits; detectable levels of chlorinated pesticides were found in the two 6” to 12” samples and ranged from 29.7 to 40.6 parts per billion (ppb) for DDT and 171 to 194 ppb for DDE, detectable levels were not found in the two deeper samples. As described and analyzed in Section 7.3, Air Quality, there are four diesel-fired emergency generators in the surrounding vicinity of the project site, the closest of which is approximately 480 feet from the southern boundary of the project site, and is associated with the Plant Reproductive Biology facility.

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. As analyzed in Section 4 of this Initial Study, the proposed project is within the scope of analysis in the 2003 LRDP EIR. 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, and 4.7-12, 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>HAZARDS &amp; HAZARDOUS MATERIALS</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4.7-1 Implementation of the 2003 LRDP would increase routine hazardous chemical use on campus by UC Davis laboratories and departments and in maintenance</td>
<td>LS</td>
<td>LS</td>
</tr>
</tbody>
</table>
### 2003 LRDP EIR Impacts
#### HAZARDS & HAZARDOUS MATERIALS

<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>and support operations, which would not create significant hazards to the public or the environment.</td>
<td>LS</td>
<td>LS</td>
</tr>
<tr>
<td>Implementation of the 2003 LRDP could increase routine generation of hazardous wastes on campus by UC Davis laboratories and departments and from maintenance and support operations, which would not create significant hazards to the public or the environment.</td>
<td>LS</td>
<td>LS</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>
<td>LS</td>
<td>LS</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>
<td>LS</td>
<td>LS</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>
<td>LS</td>
<td>LS</td>
</tr>
<tr>
<td>Campus development under the 2003 LRDP could physically interfere with the campus' Emergency Operations Plan.</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 will not be readopted in this Initial Study or Negative Declaration. 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 2003 LRDP EIR mitigation measures.

### 2003 LRDP EIR Mitigation Measures
#### HAZARDS & HAZARDOUS MATERIALS

<table>
<thead>
<tr>
<th>Mitigation Measure Description</th>
<th>Mitigation Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>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&amp;S audits and safety training. These programs may be replaced by other programs that incorporate similar health and safety measures.</td>
<td>4.7-1</td>
</tr>
<tr>
<td>Implement LRDP Mitigation 4.7-1.</td>
<td>4.7-2(a)</td>
</tr>
<tr>
<td>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.</td>
<td>4.7-2(b)</td>
</tr>
<tr>
<td>The campus shall continue to require that packaging of chemicals to be transported on public roads conform with all legal requirements.</td>
<td>4.7-8</td>
</tr>
<tr>
<td>Implement LRDP Mitigations 4.7-1 through 4.7-8.</td>
<td>4.7-9</td>
</tr>
<tr>
<td>The campus shall perform due diligence assessments of all sites where ground-disturbing construction is proposed.</td>
<td>4.7-12</td>
</tr>
</tbody>
</table>
### 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

<table>
<thead>
<tr>
<th>HAZARDS &amp; HAZARDOUS MATERIALS</th>
<th>Potentially Significant Impact</th>
<th>Less than Significant with Mitigation</th>
<th>Impact for which 2003 LRDP EIR is Sufficient</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) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?</td>
<td>□</td>
<td>□</td>
<td>✓</td>
<td>□</td>
<td>□</td>
</tr>
<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>
<td>✓</td>
<td>□</td>
<td>□</td>
<td>□</td>
</tr>
<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>
<td>□</td>
<td>✓</td>
<td>□</td>
<td>□</td>
<td>□</td>
</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>
<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 result in a safety hazard for people residing or working in the project area?</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>✓</td>
</tr>
<tr>
<td>g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?</td>
<td>□</td>
<td>□</td>
<td>✓</td>
<td>□</td>
<td>□</td>
</tr>
<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>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>✓</td>
</tr>
</tbody>
</table>

a) Construction of the proposed project would involve the use of various products that could contain materials classified as hazardous (including solvents, adhesives, cements, paints, cleaning agents, and degreasers). Fuels, such as gasoline and diesel, would also be used in heavy equipment and other construction vehicles. During operation of the proposed project, small
quantities of household-type cleaners would be used in building maintenance. The use of such products containing hazardous chemical materials already occurs on campus, and the amounts associated with these uses would be similar to existing operation and maintenance activities. In addition, currently, the existing childcare centers on campus use a privately hired cleaning service which avoids toxic levels of cleaners and disinfects surfaces with a bleach solution, and mops floors with a soapy solution; and carpets are regularly cleaned by a professional service which uses a non-toxic carpet shampoo (Chordas 2005).

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 continue to be implemented and to further reduce the significance of these impacts, LRDP 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.

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). 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 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, LRDP Mitigation 4.7-9 is included as part of the project.

There are six existing 150-pound chlorine gas cylinders in a locked shed approximately 245 feet from the southern boundary of the project site, which are used for disinfection of the Recreation Pool. Chlorine is classified by the Environmental Protection Agency as an “extremely hazardous substance” (EPA 1990) and is a Regulated Substance under California Accidental Release Prevention Program (CalARP) regulation. The gaseous form of chlorine is a “severe nose, throat and upper respiratory tract irritant” and it is considered “immediately dangerous to life or health at 10 ppm” (Nexen 2005). The University has a Risk Management Plan (RMP) in place to address the handling of gaseous chlorine and to outline a preparedness scenario in the event of a chlorine gas leak. The RMP which covers the Recreation Pool has been prepared pursuant to California Accidental Release Prevention Program (CalARP) regulations at CCR Title 19, Division 2, Chapter 4.5. The RMP is required because over 100 pounds of chlorine gas are on site. The RMP addresses the hazards that would affect employees, residents, offsite public and environmental
receptors; provides the results of an offsite consequences analysis; defines a prevention program, emergency response program, and mitigation measures to reduce the probability and magnitude of accidental releases of regulated substances; and establishes a schedule and responsibilities for implementation of mitigation measures and auditing of program elements.

In spring 2005, the University authorized an aquatics consultant to study the current recreation pool system in place on campus. The study recommended upgrading the gas chlorine system or replacing it with a liquid chlorine disinfection system (Aquatic Design Group, Inc. 2005). A liquid disinfection system (liquid sodium hypochlorite, which is essentially chlorine bleach) offers a lower risk technology in the event of a spill. Liquid sodium hypochlorite does not fall in the category of Regulated Substance under the CalARP regulation. Based on the study’s recommendations, the gas chlorine disinfection method is expected to be replaced with an alternative disinfection method by the end of 2006. Additional methods for disinfection, such as chemical (tablet) chlorine or ozone, will also be investigated as part of the planning for the disinfection system replacement. It is anticipated that the 150-pound chlorine gas cylinders will be removed from the Recreation Pool maintenance shed and replaced with an alternative system before the proposed childcare center construction is finished and the center begins to accept children for caregiving (Pollock 2005). Consistent with 2003 LRDP Mitigation Measure 4.7-1, the campus will continue to implement safety plans, programs, practices, and procedures related to the use, storage, and disposal of hazardous chemical materials, including development and/or update of an Injury and Illness Prevention Plan for a new disinfection system. In compliance with this plan, personnel responsible for operating the pool’s chemical system would receive appropriate safety training. In addition, the following project-specific mitigation measure would mitigate the potential impact to a less than significant level.

Project-Specific Mitigation Measure 2: Before the proposed childcare center facility opens to receive children for caregiving, either:

(a) The gas chlorine disinfection system at the nearby Recreation Pool shall be replaced with a less hazardous alternative, which could be a liquid chlorine, dry chemical chlorine (tablet), or ozone disinfection system, and, whichever system is chosen, a safety plan for the Recreation Pool area will be developed by the UC Davis campus that would meet applicable regulatory standards; or

(b) The University Risk Management Plan shall be updated to address the proximity of a new group of sensitive receptors in the vicinity of the gas chlorine disinfection system at the Recreation Pool, and the childcare center operator and users (parents and/or guardians) shall be notified in writing of the presence of the gas chlorine tanks and of the relevant elements of the RMP at the time of their application for attendance. As required by CalARP, the RMP update shall address the hazards that could affect employees, residents, offsite public and environmental receptors; provide the results of an offsite consequences analysis; define a prevention program, emergency response program, and mitigation measures to reduce the probability and magnitude of accidental releases of regulated substances; and establish a schedule and responsibilities for implementation of mitigation measures and auditing of program elements. In addition the campus shall conduct annual emergency drills to ensure that emergency response actions would be implemented effectively in the event of a chlorine gas release.

c) 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. The future west campus neighborhood may include DJUSD elementary and high school facilities on the campus. The proposed project would be a childcare center and other childcare centers are currently located on the campus.
The four existing diesel-fueled generators that are within 1000 feet of the proposed project site were discussed in Section 7.3, Air Quality, and a project-specific mitigation measure restricting the time window during which generators within 500 feet of the proposed childcare facility may be tested or operated for non-emergency purposes is preferred to reduce the impact to a less-than-significant level. The gas chlorine disinfection system is discussed above, in item (b), and a project-specific mitigation measure requiring either replacement of that system or an update of the University Risk Management Plan prior to acceptance of children for caregiving at the proposed facility was proposed to reduce the impact to less than significant.

