

TIERED INITIAL STUDY

Conference Center, Hotel, and Graduate School of Management Building University of California, Davis

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This statement is prepared in compliance with
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Environmental Checklist Form

UNIVERSITY OF CALIFORNIA

August 17, 2001

CAMPUS: DAVIS

I. PROJECT INFORMATION

1. Project title: UC Davis Conference Center, Hotel, and Graduate School of Management Building
2. Project location: University of California, Davis, Yolo and Solano Counties
3. Lead agency name and address: Office of Resource Management and Planning
376 Mrak Hall
University of California
One Shields Avenue
Davis, CA 95616
4. Project sponsor's name and address: See Item 3.
5. Contact person and phone number: A. Sidney England
Environmental Planner
(530) 752-2432
6. Location of the administrative record for this project: See Item 3.
7. Identification of previous EIRs relied upon for tiering purposes (including all applicable LRDP and project EIRs) and address where a copy is available for inspection.

This environmental analysis is tiered from the 1994 Long Range Development Plan (LRDP) Environmental Impact Report (EIR) (State Clearinghouse No. 94022005), as updated and revised by a number of subsequent documents (listed below). These documents are available for review during normal operating hours at the UC Davis Office of Resource Management and Planning, 376 Mrak Hall on the UC Davis campus; at Reserves in Shields Library on the UC Davis campus; at the Yolo County Public Library, 315 E. 14th Street, Davis; at the Vacaville Public Library, 1020 Ulatis Drive, Vacaville; and online at <http://www.ormp.ucdavis.edu/environreview/> (technical appendices are not available online). Hereafter, reference to the 1994 LRDP EIR includes the 1994 LRDP EIR as revised by the documents listed below.

Revisions to the 1994 LRDP EIR identified in subsequent environmental review documents are summarized in the list below. Appendix A of this Tiered Initial Study includes further information about the changes to the 1994 LRDP and LRDP EIR since original publication.

- Wastewater Treatment Plant (WWTP) Replacement Project EIR (State Clearinghouse Nos. 95123027 and 96072024):
 - Updated 1994 LRDP EIR analysis to reflect changes to land use designations presented in the 1994 LRDP (Section 4.6 of the WWTP Replacement Project Draft EIR).
 - Identified the loss of an additional 20 acres of prime agricultural land and ruderal/annual grassland habitat over the amount identified in the 1994 LRDP EIR analysis and increased the magnitude of land use and biological resource impacts associated with this loss (Sections 4.4 and 4.6 of the WWTP Replacement Project Draft EIR, and Appendix G of the Final EIR).
 - Reevaluated cumulative 1994 LRDP EIR Hydrology and Water Quality, Hazardous Materials and Public Safety, and Air Quality impacts (Sections 4.1, 4.3, and 4.3 of the Draft EIR).
- 1997-98 Major Capital Improvement Projects Supplemental EIR (SEIR) (State Clearinghouse No. 97122016):
 - Updated 1994 LRDP EIR analysis to reflect changes to land use designations presented in the 1994 LRDP (Sections 5.3, 6.3, and 7.3 of the Draft SEIR).
 - Identified the loss of an additional 20 acres of prime agricultural land and 31 acres of ruderal/annual grassland habitat over the amount identified in the 1994 LRDP EIR. To mitigate this loss, identified measure to redesignate 20 acres of prime farmland and ruderal/annual grassland habitat at the Russell Ranch from land designated as Academic and Administrative Low Density to Teaching and Research Fields (Sections 5.3, 5.5, 6.3, 6.5, 7.3, and 7.5 of the Draft SEIR).

- Identified the loss of 11 acres of ruderal/annual grassland habitat over the amount identified in the 1994 LRDP EIR analysis and increased the magnitude of biological resource impacts associated with this loss (Appendix A of the Final SEIR).
- Included project-specific mitigation measure to reduce the magnitude, but not the level of significance, of the cumulative impact on burrowing owl nesting habitat (Section 2 of the Draft SEIR).
- Included updated transportation and circulation analysis to assess a new traffic survey and the decision by the City of Davis not to expand the Richards Boulevard undercrossing from two to four lanes. Revised 1994 LRDP EIR transportation Mitigation Measure 4.3-1 (b) to account for the new traffic information (Section 8 of the Draft SEIR).
- Reevaluated cumulative air quality and noise impacts (Section 8 of the Draft SEIR).
- Center for the Arts Performance Hall and South Entry Roadway and Parking Improvements Tiered Initial Study and Mitigated Negative Declaration (State Clearinghouse No. 98092016):
 - Updated 1994 LRDP EIR analysis to reflect changes to land use designations presented in the 1994 LRDP (page 29 of the Initial Study).
 - Identified the loss of 8.5 acres of prime farmland and ruderal/annual grassland habitat over the amount assessed in the 1994 LRDP EIR. To mitigate this loss, identified measure to redesignate 8.5 acres of prime farmland and ruderal/annual grassland habitat designated as Support to Teaching and Research Fields (pages 29-30 and 60 of the Initial Study).
- USDA Western Human Nutrition Research Complex Tiered Initial Study and Mitigated Negative Declaration (State Clearinghouse No. 99092060):
 - Updated the 1994 LRDP EIR analysis to reflect changes to land use designations presented in the 1994 LRDP (pages 45-46 of the Initial Study).
 - Revised a project-specific mitigation measure presented in the 1997-98 Major Capital Improvement Projects SEIR that reduced the magnitude, but not the level of significance, of the cumulative impact on burrowing owl nesting habitat (page 65 of the Initial Study).

- Veterinary Medicine Laboratory and Equine Athletic Performance Laboratory Facilities Focused Tiered EIR (State Clearinghouse No. 2000022057):
 - Further updated the 1994 LRDP EIR cumulative transportation and circulation impact analysis to account for more accurate estimates of campus population growth in the Health Sciences District. The updated analysis identified that the intersection of Hutchison Drive and Health Sciences Drive would exceed level of service standards. Included a mitigation measure to reduce the impact at this intersection to a less-than-significant level (Section 3 of the Final EIR).

II. ENVIRONMENTAL REVIEW AND APPROVAL

Introduction

This environmental analysis is a Tiered Initial Study for the proposed UC Davis Conference Center, Hotel, and Graduate School of Management Building project (proposed project). The environmental analysis for the proposed project is tiered from the UC Davis 1994 LRDP EIR in accordance with Section 15152 and 15168 of the California Environmental Quality Act (CEQA) Guidelines and Public Resource Code Section 21094. The 1994 LRDP EIR is a Program EIR, prepared pursuant to Section 15168 of the CEQA Guidelines (Title 14, California Code of Regulations, Sections 15000 et seq.). The 1994 LRDP EIR analyzed full implementation of uses and physical development proposed under the 1994 LRDP through the year 2005-06, and identified measures to mitigate the significant adverse project and cumulative impacts associated with that growth.

The CEQA concept of "tiering" refers to the coverage of general environmental matters in broad program-level EIRs, with subsequent focused environmental documents for individual projects that implement the program. The project environmental document incorporates by reference the discussions in 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 task of preparing environmental documents on later parts of the program by incorporating by reference factors 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 1994 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 1994 LRDP EIR for which there is no significant new information or change in circumstances that would require further analysis; and
- long-term cumulative impacts assessment.

The purpose of this Tiered Initial Study is to evaluate the potential environmental impacts of the project with respect to the 1994 LRDP EIR to determine what level of additional environmental review, if any, is appropriate. Based on the analysis contained in this Revised Tiered Initial Study, one of the following determinations will be made:

- the project is exempt from CEQA;
- the project incrementally contributes to, but does not exceed, environmental impacts previously identified in the 1994 LRDP EIR, no additional mitigation measures are required, and preparation of Findings consistent with this determination is appropriate;
- the project would result in new impacts that were not previously identified in the 1994 LRDP EIR, but there is no substantial evidence that such new impacts may have a significant effect on the environment and preparation of a Negative Declaration is appropriate;
- the project would result in new potentially significant impacts that were not previously identified in the 1994 LRDP EIR, but proposed project-specific mitigation measures would reduce such impacts to a point where clearly no significant effects would occur and there is no substantial evidence that the project as mitigated may have a significant effect on the environment, in which case preparation of a Mitigated Negative Declaration would be appropriate; or
- the project would result in new significant environmental impacts not previously identified in the LRDP EIR, and preparation of a tiered EIR would be appropriate.

Mitigation measures identified in the 1994 LRDP EIR that apply to the proposed project will be required to be implemented as part of the project.

Previously Proposed Project

In November 2000, the campus circulated a Notice of Preparation (NOP) and a Draft Revised Tiered Initial Study for the previously proposed Conference Center and Hotel, and University Relations Building project. This NOP and Initial Study were circulated for agency and public review from November 17, 2000 to December 18, 2000. In response to comments received during the review period and after review of the project (discussed below), the campus made several changes to the previously proposed conference center and hotel. In addition, the campus revised programmatic goals for use of academic and administrative space proposed as part of the project and added a new occupant, the UC Davis Graduate School of Management. This Tiered Initial Study represents a new and separate environmental review for the new and currently proposed Conference Center, Hotel, and Graduate School of Management Building project. The currently proposed project is similar to the project addressed in the November 2000 NOP, in that it proposes a conference center, a hotel, and an academic building on the same site in the south entry area of the central campus. However, there are several substantial differences between the previously proposed and currently proposed conference

center and hotel projects that warrant circulation of a new NOP and Draft Tiered Initial Study. Primary differences are discussed below:

Number and arrangement of buildings on the site: The currently proposed project includes construction of three buildings (conference center facility, hotel, and Graduate School of Management Building), while the previously proposed project included two buildings (conference center/hotel and University Relations Building). An example site plan for the new project is presented in Figure 4.

Height of buildings: The currently proposed buildings are all three stories in height, while the previously proposed buildings were four stories tall.

Number of hotel rooms: The currently proposed hotel would provide 75 guest rooms, 50 percent less rooms than the previously proposed project (which provided 150 rooms).

Amount of academic and administrative space: The currently proposed project would provide a total of 7,000 asf more academic and administrative space than the previously proposed project. The currently proposed project would provide approximately 47,000 asf of academic and administrative space (conference center facility would include approximately 20,000 asf and Graduate School of Management Building would include 27,000 asf). The previously proposed project provided approximately 40,000 asf of administrative space.

Number of employees: The currently proposed project would add approximately 84 more employees to the campus population than the previously proposed project (375 versus 299). Approximately 100 new employees would be associated with the currently proposed conference center facility and hotel, which is less than that associated with the previously proposed conference center and hotel (125 employees). The currently proposed project includes the addition of 275 employees associated with accommodating the Graduate School of Management, units within the Office of University Relations, and Career Recruiting Programs. The previously proposed project included the addition of 174 staff associated with the Office of University Relations.

Number of parking spaces provided on-site: The currently proposed project would provide approximately 40 less parking spaces than the previously proposed project due to the reduced size of the hotel. The currently proposed project would provide approximately 100 parking spaces, while the previously proposed project provided 130 spaces.

Graduate School of Management Building: The Graduate School of Management was not involved in the previously proposed project. The Graduate School of Management would occupy two of the three floors (approximately 18,000 asf) in the proposed Graduate School of Management Building. The remaining 9,000 asf in the building would be assigned to the Office of University Relations and Career Recruiting Programs.

Comments on Previously Published Revised Tiered Initial Study

As described above, a Draft Revised Tiered Initial Study and NOP were prepared and circulated for the previously proposed Conference Center and Hotel, and University Relations Building project. Letters received on the Draft Revised Tiered Initial Study included comments from residents, businesses, and the City of Davis Planning and Building Department. Comments on the Draft Revised Tiered Initial Study and responses to those comments are provided in Appendix B of this Tiered Initial Study, and they are summarized below. These comments are presented in this document due to similarities between the previously and currently proposed conference center and hotel projects.

Comments from the City of Davis incorporated their initial comment expressing concern that adverse physical changes would occur resulting from socio/economic impacts of the proposed project. The City of Davis and other commenters raised concerns regarding the economic effect of the proposed project on existing City of Davis businesses, including hotels in particular. The potential for the proposed project to result in significant adverse physical impacts due to changes in socio/economic conditions in the City of Davis will be evaluated in the project's Focused Tiered Draft EIR (publication expected in fall 2001).

Comments from multiple commentors were received regarding project alternatives. Additional comments addressed the objectives of the project, growth-inducing impacts, and effects on off-site locations, such as commercial land uses. Project objectives and possible alternatives are presented in this Tiered Initial Study and will be included in the Focused Tiered EIR. In addition, a discussion of growth-inducing effects of the proposed project will be included in the Focused Tiered Draft EIR.

A letter from William D. Kopper on behalf of Charles Guenther and Davis Citizens for Responsible University Development also questioned whether the proposed project was consistent with the 1994 LRDP and raised additional concern over transportation effects, and population and housing issues related to new employees. Land use consistency with the 1994 LRDP is addressed in Section IV of this Tiered Initial Study and will be further evaluated in the Focused Tiered Draft EIR. A discussion of the proposed project's contribution to the campus employee population is also included in Section IV and in Item 3 (Population and Housing) of the attached Environmental Checklist. Transportation effects associated with the proposed project will be further addressed in the Focused Tiered Draft EIR.

Scope of the Focused Tiered EIR

For the resource areas listed below, the analysis in this Tiered Initial Study indicates 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 in the 1994 LRDP EIR, as revised. Based on the analysis contained in this Tiered Initial Study, it has been determined that the proposed project would result in the following categories of impacts for the resource areas listed below: no impact; less-than-significant impact; less-than-significant impact with the incorporation of 1994 LRDP EIR mitigation measures; or contribute to a significant unavoidable impact that was adequately analyzed in the 1994 LRDP EIR for which no new mitigation measures are available and no new analysis is proposed.

- Agricultural Resources
- Population and Housing
- Air Quality
- Hazards and Hazardous Materials
- Geology and Soils
- Mineral Resources
- Cultural Resources
- Aesthetics
- Public Services
- Recreation
- Utilities Service Systems

However, this Tiered Initial Study concludes that further analysis is required to more fully evaluate impacts in the resource areas of land use and planning, transportation and circulation, noise, and biological resources. Therefore, this Tiered Initial Study determines that impacts in these resource areas could be potentially significant. For this reason, a Focused Tiered EIR will be prepared to further evaluate the significance of impacts in these environmental resource areas and to develop project-specific mitigation measures for these areas, if necessary. Specifically, the Focused Tiered EIR will evaluate the following potential impacts associated with the proposed project:

- *Land Use and Planning* - physical changes in the City of Davis that could result from the economic impact of operating the proposed conference center and hotel, and potential conflicts with the City of Davis General Plan;
- *Transportation and Circulation* - impacts from increased vehicle trips and parking demand; and
- *Noise* - increased noise levels associated with increased vehicle trips.
- *Biological Resources* – potential loss of Swainson’s hawk foraging habitat.

The Focused Tiered EIR will evaluate alternatives to the proposed project. The range of alternatives will include a No Project Alternative, and may include any or all of the following: conference center and hotel at alternative locations on-campus, conference center and hotel at alternative locations off-campus, conference center without the hotel and restaurant facilities, and a reduced size conference center and hotel. The scope of the Focused Tiered EIR may be revised based on comments received on this Tiered Initial Study and the associated NOP.

Public and Agency Review

This Tiered Initial Study will be circulated for public and agency review from August 17, 2001 to September 17, 2001. Copies of the Tiered Initial Study are available during normal operating hours at the UC Davis Office of Resource Management and Planning, 376 Mrak Hall on the UC Davis campus; at Reserves in Shields Library on the UC Davis campus; at the Yolo County Public Library, 315 E. 14th Street, Davis; at the Vacaville Public Library, 1020 Ulatis Drive, Vacaville; and online at <http://www.ormp.ucdavis.edu/environreview/>. Copies of the 1994 LRDP, 1994 LRDP EIR, WWTP Replacement Project EIR, 1997-98 Major Capital Improvement Projects SEIR, Center for the Arts Performance Hall and South Entry Roadway and Parking Improvements Tiered Initial Study and Mitigated Negative Declaration, USDA Western Human Nutrition Research Center Tiered Initial Study and Mitigated Negative Declaration, and the Veterinary Medicine Laboratory and Equine Athletic Performance Laboratory Facility Tiered EIR are also available at these locations.

Comments on this Tiered Initial Study must be received by 5:00 p.m. on September 17, 2001, and they may be e-mailed to environreview@ucdavis.edu or sent to:

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

Organization of the Tiered Initial Study

This Tiered Initial Study is organized into the following sections.

Section I - Project Information: provides summary background information about the proposed project, including project location, lead agency, contact, and 1994 LRDP EIR information.

Section II - Environmental Review and Approval: includes a summary of the Tiered Initial Study's relationship to the 1994 LRDP EIR, the scope of the Tiered Initial Study, public and agency review information, and an overview of the document's organization.

Section III - Project Description: includes the description of the proposed project.

Section IV - Consistency with the 1994 LRDP and 1994 LRDP EIR: describes the consistency of the proposed project with the 1994 LRDP and 1994 LRDP EIR.

Section V - Environmental Factors Potentially Affected: identifies which environmental factors were determined to be a "Potentially Significant Impact" as indicated by the Tiered Environmental Checklist.

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

Section VII - Evaluation of Environmental Impacts: contains the Tiered Environmental Checklist form. The checklist form is used to assist in evaluating the potential environmental impacts of the proposed project with respect to the 1994 LRDP EIR. The checklist form identifies potential project effects as follows: (1) new potentially significant project impacts that were not adequately analyzed in the 1994 LRDP EIR, or previously identified significant impacts for which new feasible mitigation measures are available; (2) new less-than-significant impacts with mitigation incorporated; (3) environmental impacts of the project that were adequately analyzed and mitigated in the 1994 LRDP EIR; (4) less-than-significant impacts and (5) effects that would not result in any adverse environmental impact.

This section also contains an explanation of all checklist answers and recommended mitigation measures.

Section VIII - References: presents materials used in the preparation of this report.

Section IX - Report Preparers: presents the preparers of this report.

Appendix A - Amendments to the 1994 LRDP and Revisions to the 1994 LRDP EIR: summarizes amendments to the 1994 LRDP and revisions to the 1994 LRDP EIR through May 2001.

Appendix B - Comments Received and Responses to Comments on the Previously Proposed Conference Center and Hotel, and University Relations Building Project: Presents the comments received in response to the NOP and Revised Draft Tiered Initial Study (published November 2000) for the previously proposed Conference Center and Hotel, and University Relations Building project, and presents the campus' responses to these comments.