Hazardous materials associated with construction and household-type cleaners used in the maintenance of the proposed project could be handled within ¼ mile of existing and proposed schools and childcare centers. However, 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 Research/South Campus Disposal site is the only campus site that was listed as a hazardous materials site pursuant to Government Code Section 65962.5. The proposed project would not disturb this site, which is over one mile away from the proposed 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). 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. Campus policy requires that due diligence surveys be performed for all proposed project sites as part of the project planning process. In conformance with this campus policy, LRDP Mitigation 4.7-12 is incorporated into the project, and a Phase IA Preliminary Site Assessment was conducted in 2004 and then reviewed in 2005 for the proposed project. This assessment included a basic site reconnaissance, soil sampling, and a review of past and present land uses. The survey found detectable levels of chlorinated pesticides the two 6” to 12” samples which ranged from 29.7 to 40.6 parts per billion (ppb) for DDT and 171 to 194 ppb for DDE (Majewski and Kermoyan 2005). A supplemental risk assessment was conducted for the proposed project, which considered the risk posed by both the possible toxic air contaminants present near the site, as analyzed in the 2003 UC Davis LRDP Toxic Air Contaminants Health Risk Assessment, and by the levels of contamination found in the soil, using a SchoolScreen model that considers the amount of time children would spend in the proposed care facility and the differing body weights and respiration rates of children in order to assess the risk associated with the highest detected levels of pesticides on the proposed site (URS 2005). The risk model estimated the cancer risk at the proposed site to be approximately 0.65 in a million, which is well below the 10 in a million significance threshold widely used throughout California as a benchmark for determining the potential significance of public health risk (URS 2005). Additionally, the Department of Toxic Substances Control, Human and Ecological Risk Division, published an interim guidance paper that analyzes data from selected agricultural sites across the state of California, and finds that “residual levels of DDT and its derivatives are commonly found in California agricultural soils at very low concentrations that do not pose an unacceptable risk or hazard to future residents, students, and staff [of proposed schools]” and that “the vast majority of agricultural sites that have been used for crop production do not contain residual concentrations of pesticides or metals that would pose an unacceptable risk or hazard to future students and staff.
[of proposed schools]" (Chernoff, et al 2002). Therefore, the project would result in a less-than-significant impact.

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, is located over a mile (approximately 7,150 feet) from the university airport, is in the western portion of the central campus, 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. 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). No road closures are expected as part of the construction process for the proposed project. However, 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) Areas along Putah Creek are the only areas on campus that could be susceptible to wildland fires. Urbanization will not occur in close proximity to these areas under the 2003 LRDP because land along Putah Creek is designated for Open Space and Teaching and Research Fields, and land adjacent to these open areas is designated primarily for Teaching and Research Fields and low density development. The proposed project site is surrounded by development and located at a distance from Putah Creek. Therefore, no impact would occur.

Summary

Mitigation measures 4.7-1, 4.7-2(a-b), 4.7-8, 4.7-9, 4.7-12, 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. In addition, the project would introduce a new significant hazards and hazardous materials impact that was not previously addressed in the 2003 LRDP EIR. Project-specific Mitigation Measure 2, included in the proposed project, would reduce this impact to a less-than-significant level.
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 only major 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, 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.

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 transports this water 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 measured 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. 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**

Currently, the proposed project site is vacant land, so storm water primarily evaporates and
percolates, and runoff from the site drains to the campus storm water drainage system for discharge to
the Arboretum waterway and ultimately the south fork of Putah Creek. The site is approximately
three-quarters of a mile north of the historic channel of Putah Creek. The site is located outside of a
floodplain. The one-half acre site would be developed with an approximately 9,200 gsf building and
approximately 10,710 gsf of play yards, which would require installation of a storm drainage system
to collect on-site stormwater, and would connect to and use existing capacity in the 12” storm drain
on the north side of the proposed site.

**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. As analyzed in Section 4 of this Initial Study, 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>Level of Significance Prior to Mitigation</th>
<th>Level of Significance After Mitigation</th>
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<tbody>
<tr>
<td>HYDROLOGY &amp; WATER QUALITY</td>
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<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>
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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>
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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</td>
<td>PS</td>
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</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 will not be readopted in this Initial Study or Negative Declaration. 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 2003 LRDP EIR mitigation measures.

<table>
<thead>
<tr>
<th><strong>2003 LRDP EIR Impacts</strong></th>
<th>Level of Significance Before Mitigation</th>
<th>Level of Significance After Mitigation</th>
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<tr>
<td>HYDROLOGY &amp; WATER QUALITY</td>
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<tr>
<td>4.8-4 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>
</tr>
<tr>
<td>4.8-5 Campus growth under the 2003 LRDP would increase the amount of water extracted from the deep aquifer and would increase impervious surfaces. This 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.</td>
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<tr>
<td>4.8-6 Campus growth under the 2003 LRDP could increase the amount of water extracted from the shallow/intermediate aquifer and would increase impervious surfaces. Extraction from the shallow/intermediate aquifer could deplete groundwater levels and could contribute to local subsidence, and increased impervious coverage could interfere substantially with recharge. This could result in a net deficit in the intermediate aquifer volume or a lowering of the local groundwater table.</td>
<td>SU</td>
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<tr>
<td>4.8-10 Development under the 2003 LRDP, in conjunction with construction activities, increased impervious surfaces, and alterations to drainage patterns associated with other development in the region that would increase impervious surface coverage in the watershed, could increase storm water runoff, and could provide substantial sources of polluted runoff, which could affect receiving water quality.</td>
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<tr>
<td>4.8-11 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 exceed the capacity of storm water drainage systems and result in flooding within the Putah Creek watershed.</td>
<td>PS</td>
<td>LS</td>
</tr>
<tr>
<td>4.8-12 Growth under the 2003 LRDP and other development in the region would increase discharge of treated effluent to the Putah Creek watershed, which could degrade receiving water quality.</td>
<td>PS</td>
<td>LS</td>
</tr>
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<td>4.8-13 Growth under the 2003 LRDP and other development in the region would increase the amount of water extracted from the deep aquifer and increase impervious surfaces. This 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.</td>
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<td>SU</td>
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<tr>
<td>4.8-14 Growth under the 2003 LRDP and other development in the region would increase the amount of water extracted from shallow/intermediate aquifers and 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.</td>
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The campus shall continue to comply with the NPDES state-wide General Permit for Discharge of Storm Water Associated with Construction Activity by implementing control measures and BMPs required by project-specific SWPPPs and with the Phase II SWMP to eliminate or reduce non-storm and storm water discharges to receiving waters.

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.

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.

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:

- The expansion or modification of the existing storm drainage system.
- 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.
- Multi-project storm water detention or retention basins.

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.

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

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.

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:

- 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.
- Continue the leak detection and repair program.
- Continue converting existing single-pass cooling systems to cooling tower systems.
- Use water-conservative landscaping on the west and south campuses where domestic water is used for irrigation.
- Replace domestic water irrigation systems on the west and south campuses with an alternate water source (shallow/intermediate or reclaimed water), where feasible.
- Install water meters at the proposed neighborhood to encourage residential water conservation.
- Identify and implement additional feasible water conservation strategies and programs including a water awareness program focused on water conservation.

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

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.

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...
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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 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 4.8-2(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)
2003 LRDP EIR Mitigation Measures
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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.

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 Mitigation</th>
<th>Impact for which 2003 LRDP EIR is Sufficient</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) Violate any water quality standards or waste discharge requirements?</td>
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<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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<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>
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<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>
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<td>f) Otherwise substantially degrade water quality?</td>
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<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>
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<td>h) Place within a 100-year flood hazard area structures which would impede or redirect flood flows?</td>
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<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>
<td></td>
<td>☑ ☐ ☐ ☐</td>
<td></td>
</tr>
<tr>
<td>j) Inundation by seiche, tsunami, or mudflow?</td>
<td>☐ ☐ ☑ ☐ ☐</td>
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<td>☑ ☐ ☐ ☐</td>
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</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

Sanitary sewer effluent generated by the proposed project would be treated at the campus wastewater treatment plant (WWTP). 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). 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 only major 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 would develop approximately one-half acre of land, and that development would increase demand for domestic water from the deep aquifer. 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 3,301 acre-feet through 2015-16 (UC Davis ORMP 2003c). 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 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 is 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: 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 is available since certification of the 2003 LRDP EIR that would alter this previous analysis.

**Shallow/Intermediate Aquifer**

The proposed project would develop approximately one-half acre of land, and that development would increase demand for utility water from the shallow/intermediate aquifers for irrigation of the project's landscaped areas. 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. Project landscaping and some of the project play
yards would not be impervious and would allow some percolation and infiltration on the site. 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 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 is 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 is available since certification of the 2003 LRDP EIR that would alter this previous analysis.

c) The proposed project would develop the half-acre site with a building, play yards, landscaped areas, and an entry walkway. Currently, the proposed project site is vacant land, so storm water primarily evaporates and percolates, and runoff from the site drains to the campus storm water drainage system for discharge to the Arboretum waterway and ultimately to the south fork of Putah Creek. The developed project site would be connected to the campus storm water drainage system. 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 is available since certification of the 2003 LRDP EIR that would alter this previous analysis.

d,e) The proposed project would develop approximately one-half acre, and runoff from the developed project site would drain to the campus storm drainage system. 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). 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). The current campus standard for storm water management is a 10-year storm event, under the campus Stormwater Management Plan (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. In compliance with this measure, the campus has performed a utility study for the proposed project and has determined that the project would not have a significant impact on the campus’ existing storm drainage system (UC Davis A&E 2005). The utility study identified that the storm drain main serving the project site and surrounding area will have capacity for the proposed project to accommodate a ten-year storm event. 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 and would not contribute to regional flooding problems.

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

g, h) 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 be constructed outside the 100-year flood zones on campus (see 2003 LRDP EIR, Figure 4.8-4, 100-Year Floodplain). Therefore, no impact would occur.

i) 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 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

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), 4.8-10, 4.8-11, 4.8-12, 4.8-13(a-b), and 4.8-14(a-b) 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. 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 hydrology and water quality impacts that were not previously addressed.
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 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

The Campus Child Care Center facility site is located within the Central Campus, north of Parking Lot 30, west of The Colleges at La Rue (CLR) parking lot and storage units, south of the fire lane serving CLR, and east of the Recreation Pool Lodge. The proposed project site is currently vacant land. The 2003 LRDP designates the project site for a Physical Education/Intercollegiate Athletics/Recreation land use; this designation allows for “indoor and outdoor athletic facilities and fields” (page 68). The conforming land use designation for the project would be Student Housing, which the 2003 LRDP identifies “for a variety of campus and privately-operated student housing types and densities, as well as campus childcare centers” (page 63). The 2003 LRDP designates the adjacent land to the north and west of the proposed project site as Student Housing, adjacent land to the east of the proposed project site as Physical Education/Intercollegiate Athletics/Recreation, and adjacent land to the south of the proposed project site as Parking (see the 2003 LRDP map, “Land Use (Through 2015-2016),” page 55).

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>LAND USE &amp; PLANNING</th>
<th>Potentially Significant Impact</th>
<th>Less than Significant with Mitigation</th>
<th>Impact for which 2003 LRDP EIR is Sufficient</th>
<th>Less than Significant Impact</th>
<th>No Impact</th>
</tr>
</thead>
<tbody>
<tr>
<td>a) Physically divide an established community?</td>
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<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☑</td>
</tr>
<tr>
<td>b) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☑</td>
</tr>
<tr>
<td>c) Conflict with any applicable habitat conservation plan or natural community conservation plan?</td>
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<td>☐</td>
<td>☐</td>
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<td>☑</td>
</tr>
<tr>
<td>d) Result in development of land uses that are substantially incompatible with existing adjacent land uses or with planned uses?</td>
<td>☐</td>
<td>☐</td>
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</table>

a) The proposed project would have no potential to physically divide an established community. The proposed project would establish a childcare facility adjacent to a student housing area and would utilize existing roadways and parking. The facility would complement the adjacent student housing and recreation uses by providing outdoor space for children to play. The facility would not separate land use activities currently taking place in the area. No impact would occur and no additional analysis is required.

b) The applicable land use plan for the campus is the 2003 LRDP. The approximately one-half acre proposed project site is currently designated in the 2003 LRDP for Physical Education/Intercollegiate Athletics/Recreation land use. This designation allows for “indoor and outdoor athletic facilities and fields” (2003 LRDP, 68). The conforming land use designation for the project would be Student Housing, which the 2003 LRDP identifies “for a variety of campus and privately-operated student housing types and densities, as well as campus childcare centers” (2003 LRDP, 63). Land to the north and west of the project site is designated Student Housing in the 2003 LRDP. The project would include changing the land use designation of the project site from Physical Education/Intercollegiate Athletics/Recreation to Student Housing to accommodate the proposed project by extending the existing Student Housing designation to include the one-half acre project site. The change in designation for the site would be reflected in future printings of
The 2003 LRDP land use map. The proposed land use is compatible with adjacent land uses and would be appropriate within the campus context.

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 on the central campus, away from these areas. Therefore, the proposed project would not conflict with an adopted HCP or NCCP.

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. The proposed project site’s redesignation to Student Housing is compatible with the land use designations and existing land uses adjacent to the proposed Campus Child Care Center site (i.e., Parking, Physical Education/Intercollegiate Athletics/Recreation, Student Housing). Adjacent land uses include the Recreation Pool Lodge, CLR student housing, and two parking lots. The change in designation would effectively expand the existing Student Housing area that currently accommodates CLR.

**Summary**

The 2003 LRDP EIR did not identify any significant land use and planning impacts, nor did it identify any associated mitigation measures. The proposed project would not exceed the levels of significance of land use and planning impacts previously addressed in the 2003 LRDP EIR, nor would it introduce any new significant land use and planning impacts that were not previously addressed.
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 Impact</th>
<th>Impact for which 2003 LRDP EIR is Sufficient</th>
<th>Less than Significant Impact</th>
<th>No Impact</th>
</tr>
</thead>
<tbody>
<tr>
<td>a)  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>
<td>☑</td>
</tr>
<tr>
<td>b)  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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</table>

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.
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.
- \( L_{dn} \), 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 proposed site is located north of Parking Lot 30, west of the Recreation Pool and associated Lodge, and south of student apartments (The Colleges at La Rue). The site is relatively free of significant noise sources; existing noise sources near the site are traffic in the adjacent parking lot, users of the adjacent recreational facility, and bicyclists and pedestrians using the fire lane north of the site.

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. Noise thresholds of significance relevant to the proposed project are summarized below.

<table>
<thead>
<tr>
<th>Noise Source*</th>
<th>Criterion Noise Level†</th>
<th>Substantial Increase in Noise Level‡</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) daytime</td>
<td>Not Applicable</td>
</tr>
<tr>
<td></td>
<td>80 dBA L_{eq}(8h) evening</td>
<td></td>
</tr>
<tr>
<td></td>
<td>70 dBA L_{min} nighttime</td>
<td></td>
</tr>
</tbody>
</table>

Source: 2003 LRDP EIR

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

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

‡L_{eq}(8h) is an average measurement over an eight-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. As analyzed in Section 4 of this Initial Study, the proposed project is within the scope of analysis in the 2003 LRDP EIR. 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, but this impact is 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.
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 will not be readopted in this Initial Study or Negative Declaration. 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 2003 LRDP EIR mitigation measures.
2003 LRDP EIR Mitigation Measures

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>Environmental Checklist</th>
<th>Potentially Significant Impact</th>
<th>Less than Significant Impact with Mitigation</th>
<th>Impact for which 2003 LRDP EIR is Sufficient</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) Generation of noise, on or adjacent to the project site, associated with children playing outdoors in the play yards would expose nearby sensitive receptors to higher noise levels. The nearest sensitive receptor to the proposed project is the adjacent student housing, The Colleges at LaRue (CLR), the closest apartment buildings of which are approximately 80 feet from the proposed preschool play yard. Preschoolers (2 ½ to 5 years old) are the age group of children considered to be the loudest group that would use the center daily, throughout the day, during the typical workweek. A noise study by an acoustical consultant of the noise conditions at the proposed site estimated the noise levels the proposed childcare facility would generate, and evaluated whether the increased noise generated by the proposed project would constitute a potential impact (Illingworth and Rodkin, 2005). Based on measurements taken for the noise study, the existing L_{eq} at the adjacent CLR apartment buildings is estimated to be between 50 and 55 dBA. The
consultant additionally measured noise levels during the most active outdoor play period at an existing on-campus childcare facility (LaRue Child Development Center). Extrapolating from these measurements, the acoustical consultant determined that the noise increase from the introduction of the proposed childcare facility would be approximately 1 to 3 dBA at approximately 80 feet from the center of the proposed preschool play yard. Such an increase is not considered to be substantial based on thresholds established in the 2003 LRDP EIR, therefore, the impact would be less than significant.

b,d) The proposed project would employ typical, basic construction activities, such as grading, foundation pouring, framing and finishing, to accomplish the building phase of the project. At peak construction, it is estimated that about 10 construction vehicles would be on the project site. Construction activities associated with the proposed project would not require extensive construction equipment, and project construction is anticipated to last for approximately one year. 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). Noise from project construction is anticipated to be below the significance criteria of 80 dBA Leq daytime and evening and 70 dBA Leq nighttime at a distance of 100 feet or more from the construction activity. However, noise from construction would be audible and would temporarily elevate the local ambient noise level to some degree at distances greater than 100 feet from construction. LRDP Mitigation 4.10-1, which requires approval of a construction noise mitigation program and is included in the proposed project, would be implemented to control construction noise and the potential impact would be less than significant.

c) Generation of noise, as a result of the proposed project, which is associated with vehicle trips, children playing outdoors in the play yards, building mechanical systems, and the use of landscaping maintenance equipment would contribute to the ambient noise levels on campus. The proposed project would generate a total of approximately 230 trips to and from the childcare facility during the AM and PM peak hours. 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 minimally contribute to road trips and associated noise levels at these locations. 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 and no new information is available since certification of the 2003 LRDP EIR that would alter this previous analysis.

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 and no new information is available since certification of the 2003 LRDP EIR that would alter this previous analysis.

e) The proposed project site is approximately 1.5 miles from the University 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**

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. 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 noise impacts that were not previously addressed.
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

The project site is currently vacant. The Colleges at La Rue student housing apartment complex is located adjacent to the project site, to the north.

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. As analyzed in Section 4 of this Initial Study, 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 Implementation of the 2003 LRDP would directly induce substantial population growth in the area by proposing increased enrollment and additional employment.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

¹ 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 Mitigation</th>
<th>Impact for which 2003 LRDP EIR is Sufficient</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>

a) 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 proposed project would contribute approximately 20 new non-UC employees to the campus population. Although most of these staff would likely reside in the region already and would not constitute new growth in the area, there is a possibility that the project could contribute to cumulative growth in the region. 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 is available since certification of the 2003 LRDP EIR that would alter this previous analysis.

The proposed project would extend utilities to the project site and would provide a drop-off area within the existing Parking Lot 30 adjacent to the proposed project site. 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 2003 LRDP EIR did not identify any mitigation measures to reduce the significance of impacts associated with population and housing. The proposed project would not exceed the levels of significance of population and housing impacts previously addressed in the 2003 LRDP EIR, nor would it introduce any new significant population and housing impacts that were not previously addressed.
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 site is currently vacant and there are no existing or planned public service facilities (fire, police, schools or libraries) on or adjacent to the site.

### 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. As analyzed in Section 4 of this Initial Study, 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.

#### 2003 LRDP EIR Impacts

| PUBLIC SERVICES |
|-----------------|-----------------|
| Level of Significance | Level of Significance |
| Prior to Mitigation | After Mitigation |

<table>
<thead>
<tr>
<th>Impact Description</th>
<th>Prior to Mitigation</th>
<th>After Mitigation</th>
</tr>
</thead>
<tbody>
<tr>
<td>4.12-6 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>
<td>SU</td>
</tr>
<tr>
<td>4.12-7 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>
<td>SU</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 will not be readopted in this Initial Study or Negative Declaration. 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 2003 LRDP EIR mitigation measures.