III. PROJECT DESCRIPTION

UC Davis

The 5,300 acre UC Davis campus (the 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, in general, is comprised of four campus units: the central campus, the south campus, the west campus, and Russell Ranch (see Figure 3-2, Regional and Local Setting, on page 3-5 of the 1994 LRDP Draft EIR). The "main campus" refers to the central, south, and west campus units, excluding Russell Ranch. Most of the academic and extracurricular activities occur within the central campus. The central campus is bounded approximately by Russell Boulevard to the north, State Route 113 (SR 113) to the west, 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 1,590 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 acquired by the campus in 1990 and is intended for use in large-scale agricultural and environmental research and the study of sustainable agricultural practices. 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 on the west and northwest. In addition, UC Davis owns several buildings in Research Park, located in the City of Davis south of I-80.

Project Description

The proposed project includes construction of a conference center facility, a hotel, and a building for the Graduate School of Management on approximately five acres in the south entry area of the central campus (see Figure 2). The conference center facility would comprise approximately 75,000 gross square feet (gsf) (55,000 assignable square feet [asf]) and would accommodate conference center operations and office space for units within the Office of University Relations. The hotel would comprise approximately 40,000 gsf (28,000 asf) and would include 75 guest rooms. The Graduate School of Management Building would comprise 45,000 gsf (27,000 asf) and would accommodate space for the Graduate School of Management, units within the Office of University Relations, and Career Recruiting Programs. The project would also establish associated open space and landscaping, and it would construct a 100-space parking area. In addition, Department of Environmental Horticulture teaching and research field activities currently located on a portion of the project site would be relocated to the west campus on a parcel in Solano County south of Brooks Road and northeast of the Hydraulics Lab (see Figure 3). A greenhouse and an agricultural support building would be provided on less than two acres at this new site.

Environmental Checklist – Conference Center, Hotel, and
Graduate School of Management Building

Figure 1

Environmental Checklist – Conference Center, Hotel, and
Graduate School of Management Building

Figure 2

Environmental Checklist – Conference Center, Hotel, and
Graduate School of Management Building

Figure 3

Project Site

The proposed project Conference Center, Hotel, and Graduate School of Management Building project site is located in the south entry area of the central campus. Land uses surrounding the proposed Conference Center, Hotel, and Graduate School of Management Building project site include the Center for the Arts Performance Hall and the South Entry Quad to the west, a portion of Parking Lot 2 to the south, Union Pacific Railroad tracks to the southeast, community gardens to the east, Department of Environmental Horticulture buildings and gardens to the north, and the Buehler Alumni and Visitors Center to the northwest (see Figure 2).

The Administrative Annex trailers were previously located on the western portion of the project site, but these trailers were recently relocated as part of the Center for the Arts Performance Hall and South Entry Roadway and Parking Improvements project. This portion of the site is currently vacant. The eastern portion of the site is currently used by the Department of Environmental Horticulture for teaching and research fields. As discussed further below, Environmental Horticulture teaching and research activities on these fields would be replaced to a location in the west campus south of Brooks Road and northeast of the Hydraulics Lab as part of the proposed project (see Figure 3).

The 1994 LRDP land use designations for the Conference Center, Hotel, and Graduate School of Management Building project site, as amended, include High Density Academic and Administrative with Potential Enterprise Opportunity and Parking (see Appendix A for description of amendments to the 1994 LRDP). The proposed site for the relocated Environmental Horticulture teaching and research field activities is designated in the 1994 LRDP as Teaching and Research Fields. The proposed project is consistent with these land use designations.

Project Objectives

The campus has identified the following objectives for the proposed Conference Center, Hotel, and Graduate School of Management Building project:

- provide a venue for state, national, and international academic conferences on the campus;
- provide an opportunity to host visitors, alumni, and the business community;
- add to UC Davis' role as a regional center and meeting place in combination with the adjacent Center for the Arts Performance Hall (currently under construction) and Buehler and Alumni Visitors Center;
- ensure that the conference center and hotel are financially viable operations;
- provide adequate space for future growth of the Graduate School of Management;

- provide access and exposure to the broader community for the conference center, hotel, and the Graduate School of Management;
- provide space for future growth and consolidation of office space for a major portion of the Office of University Relations;
- consolidate Office of University Relations operations at a site that facilitates easy access by faculty, other campus groups, and external constituencies; and
- provide outdoor gathering areas and landscaped pedestrian walkways that link to adjacent uses including the Center for the Arts Performance Hall and the Buehler Alumni and Visitors Center.

Project Elements

As shown in Figure 4, the proposed conference center facility would be located on the east side of the project site, facing the South Entry Quad. This building would include the conference/hotel lobby, gift shop, restaurant, pub, ballroom, pre-function space, support space, and meeting rooms on the ground floor. Office space would be provided on the two stories above the meeting rooms. The hotel would be located centrally within the project site, east of the conference center facility and southwest of the Graduate School of Management Building. A covered walkway and a large courtyard would join the conference center facility and the hotel. The Graduate School of Management Building would be located northeast of the hotel. A courtyard and pedestrian connections to the core campus would be provided to the north of this building. The parking area would be located to the east of the hotel and south of the Graduate School of Management Building, and vehicle access would be provided off the realigned Old Davis Road (under construction) to the south. The currently proposed site configuration (discussed above and shown in Figure 4) is subject to revision. The configuration could be rearranged within the site boundaries before final project design is complete.

Conference Center

The conference center facility would occupy approximately 1.5 acres. The proposed conference center facility would consist of approximately 75,000 gsf (55,000 asf), and would include a restaurant and pub; lobby, gift shop, and pre-function space; a ballroom; support space; meeting rooms; and office space (see Figures 4 and 5). Conference center uses, including the restaurant and pub, ballroom, meeting rooms, lobby and pre-function space, and support space would occupy the ground floor of the facility (see Figure 4). Office space would occupy two stories above the conference center's meeting rooms.

The conference center facility would include the following spaces:

- *Food Service* - The facility would include an approximately 4,000 asf food service area including an approximately 75 person capacity restaurant, and an approximately 75 person capacity pub.
- *Lobby, Gift Shop, and Pre-function Space* - The facility would include approximately 8,000 asf for a lobby, a gift shop, guest support space, and a conference center pre-function area. The lobby would serve both the conference center and the hotel.
- *Ballroom* - The facility would include an approximately 5,000 asf ballroom with meeting capacity for 500 people and dining capacity for approximately 300 people.
- *Meeting Rooms* - The facility would include three large meeting rooms (each with capacity for approximately 75 people) totaling approximately 8,000 asf.
- *Support Space* - The facility would include approximately 10,000 asf of space to accommodate support operations including: kitchen and kitchen storage; receiving; storage; employee offices, lounge, and lockers; laundry and housekeeping services; and engineering and mechanical uses.
- *Office Space* - Office space and associated lobby and meeting rooms would total approximately 20,000 asf and would be located in two stories above the conference center meeting rooms and lobby. This office space would serve the Office of University Relations. One floor of office space (approximately 10,000 asf) could be converted to additional conference center meeting room space. If conversion from office space to meeting room space is proposed at a future date, that change in use would be reviewed consistent with CEQA.

Need for Conference Center

The campus currently does not provide adequate space to host state, national, and international academic conferences for faculty researchers to showcase their work. As a pre-eminent research and learning institution, UC Davis' academic program depends on its ability to advance innovative research. The ability to host significant academic conferences and professional meetings would substantially contribute to this campus mission and would facilitate interdisciplinary research and learning opportunities for all academic disciplines on campus. UC Davis' ability to host meetings with strategic corporate, governmental, and non-profit partners who play an integral part in research efforts is also critical to the success of the UC Davis academic program. The existing meeting space on campus is insufficient to meet the current growing demand. Therefore, the ability of UC Davis' faculty to host conferences and foster partnerships on campus is limited. The UC Davis campus is the ideal place for faculty to interact with other researchers and advance partnerships.

The proposed conference center would provide a state-of-the-art learning and meeting center where ideas and advances could be exchanged in a highly conducive environment. It would provide this space

and would work in combination with the proposed hotel, adjacent Center for the Arts Performance Hall (under construction), and existing Buehler Alumni and Visitors Center to enhance UC Davis' role as a regional center and meeting place. The conference center would meet current, and stimulate future, campus conference demand, attract campus affiliates, and draw from the growing regional corporate market. The proposed conference center would also enhance visitor attraction to the local community.

The UC Davis Office of University Relations works with the campus community and external constituencies to provide leadership in building public understanding and support for UC Davis and its mission. Office space provided in the proposed conference center, as well as in the proposed Graduate School of Management Building, would help consolidate existing University Relations units that are currently located on- and off- campus and would provide space for expected growth in these units. University Relations units that would move to office space in the proposed conference center facility and Graduate School of Management Building include on-campus units (including the Office of the Vice Chancellor/Associate Vice Chancellor currently located in Mrak Hall, Public Communications currently located in Mrak Hall, Government and Community Relations currently located in Mrak Hall and the Buehler Alumni and Visitors Center) and units currently located in off-campus leased space (including Advancement Services, Development, and Resource Management). In addition, the Career Recruiting Programs that are currently located in the Buehler Alumni and Visitors Center would also move to new office space provided by the project.

Hotel

The hotel building would occupy approximately one acre. The hotel would be a three-story building and would include 40,000 gsf (28,000 asf). The hotel would consist of 75 guest rooms (including some suites), interior walkways, a lobby, elevator space, and an outdoor pool.

Need for Hotel

There is substantial nationwide competition for hosting academic conferences. For the campus and the Davis community to accrue the benefits of such conferences, the proposed conference center facility must successfully compete with other similar facilities around the country. Integral to the success of the proposed conference center is the proposed hotel, which would provide adjacent lodging with amenities to meet the needs of conference attendees. The proposed hotel would function in conjunction with the proposed conference center, existing Buehler Alumni and Visitors Center, and Center for the Arts Performance Hall (under construction) to enhance UC Davis' role as a regional center and meeting place. The proposed hotel would complete the full-service meeting environment and would be critical to the success of this type of regional meeting center. In addition, revenue generated from operating the proposed hotel would be required to make the conference center facility financially viable. The need for the proposed conference center facility is discussed above.

Graduate School of Management Building

The Graduate School of Management Building would occupy approximately one acre. The three-story building would consist of 45,000 gsf (27,000 asf) and would include classrooms, offices, student activity space, and special use/support areas. The Graduate School of Management would occupy two floors in the building (approximately 18,000 asf), and units within the Office of University Relations and/or a Career Recruiting Programs would occupy one floor (approximately 9,000 asf). The Graduate School of Management program could eventually grow to occupy the entire Graduate School of Management Building. Physical changes associated with future accommodation of Office of University Relations units elsewhere would be addressed in a separate environmental review if and when proposed.

The Graduate School of Management Building would include the following spaces:

- *Classrooms* - The Graduate School of Management Building would include approximately 7,000 asf for classroom space. The building would have approximately 12 classrooms, including four major classrooms with approximately 35, 55, 75, and 100 seats and eight smaller break-out rooms.
- *Offices* - The Graduate School of Management Building would include approximately 14,000 asf for faculty and staff office space.
- *Student Activity Space* - The building would offer approximately 2,000 asf for student activity space, including student lockers, a student lounge, and offices and storage space for student organizations.
- *Special Use/Support Areas* - Approximately 4,000 asf would be used for special use and support, including a computer lab, conference room, storage space, and lobby/event space.

Need for Graduate School of Management Building

The Graduate School of Management currently occupies approximately 10,500 asf in Academic Office Building 4 (AOB 4) located on the central campus east of Olson Hall and west of A Street. This building cannot adequately accommodate the department's current and projected needs. The Graduate School of Management curriculum is evolving to keep up with current trends. New Graduate School of Management courses include E-commerce and Marketing, Gender Issues in Management, New Product Development, and Health Care Management. In addition, the Graduate School of Management academic plan proposes a new Technology Management Minor, a Distance Learning teaching program, and an East Bay Weekend MBA program.

AOB 4 contains approximately 15,500 asf, and is occupied by the Graduate School of Management and the Communication Department. Although the space currently occupied by the Communication Department (approximately 5,000 asf) could provide some expansion room for Graduate School of Management, this space would not adequately accommodate long-term program needs. AOB 4 does

not have adequate and well-designed classroom space. The building was originally built to provide offices only, and it was subsequently renovated to accommodate only two small, minimally configured classrooms. In addition, AOB 4 does not offer student gathering or event space, and the building is ill-suited for renovation because it has a narrow double-loaded corridor layout. The proposed building would fully address the Graduate School of Management's demands for new space.

As discussed above under 'Need for the Conference Center,' office space in the proposed Graduate School of Management Building and conference center facility would help consolidate on- and off-campus units within the UC Davis Office of University Relations. In addition, this space would accommodate expected growth within these units. The Graduate School of Management Building would also provide space for Career Recruiting Programs currently located in the Buehler Alumni and Visitors Center.

Acoustical Design

Because the project site is near the Union Pacific railroad line and I-80, specific acoustical attenuation features would be incorporated into project design, including the following: (1) locating guest rooms at a minimum of 200 feet from the railroad line, (2) locating other sound sensitive uses as far from the railroad line as feasible, (3) locating less sound-sensitive uses between the railroad line and sensitive uses to act as a buffer, (4) using construction materials and techniques (including ratio of glass to solid wall) to reduce interior sound to acceptable levels.

Parking and Circulation

The proposed project would provide approximately 100 surface parking spaces on approximately 0.75 acre within the project site. These spaces would be available for use by overnight hotel guests, restaurant and pub patrons, and a limited number of Graduate School of Management and University Relations visitors. The proposed parking area would be located to the east of the hotel and south of the Graduate School of Management Building. The proposed project's 100-space parking lot would be designed and built to campus standards. Trees would be planted to provide shade for 50 percent of the parking lot surface after 15 years of growth, and adequate lighting would be provided.

Approximately 75 existing parking spaces in Parking Lot 2 (off the project site and immediately south) would be made available for overnight hotel guests and restaurant and pub patrons. Parking for conference attendees would be available in existing visitor parking spaces near the proposed project site, including approximately 764 surface parking spaces in Parking Lots 1 and 2 (approximately 695 spaces in Lot 1 and the 72 remaining spaces in Lot 2). In addition, without special arrangements, approximately 700 visitor parking spaces would be available for conference attendees in the South Entry Parking Structure on weekends and after 5:00 p.m. on weekdays.

To meet demand for combined events at the Center for the Arts Performance Hall and the conference center facility, UC Davis Transportation and Parking Services (TAPS) would implement attendant-

assisted parking (i.e., stacked parking) for Parking Lots 1 and 2, and the South Entry Parking Structure on an as-needed basis. Attendant-assisted parking would accommodate approximately 291 additional vehicles in Parking Lot 1, 60 additional vehicles in Parking Lot 2, and 257 additional vehicles in the South Entry Parking Structure.

When the project begins operation, the realigned Old Davis Road (currently under construction) would traverse from its current alignment at the Information Kiosk, along the south side of the Center for the Arts Performance Hall, the South Entry Quad, and the proposed project site, to the proposed parking area. The realigned Old Davis Road would provide access to the road encircling the South Entry Quad. This South Entry Quad roadway would provide on-street short-term parking and access to the conference center/hotel lobby.

Pedestrian pathways would be provided within the project area to connect building elements. Major pedestrian paths would be designed to accommodate emergency vehicle access to the proposed buildings. A pedestrian sidewalk would be provided on the streetfront edge of the proposed project facing the South Entry Quad. Bicycle parking would be provided at each corner of the South Entry Quad as part of the Center for the Performance Hall project design. Parking would also be provided immediately adjacent to the Graduate School of Management Building.

Access to the Environmental Horticulture teaching and research fields replacement site would be provided off Brooks Road. A small graveled parking area would be provided on the site, adjacent to the proposed greenhouse and agricultural support building.

Open Space and Landscaping

Approximately 0.75 acre of open space areas and landscaping would be provided between and around the conference center facility, the hotel, and the Graduate School of Management Building. A large courtyard would serve as an organizing element between the conference center facility and hotel. The project would integrate new development with existing outdoor open spaces and the Environmental Horticulture gardens to the north. There would be a public plaza area facing the South Entry Quad along the west side of the facility. Landscaping would be accomplished consistent with existing landscaping on campus and would include planting of trees, shrubs, groundcover, and lawns. Water features like ponds and fountains could also be included.

Lighting and Glare

Lighting would be provided on the exterior of the buildings, along pedestrian pathways, and in the project's parking area. Lighting could also be provided as part of the project's landscape features. The exterior walls of the proposed buildings would use low glare producing materials. Passive solar treatment would be provided, as appropriate.

Utilities and Infrastructure

The proposed Conference Center, Hotel, and Graduate School of Management Building Project would require connections to campus utilities and infrastructure including domestic/fire water, utility water, sewer, storm drainage, electricity, and telecommunications. Natural gas service would not be supplied through the campus system, but would be secured by the developer from PG&E. The capacities of these utility systems are analyzed in Section 16, Utilities and Service Systems, of the attached Environmental Checklist. Proposed routes for utility connections are summarized below.

Domestic/Fire water - The proposed project would connect to the campus domestic water system at a point located approximately 70 feet southwest of the proposed project site. The project would connect to a ten-inch diameter water main that was installed under the realigned Old Davis Road as part of the Center for the Arts Performance Hall project. An existing six-inch domestic water line that crosses a portion of the site would need to be removed, relocated, or abandoned in place. In addition, a service extension to a six-inch main serving the fire hydrant in the Environmental Horticulture complex would be installed.

Utility water - The project would connect to the campus utility water system at a point located either to the north or the east of the future South Entry Quad under the realigned Old Davis Road (currently under construction). Utility water would be used to irrigate the proposed project's approximately 0.75 acre of new open space and landscaped grounds.

Sanitary sewer - The project would connect to the campus sanitary sewer system at a point located to the southeast of the future South Entry Quad under the realigned Old Davis Road. The project would connect to an eight-inch diameter line that was installed as part of the Center for the Arts Performance Hall project.

Storm drainage - The proposed project would connect to the campus storm drainage collection system at a point located southwest of the project site. A new line would be installed from the point of connection to the project site.

Electricity - The proposed project would connect to the campus electrical system at a point located southeast of the project site under the realigned Old Davis Road. At this point the project would connect to a new electrical extension constructed to serve the Center for the Arts Performance Hall project.

Telecommunications - The proposed project would connect to an existing campus telecommunication line at a point located under Mrak Hall Drive. In addition, the project could connect to a private telecommunications service via a wireless connection.