#### 2003 LRDP EIR Mitigation Measures

<table>
<thead>
<tr>
<th>PUBLIC SERVICES</th>
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</thead>
</table>

<table>
<thead>
<tr>
<th>Impact Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>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 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</td>
</tr>
</tbody>
</table>
- 2003 LRDP EIR Mitigation Measures
  PUBLIC SERVICES

  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.

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### 7.13.4 Environmental Checklist and Discussion

<table>
<thead>
<tr>
<th>PUBLIC SERVICES</th>
<th>Potentially Significant Impact</th>
<th>Less than Significant with Mitigation</th>
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</tr>
</thead>
<tbody>
<tr>
<td>Would the project…</td>
<td></td>
<td></td>
<td></td>
<td></td>
<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>
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<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>
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<td></td>
<td></td>
</tr>
<tr>
<td>v) Other public facilities?</td>
<td></td>
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</tr>
</tbody>
</table>

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

The proposed project would establish a childcare center on the central campus and would increase the campus population by approximately 20 non-UC employees. The project would therefore incrementally contribute to the demand for campus fire and police services anticipated in 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, 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. The 2003 LRDP EIR found that to ensure adequate UC Davis Police Department service for the campus population under the 2003 LRDP, the campus may need to expand existing or provide new facilities, supply technologically improved equipment, or implement improved management techniques 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 proposed project would contribute approximately 20 new non-UC employees to the campus population. Although most of these staff would likely reside in the region already and would not constitute new growth in the area, there is a possibility that the project could contribute to cumulative growth and associated public service demand in the region. 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 is available since certification of the 2003 LRDP EIR that would alter this previous analysis.

a, iii) Schools

The proposed project would contribute approximately 20 new non-UC employees to the campus population. Although most of these staff would likely reside in the region already and would not constitute new growth in the area, there is a possibility that the project could contribute to cumulative growth and associated public service demand 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 is 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 proposed project would contribute approximately 20 new non-UC employees to the campus population. Although most of these staff would likely reside in the region already and would not constitute new growth in the area, there is a possibility that the project could contribute to cumulative growth and associated public service demand 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

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. The proposed project would not exceed the levels of significance of public service impacts previously addressed in the 2003 LRDP EIR, nor would it introduce any new significant public service impacts that were not previously addressed.
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 proposed project site is currently vacant. The Recreation Pool Lodge and Recreation Pool are adjacent to the site. The Recreation Pool Lodge, located east of the project site and north of the Recreation Pool at the corner of Hutchison and La Rue, is rented for a variety of events including conferences, lectures, receptions, banquets, weddings, dances and other social functions throughout the year. The Recreation Pool is available to the public during the spring and summer for recreational and lap swimming.

The one-half acre site is currently designated for Physical Education/Intercollegiate Athletics/Recreation use under the 2003 LRDP, which allows for “indoor and outdoor athletic facilities and fields” (page 68). The conforming land use designation for the project would be Student Housing, which the 2003 LRDP identifies “for a variety of campus and privately-operated student housing types and densities, as well as campus childcare centers” (page 63). The 2003 LRDP designates the adjacent land to the north and west of the proposed project site as Student Housing, adjacent land to the east of the proposed project site as Physical Education/Intercollegiate Athletics/Recreation, and adjacent land to the south of the proposed project site as Parking (see the 2003 LRDP map, “Land Use (Through 2015-2016),” page 55). The land use designation of Student Housing would be extended to the proposed site as part of the project.

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. As analyzed in Section 4 of this Initial Study, 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

<table>
<thead>
<tr>
<th>RECREATION</th>
<th>Level of Significance Prior to Mitigation</th>
<th>Level of Significance After Mitigation</th>
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</thead>
<tbody>
<tr>
<td>4.13-2</td>
<td>S</td>
<td>SU</td>
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</table>

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.

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 will not be readopted in this Initial Study or Negative Declaration. 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 2003 LRDP EIR mitigation measures.

### 2003 LRDP EIR Mitigation Measures

<table>
<thead>
<tr>
<th>RECREATION</th>
<th>Impact for which 2003 LRDP EIR is Sufficient</th>
<th>Impact for which 2003 LRDP EIR is Less than Significant Impact</th>
<th>Impact for which 2003 LRDP EIR is Significant Impact</th>
</tr>
</thead>
<tbody>
<tr>
<td>4.13-2</td>
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</table>

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.

7.14.4 Environmental Checklist and Discussion

<table>
<thead>
<tr>
<th>RECREATION</th>
<th>Potentially Significant Impact</th>
<th>Less than Significant with Mitigation</th>
<th>Impact for which 2003 LRDP EIR is Sufficient</th>
<th>Less than Significant Impact</th>
<th>No Impact</th>
</tr>
</thead>
<tbody>
<tr>
<td>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?</td>
<td>☐</td>
<td>☐</td>
<td>☑</td>
<td>☑</td>
<td>☐</td>
</tr>
<tr>
<td>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?</td>
<td>☐</td>
<td>☐</td>
<td>☑</td>
<td>☑</td>
<td>☐</td>
</tr>
</tbody>
</table>
a,b) The proposed project would include on-site play yards to provide for the recreation needs of children cared for at the facility. The proposed project would contribute approximately 20 new non-UC employees to the campus population. These new staff could contribute to increased demand for on-campus recreational resources. Although most of these staff would likely reside in the region already and would not constitute new growth in the area, there is a possibility that the project could contribute to cumulative growth and associated recreation demand in the region.

The approximately one-half acre proposed project site is currently designated in the 2003 LRDP for Physical Education/Intercollegiate Athletics/Recreation land use. This designation allows for “indoor and outdoor athletic facilities and fields” (2003 LRDP, 68). The conforming land use designation for the project would be Student Housing, which includes campus childcare centers (2003 LRDP, 63). Land to the north and west of the project site is designated Student Housing in the 2003 LRDP. The project would include changing the land use designation of the project site from Physical Education/Intercollegiate Athletics/Recreation to Student Housing to accommodate the proposed project by extending the existing Student Housing designation to include the one-half acre project site. This minor redesignation would still enable the campus to provide adequate recreation facilities on the remaining acreage designated for Physical Education/Intercollegiate Athletics/Recreation land use.

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 is available since certification of the 2003 LRDP EIR that would alter this previous analysis.

Summary

Mitigation measure 4.13-2 from the 2003 LRDP EIR is relevant to the proposed project to reduce the significance of recreation-related impacts to the extent feasible. With the implementation of this measure, the proposed project would not exceed the levels of significance of recreation impacts previously addressed in the 2003 LRDP EIR, nor would it introduce any new significant recreation impacts that were not previously addressed.
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 Road, 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

The proposed project site is immediately north of existing Parking Lot 30. Access to the site is gained through this parking lot. The nearest roads to the project site are Extension Center Drive, Hutchison Drive, La Rue Road and Orchard Park Drive. Orchard Park Drive and Extension Center Drive both service Parking Lot 30, and thus the proposed site.

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. As analyzed in Section 4 of this Initial Study, the proposed project is within the scope of analysis in the 2003 LRDP EIR. 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.

<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>4.14-1</td>
<td>Implementation of the 2003 LRDP would cause unacceptable intersection operations at on-campus intersections.</td>
<td>S</td>
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<tr>
<td>4.14-2</td>
<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>
</tr>
<tr>
<td>4.14-3</td>
<td>Implementation of the 2003 LRDP would create additional parking demand.</td>
<td>PS</td>
</tr>
<tr>
<td>4.14-4</td>
<td>Implementation of the 2003 LRDP would increase demand for transit services.</td>
<td>PS</td>
</tr>
<tr>
<td>4.14-5</td>
<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>
</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 will not be readopted in this Initial Study or Negative Declaration. 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 2003 LRDP EIR mitigation measures.

<table>
<thead>
<tr>
<th>2003 LRDP EIR Mitigation Measures</th>
<th>Transportation, Circulation, &amp; Parking</th>
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</thead>
<tbody>
<tr>
<td>4.14-1(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>4.14-1(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</td>
</tr>
</tbody>
</table>
2003 LRDP EIR Mitigation Measures
TRANSPORTATION, CIRCULATION, & PARKING

or roundabouts at affected study intersections.

4.14-2(a) UC Davis shall continue to actively pursue Transportation Demand Management strategies to reduce vehicle-trips to and from campus.

4.14-2(b) 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.

4.14-2(c) 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.

4.14-3(a) UC Davis shall continue to actively pursue Transportation Demand Management strategies to reduce parking demand.

4.14-3(b) 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.

4.14-4 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.

4.14-5 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.

7.15.4 Environmental Checklist and Discussion

<table>
<thead>
<tr>
<th>TRANSPORTATION, CIRCULATION, &amp; PARKING</th>
<th>Potentially Significant Impact</th>
<th>Less than Significant with Mitigation</th>
<th>Impact for which 2003 LRDP EIR is Sufficient</th>
<th>Less than Significant Impact</th>
<th>No Impact</th>
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<tr>
<td>Would the project…</td>
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<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>
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</table>
g) Conflict with applicable adopted policies, plans, or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks)?

a,b) Access to the proposed project would be through Parking Lot 30, which is reached from either Russell Boulevard or La Rue Boulevard to Orchard Park Drive or from Hutchison Drive to Extension Center Drive. Construction and operation of the proposed project would contribute traffic to these roadways. Construction of the project could generate up to approximately 25 vehicle trips to and from the site per day, during peak construction work. Operation of the facility would increase vehicle trips associated with childcare staff arriving and departing work and with the drop-off/pick-up of children. The proposed project would generate approximately 121 vehicle trips during the 7:30 to 8:30 AM peak hour (including 67 trips to the facility and 54 trips out of the facility), and approximately 110 vehicle trips during the 4:30 to 5:30 PM peak hour (including 49 trips to the facility and 61 trips out of the facility) (Fehr & Peers 2005).