Natural gas - The developer of the proposed project would secure service natural gas service from PG&E and would not connect to the campus natural gas infrastructure. Therefore, no impact would

occur. The project would connect to the PG&E main line along the Union Pacific rail line, which traverses approximately 200 feet south of the project site.

The proposed structures at the Environmental Horticulture teaching and research fields site would connect to the campus electrical and domestic water systems. The buildings would connect to an overhead electrical line located either off Brooks Road to the northwest or Road C-2A to the east. The buildings would connect to an underground domestic water line located under Brooks Road. The buildings would be served by an on-site septic system. The replacement teaching and research fields site is currently served by an adequate agricultural water connection.

Population

As discussed further below, the proposed project would accommodate employees associated with the operation of the conference center facility and hotel, Graduate School of Management faculty and staff, and employees in the Office of University Relations. The proposed project would add approximately 375 employees to the campus population. Of these employees, approximately 335 employees would be on-site at any given time.

Conference Center Facility and Hotel

Operation of the conference center facility and the hotel would require a total of approximately 100 employees. Of these employees, approximately 60 would be on-site at any given time.

Graduate School of Management

The Graduate School of Management would move its current faculty and staff (a total of approximately 75 people) from AOB 4 to the proposed Graduate School of Management Building. Space vacated in AOB 4 would be reoccupied by growth in other campus programs. Therefore, for the purposes of this analysis, the proposed project would contribute 75 new employees to the campus population associated with the Graduate School of Management.

Office of University Relations

Approximately 200 existing and new staff in the Office of University Relations and Career Recruiting Programs would occupy office space in the conference center facility and the Graduate School of Management Building. The proposed project would accommodate employees in the following on-campus University Relations units: the Vice Chancellor/Associate Vice Chancellor (provides management of University Relations) currently located in Mrak Hall; Public Communications (provides communication services for the campus community and the general public) and Government and Community Relations (provides leadership and coordination of local, state and federal support and advocacy of the campus mission) currently located in Mrak Hall and the Buehler Alumni and Visitors Center. In addition, Career Recruiting Programs (provides career guidance to students and alumni)

would move from its current location in the Buehler Alumni and Visitors Center to new office space provided by the project. Space vacated in the Buehler Alumni and Visitors Center would be reoccupied by growth in alumni programs. Space vacated in Mrak Hall would be reoccupied by growth in other campus programs. The project would also accommodate employees in the following off-campus University Relations units: Advancement Services (provides central information systems, processing services, gift policy administration); Development (provides leadership, support and coordination of fund raising campaigns, ceremonies and special events); and Resources Management (provides administrative support to University Relations). University Relations staff that would relocate from off-campus leased space would be considered new additions to the on-campus population because off-campus leased space could be reoccupied by growth in other campus programs, and occupation of off-campus space is considered as part of the total-campus population. Therefore, for the purpose of this analysis, the proposed project would contribute 200 new employees to the campus population associated with the Office of University Relations and Career Recruiting Programs.

Relocated Environmental Horticulture Activities

The proposed project would displace Department of Environmental Horticulture teaching and research activities currently located on and adjacent to the eastern portion of the project site. The campus is currently proposing to relocate these activities to existing teaching and research fields in the west campus, located southeast of Brooks Road and east of the Hydraulics Lab (see Figure 3). This land is currently used by the Animal Science Department for feed production. Other Environmental Horticulture activities currently taking place in the south campus (south of I-80 and west of Old Davis Road) would also be consolidated at this new location. In addition, the project would provide an approximately 3,000 square-foot headhouse/storage building, an approximately 3,000 square-foot enclosed greenhouse, and a small gravel parking area on less than two acres. This use is consistent with the site's Teaching and Research Fields land use designation in the 1994 LRDP. Selection of the currently proposed site for relocation of Environmental Horticulture teaching and research field activities will be confirmed in the Focused Tiered EIR.

Project Schedule

All construction staging and contractor parking associated with the proposed project would occur on the proposed project site. Construction is expected to occur from summer 2002 to spring 2004.

Project Approvals

As a public agency principally responsible for approving or carrying out the proposed project, the University of California is the Lead Agency under CEQA, and is responsible for reviewing and certifying the adequacy of the environmental document and approving the proposed project. It is anticipated that The Regents are expected to consider design approval of the proposed project in January 2002.

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Financing under the auspices of Yolo County is under consideration and if this occurs, Yolo County would be a responsible agency.

Operation of emergency stand-by diesel fired generators would require obtaining an Authority to Construct and Permit to Operate from the Yolo-Solano Air Quality Management District (YSAQMD).

IV. CONSISTENCY WITH THE LRDP

In order to determine the project's consistency with the 1994 LRDP and LRDP EIR, the following questions must be answered:

- Is the proposed project included in the scope of the development projected in the 1994 LRDP?
- Is the proposed location of the project in an area designated for this type of use in the 1994 LRDP?
- Are changes to campus population that would result from the proposed project included within the scope of the 1994 LRDP population projections?
- Is the proposed project within the scope of the cumulative analysis in the 1994 LRDP EIR?
- Are the objectives of the proposed project consistent with the adopted objectives for the 1994 LRDP?

The following discussion describes the project's relationship to development projections, land use designations, population projections, cumulative impact analyses, and objectives contained in the 1994 LRDP and the project's consistency with each of these items. Appendix A summarizes the amendments to the 1994 LRDP and the revisions and updates to the 1994 LRDP EIR since original publication.

1994 LRDP Scope of Development

The 1994 LRDP approved development of approximately 1.75 million asf by 2005-06 for academic and administrative uses (including instruction and research, libraries, student services, administrative/support, and public service/non University agencies). The 1994 LRDP EIR assumed total campus academic and administrative development in 2005-06 would be 6,495,740 asf. From 1993 to 2000, approximately 504,768 asf of academic and administrative space has been approved, constructed, or occupied, for a total of approximately 5,250,508 asf (Table 1). Additional academic and administrative project approvals as of May 2001 (including the Sciences Laboratory and Lecture Hall, Veterinary Medicine 3A, Genome Launch Facility, Eichhorn Family House, Center for Companion Animal Health, the Jackson Laboratory, USDA Western Human Nutrition Research Center, Veterinary Medicine Laboratory and Equine Athletic Performance Laboratory Facilities, and the Genome and Biomedical Sciences Facility will increase this total academic and administrative space to approximately 5,765,349 asf (Table 2). Other academic and administrative projects currently under consideration include the proposed project, the Veterinary Medicine Instructional Facility, Aquatics Center, Segundo

Improvements

TABLE 1					
BUILDING SPACE INVENTORY AND BUILDING SPACE PROJECTIONS (ASF)¹					
Program	Space in 1993²	New Development Built or Approved 1993-2000³	Projected new Development (1994-2005/06)²	Built/Approved Space as of 1999-00	Projected Total ASF in Year 2005-06²
Instruction and Research ⁴	2,941,559	367,029	1,205,000	3,308,588	4,146,559
Libraries	406,353	-1,604	93,000	404,749	499,353
Student Services	363,241	37,415	60,000	400,656	423,241
Administrative/Support	903,601	89,562	262,000	993,163	1,165,601
Public Service/Non-University Agencies	130,986	12,366	130,000	143,352	260,986
TOTAL	4,745,740	504,768	1,750,000⁵	5,250,508	6,495,740
<ol style="list-style-type: none"> 1. Assignable square feet (asf). 2. Identified in the 1994 LRDP. 3. Source: UC Davis 2000. 4. Includes all instruction and research-related space including health sciences, organized research units, organized activities, and museums. 5. 1.6 million asf will be distributed on academic and administrative lands, or within other land uses on parcels smaller than two acres; and 150,000 asf in support lands or within other land uses on parcels smaller than two acres. <p>Source: UC Davis Planning and Budget Office, 2000.</p>					

TABLE 2				
PROJECTED POPULATION AND ACADEMIC AND ADMINISTRATIVE ASSIGNABLE SQUARE FEET FOR PROJECTS CURRENTLY UNDER ENVIRONMENTAL REVIEW				
Program	Academic and Administrative Assignable Square Feet	Student Population	Staff Population	Total On-Campus Population
Built or Approved as of May 2001	5,765,349	23,205	10,778	33,983
Conference Center, Hotel, and Graduate School of Management Building	110,000	0	375	375
Unitrans Maintenance Facility Expansion	9,095	0	4	4
Aquatic Center	N/A	0	2	2
Segundo Improvements Project	N/A	400	64	464
Veterinary Medicine Instructional Facility	37,690	568	165	573
California Regional Primate Research Complex Improvements	6,180	0	15	15
Total Proposed	162,965	968	465	1,433
Existing, Approved, and Proposed Projects	5,928,314	24,173	11,243	35,416
Projections for 2005-06 (LRDP)	6,495,750	26,000	12,630	38,630
N/A: Not Applicable. Projects are not considered academic and administrative development.				

Project, Unitrans Maintenance Facility Expansion, and California Regional Primate Research Complex (CRPRC) Improvements. These academic and administrative projects would cumulatively add approximately 162,965 asf to the campus (increasing the space on campus to 5,928,314 asf). This space would not exceed the 6,495,750 asf of development approved under the 1994 LRDP, as presented in Table 2.

1994 LRDP Land Use Designation

In the 1994 LRDP, and as amended by the Center for the Arts Performance Hall and South Entry Roadway and Parking Improvements Tiered Initial Study and Mitigated Negative Declaration, land use

designations for the proposed project include High Density Academic and Administrative – Potential Enterprise Opportunity and Parking.

Uses allowed under the High Density Academic and Administrative designation (defined on pages 45 and 46 of the 1994 LRDP) include classrooms, research laboratories, and research support areas, student and staff offices, and libraries up to nine stories high. This designation also includes space for student activities, museums, administrative offices, meeting rooms and public service activities linked to the campus.

Uses allowed under the Enterprise Reserve overlay designation (defined on page 68 of the 1994 LRDP) include affiliated research, faculty housing, commercial activity, office support, recreation opportunities, open space amenities, and cultural facilities. This land use designation signifies that campus development in these areas would primarily be financed in cooperation with public or private organizations external to the campus.

The 1994 LRDP (page 47) defines Parking land use designation as major surface lots and parking structures.

The proposed project includes construction of a conference center facility, hotel, Graduate School of Management Building, 100 associated on-site parking spaces, and open space and landscaped areas. Buildings would not exceed three stories. The conference center facility hotel, and Graduate School of Management Building would be consistent with the High Density Academic and Administrative – Potential Enterprise Opportunity land use designation. Associated on-site parking would be consistent with the Parking designation on the site.

Environmental Horticulture teaching and research fields activities currently located on the site would be relocated to the west campus on a parcel designated as Teaching and Research Fields in the 1994 LRDP. The Teaching and Research Fields designation includes agricultural lands used for teaching, research, and support of academic programs, and it may include “agricultural-related” buildings on sites smaller than two acres. Environmental Horticulture activities would be consistent with this land use designation.

1994 LRDP Population Projections

The on-campus population anticipated under the 1994 LRDP for 2005-06 is 38,630 (26,000 students and 12,630 faculty and staff) (see Table 3). The 1999-00 on-campus population estimate was 32,775 (22,887 students and 9,888 faculty and staff). Recently built and approved would projects bring the population to approximately 33,983 (23,205 students and 10,778 staff). The proposed project would contribute approximately 375 new campus employees. The project would not contribute new students. Population growth associated with the proposed project would not exceed population projections assumed in the 1994 LRDP EIR. The proposed project and other projects currently under consideration (the Aquatic Center, the Segundo Improvements Project, the Veterinary Medicine

Instructional Facility, the Unitrans Maintenance Facility Expansion Project, and the CRPRC Improvements) would add approximately 465 new campus employees and 968 new students to this total (Table 2). This would also not exceed the on-campus population anticipated under the 1994 LRDP (Table 2). Therefore, the proposed project would be consistent with 1994 LRDP population projections.

Population	1992-93 Estimate³	1999-00 Estimate⁴	1994 LRDP Projected Growth⁵	2005-06 Projection⁵
Students ¹	21,060	22,887	+ 3,113	26,000
Faculty and Staff ²	9,550	9,888	+ 2,742	12,630
Total Population	30,610	32,775	+ 5,855	38,630

¹ Off-campus student population not counted in this total. Approximately 570 students are located at the UC Davis Medical Complex, Sacramento campus, and an additional 280 students are enrolled elsewhere at other UC Davis affiliated facilities. Therefore, accounting for the off-campus student population, total UC Davis enrollment in 2005-06 will be 26,850.

² Includes faculty and staff located on the central, west, and south campus units, Russell Ranch, and at campus facilities in the City of Davis sphere of influence.

³ Base year for 1994 LRDP EIR analysis. Source: UC Davis 1994 LRDP EIR.

⁴ Source: UC Davis 2001a.

⁵ Projected 1994 LRDP growth and buildout. Source: UC Davis 1994 LRDP EIR.

1994 LRDP EIR Cumulative Analysis

The 1994 LRDP EIR contained cumulative analyses for the projected buildout of the 1994 LRDP. The cumulative context in the 1994 LRDP EIR varied depending on the nature of the issue being studied. Cumulative effects were either classified by natural resources boundaries (i.e., biological resources, hydrology, geology, and air quality); or by population growth within the City of Davis, and Yolo and Solano counties (i.e., public and community services, transportation, hazardous materials, noise, visual and cultural resources). The cumulative impact analysis for each environmental issue in the EIR was defined based on the cumulative context that best defined the extent of the possible cumulative effect (see Section 5.2, Cumulative Impacts, of the 1994 LRDP EIR).

The proposed project includes construction and operation of a conference center, hotel, and the Graduate School Management Building in the South Entry area of the central campus. As discussed above, the proposed project is consistent with the scope of development and population projects of the 1994 LRDP. Therefore, the proposed project incrementally contributes to, but does not exceed the cumulative impact evaluation contained in the 1994 LRDP, as amended.

The technical discussions in the attached Tiered Initial Study Checklist conclude that the proposed project would:

- not contribute to significant and unavoidable cumulative impacts identified in the 1994 LRDP EIR related to loss of prime agricultural land (Item 2a), use and disposal of radioactive materials (Item 7 a, b), use and disposal of biohazardous materials (Item 7a, b), loss of valley elderberry longhorn beetle habitat (Item 8a);
- incrementally contribute to, but not exceed, significant and unavoidable impacts identified in the 1994 LRDP EIR related to intersection level of service (Item 4b), construction air pollutants (Item 6b), criteria air emissions (Item 6b, c), toxic air emissions (Item 6b, c, d), use and disposal of hazardous materials (Item 7a, b), development on potentially contaminated sites (Item 7d), demand for emergency response (Item 7g), receiving water quality (Item 9a), groundwater recharge (Item 9b), demand for water from the deep aquifer (Item 9b), seismic effects (Item 10a), loss of cultural resources (Item 12b, d), loss of rural character (Item 13b, d), City of Davis fire protection services (Item 14a(i)), City of Davis police protection services (Item 14 a(ii)), contribution of school-age students in the Davis Joint Unified School District (Item 14 a(iii)); and
- incrementally contribute to, but not exceed, less-than-significant cumulative impacts identified in the 1994 LRDP EIR related to carbon monoxide emissions (Item 6b, c), water demand from the shallow/intermediate aquifer (Item 9b), demand for parks and recreation (Item 14a(iv) and 15a), demand for electricity (Item 16h), wastewater capacity (Item 16a, b, e), and solid waste disposal capacity (Item 16f).

The Focused Tiered EIR will address cumulative impacts related to: physical changes in the City of Davis that could result from the economic impact of operating the Conference Center and Hotel, increased vehicle trips and parking, operational noise level impacts, and loss of agricultural land that potentially serves as Swainson's hawk foraging habitat.

The campus is currently considering how it should plan to accommodate an additional 5,000 to 6,000 students by 2015 (the campus's share of the University of California system's projected growth). The campus's anticipated enrollment growth, at the rate of approximately 2.2 percent annually up to a total of 30,000 to 31,000 students by 2015, is expected to significantly increase the number of employees and the amount of facility construction on campus. A revised LRDP will be prepared to identify the changes required to accommodate anticipated growth and an EIR will be prepared to assess the environmental impacts of such changes. The revised LRDP and its EIR are anticipated to be ready for The Regents review by spring 2003. To the extent that future growth is not considered in the 1994 LRDP and/or associated physical changes to the environment have not been considered in the 1994 LRDP EIR, additional environmental impacts could conceivably occur. Currently, however, analysis of any such impacts would be speculative because current planning efforts are preliminary in nature and constitute feasibility and planning studies. As such, these possible changes are exempt from

environmental review pursuant to CEQA Guidelines Section 15262. Please visit the UC Davis Growth Planning website for further information at <http://growthplanning.ucdavis.edu/>.

1994 LRDP Objectives

The purpose of the 1994 LRDP is to guide campus land use and development in response to projected growth and the changing nature of academic programs. The 1994 LRDP responds to this projected growth in campus-related population by:

- providing new instructional space and classrooms required to serve the anticipated growth in student population,
- providing expanded instruction and research space projected for the biological sciences, agricultural sciences, physical sciences, and veterinary medicine, and
- providing flexibility for significant expansions in response to future academic missions.

In addition, the LRDP contains specific objectives that are relevant to the proposed project. These include the following:

Preserve Agricultural Lands. Concentrate high density development in the Central Campus to preserve the large blocks of agricultural land in the West and South Campus, and Russell Ranch. [Soils, page 26 of the 1994 LRDP]

Location of Programs. Cluster related academic and administrative programs geographically, when feasible, to facilitate academic interaction. [Developed Resource Objective, page 36 of the 1994 LRDP]

Central Campus. Concentrate high density academic development on the Central Campus. [Land Use Plan Objective, page 48 of the 1994 LRDP]

Enterprise Areas. Designate high and low density academic sites as Enterprise Area to facilitate academic initiatives outside the academic core. (See Enterprise section). These may include the types of uses for which the campus has previously utilized lands in the South Davis Research Park. [Academic and Administrative Land Use Objective, page 54 of the 1994 LRDP] Enterprise activity specifically considered in the 1994 LRDP includes projects that benefit campus academic programs by hosting public or private research and outreach activities on campus land [Number 3 Enterprise Reserves, 1994 LRDP].

High Density Academic. Reserve high density academic and administrative lands near the academic core of the campus for Enterprise partnership. [Enterprise Reserve Objective, page 68 of the 1994 LRDP]

New Open Space Accompanying New Development. Develop new common open spaces and tree-lined streets as the built environment expands, reinforcing the value that the campus community places on open space. The exact configuration of these spaces will be addressed by the district

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planning process, providing more detailed site planning guidelines within the context of the LRDP.
[Open Space Objective, page 76 of the 1994 LRDP]

Freeway Access. The two freeway interchanges that directly serve the campus are valuable transportation assets. Concentrate new parking in locations that are easily accessible from Highway 113 at Hutchison Drive and Interstate 80 at Old Davis Road. This will limit traffic impacts on City of Davis streets. [Transportation and Parking Objective 6, page 80 of the 1994 LRDP]

Parking Options. Supply parking through a combination of: 1) infill surface parking in the academic core, 2) additional parking structure(s) on the edge of the academic core, 3) peripheral surface parking adjacent to the perimeter road, and 4) parking for campus residents. [Transportation and Parking Objective 7, page 80 of the 1994 LRDP]

The conference center, hotel, and Graduate School of Management Building are proposed high density academic and administrative uses, and the conference center and hotel are proposed high density enterprise uses. These high density uses would be located in the central campus, consistent with "Preserve Agricultural Lands," "Central Campus," and "High Density Academic" objectives. The proposed conference center and hotel would be consistent with the "Enterprise Areas" objective, and they would meet the 1994 LRDP's specific consideration of enterprise projects that benefit campus academic programs by hosting public or private research and outreach activities. The buildings would be located adjacent to the Center for the Arts Performance Hall (under construction) and the existing Buehler Alumni and Visitors Center and would work with these adjacent uses to add to UC Davis' role as a regional center and meeting place, consistent with "Location of Programs" objective. The project would provide new open space areas and infill surface parking, consistent with "New Open Space Accompanying New Development" and "Parking Options" objectives. The project would also be located in the south entry area of campus, easily accessible from I-80, consistent with "Freeway Access" objective.

V. ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED

The environmental factors checked below would be potentially affected by this project, involving at least one impact that is a “Potentially Significant Impact” as indicated by the checklist on the following pages.

<input checked="" type="checkbox"/>	Land Use/Planning	<input type="checkbox"/>	Hazards & Hazardous Materials	<input type="checkbox"/>	Aesthetics
<input type="checkbox"/>	Agricultural Resources	<input checked="" type="checkbox"/>	Biological Resources	<input type="checkbox"/>	Public Services
<input type="checkbox"/>	Population/Housing	<input type="checkbox"/>	Hydrology/Water Quality	<input type="checkbox"/>	Recreation
<input checked="" type="checkbox"/>	Transportation/Traffic	<input type="checkbox"/>	Geology/Soils	<input type="checkbox"/>	Utilities/Service Systems
<input checked="" type="checkbox"/>	Noise	<input type="checkbox"/>	Mineral Resources	<input type="checkbox"/>	Mandatory Findings of Significance
<input type="checkbox"/>	Air Quality	<input type="checkbox"/>	Cultural Resources		

Based on the analysis presented in this Tiered Initial Study, it has been determined that for resource areas not checked above, 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 1994 LRDP EIR, as revised. This Tiered Initial Study has concluded that the project would incrementally contribute to, but not exceed, certain significant impacts previously identified in the 1994 LRDP EIR, and that for such impacts, no new mitigation measures, other than those previously identified in the 1994 LRDP EIR, are required. The proposed project could result in new potentially significant land use, transportation, and/or noise impacts that were not sufficiently addressed and mitigated by the 1994 LRDP EIR, as amended. Therefore, preparation of a Focused Tiered EIR is appropriate.

VI. DETERMINATION (To be completed by the Lead Agency)

Pursuant to Sections 15152 and 15168 of the CEQA Guidelines, this Revised Tiered Initial Study has been prepared to evaluate the potential environmental impacts of the proposed project in relation to the programmatic environmental analysis contained in the 1994 LRDP EIR. On the basis of the evaluation that follows, I find that:

- ___ The proposed project is exempt from CEQA pursuant to the general exemption (CEQA Guidelines, 15061(b)(3)), a statutory exemption, and/or a categorical exemption, and that if a categorical exemption, none of the exceptions to the exemption apply. A NOTICE OF EXEMPTION will be prepared.

- ___ Pursuant to Section 15168(c)(2) of the CEQA Guidelines, the proposed project may incrementally contribute to, but will not exceed, the significant environmental impacts previously identified in the 1994 LRDP EIR, and the project will otherwise result in no new significant environmental impacts. Further, having been avoided or mitigated pursuant to the 1994 LRDP EIR, no new mitigation measures, other than those previously identified in the 1994 LRDP EIR, are required. FINDINGS consistent with this determination will be prepared.

- ___ The proposed project may incrementally contribute to, but will not exceed, significant environmental impacts previously identified in the 1994 LRDP EIR. Further, the proposed project will result in no new significant impacts other than those previously identified in the 1994 LRDP EIR. However, the project will have environmental impacts not previously addressed in the 1994 LRDP EIR, but there is no substantial evidence that such impacts may have a significant impact on the environment. No new mitigation measures, other than those previously identified in the 1994 LRDP EIR, are required. A NEGATIVE DECLARATION will be prepared.

- ___ The proposed project may incrementally contribute to, but not exceed, certain significant cumulative impacts previously identified in the 1994 LRDP EIR, and that for such impacts, no new mitigation measures, other than those previously identified in the 1994 LRDP EIR, are required. In addition, the project may result in potentially significant impacts not previously identified in the 1994 LRDP EIR, but proposed project specific mitigation measures would reduce the effect of such impacts to a point that clearly no significant impacts would occur. On the basis of the Tiered Initial Study and implementation of all proposed project specific mitigation measures, there is no substantial evidence that the project as mitigated may have a significant effect on the environment. A MITIGATED NEGATIVE DECLARATION will be prepared.

- X The proposed project may incrementally contribute to, but will not exceed, certain significant environmental impacts previously identified in the 1994 LRDP EIR. For such impacts, no new mitigation measures, other than those previously identified in the 1994 LRDP EIR, are required and are incorporated by reference. Further, there is substantial evidence that the project may result in a significant environmental impact that was not previously identified in the 1994 LRDP EIR, and/or will exacerbate a significant environmental impact previously identified in the 1994 LRDP EIR. A TIERED ENVIRONMENTAL IMPACT REPORT will be prepared that addresses the new impacts not previously identified in the 1994 LRDP EIR and supplements the 1994 LRDP EIR.

VII. EVALUATION OF ENVIRONMENTAL IMPACTS:

Introduction

The checklist form is used to assist in evaluating the potential environmental impacts of the proposed project with respect to the 1994 LRDP EIR. The checklist form identifies potential project effects as follows:

- (1) **Potentially Significant Impact** is an effect which is substantial, based on significance criteria. If there are one or more “Potentially Significant Impact” entries in the checklist form, an EIR is required;
- (2) **Less than Significant with Mitigation Incorporated** applies where the incorporation of mitigation measures has reduced an effect from “Potentially Significant Impact” to a “Less Than Significant Impact.” The Tiered Initial Study includes mitigation measures, and briefly explains how they reduce the effect to a less than significant level;
- (3) **Impact for which LRDP/Program EIR is Sufficient** applies where the impacts of the project were adequately addressed and mitigated to the extent feasible the 1994 LRDP EIR or in a Program EIR;
- (4) **Less Than Significant Impact** applies where the project creates no significant impacts, only less than significant impacts;
- (5) **No Impact** applies where a project does not create an impact in that category.

Environmental impacts of the proposed project that are determined in this Tiered Initial Study to have been adequately analyzed and mitigated in the 1994 LRDP EIR generally fall into one of two general categories: (1) impacts that were determined to be less-than-significant after the implementation of mitigation measures identified in the 1994 LRDP EIR, and (2) impacts considered significant and unavoidable in the 1994 LRDP EIR. No further analysis is required for impacts within the first category since the 1994 LRDP EIR and associated mitigation measures would reduce project-level impacts to a less-than-significant level. Impacts identified as significant and unavoidable in the 1994 LRDP EIR include: (a) impacts identified as significant for some projects, but which would not be significant in relation to the proposed project; and (b) impacts that are significant on a cumulative level but not at a project level, for which the 1994 LRDP EIR fully addresses the cumulative impacts. The following resource discussions provide specific reasons for concluding that the 1994 LRDP EIR adequately analyzes the impacts of the proposed project.

Included in each discussion is a summary of relevant setting information and 1994 LRDP EIR impacts and mitigation measures that apply to the proposed project. Substantiation and clarification for each checklist response is also provided in the following resource discussions.

1. LAND USE AND PLANNING

Background

The 5,300 acre UC Davis campus, in general, is comprised of four campus units: the central campus, the south campus, the west campus, and Russell Ranch (please see Figure 3-2, Regional and Local Setting, on page 3-5 of the 1994 LRDP DEIR). The 1994 LRDP land use designations for on the proposed Conference Center, Hotel, and Graduate School of Management Building project site include Academic and Administrative (High Density) with Potential Enterprise opportunity, and Parking. Environmental Horticulture activities currently using land on the eastern portion of this site would be relocated to fields in the west campus located southeast of Brooks Road and east of the Hydraulics Lab, designated in the 1994 LRDP as Teaching and Research Field. The following briefly summarizes uses associated with each designation.

Academic and Administrative – The majority of existing High Density Academic and Administrative facilities are located in the central campus. Uses include classrooms; research laboratories and research support areas; faculty, student and staff offices; and libraries.

Enterprise Reserves – This land use designation signifies that campus development in these areas would primarily be financed in cooperation with public or private organizations external to the campus. Uses include affiliated research, faculty housing, commercial activity, office support, recreational opportunities, open space amenities, and cultural facilities.

Parking and Circulation – Parking, roadways and bicycle paths are found throughout the campus. Parking and bicycle paths are concentrated on the core of the central campus.

Teaching/Research Fields – A majority of the west campus, south campus and Russell Ranch consists of lands used for field research and instructional purposes. This land use category includes agricultural lands and associated support structures for teaching, research, and support of academic programs.

1994 LRDP EIR Standards of Significance

The environmental analysis in the 1994 LRDP EIR considered an impact to land use planning to be significant if campus or regional growth would:

- \$ propose uses which would conflict with locally adopted City or County planning policies; or
- \$ propose uses which would be incompatible with adjacent uses and which would be considered a nuisance because the proposed use would (a) cause adjacent land uses to make extensive operational adjustments that would reduce the efficiency or

effectiveness of the land uses, or (b) otherwise significantly adversely affect the efficiency, effectiveness, or productivity of the land use.

1994 LRDP EIR Significant Impacts and Mitigation Measures

Impacts of campus growth through 2005-06 on land use and planning were evaluated in Section 4.1 (Land Use) of the 1994 LRDP Draft EIR. No significant land use and planning impacts were identified in the 1994 LRDP EIR. Land use impacts 4.1-1 and 4.1-5 in the 1994 LRDP EIR address the loss of prime farmland. Due to revisions to the CEQA guidelines since 1994, these impacts are currently addressed in the Environmental Checklist section titled “Agricultural Resources.” The 1994 LRDP EIR land use and planning analysis was updated to reflect land use designation changes in the WWTP Replacement Project EIR (Chapter 4.6 of the Draft EIR), the 1997-98 Major Capital Improvement Projects SEIR (Sections 5.3, 6.3, and 7.3 of the Draft SEIR), the Center for the Arts Performance Hall and South Entry Roadway and Parking Improvements Tiered Initial Study and Mitigated Negative Declaration (page 29 of the Initial Study), and the USDA Western Human Nutrition Research Complex Tiered Initial Study and Mitigated Negative Declaration (pages 45-46 of the Initial Study). Appendix A of this Initial Study summarizes updates and revisions to the 1994 LRDP EIR. No new land use and planning impacts were identified as a result of these updates. The proposed project is within the scope of the land use and planning analyses presented in these documents and there are no changed circumstances since the preparation of these documents that require reanalysis of cumulative impacts.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Impact for which LRDP/ Program EIR is Sufficient	Less Than Significant Impact	No Impact
Would the project:					
a) Physically divide an established community?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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 LRDP, general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Conflict with any applicable habitat conservation plan or natural community conservation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Impact for which LRDP/ Program EIR is Sufficient	Less Than Significant Impact	No Impact
d) Conflict with any designated adjacent existing or future land uses on or off-campus?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) Exceed an applicable LRDP or Program EIR Standard of Significance?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Discussion

- a) The proposed Conference Center, Hotel, and Graduate School of Management Building project would be constructed in the south entry area of the central campus and would not physically divide an established community. Land uses surrounding the proposed Conference Center, Hotel, and Graduate School of Management Building project site include the Center for the Arts Performance Hall and the South Entry Quad to the west, a portion of Parking Lot 2 to the south, Union Pacific Railroad tracks to the southeast, community gardens to the east, Department of Environmental Horticulture buildings and gardens to the north, and the Buehler Alumni and Visitors Center to the northwest. Department of Environmental Horticulture teaching and research field activities would be relocated to the west campus on land surrounded by other teaching and research fields. Relocated Environmental Horticulture activities would not physically divide an established community. Therefore, no impact would occur.
- b) The Conference Center, Hotel, and Graduate School of Management Building project would be consistent with the objectives contained in the 1994 LRDP for High Density Academic and Administrative areas with Enterprise Opportunity because the project would be located on the central campus near the campus core and would provide for enterprise partnerships. The facilities would also be consistent with objectives to provide for new common open space areas and on site surface parking facilities. For a discussion of consistency with 1994 LRDP land use designations, please see Item 1d and Section IV.

The applicable land use plan is the 1994 LRDP as amended. The proposed Conference Center, Hotel, and Graduate School of Management Building project would be consistent with the High Density Academic and Administrative – Potential Enterprise Opportunity designation for the site contained in the 1994 LRDP as amended in the Center for the Arts Performance Hall and South Entry Road Improvement Project (see Appendix A for further information on amendments to the 1994 LRDP revisions to the 1994 LRDP EIR). Associated on-site parking would be consistent with the Parking designation on the site.

Implementation of the Conference Center, Hotel and Graduate School of Management Building project would involve relocation of Environmental Horticulture teaching and research field activities to land designated in the 1994 LRDP for Teaching and Research Fields. Relocation of Environmental Horticulture fields would include construction of: support, storage, and greenhouse space; an access road; and a small parking area on less than two acres. The 1994 LRDP provided for teaching, research and support activities and agriculture related buildings on less than two acres within sites designated as Teaching and Research Fields. The proposed project would be consistent with this designation.

The proposed project site is located in the City of Davis Planning Area. Although the University of California is exempt from local plans, policies and zoning regulations, it is the campus' policy to cooperate with the General Plans and land use policies of the City of Davis and Solano and Yolo Counties whenever feasible, especially in the areas of housing and traffic planning (1994 LRDP DEIR page 4.1-19). The 1994 LRDP DEIR includes relevant policies and goals from the City of Davis and from the Solano County and Yolo County General Plans on page 4.1-25 through 4.1-27. In May 2001, the City of Davis updated its General Plan. The proposed project's consistency with relevant City of Davis General Plan policies will be discussed in the Focused Tiered EIR (see item 1e). Because the University California is exempt from local land use plans and policies, and the project is consistent with the applicable 1994 LRDP, no impact would occur.

- c) The proposed project would not disturb land included in any conservation plan and therefore would not conflict with any applicable habitat conservation plan or natural communities conservation plan. No impact would occur.
- d) The proposed project would include development in the south entry area of the central campus that is surrounded by campus land to the east, north and west. The land directly to the west of the proposed Conference Center, Hotel, and Graduate School of Management Building site is designated for open space and will comprise the South Entry Quad (currently under construction). The project would complement this land use. Land to the east is designated and used for community gardens, and land to the north is designated for High Density Academic and Administrative use and includes the Environmental Horticulture gardens. Prior to construction of the proposed project, the construction manager would work with representatives from the community gardens and the Department of Environmental Horticulture to ensure that appropriate fencing is installed to protect the gardens from encroachment and disturbance by construction activities. Therefore, construction activities would not disturb adjacent land uses.

The area to the south of the Conference Center, Hotel, and Graduate School of Management Project site includes the Union Pacific Railroad tracks and, further south, privately-owned agricultural fields in the City of Davis. These agricultural fields are currently zoned by the City of Davis for mixed use including agriculture, multi-use, office, office/restaurant, and parks/recreation uses, and are proposed for development (Gateway Olive Drive Specific Plan).

There is no existing or planned connection between proposed City of Davis uses for this off-campus adjacent land, and the campus (i.e., no connecting roads, infrastructure, etc.). Implementation of the proposed project would not conflict with the City of Davis' plans for developing this property which adjoins campus.

The land in the west campus proposed for the relocated Environmental Horticulture teaching and research field activities would require the consolidation of existing Animal Science Department uses to adjacent lands currently used for similar uses. Therefore, the proposed project would not significantly conflict with any designated adjacent existing or future land uses on- or off-campus. This is a less than significant impact.

- e) Standards of significance for land use and planning that were used in the preparation of the 1994 LRDP EIR are presented earlier in this section. These standards are consistent with the land use questions in the current CEQA Environmental Checklist. The 1994 LRDP identified the following standard of significance: “proposed uses which would conflict with locally adopted City or County Planning policies”. As discussed in Item 1b above, although it is campus policy to cooperate with local land use plans and policies, the University of California is exempt from such policies. The proposed project's consistency with relevant city of Davis General Plan policies will be discussed in the Focused Tiered EIR. In addition, the courts have ruled that physical blight due to the economic impacts of a project are subject to review under CEQA. Operation of the proposed conference center and the hotel could have an economic impact on businesses in the downtown area of the City, which could, in turn, potentially cause physical deterioration of buildings in the City. This impact will also be addressed in the Focused Tiered EIR.

Summary

The proposed project could result in new or significant land use and planning impacts that have not been adequately examined in the 1994 LRDP EIR. The Focused Tiered EIR will examine potential physical changes in the City of Davis that could result from the economic impact of operating the conference center and the hotel and potential conflicts with the City of Davis General Plan. No other potentially significant land use and planning impacts were identified.

2. AGRICULTURE RESOURCES

Background

The campus includes land designated by the State Department of Conservation as Prime Farmland primarily in the west campus, south campus, Russell Ranch, and a small portion of the central campus (not including the project site) (see Figure 4.1-5 on page 4.1-30 of the 1994 LRDP DEIR).