The 2003 LRDP EIR found that implementation of the 2003 LRDP would cause unacceptable intersection operations at ten on-campus intersections (Impact 4.14-1). The proposed project would contribute vehicle trips primarily to the Orchard Park Drive/Russell Boulevard and the Hutchison Drive/Extension Center Drive intersections. 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. With implementation of these 2003 LRDP EIR mitigation measures, the impact would be less than significant.

The campus commissioned a project-specific transportation study to assess the likelihood of any potential roadway hazards and LOS exceedances associated with the project’s increased vehicle trips. The Traffic Study for Proposed UC Davis Child Care Facility (Fehr and Peers 2005) identified that the additional vehicle trips generated by the proposed project could degrade operations for the north-bound left-turn movement from Orchard Park Drive onto Russell Boulevard under 2015 conditions. The prior traffic analysis completed for the 2003 LRDP EIR also studied the intersection of Orchard Park Drive and Russell Boulevard, and determined that by 2015-16 the combined effect of campus growth through 2015-16 and cumulative regional growth would degrade the level of service at the intersection to an unacceptable level. LRDP Mitigation Measure 4.14-2(c.1) requires the campus to monitor the Orchard Park Drive/Russell Boulevard intersection and, if necessary, either restrict Orchard Park Drive to right turns in and out at Russell Boulevard or to widen Orchard Park Drive and provide separate northbound turn lanes onto Russell Boulevard. On-going intersection monitoring will determine when the modifications identified in the 2003 LRDP EIR are necessary.

Consistent with the 2003 LRDP EIR Mitigation Measure 4.14-2(c.1), the childcare center traffic study identified that a 50-foot refuge area in the median of Russell Boulevard could be constructed to improve the overall LOS to an acceptable level, along with providing separate left- and right-turn lanes on northbound Orchard Park Drive. The study recommended this as a Year 2015 Mitigation Measure, and noted that it has already been adopted as LRDP Mitigation Measure 4.14-2(c.1). Therefore, because the measure has been adopted and this intersection continues to be monitored regularly under LRDP Mitigation Measure 4.14-2(b), no further mitigation is required.

The campus will be undertaking a widening of Hutchison Drive to four lanes, currently planned for summer 2006. The widening project is part of the Stadium Complex (SC) Mitigation Measure 4.4-19, which was adopted as part of the 2003 LRDP EIR. It is expected that the widening project will be finished close to the time that construction of the proposed project would be near
completion, and prior to the childcare facility opening for caregiving. With the widening to four lanes, the Hutchison Drive/Extension Center Drive intersection would operate at LOS C or better under Year 2015 peak hour traffic conditions (Fehr & Peers 2005). Therefore, LRDP Mitigation Measure 4.14-1(c.4), which calls for eliminating left-turn movements from Extension Center Drive onto Hutchison Drive, will not need to be implemented as part of the proposed project. Because this intersection will be improved with the widening project, eliminating access to/from Extension Center Drive is not warranted at this time and is not necessary to mitigate a significant traffic impact (Fehr & Peers 2005). However, the campus will continue to monitor this intersection under LRDP Mitigation Measure 4.14-1(b) as to whether LRDP Mitigation Measure 4.14-1(c.4) will become necessary in the future.

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). The project would minimally contribute to most of these intersections/freeways. 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 is 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 items e) and f) of Section 7.7, Hazards and Hazardous Materials.

d) 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). Operation of the proposed Campus Child Care Center would include increased vehicle, bicycle, and pedestrian trips associated with childcare staff and the drop-off/pick-up of children. The project would generate approximately 38 bicycle/walk trips during the AM peak hour (including 21 trips to and 17 trips out of the facility) and 33 bicycle/walk trips during the PM peak hour (including 15 trips to and 18 trips out of the facility) (Fehr & Peers 2005). 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. With this mitigation, the impact would be less than significant.

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

f) The proposed project would not result in inadequate parking on campus; however, the project would require removal of approximately 11 vehicular parking spaces from Parking Lot 30, which would slightly reduce the campus’ overall parking space inventory. These spaces would accommodate a child drop-off/pick-up area for the facility. In addition, the project would use approximately 20 parking spaces for childcare employees and visitors. Parking Lot 30 had a recent winter utilization rate of 66 percent (187 spaces used out of 283 spaces available) (UC Davis TAPS 2004), and therefore Lot 30 has adequate capacity for the proposed project. The loss of parking spaces associated with the project is considered a less-than-significant impact because the loss of spaces is relatively small, the associated Parking Lot 30 has considerable available
capacity to absorb the loss, and the West Entry Parking Structure (WEPS), approximately one-quarter mile from the proposed project site, is currently under construction and slated to open in Fall 2005 (before construction of the proposed project would finish). The WEPS would add approximately 1,500 parking spaces, which would provide ample parking capacity in the area for the foreseeable future.

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. With implementation of measures identified in the 2003 LRDP EIR, this impact would be less than significant.

g) The nearest transit stops to the proposed facility are: the Unitrans A-line stop on Hutchison Drive at Extension Center Drive, near the TAPS building and Plant Reproductive Biology, approximately 600 feet from the proposed site (as most likely walked by a pedestrian); the Unitrans C-, D-, and G-line stop on Hutchison at Dairy Road, approximately 1,200 feet from the site (as most likely walked by a pedestrian); and the Unitrans C-, D-, and G-line stop on La Rue at Orchard Park/Recreation Hall, approximately 1,200 feet from the site (as most likely walked by a pedestrian). The proposed project would contribute 20 new non-UC employees to the campus population, which would minimally contribute to the demand for transit services. In addition, it is anticipated that approximately one percent of child drop-offs and pick-ups would occur via transit service (Fehr & Peers 2005). 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

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 are relevant to the proposed project and reduce the significance of transportation, circulation, and parking impacts to the extent feasible. The proposed project would not exceed the levels of significance of transportation, circulation, and parking impacts previously addressed in the 2003 LRDP EIR, nor would it introduce any new significant impacts that were not previously addressed.
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
- Utility Water
- Natural Gas
- Steam
- Electricity
- 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: domestic water, utility water, storm drainage, sanitary sewer, electricity, natural gas and telecommunications. 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 2001-02, annual domestic water consumption was approximately 2,670 acre feet and peak demand was 3,100 gpm. The proposed project would connect to the campus domestic water system at an existing 8-inch main north of the project site. There are two existing fire hydrants on the northeast and south sides of the project site, within 150 feet of the proposed building. Peak demand for domestic water is estimated to be 31 gallons per minute (GPM), with a fire service peak demand of 1,500 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 2001-02, annual utility water consumption was approximately 1,170 acre feet and peak demand was 1.5 mgd. The proposed point of connection for the project is at an existing 6-inch utility water line on the east side of the site, and estimated peak demand for utility water is 10 GPM. The proposed building footprint would cover an existing utility main and would require relocation of that piping.

- **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. Since the current WWTP began operation in March 2000, the maximum monthly flow has been 2.2 mgd. Maximum flow in 2001-02 was 1.6 mgd. The proposed point of connection for this project is an existing 6-inch main on the north side of the site; and the project would provide a manhole at the point of connection, or else would extend and connect to the existing manhole northeast of the site. The projected sanitary sewer demand is 3,000 gallons per day.

- **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. The proposed point of connection for the project would be at an existing 12-inch main on the north side of the site. Storm drainage system capacity is considered adequate for a 10-year event, and the project is estimated to place a peak load on the system of 0.03 cubic feet per second.

- **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. The campus sends approximately 8,700 tons of solid waste to the campus landfill per year (approximately 34 tons per working day). In addition, approximately 3,300 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 2001-02, approximately 10,804 tons of materials were diverted for recycling and reuse. The amount of materials diverted represents approximately 55 percent of the total waste generated on campus.

- **Electricity:** The main campus currently receives electricity from PG&E at the campus substation located south of I-80 and from an approximately 2.7 MW cogeneration plant located on the core campus in the CHCP facility. The campus electrical system has an available capacity of 64.4 megawatts (MW). Annual electrical usage on campus in 2001-02 was approximately 200 million kilowatt-hours (KWh) per year and peak demand was approximately 34,000 KW. The proposed connection for the project is at the 12KV “pull box” at the southwest corner of the site. The project will provide an appropriately sized transformer.

- **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. Peak natural gas demand in 2001-02 was approximately 2,900 therms per hour. The proposed connection for the project is at the existing 2-inch gas main line on the east side of the site.

- **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. The proposed connections are at the existing manhole on the southwest corner of the site for telephonic copper wire and conduit, and at the campus
data frame in the Transportation and Parking Services trailer for fiber optic high speed data network connectivity.

### 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. As analyzed in Section 4 of this Initial Study, 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, 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>Level of Significance Prior to Mitigation</th>
<th>Level of Significance After Mitigation</th>
</tr>
</thead>
<tbody>
<tr>
<td>UTILITIES &amp; SERVICE SYSTEMS</td>
<td></td>
<td></td>
</tr>
<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>
</tr>
</tbody>
</table>
### 2003 LRDP EIR Impacts

**Utilities & Service Systems**

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
<th>Level of Significance Prior to Mitigation</th>
<th>Level of Significance After Mitigation</th>
</tr>
</thead>
<tbody>
<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>PS</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

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 will not be readopted in this Initial Study or Negative Declaration. 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 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 domestic/fire water is determined 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 utility water supply is determined to be 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.</td>
</tr>
</tbody>
</table>
2003 LRDP EIR Mitigation Measures
UTILITIES & SERVICE SYSTEMS

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.

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 & Design Guide in new construction and retrofit projects. These energy conservation standards may be subject to modification as more stringent standards are developed.

Once preliminary project design is developed, the campus shall review each project to determine whether 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.

To minimize disturbance to archaeological resources associated with CA-Yol-118, PG&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.

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

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

<table>
<thead>
<tr>
<th>UTILITIES &amp; SERVICE SYSTEMS</th>
<th>Potentially Significant Impact</th>
<th>Less than Significant with Mitigation</th>
<th>Impact for which 2003 LRDP EIR is Sufficient</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>
<tr>
<td>a)  Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?</td>
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<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>
<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>
<td>☐</td>
</tr>
</tbody>
</table>
d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed? □ □ ☑ □ □

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? □ □ □ ☑ □

f) Be served by a landfill with sufficient permitted capacity to accommodate the project’s solid waste disposal needs? □ □ □ ☑ □

g) Comply with federal, state, and local statutes and regulations related to solid waste? □ □ □ □ ☑

h) Require or result in the construction or expansion of electrical, natural gas, chilled water, or steam facilities, which would cause significant environmental impacts? □ □ □ ☑ □

i) Require or result in the construction or expansion of telecommunication facilities, which would cause significant environmental impacts? □ □ □ ☑ □

a) The proposed project would discharge wastewater effluent to the campus’s sanitary sewer system for treatment at the campus’s WWTP. The proposed project would not include uses that are likely to result in discharge of inappropriate materials. 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. 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 proposed project would connect to the campus’s domestic water system at an existing 8-inch main north of the project site. 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 line extension needed to serve the proposed project would be constructed within a previously disturbed area where cultural and biological resources likely would not 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. In compliance with this measure, the campus performed a utility study for the proposed project and determined that sufficient domestic/fire water capacity is available for the proposed project.

Utility Water Facilities
The proposed project would connect to the campus’ utility water system at an existing 6-inch line on the east side of the proposed site. 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 extension needed to serve the project would be constructed within a previously disturbed area where cultural and biological resources would likely not 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. In compliance with this measure, the campus performed a utility study for the proposed project and determined that sufficient utility water capacity is available for the proposed project.

Wastewater Facilities

The proposed project would connect to the campus’ sanitary sewer system via an existing 6-inch main on the north side of the proposed site. As required by LRDP Mitigation 4.15-3, included in the proposed project, the campus performed a utility study for the proposed project and determined that the campus’ sanitary sewer system has adequate capacity to handle the proposed project. Therefore, the project would not require an expansion of the campus sanitary sewer system, and no impact would occur.

The proposed project would contribute approximately 20 new non-UC employees to the campus population. Although most of these staff would likely reside in the region already, and would not constitute new growth in the area, there is a possibility that the project could contribute to cumulative growth in the region. This 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, if those environmental impacts were associated with expansion of utility facilities. 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 is available since certification of the 2003 LRDP EIR that would alter this previous analysis.

c) The proposed project would connect to the campus’ storm water drainage system at a 12-inch main located on the north side of the proposed site. The project would develop approximately one-half acre, would minimally increase demand for the campus storm water 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). Installation of the storm drainage conveyance line extension associated with the project would occur 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. 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. In compliance with this measure, the campus performed a utility study for the proposed project and determined that the project would not have a significant impact on the campus’ existing storm drainage system. The utility study identified the project site and surrounding area as capable of currently accommodating both a 2-year and a 10-year storm event.

d) The proposed project would minimally increase demand for domestic water from the deep aquifers and for utility water from the shallow/intermediate aquifers. 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 is 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. In compliance with this measure, the campus has performed a utility study for the proposed project and has determined that the campus’ sanitary sewer system has adequate capacity for the proposed project. Therefore, this impact would be less than significant.

f) The waste disposal needs of the proposed project would be served by the campus landfill. 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 proposed project would comply with all applicable statutes and regulations related to solid waste. Therefore, no impact would occur.

h) The proposed project would provide service from a new transformer connecting to the campus 12KV electrical system at a pull-box located on the southwest corner of the project site. The project would connect to an existing gas main line on the east side of the proposed site. The 2003 LRDP EIR identified that growth under the 2003 LRDP would require the expansion of the campus and PG&E electrical and natural gas transmission systems (LRDP Impacts 4.15-3 and 4.15-4). Electrical and natural gas utility extensions required by the proposed project would be constructed 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. The Regent’s Policy on Green Building Design and Clean Energy Standards, adopted July 17, 2003, set a goal for all new building projects, other than acute-care facilities, approved after the 2004-05 fiscal year, to outperform the required provisions of the California Energy Code (Title 24) energy-efficiency standards by at least 20 percent. This project was approved formally in 2003, prior to the adoption of the policy, so the project is not required to meet the 20% goal, but the design will incorporate energy efficiency goals to the extent possible. In compliance with these measures, the campus has performed a utility study for the proposed project and has determined that the proposed electrical and natural gas connections have adequate capacity for the proposed project.

i) The proposed project would connect to an existing telecommunications conduit and copper line at a point located southeast of the project site, and at a BDF in the TAPS trailer, as described in the background section 7.16.1. 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 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. The utility feasibility study for the proposed project identified adequate capacity for telecommunications service.

Summary

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), 4.15-9, 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. The proposed project would not exceed the levels of significance of utility and service system impacts previously addressed in the 2003 LRDP EIR, nor would it introduce any new significant impacts that were not previously addressed.
### 7.17 Mandatory Findings of Significance

<table>
<thead>
<tr>
<th>Mandatory Findings of Significance</th>
<th>Potentially Significant Impact</th>
<th>Less than Significant with Mitigation</th>
<th>Impact for which 2003 LRDP EIR is Sufficient</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) 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>
<td>☑</td>
<td>☐</td>
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<tr>
<td>b) 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>c) 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>
<td>☐</td>
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</tbody>
</table>

a) The proposed project would not significantly affect fish or wildlife habitat, nor would it eliminate examples of California history or prehistory. Cumulative regional impacts could be significant, but mitigation measures to reduce these potentially significant impacts to less-than-significant levels are not available or are not within the jurisdiction of the University of California to enforce and monitor. 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 is available since certification of the 2003 LRDP EIR that would alter this previous analysis.

b,c) The proposed project would not contribute to significant unavoidable impacts identified in the 2003 LRDP EIR related to agriculture resources or biological resources. It would incrementally contribute to, but would not exceed, significant and unavoidable impacts related to aesthetics, air quality, cultural resources, hydrology and water quality, noise, population and housing, 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 is available since certification of the 2003 LRDP EIR that would alter this previous analysis.
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


Ashby, Barbara, UC Davis Child Care and Family Services Manager. 2005, April 26. Telephonic communication with Camille Kirk, UC Davis Office of Resource Management and Planning; regarding emergency response planning and procedures used by existing on-campus childcare centers.


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


Chordas, Tonya. 2005, June 2. Telephonic communication with Camille Kirk, UC Davis Office of Resource Management and Planning; regarding safety procedures and cleaning products and processes used by existing on-campus childcare centers.


Kermoyan, Daniel. 2005, January 31. Email communication with Camille Kirk, UC Davis Office of Resource Management and Planning; regarding diesel-fueled generators near the proposed project site.

Majewski, Andrew and Daniel Kermoyan. 2005, June 10. UC Davis Environmental Health & Safety Phase I Site Assessment for Campus Child Care Center Proposed Site.


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 Architects & Engineers. 2005, February. Campus Child Care Center Recreation Pool Site Utility Study.


UC Davis ORMP. 2003c. Campus Water Balance.

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


Wallace Kuhl & Associates, Inc. 2005, February 18. Geotechnical Engineering Report, UC Davis Campus Child Care Center. WKA No. 5377.01


10 AGENCIES & PERSONS CONSULTED

Barbara Ashby, Program Manager, UC Davis Childcare and Family Services

Julianne Nola, Project Manager, UC Davis Office of Architects and Engineers

11 REPORT PREPARERS

Camille Kirk, Associate Environmental Planner, UC Davis Office of Resource Management and Planning

A. Sidney England, Director of Environmental Planning, UC Davis Office of Resource Management and Planning

Matthew Dulcich, Associate Environmental Planner, UC Davis Office of Resource Management and Planning
APPENDIX A
MITIGATED NEGATIVE DECLARATION
MITIGATED NEGATIVE DECLARATION

Lead Agency: University of California

Project Proponent: University of California, Davis

Project Location: Yolo County, UC Davis, northwestern quadrant of the central campus

Project Description: The Campus Child Care Center project would include construction and operation of a new childcare facility north of Parking Lot 30, south of The Colleges at LaRue student apartment complex, and west of the Recreation Pool Lodge.

Mitigation Measures: Project-specific mitigation would reduce any impact associated with potential toxic air contaminant dispersal from diesel-fueled engines within 500 feet of the proposed project. Project-specific mitigation measure MM-1 would require that no stationary emergency standby diesel-fueled generators within 500 feet of the proposed project be operated for non-emergency uses between 7:30AM and 3:30PM on days when the proposed project is open for its primary purpose. Project-specific mitigation measure MM-2 would reduce any impact associated with sudden exposure to gas chlorine by requiring that either the gas chlorine pool disinfection system be replaced with a less hazardous alternative, or that the Risk Management Plan be updated to address proximity of a new group of sensitive receptors.

Reference: This Mitigated Negative Declaration incorporates by reference in their entirety the text of the Tiered Initial Study prepared for the project, the 2003 LRDP, the 2003 LRDP EIR, and the 2003 LRDP’s Findings and Statement of Overriding Considerations.