1994 LRDP EIR Standards of Significance

The environmental analysis in the 1994 LRDP EIR considered an impact to agricultural resources to be significant if campus or regional growth would:

- \$ propose uses which would convert or cause the conversion of Prime Farmland (as defined by the State Department of Conservation) to non-agricultural uses or cancel or cause the cancellation of Williamson Act contracts; or
- \$ propose uses which would impair the agricultural productivity of prime agricultural land.

1994 LRDP EIR Significant Impacts and Mitigation Measures

Impacts of campus growth through 2005-06 on agricultural resources were addressed in Section 4.1 (Land Use) of the 1994 LRDP Draft EIR. Cumulative impacts on agricultural resources were reevaluated in the WWTP Replacement Project EIR, and agricultural resource impacts were revised to account for a loss of additional prime farmland not previously assessed in the 1994 LRDP EIR (Appendix G of the Final EIR). Both the 1997-98 Major Capital Improvement Projects SEIR and the Center for the Arts Performance Hall and South Entry Roadway and Parking Improvements Tiered Initial Study and Mitigated Negative Declaration identified losses of prime farmland over the amount assessed in the 1994 LRDP. However, these projects included measures to mitigate the impacts on agricultural resources to less-than-significant levels (Appendix A of the Final SEIR, and pages 29-30 and 64 of the Initial Study). Appendix A of this document summarizes updates and revisions to the 1994 LRDP EIR. The proposed project is within the scope of the agricultural resource analysis presented in the 1994 LRDP EIR, as reevaluated and revised in subsequent documents. There are no changed circumstances since the preparation of these documents that require reanalysis of cumulative impacts. There are no significant agricultural resources impacts related to the proposed project.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Impact for which LRDP/ Program EIR is Sufficient	Less Than Significant Impact	No Impact
Would the project:					
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Exceed an applicable LRDP or Program EIR Standard of Significance?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Discussion

- a) The proposed conference center facility, hotel, and Graduate School of Management would occupy approximately five acres on part of the central campus designated as Urban and Built-up Land on the State of California Department of Conservation’s 1990 Yolo and Solano Counties Important Farmland Map (see Figure 4.1-5 on page 4.1-30 of the 1994 LRDP DEIR). The site for the relocated Environmental Horticulture fields is currently designated as Prime Farmland; however, the relocated uses would be consistent with this designation and no conversion would occur. No conversion of Prime Farmland Unique Farmland, or Farmland of Statewide importance as identified by the State of California Department of Conservation would occur.
- b) Because no Williamson Act contracts exist on campus, the proposed project would not result in conflicts with existing zoning for agricultural use or a Williamson Act contract and no impact would occur.

- c) The eastern portion of the proposed Conference Center, Hotel, and Graduate School of Management Building project site is currently used as teaching and research fields by the Department of Environmental Horticulture. This land is designated by the State of California Department of Conservation as Urban and Built-up Land. The 1994 LRDP anticipated development of this land for parking. The Center for the Arts Performance Hall and South Entry Roadway and Parking Improvements Tiered Initial Study amended the site's 1994 LRDP land use designation to include both high density academic and administrative uses and parking (see Appendix A). Relocated Environmental Horticulture teaching and research field activities would occur on land in the west campus currently designated as Prime Farmland and used by the Animal Science Department for feed production. The relocated teaching and research field activities would be consistent with existing use and would not result in a conversion of Farmland to non-agricultural uses. Therefore, the project would not result in the conversion of Farmland to non-agricultural use and no impact would occur.
- d) Standards of significance for agriculture resources impacts that were used in preparation of the 1994 LRDP EIR are presented earlier in this section. These standards are consistent with the agricultural resources questions in the current CEQA Environmental Checklist. Based on the discussion presented above, the proposed project would not exceed the standards of significance identified in the 1994 LRDP EIR and would not result in new significant impacts related to agriculture resources that were not previously analyzed in the 1994 LRDP EIR and subsequent documents. Since the project would not result in the loss of farmland, no impact would occur.

Summary

The proposed project would not result in new or substantially increased significant agriculture resources impacts that have not already been adequately assessed in the 1994 LRDP EIR.

3. POPULATION AND HOUSING

Background

The campus population consists of students, faculty and staff. Current and projected campus population is presented in Table 2 of this Tiered Initial Study. Increased population growth on campus would also result in growth in the City of Davis. The increased population attributed to UC Davis is assumed to be included in the population projections adopted by the City of Davis General Plan.

The campus maintains a policy to house all freshmen who wish to live on campus and the 1994 LRDP includes a goal to provide housing for 25 percent of enrollment. Recently or soon to be completed student housing projects in campus include the Primero Grove Apartments and the Colleges at La Rue. UC Davis also provides on campus housing family housing (Solano Park, Orchard Park and Russell Park) and faculty and staff housing (Aggie Village).

1994 LRDP EIR Standards of Significance

The environmental analysis in the 1994 LRDP EIR considered an impact to population and housing to be significant if campus or regional growth would:

- \$ induce substantial growth or concentration of population;
- \$ displace a large number of people; or
- \$ conflict with the housing and population projections and policies set forth in the City of Davis General Plan.

1994 LRDP EIR Significant Impacts and Mitigation Measures

Impacts of campus growth through 2005-06 on population and housing issues were addressed in Section 4.2 of the 1994 LRDP Draft EIR. No significant population or housing impacts were identified in the 1994 LRDP EIR or subsequent documents. The proposed project is within the scope of the population and housing analysis presented in the 1994 LRDP EIR, and there are no changed circumstances since the preparation of this document that require reanalysis of cumulative impacts.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Impact for which LRDP/ Program EIR is Sufficient	Less Than Significant Impact	No Impact
Would the project:					
a) Cumulatively exceed 1994 LRDP campus population projections?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) 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)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Displace substantial numbers of people and/or existing housing, necessitating the construction of replacement housing elsewhere?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Conflict with the population projections or housing policies set forth in the City of Davis General Plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Exceed an applicable LRDP or Program EIR Standard of Significance?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Discussion

a) As discussed in Section IV and shown in Table 3, the recent population estimate (1999-00) for campus faculty, staff and students is 32,775 (22,887 students and 9,888 faculty and staff).

The proposed project would contribute approximately 375 new campus employees (with 335 employees on the campus at anyone time) and no new students. With the proposed project, total campus faculty and staff population would be 11,243 (Table 2). The addition of 375 employees associated with the proposed project would not exceed population projections assumed in the 1994 LRDP (12,630). Therefore, the proposed project would not cumulatively exceed 1994 LRDP campus population projections and no impact would occur.

b) Minor extensions of existing infrastructure would be required to serve the proposed project. Proposed infrastructure associated with the project would be sized to serve only proposed uses. No growth inducing impacts would occur beyond those analyzed in the 1994 LRDP EIR. See also the discussion under Section 16, Utilities and Service Systems. Therefore, no impact would occur.

- c) The project site is not currently designated for housing and does not include any existing housing facilities. In addition, the proposed project would not displace people, and therefore, would not necessitate construction of replacement housing. Therefore, the proposed project would not displace existing housing, and no impact would occur.
- d) According to the 1994 LRDP EIR, buildout of the 1994 LRDP could add approximately 8,000 residents, including students, faculty and staff, and their dependents to the City of Davis by 2005. The 1994 LRDP EIR considered campus growth a component of buildout under the 1987 City of Davis General Plan, which projected population in the City of Davis planning area under the City of Davis General Plan would reach 75,000 by 2010. In May 2001, the City updated the 1982 City of Davis General Plan. This General Plan update also projects that the population in the City of Davis planning area would reach 75,000 by 2010. As described on page 4.2-19 of the 1994 LRDP DEIR:

Growth projections for the City of Davis are based upon a buildout of land uses designated in the City of Davis General Plan. Although these projections do not specifically account for additional growth from the campus or other employers in the Davis area, the growth of the campus and the resultant indirect growth in the City of Davis is considered to be a portion of the 75,000 target population. Because the 1994 LRDP is not considered to expand the projected City of Davis Year 2010 population, the 1994 LRDP is not considered to conflict with the population projections and policies of the City of Davis General Plan.

Implementation of the proposed project would add approximately 375 new employees to the campus, which would contribute to the growth of the campus population. This increase in population is within the population projections in the 1994 LRDP (see discussion under Section III, Consistency with 1994 LRDP and LRDP EIR). Because the proposed project is consistent with growth projected under the 1994 LRDP, and the 1994 LRDP does not conflict with the population projections or housing policies of the City of Davis General Plan, the proposed project would not conflict with population projections or housing policies of the City of Davis General Plan. Therefore, no impact would occur.

- e) Standards of significance for population and housing impacts that were used in preparation of the 1994 LRDP EIR are presented earlier in this section. These standards are consistent with the population and housing questions in the current CEQA Environmental Checklist. Based on the discussion presented above, the proposed project would not exceed the standards of significance identified in the 1994 LRDP EIR and would not result in new significant impacts related to population and housing that were not previously analyzed in the 1994 LRDP EIR. No impact would occur.

Summary

The proposed project would not result in new or substantially increased significant population and housing impacts that have not already been adequately assessed in the 1994 LRDP EIR.

4. TRANSPORTATION/CIRCULATION

Background

Regional roadway access to the campus and the City of Davis is provided primarily by I-80 and SR 113. Access to the campus from the City of Davis is primarily from A Street, B Street, First Street, and Russell Boulevard. On campus, the major element of the central campus roadway system is the Loop Road System which encircles academic and administrative uses. Inside the loop, general motor vehicle access is either prohibited or limited to specific destinations, with through traffic eliminated. The Loop Road System consists of Russell Boulevard, A Street, Old Davis Road, California Avenue and La Rue Road. Access to and from the central campus and the west campus is provided primarily by Hutchison Drive and Russell Boulevard. Access to and from the central campus and the south campus is provided primarily by Old Davis Road. Access to and from Russell Ranch is provided by Russell Boulevard.

Parking, bicycle paths and transit service are provided throughout the campus. Parking and bicycle paths are concentrated on the core of the central campus. See Figure 3-8 on page 3-18 of the 1994 LRDP DEIR for an illustration of major parking areas and roadways.

1994 LRDP EIR Standards of Significance

The environmental analysis in the 1994 LRDP EIR considered an impact to transportation/circulation to be significant if campus or regional growth would:

- \$ result in Level of Service (LOS) for roadways within the city of Davis and the central campus of LOS “D” for existing roadways and LOS “C” for new roadways;
- \$ result in LOS for County roadways of LOS “C”;
- \$ result in LOS for I-80 of LOS “E”;
- \$ result in LOS for SR 113 of LOS “D”;
- \$ result in disruption to existing patterns of pedestrian and bicycle circulation, including the effects of congestion and unsafe conditions, and/or result in new uses which would create demand for bicycle and pedestrian travel without appropriate facilities;
- \$ result in disruption to the provision of transit services, including making transit safe, and/or result in demands for transit services which are not satisfied as part of the project or a known plan;
- \$ result in an increase in winter parking utilization over 90 percent on the central campus, Medical Sciences Complex, and/or major facilities of the west and south campuses;

- \$ result in the elimination of existing parking and increases in the projected utilization rate over 85 percent without permitting adequate time (usually 24 months) to implement a parking solution (to campus construction standards); or
- \$ require additional parking and result in an increase in the utilization rate over 90 percent, unless decreases in projected campus parking demand are expected to substantially counteract this trend.

1994 LRDP EIR Significant Impacts and Mitigation Measures

Impacts of campus growth through 2005-06 on transportation and circulation were evaluated in Section 4.3 of the 1994 LRDP Draft EIR. The 1997-98 Major Capital Improvements Projects SEIR updated the 1994 LRDP EIR traffic analysis and revised 1994 LRDP EIR Mitigation Measure 4.3-1 (Section 8 of the Draft SEIR). The Veterinary Medicine Laboratory and Equine Athletic Performance Laboratory Facilities Focused Tiered EIR further updated the 1994 LRDP EIR transportation and circulation analysis and included a project-specific mitigation measure to reduce an identified impact (currently identified as 1994 LRDP EIR Mitigation Measure 4.3-1 (b) (f)) (Section 3 of the Final Veterinary Medicine Laboratory and Equine Athletic Performance Laboratory Facilities Focused Tiered EIR). Appendix A in this Initial Study presents further information on revisions to the 1994 LRDP EIR.

Significant impacts identified in the 1994 LRDP EIR that are relevant to the proposed project are presented in the following table. The levels of significance before and after application of mitigation measures identified in the 1994 LRDP EIR, the 1997-98 Major Capital Improvements Projects SEIR, and the Veterinary Medicine Laboratory and Equine Athletic Performance Laboratory Facilities Focused Tiered EIR are also presented. The proposed project is within the scope of the analysis presented in the 1994 LRDP EIR as updated in subsequent documents, and there are no changed circumstances since the preparation of these documents that require reanalysis of the cumulative impacts. Please note that 1994 LRDP Impact 4.3-1 includes mitigation measures to reduce the impact to a less-than-significant level. However, this impact was identified as significant and unavoidable because the University of California could not guarantee implementation of the mitigation measures because they fall within other jurisdictions to enforce and monitor.

<i>LRDP EIR IMPACT</i>	Level of Significance Prior to Mitigation	Level of Significance After/With Mitigation
4.3-1 – Increases in traffic volumes in relationship to the capacity of the future transportation network would result in level of service	SU	SU

<i>LRDP EIR IMPACT</i>	Level of Significance Prior to Mitigation	Level of Significance After/With Mitigation
standard violations.		
4.3-2 - 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.	S	LS
4.3-5 - Growth in population associated with development allowed under the 1994 LRDP, as well as the Campus TSM efforts, would increase demand for transit services.	S	LS
4.3-6 - Growth in population associated with development allowed under the 1994 LRDP could increase parking demand, if corresponding improvements in mode share do not occur.	S	LS

SU = Significant and Unavoidable; S = Significant; LS = Less than Significant

Mitigation measures in the 1994 LRDP EIR, as updated by the 1997-98 Major Capital Improvement Projects SEIR (revised Mitigation Measure 4.3-1) and the Veterinary Medicine Laboratory and Equine Athletic Performance Laboratory Facility focused Tiered EIR (including a mitigation measure identified as 1994 LRDP EIR Mitigation Measure 4.3-1 (6) (f), that are applicable to the proposed project and that will be required as part of project implementation include the following:

- LRDP EIR Mitigation Measure 4.3-1(a)*** - *The Campus shall continue to actively pursue a program of Transportation System Management (TSM) strategies to reduce reliance on travel to and from Campus by private automobile, particularly single-occupant peak period travel. As described in the Setting section, the Campus currently has an extensive TSM program. TSM strategies include the development of a comprehensive bicycle circulation network, including a bicycle/pedestrian precinct in core area of Central Campus; increased parking fees; transit planning and subsidies; carpool and vanpool matching service, and development and incentive program; Campus shuttle systems, including shuttles to UC Davis Medical Center in Sacramento and UC Berkeley, public awareness programs, park and ride lot identification, and telecommuting.*
- LRDP EIR Mitigation Measure 4.3-1(b)*** - *In cooperation with other responsible jurisdictions, the Campus shall monitor a.m. and p.m. peak hour traffic operations at critical intersections in the Campus vicinity on a regular basis (at least every three years). To the extent that TSM measures are successful, some roadway improvements may be avoided. Based upon the existing Campus mode share and trip generation rates assumed in this analysis, the following physical improvements are intended to reduce the magnitude of this impact.*

- (a) *Realign Old Davis Road as shown on the LRDP and reconstruct the intersection of Old Davis and California Avenue. Provide separate right and left turn lanes on the California Avenue approach and a separate left turn lane on the eastbound Old Davis Road approach and install a traffic signal. The realignment will extend to the intersection of Old Davis Road and A Street.*
 - (b) *At the intersection of I-80 Eastbound Ramps and Richards Boulevard, add an additional turn lane on the ramp approach to the intersection, to provide a left turn lane, combined right and left turn lane, and a right turn lane.*
 - (c) *Restripe the southbound Research Park Drive approach to the intersection with Richards Boulevard/Cowell Boulevard to provide a combined through/left turn lane and a separate exclusive right turn lane.*
 - (d) *Signalize the intersection of First and B Streets.*
 - (e) *Widen the eastbound Olive Drive approach to the intersection of Richards Boulevard and Olive Drive, to provide a right turn lane, combined right turn and through lane, and a left turn lane.*
- ***LRDP EIR Mitigation Measure 4.3-1(f)*** - *The Campus will monitor traffic volumes at the Hutchison Drive and Health Sciences Drive intersection every three years. If an when signalization is warranted based on traffic volumes, the Campus will install a new traffic signal at this location..*
 - ***LRDP EIR Mitigation Measure 4.3-2*** - *On a continuous basis, through implementation of the 1994 LRDP, the Campus shall regularly monitor and document pedestrian and bicycle activity in the core area of the Central Campus. If the increased activity indicates a possible disruption in patterns of circulation, or congested or unsafe conditions, plans shall be developed and implemented to provide additional pedestrian and bicycle facilities, such as widenings, new facilities, separation of bicycles and pedestrians, extension of the bicycle/pedestrian precinct, and bicycle parking facilities, in response to this increased activity. The Campus shall also continue its current studies of transit operations within the core area, to investigate the ability to minimize conflicts with transit vehicles without substantially reducing the desirability of transit services. The results of the studies shall be documented, and shall include specific measures to lessen transit conflicts, if any. If the studies show an increase in transit conflicts,*

some or all of the recommended measures to reduce such conflicts shall be implemented.

- ***LRDP EIR Mitigation Measure 4.3-5*** - *The Campus shall continue to support public transportation services, and will work with the City and other agencies to implement increased transit services in response to evolving Campus needs. Such increased services would include improved Unitrans terminal facilities to accommodate increased ridership, developing new Unitrans routes and schedules to more effectively serve travelers, and improved coordination with other transit providers and modes of travel.*

- ***LRDP EIR Mitigation Measure 4.3-6*** - *The Campus shall continue to actively pursue TSM strategies to reduce automobile travel and parking demand. The Campus shall review individual projects under the 1994 LRDP to determine the adequacy of available parking. Additional parking shall be provided if it is determined that:*
 - (a) *the winter parking utilization rate is over 90 percent in the Central Campus, Medical Sciences Complex, or major facilities on the west and south Campus;*

 - (b) *the project would eliminate existing parking and increase the projected utilization rate by more than 85 percent without permitting adequate time (usually 24 months) to implement a parking solution; or*

 - (c) *the project would require additional parking due to projected population growth and increase the utilization rate over 90 percent, unless decreases in projected parking demand are expected to substantially counteract this trend.*

Mitigation measures listed above are incorporated into the proposed project, and the proposed project as mitigated is evaluated in the checklist below.

Would the project:

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)?

Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Impact for which LRDP/ Program EIR is Sufficient	Less Than Significant Impact	No Impact
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

b) Exceed, either individually or cumulatively, a level of service standard established by the county congestion management agency for designated roads or highways?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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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?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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e) Result in inadequate emergency access?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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f) Result in inadequate parking capacity on campus?

<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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g) Conflict with applicable policies, plans, or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks)?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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h) Increased pedestrian and bicycle traffic in areas which may not have adequate facilities for these modes of travel

<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Impact for which LRDP/ Program EIR is Sufficient	Less Than Significant Impact	No Impact
i) Increased conflict between bicyclists, pedestrians, and transit vehicles, causing increased congestion and safety problems?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
j) Increased demand for transit services?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
k) Exceed an applicable LRDP or Program EIR Standard of Significance?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Discussion

The updated analysis in both the 1997-98 Major Capital Improvement Projects SEIR and Veterinary Medicine Laboratory and Equine Athletic Performance Laboratory Facilities Focused Tiered EIR (discussed further in Appendix A of this Initial Study) included development of a larger hotel than is currently proposed (150 rooms versus the currently proposed hotel with 75 room) and other campus buildings, including the Center for the Arts Performance Hall, increased parking, and high density academic and administrative uses (consistent with the proposed Graduate School of Management Building). Therefore, the updated cumulative analysis modeled growth in the South Entry portion of the campus consistent with the proposed project.

a,b) **Construction**

The proposed project involves construction over a 15 to 24 month period. Construction staging would occur on site. All construction vehicles would access the site from I-80 and Old Davis Road. It is estimated that a maximum of up to 35 construction vehicles would access the site per day. The I-80/Old Davis Road ramps currently operate at LOS A in both the a.m. and p.m. peak hours and, are projected to continue to operate at acceptable LOS with buildout of the 1994 LRDP (including the proposed project). Therefore, the short-term increase of construction vehicle traffic would result in a less-than-significant impact, as analyzed in the 1994 LRDP EIR.

Operation

The proposed project would result in an increase in campus population of approximately 375 employees. Furthermore, the conference center could accommodate approximately 500 persons during an event and the hotel facility would include 75 rooms for overnight visitors. Increased traffic volumes would occur as a result of project operation. This impact will be addressed in the Focused Tiered EIR. As previously stated, the updated analysis in both the 1997-98 Major Capital Improvement Projects SEIR and Veterinary Medicine Laboratory and Equine Athletic Performance Laboratory Facilities Focused Tiered EIR (discussed further in

Appendix A of this Initial Study) included development of a larger hotel than is currently proposed (150 versus the currently proposed 75 room) and other campus buildings, including the Center for the Arts Performance Hall, increased parking, and high density academic and administrative uses (consistent with the proposed Graduate School of Management Building).

- c) The proposed project does not include uses that would affect air traffic or result in changes to air traffic patterns. The proposed project is not within the operations area of the UC Davis airport, and the closest airport to the project site located approximately two miles west. No impact would occur.
- d) The proposed project has been conceptually designed in accordance with recognized guidelines and standards, such as those promulgated by the campus, the federal government, and the State of California. The project has been designed for safe operations, including pedestrian and bicycle use. The project will not introduce new safety hazards related to incompatible uses, such as farm equipment. Overall, implementation of the proposed project would not result in any design features or incompatible uses that would result in transportation safety hazard. No impact would occur.
- e) The location and design of the project would allow adequate emergency and general access by all modes. The project does not eliminate or unduly impede access to any existing uses. Vehicular, automobile, bicycle, and pedestrian connections would be provided from the project to adjacent uses and the overall campus transportation system via the realigned New Davis Road (under construction). Fire and other emergency access have been considered in the design of the project. No impact would occur.
- f) Approximately 100 surface parking spaces (for overnight guests, restaurant and pub patrons, and Graduate School of Management and University Relations visitors) would be provided on-site immediately east of the proposed (see Figures 4 and 5). Approximately 75 existing parking spaces in Parking Lot 2 would be provided off the project site and immediately to the south for hotel guests and for restaurant and pub patrons. Parking for conference attendees would be available in existing visitor parking spaces near the project site, including approximately 764 surface parking spaces in Parking Lots 1 and 2 (approximately 695 spaces in Lot 1 and 72 spaces in Lot 2). In addition, without special arrangements, 700 visitor parking spaces would be available for conference attendees in the South Entry Parking Structure on weekends and after 5:00 pm on weekdays.

To meet demand for combined events at the Center for the Arts Performance Hall and the conference center facility, UC Davis Transportation and Parking Services (TAPS) would implement attendant-assisted parking (i.e., stacked parking) for Parking Lots 1 and 2, and the South Entry Parking Structure on an as-needed basis. Attendant-assisted parking would accommodate approximately 291 additional vehicles in Parking Lot 1, 60 additional vehicles in Parking Lot 2, and 257 additional vehicles in the South Entry Parking Structure.

The adequacy of available parking to accommodate project demand will be addressed in the Focused Tiered EIR.

- g) The campus and City of Davis have encouraged bicycle travel through various programs and facilities. In addition, the campus and the City have been cooperating in a joint TSM effort to maintain and improve the existing nonautomotive mode share. Among the strategies being used to reduce single-occupancy automobile trips are the establishment of a comprehensive bicycle and pedestrian circulation network; implementation of parking fees; transit planning and subsidies; promotion of carpool; vanpool, park and ride; and rideshare programs and incentives; operation of shuttle bus systems; encouragement of telecommuting and institution of public awareness programs. The proposed project would not conflict with any of these strategies or other applicable policies, plans, or programs supporting alternative transportation. Therefore, no impact would occur.
- h,i) The proposed project would include the addition of approximately 375 new employees on campus. This would contribute to increased bicycle and pedestrian traffic in the central campus. The central campus includes an extensive existing system of pedestrian and bicycle facilities, including bike paths, bike routes, and pedestrian ways. The project would include pedestrian pathways and bicycle-parking facilities. Pedestrian and bicycle traffic to and from the proposed project would be served by adequate facilities during construction and operation of the proposed project. However, as a component of the 1994 LRDP, this project would cumulatively contribute to increased conflicts between bicyclists, pedestrians, and transit vehicles occurring in the core area of the central campus (Impact 4.3-2). To reduce these conflicts, 1994 LRDP EIR Mitigation Measure 4.3-2 is incorporated into the proposed project. This measure requires regular monitoring of pedestrian and bicycle activity in the core campus, and, if conflicts with transit occur, corresponding studies and development of measures to reduce conflicts with transit vehicles without substantially reducing the desirability of transit services. With continued compliance with mitigation measure 4.3-2, this impact would be less-than-significant.
- j) The proposed project would include the addition of approximately 375 new employees on campus and would contribute to an increased demand for transit services (Impact 4.3-5). The campus has implemented several measures to support public transportation services, such as discounted transit passes, subsidized services, expanded peak service, and additional buses on existing routes. Continued compliance with 1994 LRDP EIR Mitigation Measure 4.3-5 will ensure no new impacts relating to increased transit service other than those previously identified in the 1994 LRDP EIR, would occur. This impact would be reduced to a less-than-significant level.
- k) Standards of significance for transportation and circulation that were used in preparation of the 1994 LRDP EIR are presented earlier in this section. These standards are consistent with the

questions in the current Environmental Checklist. Based on the discussion presented above, the proposed project could exceed standards of significance in the 1994 LRDP EIR and could result in new significant impacts related to transportation or parking that were not previously analyzed in the 1994 LRDP EIR.

Summary

The proposed project could result in new significant transportation and parking impacts that have not already been adequately examined in the 1994 LRDP EIR. Impacts attributed to increased vehicle trips and parking will be addressed in the Focused Tiered EIR. 1994 LRDP Mitigation Measures 4.3-1, 4.3-2, and 4.3-5 will be implemented as part of the project. No other potentially significant transportation/circulation impacts were identified.

5. NOISE

Background

The primary source of noise on and off campus is vehicle noise from roads and highways (I-80, SR 113, and local and regional roads), and freight and Amtrak trains using the Union Pacific (former Southern Pacific) railroad line. Aviation traffic also adds to the ambient noise levels, originating in the local area from the University Airport and Yolo County Airport.

The Day-night Sound Level (L_{dn}) is a standard measure of noise impact. This unit describes a receptor's cumulative noise exposure from all noise levels over a 24-hour period (values for noise levels between 10 PM and 7 AM are weighted to account for nighttime sensitivity). Modeled noise levels along local and regional roadways for the LRDP EIR show existing levels ranging from as low as 56 L_{dn} along County Road 32 at Russell Ranch to 76 L_{dn} at 100 feet from the centerline of I-80 between SR 113 and Russell Boulevard. Measurements of sound levels, taken from acoustical studies performed between 1987 and 1993 at and near the campus range from 43 dBA to 66 L_{eq} . The higher noise levels measured were generally near busy roadways or sports fields (while in use). Measurements performed for the 1994 LRDP were consistent with this range, with the exception of a few measurements at relatively quiet locations (all away from roadways) that were below 40 dBA L_{eq} .

The proposed project site is within the 60 and 65 L_{dn} contours shown on the 1987 City of Davis General Plan 2010 noise level projection map, included as Figure 4.4-6 in the 1994 LRDP EIR. The noise sources creating this contour are primarily the Union Pacific Railroad line and I-80 located south of the project site. The 1994 LRDP EIR used the State of California General Plan land use noise compatibility guidelines to evaluate land use/noise compatibility for proposed land uses on campus (these guidelines are provided in Figure 4.4-1 of the 1994 LRDP EIR). These guidelines indicate that Transient Lodging (like the proposed hotel) is normally acceptable at noise levels up to 65 L_{dn} . This use is conditionally acceptable (requires detailed analysis of noise reduction requirements and must include noise attenuation features) at noise levels up to 70 L_{dn} . Office buildings (like the proposed conference center and the Graduate School of Management Building) are normally acceptable at noise levels up to 70 L_{dn} .

1994 LRDP EIR Standards of Significance

For the 1994 LRDP EIR, the State of California, Solano County, Yolo County, City of Davis, and the UC CEQA noise elements and/or guidelines were reviewed. The State of California and the UC CEQA noise guidelines do not have specific exterior noise levels, standards or laws. The only numerical guidance that exists is the State of California published general plan guidelines for counties and cities for the preparation of Noise Elements. In the absence of other numerical guidance for determining significance, these State of California general plan guidelines are used as the standards of significance for project impacts on the campus. Solano County, Yolo County, and the City of Davis general plan guidelines and ordinances are used as the standards of significance for the project's impacts within

Solano County, Yolo County, and the City of Davis jurisdictions, respectively. The environmental analysis in the 1994 LRDP EIR considered a noise impact to be significant if campus or regional growth would:

- cause substantial construction-related short-term noise level increases on the campus, in Yolo County or in Solano County that would disturb or interfere with nearby noise-sensitive uses or exceed the City of Davis Noise Ordinance for receptors in the City of Davis. Such noise-sensitive uses include off-campus residences, campus housing, and high and low density academic and administrative facilities; or
- substantially increase the ambient noise levels for adjoining areas by 5 dBA during project operation, or cause noise levels to exceed normally acceptable levels as defined by the State of California general plan noise element guidelines for receptors on the campus, Solano County general plan guidelines for receptors off-campus within Solano County, Yolo County general plan guidelines for receptors off-campus within Yolo County, City of Davis general plan guidelines for receptors off-campus within Davis, or Cal OSHA standards.

Generally, construction-related short-term noise level effects on less noise-sensitive uses, such as teaching/research fields, support services, athletic facilities, open space areas, parking lots, and commercial areas, were not considered significant because the noise is temporary and such activities can continue with only minimal disturbance.

1994 LRDP EIR Significant Impacts and Mitigation Measures

Significant noise-related impacts identified in the 1994 LRDP EIR that are relevant to the proposed project are presented in the following table. The levels of significance before and after application of mitigation measures, as identified in the 1994 LRDP EIR, are also presented in the table. Impacts of campus growth through year 2005-06 on noise were addressed in Section 4.4 of the 1994 LRDP EIR. Cumulative noise impacts were reevaluated in the 1997-98 Major Capital Improvement Projects SEIR but no changes were made to the 1994 LRDP EIR impacts or mitigation measures (Section 8 of the Draft Supplemental 1997-98 Major Capital Improvement Projects SEIR). The proposed project is within the scope of the analysis presented in the 1994 LRDP EIR as reevaluated in the 1997-98 SEIR and there are no changed circumstances since the preparation of these documents that require reanalysis of the cumulative impacts. Please note that cumulative regional impact 4.4-4 included mitigation measures to reduce the impact to a less-than-significant level. However, this impact was identified as significant and unavoidable because the University of California could not guarantee implementation of 1994 LRDP EIR Mitigation Measure 4.4-4(c), which is not within the jurisdiction of the University to enforce and monitor.

<i>LRDP EIR IMPACT</i>	Level of Significance Prior to Mitigation	Level of Significance after/with Mitigation
4.4-1 Development allowed under the 1994 LRDP would cause temporary increases in indoor and outdoor noise levels due to demolition, earthmoving and general construction activities.	S	LS
4.4-3 Occupants in structures developed under the 1994 LRDP could be exposed to significant noise levels from traffic, railroad, or other sources.	S	LS

SU = Significant and Unavoidable; S = Significant; LS = Less than Significant

Mitigation measures in the LRDP EIR that are applicable to the proposed project and that will be required as part of project implementation include the following:

- ***LRDP EIR Mitigation Measure 4.4-1*** - *For projects determined to have the potential to significantly affect nearby sensitive receptors, the Campus shall include in all construction contracts one or more of the following noise reduction measures:*
 - (a) *Construction activities that would impact sensitive receptors in the City of Davis and Campus residences shall be limited to the hours between 7:00 A.M. and 7:00 P.M. on weekdays and 8:00 A.M. to 8:00 P.M. on weekends;*
 - (b) *Stationary equipment shall be placed to direct emitted noise away from sensitive noise receptors or placed within a noise attenuating structure;*
 - (c) *If feasible, stockpiling and vehicle staging areas shall be located at least 100 feet from occupied academic, administrative, and residential areas;*
 - (d) *The loudest construction activities, such as demolition, shall be scheduled, if feasible, during summer, Thanksgiving, winter, and spring breaks when fewer people would be disturbed by construction noise;*
 - (e) *Potentially affected academic, administrative, and residential areas shall be informed by letter a week before the start of each construction, demolition, or grading operation; and*
 - (f) *Construction equipment shall be properly outfitted and maintained with noise reduction devices to minimize construction-generated noise. Significant noise-generating construction equipment shall be shielded by*

noise-attenuating buffers such as structures or truck trailers when within 100 feet of occupied academic, administrative, and residential areas.

- ***LRDP EIR Mitigation Measure 4.4-3(a)*** - *Prior to final project approval, the Campus shall evaluate each project proposed under the 1994 LRDP for potential exposure to noise levels exceeding 60 L_{dn} .*

and

- ***LRDP EIR Mitigation Measure 4.4-3(b)*** - *If individual projects would be exposed to noise levels between 60 L_{dn} and 70 L_{dn} , the Campus shall undertake, and implement the recommendations of, a detailed analysis of noise reduction features necessary to achieve an interior noise level of 45 L_{dn} . It is anticipated that conventional construction, but with closed windows and fresh air supply systems or air conditioning, would normally achieve the necessary noise attenuation.*

or

- ***LRDP EIR Mitigation Measure 4.4-3(c)*** - *If individual projects would be exposed to noise levels in excess of 70 L_{dn} , the Campus shall implement one or more of the following noise reduction measures:*
 - (i) *install setbacks, sound walls, berms and/or use noise-attenuating site design to reduce exterior noise levels to less than 60 L_{dn} for residential and/or adjacent residential land uses on Campus;*
 - (ii) *install setbacks, sound walls, berms, and/or noise-attenuating site design to reduce exterior noise levels to less than 70 L_{dn} for academic and administrative land uses and adjacent academic and administrative land uses on Campus; and/or*
 - (iii) *employ adequate construction noise attenuation materials or site design for residential areas on Campus so that the interior noise level is 45 L_{dn} or less.*

The mitigation measures listed above are incorporated into the proposed project, and the proposed project, as mitigated, is evaluated in the checklist below.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Impact for which LRDP/ Program EIR is Sufficient	Less Than Significant Impact	No Impact
Would the project result in:					
a) Exposure of persons to or generation of noise levels in excess of standards established in any applicable plan or noise ordinance, or applicable standards of other agencies?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) For a project within the vicinity of a private air strip, would the project expose people residing or working in the project area to excessive noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
g) Exceed an applicable LRDP or Program EIR Standard of Significance?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Discussion

a,c,d) Construction

Trenching, boring and other installation and construction activities related to project installation would result in short-term increases in existing noise levels, which could adversely affect surrounding academic and administrative uses in the south entry area of the central campus (including the Buehler Alumni & Visitors Center approximately 150 feet to the northwest, and Environmental Horticulture building approximately 100 feet to the north). As described on page 4.4-20 of the 1994 LRDP DEIR:

Construction activities may cause noise levels to exceed 60 CNEL [Community Noise Equivalent Level] temporarily when conducted close to existing or planned sensitive areas. Construction equipment and operations would generate noise levels of about 80 to 85 dBA at a distance of 50 feet from one individual major noise source, decreasing by about 6 dBA for every doubling of the distance and also depending on the type of noise control on the construction equipment. For example, at a distance of 100 feet from three major noise sources (a tractor, backhoe, and truck) noise levels would be about 74 to 86 dBA, at 200 feet 68 to 80 dBA, at 400 feet 62 to 74 dBA, and at 800 feet 56 to 68 dBA. Noise levels would be lower for a receptor when there is not a direct line-of-sight between the noise source and the receptor. A large portion of construction activity would take place at distances greater than 800 feet from existing sensitive areas and may not be heard above the ambient noise level. Interior noise levels would be 10 to 20 dBA lower depending on whether windows are open or closed and the acoustical properties of the buildings.

Implementation of the construction noise reduction measures identified in 1994 LRDP EIR Mitigation Measure 4.4-1(a) through (f), which will be included in the proposed project, would reduce significant construction noise impacts to a less-than-significant level.

Operation

The proposed project includes operation of a conference center, hotel, and Graduate School of Management Building, use of outdoor public spaces, and the generation of increased traffic. In addition, maintenance of the proposed project, including landscaping, air conditioners, etc., would also generate noise. As described on page 4.4-25 of the 1994 LRDP DEIR:

The proposed 1994 LRDP would result in various new stationary and operational noise sources. Proposed development could result in noise being produced by lawn maintenance equipment, air conditioners, recreational activities, agricultural operations, building mechanical systems, chillers, and compressors.