Determination: In accordance with CEQA, a Draft Tiered Initial Study has been prepared by UC Davis that evaluates the environmental effects of the proposed project. On the basis of the project's Draft Tiered Initial Study the campus found that the proposed project could have significant effects on the environment that have not been previously addressed in the 2003 LRDP EIR, and two new project-specific mitigation measures, in addition to those previously identified in the 2003 LRDP EIR, are required to reduce these effects to such a point that clearly no significant impact would occur.

Public Review: In accordance with Section 15073 of the CEQA Guidelines, the Draft Tiered Initial Study for the project was circulated for public and agency review from September 2, 2005 to October 3, 2005. Comments received during the review period and responses to these comments will be presented in the final Tiered Initial Study.
APPENDIX B
MITIGATION MONITORING PLAN
MITIGATION MONITORING PROGRAM

CEQA 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 measures identified in the Tiered 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 measures provide 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 measures to be implemented.

c) **Mitigation Timing**: Identifies the timing for implementation of each action associated with the mitigation measures 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.
# Mitigation Monitoring Program

<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>Project-Specific Mitigation Measure 1:</strong> No stationary emergency standby diesel-fueled generators within 500 feet of the childcare center (both the building and the associated play yards) shall be operated for non-emergency uses, including testing or maintenance, between 7:30am and 3:30pm on days when the childcare center is open to care for children.</td>
<td>Prepare a regular report documenting timing and duration of diesel-fueled generator operation for all generators located within 500 feet of the childcare center.</td>
<td>Ongoing as an operational requirement for the duration of the childcare center operating on that project site; or until and if regulation changes which no longer requires this restriction.</td>
<td>Environmental Health &amp; Safety; Operations &amp; Maintenance</td>
</tr>
</tbody>
</table>
| **Project-Specific Mitigation Measure 2:** Before the proposed childcare center facility opens to receive children for caregiving, either:  
(a) The gas chlorine disinfection system at the nearby Recreation Pool shall be replaced with a less hazardous alternative, which could be a liquid chlorine, dry chemical chlorine (tablet), or ozone disinfection system, and, whichever system is chosen, a safety plan for the Recreation Pool area will be developed by the UC Davis campus that would meet applicable regulatory standards; or  
(b) The University Risk Management Plan shall be updated to address the proximity of a new group of sensitive receptors in the vicinity of the gas chlorine disinfection system at the Recreation Pool, and the childcare center operator and users (parents and/or guardians) shall be notified in writing of the presence of the gas chlorine tanks and of the relevant elements of the RMP at the time of their application for attendance. As required by CalARP, the RMP update shall address the hazards that could affect employees, residents, offsite public and environmental receptors; provide the results of an offsite consequences analysis; define a prevention program, emergency response program, and mitigation measures to reduce the probability and magnitude of accidental releases of regulated substances; and establish a schedule and responsibilities for implementation of mitigation measures and auditing of program elements. In addition the campus shall conduct annual emergency drills to ensure that emergency response actions would be implemented effectively in the event of a chlorine gas release. | Either present to the project proponent (Human Resources: Child Care and Family Services) and ORMP evidence of the disinfection system changeover, which shows that the gas chlorine system has been removed; or else present to the project proponent (Human Resources: Child Care and Family Services) and ORMP a copy of the updated Risk Management Plan. | Before the proposed childcare center facility opens to receive children for caregiving; to be coordinated with the project managers of the Campus Child Care Center project; and as long as the gas chlorine tanks remain in place, notification will be given to each applicant (parent and/or guardian) at the time of their application. | Student Affairs together with Environmental Health & Safety |
COMMENTS AND RESPONSES TO COMMENTS

The Draft Tiered Initial Study for the Campus Child Care Center project was circulated for public review from September 2, 2005 to October 3, 2005. Three comment letters were received during this period from the following agencies:

Comment 1: Governor’s Office of Planning and Research
State Clearinghouse
Terry Roberts, Director
1400 Tenth Street
Sacramento, CA 95812

Comment 2: Department of Toxic Substances Control
School Property Evaluation and Cleanup Division
Ken Chiang, Senior Hazardous Substances Scientist
1011 North Grandview Avenue
Glendale, CA 91201

Comment 3: California Regional Water Quality Control Board
Central Valley Region, Sacramento Main Office
Dannas J. Berchtold, Storm Water Unit
11020 Sun Center Drive #200
Rancho Cordova, CA 95670-6114

These comments and the responses to the comments are provided on the following pages.
October 4, 2005

Sid England
University of California, Davis
Office of Resource Management and Planning
Davis, CA 95616

Subject: Campus Child Care Center
SCH#: 2005092017

Dear Sid England:

The State Clearinghouse submitted the above named Negative Declaration to selected state agencies for review. On the enclosed Document Details Report please note that the Clearinghouse has listed the state agencies that reviewed your document. The review period closed on October 3, 2005, and the comments from the responding agency (ies) is (are) enclosed. If this comment package is not in order, please notify the State Clearinghouse immediately. Please refer to the project's ten-digit State Clearinghouse number in future correspondence so that we may respond promptly.

Please note that Section 21104(c) of the California Public Resources Code states that:

"A responsible or other public agency shall only make substantive comments regarding those activities involved in a project which are within an area of expertise of the agency or which are required to be carried out or approved by the agency. Those comments shall be supported by specific documentation."

These comments are forwarded for use in preparing your final environmental document. Should you need more information or clarification of the enclosed comments, we recommend that you contact the commenting agency directly.

This letter acknowledges that you have complied with the State Clearinghouse review requirements for draft environmental documents, pursuant to the California Environmental Quality Act. Please contact the State Clearinghouse at (916) 445-0613 if you have any questions regarding the environmental review process.

Sincerely,

[Signature]

Terry Roberts
Director, State Clearinghouse

Enclosures
cc: Resources Agency
Project Title: Campus Child Care Center
Lead Agency: University of California

Type: Neg  Negative Declaration

Description: UC Davis is proposing to construct and operate the Campus Child Care Center (the project) on a vacant site immediately west of the Recreation Pool Lodge and north of Parking Lot 30. The nearest street intersection is Hutchison Drive and Extension Center Drive. The project would offer accessible, affordable, and high-quality childcare, which is a contributing factor to the recruitment, retention, and success of faculty, staff and students. The project would provide year-round childcare for approximately 95 infant through preschool-aged children.

Lead Agency Contact
Name: Sid England
Agency: University of California, Davis
Phone: (530) 752-2432
email:  
Address: Office of Resource Management and Planning
City: Davis
State: CA
Zip: 95616

Project Location
County: Yolo
City: Davis
Region:  
Cross Streets: Extension Center Drive and Hutchison Drive
Parcel No.  
Township: 8N
Range: 2E
Section: 16
Base: MDB&M

Proximity to:
Highways: SR 113 and I-80
Airports: University Airport
Railways: UPRR
Waterways: Putah Creek
Schools: Davis Joint Unified
Land Use: The project would include changing the land use designation in the 2003 UC Davis Long Range Development Plan from Physical Education/Intercollegiate Athletics/Recreation to Student Housing to accommodate the proposed project.

Project Issues: Aesthetic/Visual; Agricultural Land; Air Quality; Archaeologic-Historic; Cumulative Effects; Drainage/Absorption; Flood Plain/Flooding; Forest Land/Fire Hazard; Geologic/Seismic; Growth Inducing; Landuse; Minerals; Noise; Population/Housing Balance; Public Services; Recreation/Parks; Schools/Universities; Septic System; Sower Capacity; Soil Erosion/Compaction/Grading; Solid Waste; Toxic/Hazardous; Traffic/Circulation; Vegetation; Water Quality; Water Supply; Wetland/Riparian; Wildlife

Reviewing Agencies: Resources Agency; Regional Water Quality Control Bd., Region 5 (Sacramento); Department of Parks and Recreation; Native American Heritage Commission; Office of Historic Preservation; Department of Fish and Game, Region 3; Department of Water Resources; Department of Conservation; California Highway Patrol; Caltrans, District 3; Caltrans, Division of Aeronautics; Department of Toxic Substances Control; Department of Housing and Community Development

Date Received: 09/02/2005  Start of Review: 09/02/2005  End of Review: 10/03/2005

Note: Blanks in data fields result from insufficient information provided by lead agency.
1 UC Davis appreciates the assistance of the Office of Planning and Research in circulating the Draft Tiered Initial Study to state agencies for review.
September 26, 2005

Mr. A. Sidney England, Director of Environmental Planning
Office of Resource Management and Planning
University of California
One Shields Avenue
376 Mrak Hall
Davis, CA 95616-8678

DRAFT MITIGATED NEGATIVE DECLARATION FOR THE CAMPUS CHILD CARE CENTER, EXTENSION CENTER DRIVE AND HUTCHINSON DRIVE, DAVIS, YOLO COUNTY, CALIFORNIA 95616 (SCH# 2005092017).

Dear Mr. England,

The Department of Toxic Substances Control (DTSC) has reviewed the Draft Mitigated Negative Declaration (MND), dated September 7, 2005, for the subject project. The due date to submit the comments is October 3, 2005.

Based on a review of the MND, DTSC would like to provide the following comments:

1. The project involves construction of one-half acre Campus Child Care Center on a vacant site in central campus, which is one of the four University campus units.

2. The Phase I Preliminary Site Assessment was conducted for the proposed project that included a site reconnaissance, soil investigation, and review of past and present land uses. The soil investigation included sampling for chlorinated pesticides and heavy metals.

   However, the Phase I was not included in the MND. Therefore, DTSC has no opportunity to review it.