Resulting noise levels are anticipated to increase above ambient levels, but not enough to exceed significance levels on the campus, in Yolo County, in Solano County, or in the City of Davis.

The increase in traffic levels associated with the proposed project would be anticipated to result in an increase in traffic-generated noise levels over that which currently exists. This impact will be addressed in the Focused Tiered EIR.

The proposed facilities would be exposed to existing significant noise sources, including trains on the nearby railroad tracks and vehicle traffic on I-80. Consistent with 1994 LRDP EIR Mitigation Measure 4.4-3, in order to minimize noise, the proposed facilities would incorporate acoustical attenuation features including (1) locating guest rooms a minimum of 200 feet from the railroad line; (2) locating sound sensitive uses as far from the railroad line as feasible; (3) locating less sound-sensitive uses between the railroad line and the guest rooms to act as a buffer; and (4) use of construction materials and techniques (including ratio of glass to solid wall construction) to reduce interior sound to acceptable levels. Because the proposed project would incorporate acoustical attenuation features consistent with 1994 LRDP EIR Mitigation Measure 4.4-3 to ensure acceptable noise levels, the potential for exposure to existing noise sources would be considered less than significant.

- b) Construction of the proposed facilities would not include pile driving or other construction activities that could result in groundborne vibration or noise. Therefore, no impact would occur.
- e) The proposed project site is located on the central campus approximately one mile east of the University Airport. The project sites are outside the noise contour lines for the University Airport (see Figure 4.4-7 of the 1994 LRDP EIR). In addition, the 1994 LRDP DEIR (page 4.4-29) concluded that development associated with the 1994 LRDP would not be impacted by aircraft from the Yolo County Airport or the University Airport. Therefore, no impact would occur.
- f) The proposed project is not located in the vicinity of a private airstrip, and no impact would occur.
- g) Standards of significance for noise impacts that were used in preparation of the 1994 LRDP EIR are presented earlier in this section. These standards are consistent with the noise questions in the current Environmental Checklist. Based on the discussion presented above, the proposed project could exceed standards of significance in the 1994 LRDP EIR and could result in new impacts related to noise that were not previously analyzed in the 1994 LRDP EIR.

Summary

The proposed project could result in a new or significant operational noise impact that has not already been adequately examined in the 1994 LRDP EIR. Traffic generated noise will be addressed in the Focused Tiered EIR. 1994 LRDP EIR Mitigation Measure 4.4-1(a) through (f), and 4.4-3 will be implemented as part of the proposed project. No other potentially significant noise impacts were identified.

6. AIR QUALITY

Background

The campus is located within the Yolo-Solano Air Quality Management District (YSAQMD), which is located in the boundaries of the Sacramento Valley Air Basin. Air quality within the YSAQMD is in nonattainment for the State and federal standards for ozone (O_3) and for particulate matter (PM_{10}), and is classified as nonattainment. YSAQMD is in attainment of the State and federal standards for carbon monoxide (CO), except for the City of West Sacramento (CO emissions locally generated in Sacramento is easily carried southward across the river to the City of West Sacramento).

Recently, the Environmental Protection Agency (EPA) added standards in recognition of increased concern over particulate matter 2.5 microns or less in diameter ($PM_{2.5}$). According to information provided by EPA, designations for the new $PM_{2.5}$ standards by the EPA will begin in the year 2002 with attainment plans due by 2005 for regions that violate the standards. $PM_{2.5}$ measurements have been conducted as of February 1999, but it is too soon to determine if the YSAQMD is in attainment under the new federal $PM_{2.5}$ standards. The California Air Resources Board (CARB) and local air districts in California have developed a $PM_{2.5}$ monitoring network plan, but to date, no data has been collected.

The YSAQMD and CARB maintain several monitoring sites in Yolo County. Data from a monitoring site on the campus (gathered from 1995-97) showed violations of State ozone standards in each of the three years reported. Based on results of computer modeling of 10 congested intersections in the vicinity of the campus, seven of the intersections indicated CO concentrations above State standards.

There are many typical community sources of toxic air contaminants (TAC) in the Davis area, including dry cleaners, automobiles, and industrial emissions. It is likely that automobiles are the major source of air toxics emissions and related health risk in Davis. However, frequent crop burning in the Davis area is also a substantial source of toxic air contaminants. Other sources of toxic air contaminant emissions in the Davis area are UC Davis laboratories and the Campus Wastewater Treatment Plant. In 1994, the campus prepared a health risk assessment (HRA) considering TAC emissions related to the 1994 LRDP. This assessment was subsequently updated in 1996, 1998, and 1999. All assessments concluded that development of specific projects under the 1994 LRDP would not result in any carcinogenic TAC emissions that would pose a potential human health hazard, and would not cause significant adverse acute or chronic non-carcinogenic TAC health effects.¹ Results of the 1999 health risk assessment update are presented in Table 4.

TABLE 4		
SUMMARY OF CUMULATIVE RISKS FOR THE 1994 LRDP, AS AMENDED		
Description	1994 LRDP as Updated in 1999¹	1994 LRDP Standards of Significance
Acute Hazard Index	9.29×10^{-3}	≥ 1.0
Chronic Hazard Index	3.37×10^{-3}	≥ 1.0
Cancer Risks	$0.4755 \text{ per } 10^6$	$\geq 10 \text{ per } 10^6$
¹ Cumulative risk values including anticipated development in the Health Sciences District.		

The major odor emission source on campus is animal waste associated with confined animal facilities. Other sources in the central campus include the wastewater treatment plant, motor vehicles, and the campus landfill.

1994 LRDP EIR Standards of Significance

The environmental analysis in the 1994 LRDP EIR considered an impact to air quality to be significant if campus or regional growth would:

- cause or contribute substantially to existing or projected violations of state or federal criteria air pollutant standards;
- result in exposure of sensitive receptors to substantial pollutant concentrations; or
- result in exposure of sensitive receptors to unpleasant odors.

For the purposes of the 1994 LRDP EIR, a "substantial contribution" to the regional pollutant load was defined as the new production of 550 pounds per day (lbs/day) of CO, and/or 82 lbs/day of ROC, NO_x, SO_x, and PM₁₀.

1994 LRDP EIR Significant Impacts and Mitigation Measures

Significant air quality impacts identified in the 1994 LRDP EIR that are relevant to the proposed project are presented in the following table. The levels of significance before and after application of mitigation measures identified in the 1994 LRDP EIR are also presented in the table. Impact 4.5-1 would either be less than significant after mitigation for most individual projects. This impact would remain significant and unavoidable for projects that involve large-scale grading, and for multiple, simultaneous projects in close proximity on the campus. Impacts of campus growth through 2005-06 on air quality were evaluated in Section 4.5 (Air Quality) of the 1994 LRDP Draft EIR. Cumulative air quality impacts were reevaluated in Section 4.2 of the WWTP Replacement Project Draft EIR and in Section 8 of the 1997-98 Major Capital Improvement Projects Draft SEIR. However, no changes were made to

impacts or mitigation measures identified in the 1994 LRDP EIR. Appendix A of this Initial Study discusses revisions to the 1994 LRDP EIR in further detail. The proposed project is within the scope of the air quality analysis presented in the 1994 LRDP EIR and is reevaluated in these subsequent documents, and there are no changed circumstances since the preparation of these documents that require reanalysis of the cumulative impacts. Please note that cumulative regional impact 4.5-6 included mitigation measures to reduce the impact to a less-than-significant level. However, this impact was identified as significant and unavoidable because the University of California cannot guarantee the implementation of the mitigation measures that fall within other jurisdictions to enforce and monitor.

<i>LRDP EIR IMPACT</i>	Level of Significance Prior to Mitigation	Level of Significance after/with Mitigation
4.5-1 Construction activities as part of development allowed under the 1994 LRDP could result in short-term generation of dust (PM ₁₀).	SU	LS/SU
4.5-3 Development allowed under the 1994 LRDP would generate increased levels of CO, O ₃ precursors (ROC and NO _x), visibility reducing particles and PM ₁₀ emissions.	SU	SU
4.5-6 Development allowed under the 1994 LRDP, in conjunction with cumulative development in the region, would increase criteria pollutant emissions.	SU	SU

SU = Significant and Unavoidable; S = Significant; LS = Less than Significant

Mitigation measures in the LRDP EIR that are applicable to the proposed project and that will be required as part of project implementation include the following:

- ***LRDP EIR Mitigation Measure 4.5-1*** – *The Campus shall include in all construction contracts the following measures to reduce fugitive dust impacts.*
 - (a) *All unpaved construction areas shall be sprinkled with water or other acceptable Yolo-Solano AQMD dust control agents during dust generating activities to reduce dust emissions. Additional watering or acceptable APCD [air pollution control district] dust control agents shall be applied during dry weather or windy days until dust emissions are not visible.*
 - (b) *Trucks hauling dirt and debris shall be covered to reduce wind blown dust and spills.*
 - (c) *On dry days, dirt or debris spilled onto paved surfaces shall be swept up immediately to reduce resuspension of particulate matter caused by*

vehicle movement. Approach routes to construction sites shall be cleaned daily of construction related dirt in dry weather.

(d) *On-site stockpiles of excavated material shall be covered or watered.*

- ***LRDP EIR Mitigation Measure 4.5-3(a)*** – *Implement Mitigation Measures 4.3-1 and 4.3-5. (Please see Transportation/Circulation for these mitigation measures.)*
- ***LRDP EIR Mitigation Measure 4.5-6(a)*** – *Implement Mitigation Measures 4.5-3 (a) and (b).*
- ***LRDP EIR Mitigation Measure 4.5-6(b)*** – *The Sacramento Air Basin includes a large number of jurisdictions, including the greater Sacramento metropolitan area. In the Basin, air quality is regulated by the Sacramento Metropolitan Air Quality Management District, YSAQMD, and a number of other Air Pollution Control Districts. Pursuant to rules, regulations, and policies of those AQMDs and APCDs, as well as adopted general plans throughout the Basin, it is within the jurisdiction of each local government or district to take actions to ensure compliance with the federal Clean Air Act and the California Clean Air Act.*

The mitigation measures listed above are incorporated into the proposed project, and the proposed project, as mitigated, is evaluated in the checklist below.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Impact for which LRDP/ Program EIR is Sufficient	Less Than Significant Impact	No Impact
Would the project:					
a) Conflict with or obstruct implementation of the applicable air quality plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?					
During Construction:	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
During Operation:	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Impact for which LRDP/ Program EIR is Sufficient	Less Than Significant Impact	No Impact
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)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d) Expose sensitive receptors to substantial pollutant concentrations?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e) Create objectionable odors affecting a substantial number of people?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
f) Exceed an applicable LRDP or Program EIR Standard of Significance?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Discussion

- a) As required by the California Clean Air Act, the YSAQMD has published an Air Quality Attainment Plan (AQAP) in order to attempt to bring the YSAQMD into compliance with the federal and state ambient air quality standards. Because the YSAQMD is not in compliance with ozone standards, the AQAP addresses emissions for ozone precursors (volatile organic compounds and nitrogen oxides). The YSAQMD is also in non-attainment for state standards regarding PM₁₀, but AQAPs are currently not required to address this pollutant.

As discussed on page 4.5-7 of the 1994 LRDP Draft EIR with updated information on page 5.7-3 of the 1997-98 Major Capital Improvement Projects Draft SEIR, a Sacramento Area Regional Ozone Attainment Plan was submitted to the EPA in November 1994. The 1994 attainment plan has been reviewed and approved. This plan was required to demonstrate that the federal ozone standard would be achieved in the Sacramento region by 1999. Attainment could not be demonstrated for the Sacramento region, and a new plan to attain the standard by 2005 must be submitted in accordance with the federal Clean Air Act. This plan will not contain additional measures that would apply to the proposed project. The proposed project would not conflict with or obstruct implementation of the AQAP. No impact would occur.

b-d) Construction

The proposed project would include grading, trenching and excavating activities. As described on page 4.5-18 of the 1994 LRDP DEIR:

Construction-related activities would generate “fugitive dust” from earthmoving, excavation, demolition, and grading. The term “fugitive dust” refers to particulate matter emitted from an open area (i.e. not through a stack or an exhaust vent), due to human activities or by the forces of wind acting on exposed material such as soil or storage piles. Particulate (dust) emissions would vary with the level and type of activity, silt content and moisture of the soil and prevailing weather.

Sensitive receptors on campus (defined on page 4.5-16 of the 1994 LRDP EIR) include student and family housing complexes, day care centers, and recreational uses. The closest sensitive receptors in the vicinity of the proposed project include a recreation field located approximately 150 feet northwest of the proposed project site and the Solano Park Housing located approximately 300 feet east. Fugitive dust generated by project-related construction activities could cause violations of the State and federal PM₁₀ standards at times and would contribute to significant PM₁₀ emissions previously identified in the 1994 LRDP EIR (Impact 4.5-1). This construction impact would be temporary and short-term. As indicated by the 1994 LRDP EIR on page 4.5-18, the region is in non-attainment for PM₁₀, and the YSAQMD would therefore require the implementation of dust suppression techniques to minimize dust emissions during construction. Implementation of 1994 LRDP EIR Mitigation Measures 4.5-1 (a) through (d), included in the proposed project, would require dust suppression techniques to minimize dust emissions during construction. Therefore, this impact would be reduced to a less-than-significant level.

The 1994 LRDP EIR determined that construction activities would also result in short-term emissions of ozone (O₃) precursors. These precursors specifically include Reactive Organic Compounds (ROC) from paint, and ROC and nitrogen oxides (NO_x) exhaust emissions from powered construction equipment and motor vehicles. The transport of construction workers, materials, and equipment would generate an incremental increase in vehicle trips. A maximum of 35 construction vehicles per day per peak use would enter and exit the site over the two-year construction period. Although the Sacramento Valley Air Basin (SVAB), which includes the project site, is in non-attainment of both federal and state O₃ standards, the construction vehicle trips generated by the proposed project would occur during a limited period of time and the long-term impacts of the temporary increase in ROC and NO_x would be negligible. This impact is further discussed on page 4.5-19 of the 1994 LRDP EIR:

Given the potential for construction under the 1994 LRDP and the fact that O₃ formation is dependent on a complex interaction of atmospheric and meteorological factors over a relatively large physical area (such as an air basin), short-term emissions of O₃ precursors would not be expected to lead to a violation of ambient air quality standards for O₃ in the campus vicinity. While these emissions would contribute (temporarily) to the non-attainment status of Yolo County for O₃, they would likely represent less than the stationary source emission thresholds and, thus, are considered less-than-significant.

Operation

The proposed project would generate an increase in vehicle trips associated with events at the conference center, hotel guests, and employees at the new facilities. Increased vehicle trips would contribute to increased levels of CO ozone precursors (NO_x, ROG) visibility-reducing particles, PM₁₀, and TACs. The 1994 LRDP identified increased levels of CO, ozone precursors (NO_x, ROG), visibility-reducing particles, and particulate matter resulting from development under the 1994 LRDP as a significant and unavoidable impact because established significance thresholds would be exceeded and data is limited for determining contributions of visibility reducing particles (Impact 4.5-3). The proposed project would incrementally contribute to, but would not exceed, this impact previously identified and adequately addressed in the 1994 LRDP EIR and the 1997-98 Major Capital Improvement Projects SEIR. Implementation of 1994 LRDP EIR Mitigation Measure 4.5-3(a), which will be included in the proposed project, would reduce criteria pollutant emissions associated with increased vehicle trips, but the impact would remain significant and unavoidable. This significant and unavoidable impact was addressed in the Findings and Overriding Considerations adopted by The Regents in connection with its approval of the 1994 LRDP and the 1997-98 Major Capital Improvement Projects SEIR. No further mitigation is required.

The proposed project could also include use of emergency stand-by diesel fired generators. Generators would be tested monthly and only used under occasional emergency situations resulting from power outages. An Authority to Construct and Permit to Operate would be required from the YSAQMD. However, due to limited use, the generators would not be a significant source of operational air emissions due to their sporadic, short-term operation.

The 1994 LRDP EIR recognized that criteria pollutant emissions from development of the 1994 LRDP in conjunction with cumulative development in the region would result in a significant and unavoidable impact (Impact 4.5-6). Although 1994 LRDP Mitigation Measures 4.5-6 (a) and (b) would be incorporated into the proposed project, this impact would remain significant and unavoidable because implementation of Mitigation Measure 4.5-6 (b) is not within the jurisdiction of the University to enforce and monitor. The project's individual contribution to this previously analyzed impact would be limited. This impact was adequately analyzed in the 1994 LRDP EIR and fully addressed in the Findings and Overriding Considerations adopted by The Regents in connection with its approval of the 1994 LRDP EIR and certification of the 1994 LRDP EIR. There are no changed circumstances since the preparation of these documents that require reanalysis of cumulative impacts.

In addition, the 1994 LRDP EIR concluded that development under the 1994 LRDP in conjunction with cumulative development in the region would increase CO concentrations at intersections. This impact was considered to be less than significant because CO is an attainment pollutant in the Sacramento Valley Air Basin and no mitigation was required. The proposed project would contribute to, but not exceed, increased CO emissions identified under

the 1994 LRDP because it is consistent with approved development. This impact would, therefore, remain less than significant.

The 1994 LRDP EIR also concluded that development allowed under the 1994 LRDP in conjunction with cumulative development in the Davis area may generate unacceptable cumulative toxic air contaminant health risks. Inadequate methods exist to assess the magnitude of this impact, therefore the 1994 LRDP considered it significant and unavoidable. The project would contribute to, but not exceed, this impact. This impact was adequately analyzed in the 1994 LRDP EIR and fully addressed in the Findings and Overriding Considerations adopted by The Regents in connection with its approval of the 1994 LRDP and certification of the 1994 LRDP EIR. There are no changed circumstances since the preparation of these documents that require reanalysis of cumulative impacts.

- e) The proposed project is located in an area that would not be significantly exposed, if at all, to existing odor sources including the WWTP, landfill, and motor vehicles (see page 4.15-14 of the 1994 LRDP DEIR). In addition, implementation of the proposed project would not produce any objectionable odor. The possible exception are odors produced from conference center kitchens; however, similar uses currently exist on campus and they do not result in significant odors. Furthermore, exhaust control systems would be installed to manage any odors associated with kitchen activities. This impact is considered less than significant.
- f) Standards of significance for air quality impacts that were used in preparation of the 1994 LRDP EIR are presented earlier in this section. These standards are consistent with the air quality questions in the current Environmental Checklist. As discussed above, with the implementation of applicable 1994 LRDP EIR mitigation measures, the proposed project would not exceed the standards of significance identified in the 1994 LRDP EIR and would not result in new significant impacts related to noise that were not previously analyzed in the 1994 LRDP EIR.