3. Since the site has been used for agricultural purposes, pesticides (e.g., DDT, DDE, toxaphene) and fertilizers (usually containing heavy metals) commonly used as part of agricultural operations are likely to be present. These agricultural chemicals are persistent and bio-accumulative toxic substances. DTSC has developed the "Interim Guidance for Sampling Agricultural Soils (Second Version), dated August 2002." This Guidance should be followed for sampling agricultural properties where development is anticipated.
Therefore, DTSC recommends that a Preliminary Endangerment Assessment (PEA) be conducted to determine there has been or may have been a release or threatened release of a hazardous material, or whether a naturally occurring hazardous material is present, based on reasonably available information about the property and the area in its vicinity. This environmental review should generally be conducted as part of the California Environmental Quality Act (CEQA) process and prior to any approval of an environmental impact report for the project.

4. University of California, Davis, is invited to participate in DTSC’s School Property Evaluation and Cleanup Program. If University of California, Davis, elects to proceed to conduct a PEA at the site, it shall enter into a Voluntary Cleanup Agreement (VCA) with DTSC to oversee the preparation of the PEA.

For additional information on the VCA Program, please visit DTSC’s web site at www.dtsc.ca.gov. If you would like to discuss this matter further, please contact me at (818) 551-2860.

Sincerely,

Ken Chiang
Senior Hazardous Substances Scientist
School Property Evaluation and Cleanup Division

cc: Mr. Scott Morgan
State Clearinghouse
1400 Tenth Street
Sacramento, California 95812-3044

Department of Toxic Substances Control
CEQA Tracking Center
1001 I Street, 22nd floor
Sacramento, California 95812-0806

Ms. Barbara Ashby, Program Manager
University of California, Davis, Childcare and Family Services
One Shields Avenue
376 Mrak Hall
Davis, CA 95616-8678
Response to Comment 2
Department of Toxic Substances Control, School Property Evaluation and Cleanup Division

1. Comment noted. DTSC is correct that project is a proposal to construct the Campus Child Care Center on a one-half acre vacant site on the central campus. The proposed childcare facility, as stated in the Draft Tiered Initial Study, would have approximately 9,200 square feet (sf) of built space and 10,710 sf of play yards.

2. UC Davis conducted a Phase I Preliminary Site Assessment for the proposed project site (citation given in the references section of the Initial Study: Majewski, Andrew and Daniel Kermoyan. 2005, June 10. UC Davis Environmental Health & Safety Phase I Site Assessment for Campus Child Care Center Proposed Site.). The Phase I Preliminary Site Assessment is available in the Office of Resource Management & Planning (ORMP) and may be reviewed or copied during normal business hours. Contact information for the ORMP is on the title page of the Initial Study.

3. In preparing the Initial Study, UC Davis consulted the Interim Guidance suggested by DTSC, which is cited on page 61 of the Initial Study.


This paper analyzed data from selected agricultural sites across the state of California, and found that “residual levels of DDT and its derivatives are commonly found in California agricultural soils at very low concentration that do not pose an unacceptable risk or hazard to future residents, students, and staff [of proposed schools]” and that “the vast majority of agricultural sites that have been used for crop production do not contain residual concentrations of pesticides or metals that would pose an unacceptable risk or hazard to future students and staff [of proposed schools].”

As part of the analysis of the potential for hazardous materials risk, UC Davis had a supplemental risk assessment performed for the cumulative risk posed at this site by both soil contaminants and possible toxic air contaminants present near the site; the results of this study estimated the possible cancer risk to be approximately 0.65 in a million, which is considerably below the 10 in a million significance threshold widely used throughout California as a benchmark for determining the potential significance of public health risk (URS 2005).

4. UC Davis appreciates the invitation to participate in DTSC’s School Property Evaluation and Cleanup Program, but elects not to participate. Although the proposed project does not fall within the School Property Evaluation and Cleanup program, UC Davis has fulfilled the intent of the DTSC program by having a cumulative risk assessment performed for the site, as discussed in comment item #3, which concluded that the proposed project would not create an unacceptable risk to human health.
27 September 2005

Sid England
University of California
Office of Resource Management and Planning, UC Davis
Davis, CA 95616

PROPOSED PROJECT REVIEW, CALIFORNIA ENVIRONMENTAL QUALITY ACT (CEQA), NEGATIVE DECLARATION FOR THE CAMPUS CHILD CARE CENTER, STATE CLEARINGHOUSE #2005092017, DAVIS, YOLO COUNTY

As a Responsible Agency, as defined by CEQA, we have reviewed the Negative Declaration for the Campus Child Care Center. Based on our review, we have the following comments regarding the proposed project.

Construction Storm Water

A NPDES General Permit for Storm Water Discharges Associated with Construction Activities, NPDES No. CAS000002, Order No. 99-08-DWQ is required when a site involves clearing, grading, disturbances to the ground, such as stockpiling, or excavation that results in soil disturbances of one acre or more of total land area. Construction activity that involves soil disturbances on construction sites of less than one acres and is part of a larger common plan of development or sale, also requires permit coverage. Coverage under the General Permit must be obtained prior to construction. More information may be found at [http://www.swrcb.ca.gov/stormwtr/construction.html](http://www.swrcb.ca.gov/stormwtr/construction.html)

Post-Construction Storm Water Management

Manage storm water to retain the natural flow regime and water quality, including not altering baseline flows in receiving waters, not allowing untreated discharges to occur into existing aquatic resources, not using aquatic resources for detention or transport of flows above current hydrology, duration, and frequency. All storm water flows generated on-site during and after construction and entering surface waters should be pre-treated to reduce oil, sediment, and other contaminants. The local municipality where the proposed project is located may now require post construction storm water Best Management Practices (BMPs) pursuant to the Phase II, SWRCB, Water Quality Order No. 2003 – 0005 – DWQ, NPDES General Permit No. CAS000004, WDRS for Storm Water Discharges from Small Municipal Separate Storm Sewers Systems (MS4). The local municipality may require long-term post-construction BMPs to be incorporated into development and significant redevelopment projects to protect water quality and control runoff flow.
For more information, please visit the Regional Boards website at http://www.waterboards.ca.gov/centralvalley/ or contact me at 916.464.4683 or by e-mail at berchtol@waterboards.ca.gov.

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cc: State Clearinghouse, Sacramento
1. **Construction Storm Water:** UC Davis proposes to build the Campus Child Care Center as a facility under the 2003 Long Range Development Plan (LRDP), so although the site to be disturbed is only one-half acre, the project would be covered under the campus-wide NPDES permit, and the project is required to implement control measures and Best Management Practices (BMP) as detailed in a project-specific Storm Water Pollution Prevention Plan (SWPPP). The SWPPP is prepared by the general contractor for the project. This requirement is an LRDP mitigation measure (LRDP MM 4.8-1), which is incorporated into the project.

2. **Post-Construction Storm Water Management:** UC Davis has a campus-wide Phase II Municipal Storm Water Management Plan (SWMP), which requires construction as well as operation-related BMPs. Campus discharge of storm water to the Arboretum Waterway is covered under the NPDES Phase II permit for small municipal storm water systems. As part of the 2003 LRDP, Mitigation Measure 4.8-2 requires that projects under the LRDP shall comply with the Phase II SWMP using a combination of BMPs or equally effective measures to minimize the contribution of pollutants to receiving waters. Measure 4.8-2 has been incorporated into the project.
APPENDIX D
DOCUMENT CHANGES
The following changes to Section 7.7.4, Item b) (will the project 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?) were made to the explanatory text and proposed Mitigation Measure 2 in the Final Tiered Initial Study and Mitigated Negative Declaration (FIS).

- Information was added to further explain the University of California, Davis Risk Management Plan (RMP) contents and to expand upon the discussion of disinfection system options.

- Additional information regarding the contents of the RMP and an additional requirement of safety drills were added to Mitigation Measure 2. The text of the measure as published in the Draft Tiered Initial Study and Proposed Mitigated Negative Declaration for the Campus Child Care Center (DIS) project follows, together with the final version published in this document.

The following is the text of Mitigation Measure 2 as presented in the Draft Tiered Initial Study:

Project-Specific Mitigation Measure 2: Before the proposed childcare center facility opens to receive children for caregiving, either (a) the gas chlorine disinfection system at the nearby Recreation Pool shall be replaced with a less hazardous alternative, which could be a liquid chlorine disinfection system; or (b) the University Risk Management Plan shall be updated to address the proximity of a new group of sensitive receptors in the vicinity of the hazard potentially presented by the gas chlorine disinfection system at the Recreation Pool and users (parents and/or guardians) of the childcare center shall be notified in writing of the presence of the gas chlorine tanks at the time of their application for attendance.

The following is the revised text of Mitigation Measure 2:

Project-Specific Mitigation Measure 2: Before the proposed childcare center facility opens to receive children for caregiving, either:

(a) The gas chlorine disinfection system at the nearby Recreation Pool shall be replaced with a less hazardous alternative, which could be a liquid chlorine, dry chemical chlorine (tablet), or ozone disinfection system, and, whichever system is chosen, a safety plan for the Recreation Pool area will be developed by the UC Davis campus that would meet applicable regulatory standards; or

(b) The University Risk Management Plan shall be updated to address the proximity of a new group of sensitive receptors in the vicinity of the gas chlorine disinfection system at the Recreation Pool, and the childcare center operator and users (parents and/or guardians) shall be notified in writing of the presence of the gas chlorine tanks and of the relevant elements of the RMP at the time of their application for attendance. As required by CalARP, the RMP update shall address the hazards that could affect employees, residents, offsite public and environmental receptors; provide the results of an offsite consequences analysis; define a prevention program, emergency response program, and mitigation measures to reduce the probability and magnitude of accidental releases of regulated substances; and establish a schedule and responsibilities for implementation of mitigation measures and auditing of program elements. In addition the campus shall conduct annual emergency drills to ensure that emergency response actions would be implemented effectively in the event of a chlorine gas release.