Summary

The proposed project would not result in any new or significant air quality impacts that have not already been adequately examined in the 1994 LRDP EIR, and Mitigation Measures 4.5-1(a) through (d), 4.5-3(a) and 4.5-6(a) and (b) will be implemented as part of the proposed project.

7. HAZARDS AND HAZARDOUS MATERIALS

Background

UC Davis uses many materials, some of which are considered hazardous, during the course of daily operations. Such hazardous materials include many chemical reagents, solvents, radioisotopes, fuels, paints, cleansers, pesticides, and biohazardous substances that are used in activities such as laboratory research; building and grounds maintenance; vehicle maintenance; agriculture applications; fine arts; and clinical veterinary medicine. Hazardous materials use on campus generates hazardous byproducts that must eventually be handled and disposed of as hazardous wastes. Because campus hazardous materials use is primarily associated with teaching and research laboratory activities, the 1994 LRDP EIR assumed that hazardous materials-related activities would increase in proportion to projected increases in instruction and research space, an increase of about 41 percent from 1993 to 2005-06.

Since adoption of the 1994 LRDP, the campus has implemented several 1994 LRDP EIR mitigation measures identified to mitigate impacts associated with the use and generation of hazardous materials on campus. In conformance with 1994 LRDP EIR Mitigation Measures 4.6-2(b), 4.6-4(b), and 4.6-6(a), a new handling facility for campus hazardous wastes (the Environmental Services Facility) has been constructed and is currently operational. The new facility currently operates at about 40 percent of its capacity and the old facility is currently being closed. In conformance with 1994 LRDP EIR Mitigation Measures 4.6-1(a)(iii), 4.6-2(d), and 4.6-6(c), the Waste Minimization Coordinator position was established in 1994 and a hazardous waste minimization plan was prepared. In conformance with 1994 LRDP EIR Mitigation Measures 4.6-1(b) and (c), the campus also established regular third party health and safety audits to document compliance status.

1994 LRDP EIR Standards of Significance

The environmental analysis in the 1994 LRDP EIR considered an impact to hazardous materials and/or public safety to be significant if campus or regional growth would:

- create a substantial potential health or safety hazard due to risk of upset (accidents);
- interfere with emergency response plans or emergency evacuation plans;
- involve the use, production, or disposal of materials in a manner that poses a hazard to people, or to animal or plant populations in the area affected;
- expose employees to working situations that exceed health standards; or
- involve violating applicable laws intended to protect human health and safety.

1994 LRDP EIR Significant Impacts and Mitigation Measures

Significant impacts identified in the 1994 LRDP EIR that are relevant to the proposed project are presented in the following table. The levels of significance before and after application of mitigation measures identified in the 1994 LRDP EIR are also presented. Impacts of campus growth through year 2005-06 related to hazardous materials are addressed in Section 4.6 (Hazardous Materials and Public Safety) of the 1994 LRDP Draft EIR. Cumulative hazardous materials and public safety impacts were reevaluated in the WWTP Replacement Project EIR (Chapter 4.3 of the WWTP Replacement Project Draft EIR), but no changes were made to the impacts, mitigation measures, or levels of significance identified in the 1994 LRDP EIR. Appendix A in this Initial Study summarizes updates and revisions to the 1994 LRDP EIR. The proposed project is within the scope of the hazardous materials and public safety analysis presented in the 1994 LRDP EIR, as reevaluated in the WWTP Replacement Project EIR, and there are no changed circumstances since the preparation of these documents that require reanalysis of cumulative impacts. Please note that cumulative impacts 4.6-3, 4.6-4, and 4.6-23 include mitigation measures to reduce impacts to less-than-significant levels. However, these impacts were identified as significant and unavoidable because the University of California cannot guarantee implementation of mitigation measures that fall within other jurisdictions to enforce and monitor.

<i>LRDP EIR IMPACT</i>	Level of Significance Prior to Mitigation	Level of Significance after/with Mitigation
4.6-1 Implementation of the 1994 LRDP would lead to an increase in hazardous chemical use at UC Davis that could expose Campus occupants to potential health or safety risks.	PS	LS
4.6-2 Implementation of the 1994 LRDP could lead to an increase in the generation of hazardous chemical waste at UC Davis that could expose campus occupants to potential health or safety risks.	PS	LS
4.6-3 Increased use of hazardous chemical materials related to cumulative development in the region would increase the number of people exposed to health hazards associated with such use.	SU	SU
4.6-4 Implementation of the 1994 LRDP, in conjunction with other development in the region that generates hazardous chemical waste, could place an additional load on hazardous waste management facilities.	SU	SU
4.6-16 Construction activities under the 1994 LRDP could expose campus occupants and construction workers to contaminated soil or groundwater.	PS	LS
4.6-17 Development of potentially contaminated sites on campus as part of the 1994 LRDP, in combination with other, adjacent development, could pose cumulative health and safety threats to site workers and the public.	SU	SU
4.6-22 Increased campus operations using hazardous materials resulting from development under the 1994 LRDP could exceed emergency response capabilities at UC Davis.	S	LS
4.6-23 The increased campus operations to be developed under the 1994 LRDP, in conjunction with anticipated growth in	SU	SU

<i>LRDP EIR IMPACT</i>	Level of Significance Prior to Mitigation	Level of Significance after/with Mitigation
the City of Davis, could contribute to cumulative demand for emergency response capabilities in the Davis area.		
4.6-24 Hazardous materials used at facilities developed under the 1994 LRDP may be inadvertently released to the sewer or disposed of with non-hazardous solid waste.	S	LS

Mitigation measures in the 1994 LRDP EIR that are applicable to the proposed project and that will be required as part of project implementation include the following:

- **LRDP EIR Mitigation Measure 4.6-1(a)** – *The Campus shall strengthen programs to improve compliance with the laws and regulations applicable to the use of hazardous materials. Such efforts would include specific steps aimed at improving health and safety conditions by increasing the resources devoted to implementation of laws and regulations regarding the use of hazardous materials. This increase would support an improved, ongoing, satisfactory level of compliance. Specific actions would include, but would not be limited to, the following:*
 - (i) Community Right-to-Know and Business Plan - *Increasing the resources devoted to implementing Community Right-to-Know and Business Plan requirements, as needed, to supplement the existing program for the purpose of meeting current and future local, state, and federal data reporting requirements. This change would allow better tracking and reporting of non-radioactive chemical hazardous materials on Campus, would provide critical information to on-Campus and off-Campus emergency response service providers in case of a chemical emergency, and would expand current safety training programs to minimize accident risks.*
 - (ii) Injury and Illness Prevention, Chemical Hygiene, and Emergency Actions Plans - *Increasing the resources and improving the mechanisms needed (1) to finish developing these plans, and (2) to assure that these plans are adequately implemented and maintained, including training and emergency planning.*
 - (iii) Waste Minimization - *Establish the position of Waste Minimization Coordinator to update the existing hazardous waste minimization plan, to implement the revised plan, and to evaluate the feasibility of other waste*

minimization programs such as waste minimization through treatment and recycling.

- **LRDP EIR Mitigation Measure 4.6-1(b)** – *The Campus shall establish a self-audit mechanism and a reporting system to document the compliance status of Campus departments and units.*
- **LRDP EIR Mitigation Measure 4.6-1(c)** – *Biennial health and safety audits shall be conducted by individuals independent of the Campus.*
- **LRDP EIR Mitigation Measure 4.6-3** - *Implement Mitigation Measures 4.6-1(a) through (c).*
- **LRDP EIR Mitigation Measure 4.6-4(a)** – *The Campus Waste Minimization Coordinator (to be established as part of mitigation measure 4.6-1(a)), shall update and implement existing hazardous waste minimization plan. The updated plan shall address hazardous waste generated by 1994 LRDP projects and shall specify feasible administrative and technical approaches to reduce the amount of hazardous waste generated on Campus.*
- **LRDP EIR Mitigation Measure 4.6-16(a)** – *During the site selection process for each site to be developed under the 1994 LRDP, the Campus shall determine the need to have the site and adjacent areas investigated for the presence of hazardous materials or wastes by completing a "due diligence checklist."*
- **LRDP EIR Mitigation Measure 4.6-16(b)** - *In the event that site inspections find evidence of chemical or radioactive contamination, waste discharges, underground storage tanks, abandoned drums, or other environmental impairment at locations to be developed or in the project area, the Campus shall prepare a site remediation plan that shall (1) specify measures to be taken to protect workers and the public from exposure to potential site hazards and (2) certify that the proposed remediation measures would clean up the contaminants, dispose of the wastes, and protect public health in accordance with federal, state, and local requirements. Commencement of work in the areas of potential hazard shall not proceed until the site remediation plan has been completed. Depending on the nature of any contamination, appropriate agencies shall be notified (e.g., the CVRWQCB for groundwater contamination and the DTSC for soil contamination [or the appropriate County Environmental Health Department]). Provisions of the site remediation plan would be adopted by the Campus as part of future projects.*

- **LRDP EIR Mitigation Measure 4.6-16(c)** - *A site health and safety plan, in compliance with OSHA requirements, shall be developed by the Campus and in place prior to commencing work on any contaminated sites.*
- **LRDP EIR Mitigation Measure 4.6-17** – *Implement Mitigation Measures 4.6-16(a) through (c).*
- **LRDP EIR Mitigation Measure 4.6-4(b)** – *Implement Mitigation Measures 4.6-2(a) through (c).*
- **LRDP EIR Mitigation Measure 4.6-22(a)** - *The Campus emergency response team shall be adequately trained and equipped to respond to hazardous materials emergencies prior to occupancy of the first 1994 LRDP project approved that could require hazardous materials emergency response capabilities. The Campus shall provide sufficient resources to respond to a Level A hazardous materials incident (the most hazardous level), in coordination with the City of Davis if necessary.*
- **LRDP EIR Mitigation Measure 4.6-22(b)** - *The Campus shall prepare (or update) safety planning documents in accordance with applicable laws, regulations, and Campus policies prior to occupying facilities constructed under the 1994 LRDP. The Campus shall implement safety training programs upon occupying each new building.*
- **LRDP EIR Mitigation Measure 4.6-22(c)** - *Departments and Principal Investigators shall prepare Injury and Illness Prevention Plans, Laboratory Chemical Hygiene Plans, and Emergency Action Plans for all new buildings, as necessary. These plans would be reviewed and approved by the Campus for each department and each Principal Investigator or Laboratory Director to be located at any particular new building before the department or laboratory would be permitted to occupy the new space.*
- **LRDP EIR Mitigation Measure 4.6-23** – *Implement Mitigation Measure 4.6-22(a).*
- **LRDP EIR Mitigation Measure 4.6-24(a)** – *The Campus shall comply with the revised Waste Discharge Requirements, particularly the requirement to establish a Pretreatment Program.*
- **LRDP EIR Mitigation Measure 4.6-24(b)** - *The Campus shall provide the resources needed for implementing a waste exclusion program.*

The mitigation measures listed above are incorporated into the proposed project, and the proposed project, as mitigated, is evaluated in the checklist below.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Impact for which LRDP/ Program EIR is Sufficient	Less Than Significant Impact	No Impact
Would the project:					
a) Create a significant hazard to the public or the environment through the routine transport of hazardous materials?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Impact for which LRDP/ Program EIR is Sufficient	Less Than Significant Impact	No Impact
g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
i) Exceed an applicable LRDP or Program EIR Standard of Significance?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Discussion

a,b) Construction

Construction of the proposed project would involve the use of various products that could contain materials classified as hazardous (e.g., solvents, adhesives and cements, certain paints, cleaning agents and degreasers). Fuels, such as gasoline and diesel, would also be used in heavy equipment and other construction vehicles. The use and storage of such products is subject to applicable hazardous materials regulations, as discussed on pages 4.6-4 through 4.6-7 and Appendix E of the 1994 LRDP DEIR, and contract specifications would also contain specific provisions regarding the use of these products and compliance with applicable regulations and standards. Contract specifications would also require the use of temporary surfaces that would be placed under construction staging areas to protect soil and groundwater from contamination from inadvertent spills or leaks.

Site Contamination

The 1994 LRDP DEIR (pages 4.6-25 through 4.6-30) identified the potential for soil or groundwater contamination as a result of various campus activities to be present in an area that could be developed under the 1994 LRDP. Construction projects on such locations could expose campus occupants and construction workers to contaminated soil or groundwater resulting from past uses of the various sites (Impact 4.6-16). The 1994 LRDP EIR identified

Mitigation Measure 4.6-16(a) to reduce exposure of construction workers and campus occupants to contaminated soil or groundwater during construction.

Consistent with Mitigation Measure 4.6-16(a), the campus conducted a Phase IA Preliminary Site Assessment Due Diligence Report for the proposed Conference Center and Hotel, and Graduate School of Management building site. This assessment included review of aerial photographs, interviews with knowledgeable personnel, and site reconnaissance. The February 28, 2000 report identified several potential areas of concern including:²

1. the site had been used intensively for general agricultural purposes since at least 1937 and for Environmental Horticulture fields since at least 1971. Greenhouses are located just to the north, and drainage from that area travels south and into the site. Interviews with environmental horticulture personnel revealed that only herbicides and fungicides have been used on the teaching fields over the last 10 years. Pesticide use reporting was not required until the mid-1980s and records are only kept for three years. Soil sampling for pesticides and heavy metals was deemed necessary due to these past agricultural practices.
2. The Union Pacific Railroad line lies just south of the proposed project site. Sampling for residual diesel contamination was deemed warranted.

Follow-up sampling conducted in March 2000 and additional field observations indicated no soil contamination. Results identified non-detectable levels for pesticides; near non-detectable levels for total petroleum hydrocarbons as diesel; and acceptable levels for metals. Metal levels were representative of natural background concentrations typical for this area. No further sampling or investigation was recommended.³ Therefore, this impact is considered less than significant.

Consistent with 1994 LRDP EIR Mitigation Measure 4.6-16(a), the proposed site for new Environmental Horticulture structures (associated with the relocation of Environmental Horticulture teaching and research field activities to the west campus) would be evaluated prior to construction. This site is currently used by the Animal Science Department for feed production. A Phase IA Preliminary Site Assessment Due Diligence Report would be prepared for the site, and if required by conclusions presented in the report, 1994 LRDP EIR Mitigation Measures 4.6-16 (b) and/or (c) (involving preparation of a site remediation plan and/or health and safety plan) would be implemented.

The 1994 LRDP EIR identified that development of potentially contaminated sites on campus as part of the 1994 LRDP, in combination with adjacent development, could pose cumulative health and safety threats to workers and the public (Impact 4.6-17). Although 1994 LRDP EIR Mitigation Measure 4.6-17, incorporated as part of the proposed project, was identified to

reduce the significance of the cumulative impact, the impact was considered significant and unavoidable because the University cannot guarantee that surrounding jurisdictions would enforce and monitor similar mitigation measures. This impact was adequately analyzed in the 1994 LRDP EIR and fully addressed in the Findings and Overriding Considerations adopted by The Regents in connection with its approval of the 1994 LRDP and its certification of the 1994 LRDP EIR. There are no changed circumstances since the preparation of these documents that require reanalysis of cumulative impacts.

Operation

Operation of the proposed project would involve the use of small quantities of pesticides and herbicides for use in landscaping and small quantities of household type cleansers such as bleach. The use of such products containing hazardous chemical materials already occurs on campus, and the amounts associated with the proposed project would be similar to existing operation and maintenance activities. The use of chemicals during the construction and operation of the proposed project would result in a minor increase in chemical waste transported, stored and handled at the campus Environmental Services Facility. This new facility recently opened and currently operates at 40 percent of its designed capacity. The use, storage and transport of hazardous materials as part of project construction and operation would be accomplished consistent with regulatory requirements and the risk of upset would be minimal. Therefore, this impact is less than significant.

The 1994 LRDP EIR identified increased use of hazardous chemicals and increased generation of hazardous chemical waste as potentially significant impacts (Impacts 4.6-1 and 4.6-2). As discussed in the Background section of this checklist item, the campus has implemented 1994 LRDP EIR Mitigation Measures 4.6-2(b), 4.6-4(b), and 4.6-6(a) by constructing the new Environmental Services Facility. In conformance with 1994 LRDP EIR Mitigation Measures 4.6-1(a)(iii), 4.6-2(d), and 4.6-6(c), the Waste Minimization Coordinator position was established (in 1994) and a hazardous waste minimization plan was prepared. Continued implementation of 1994 LRDP EIR Mitigation Measures 4.6-1(b) and (c) (biennial audits by a third party to document the compliance status of campus departments and units) and implementation of 1994 LRDP EIR Mitigation Measures 4.6-1 (a) (i) and (ii) (increasing Community Right-to Know and Injury and Prevention efforts), incorporated into the proposed project, would reduce the impacts of increased hazardous materials use and increased hazardous chemical waste to less-than-significant levels.

The 1994 LRDP EIR also identified that hazardous materials used at facilities developed under the 1994 LRDP could be inadvertently released to the sewer or disposed of with non-hazardous solid waste (Impact 4.6-24). Continued implementation of 1994 LRDP EIR Mitigation Measures 4.6-24 (a) and (b), ensuring compliance with Waste Discharge Requirements and a waste exclusion program, would reduce this impact to a less-than-significant level.

Cumulative impacts related to the increased use of hazardous chemicals and increased generation of hazardous chemical waste associated with buildout of the 1994 LRDP in conjunction with regional development were identified as significant and unavoidable in the 1994 LRDP EIR (Impacts 4.6-3 and 4.6-4). Continued implementation of 1994 LRDP EIR Mitigation Measures 4.6-3 and 4.6-4 (a) would reduce the magnitude of these impacts, but they would remain significant and unavoidable because chemical use off-campus is outside the jurisdiction of the University to regulate. These impacts were adequately analyzed in the 1994 LRDP EIR and fully addressed in the Findings and Overriding Considerations adopted by The Regents in connection with its approval of the 1994 LRDP and its certification of the 1994 LRDP EIR. There are no changed circumstances since the preparation of these documents that require reanalysis of cumulative impacts.

- c) The proposed project would be constructed in the south entry area of the central campus and is not located within ¼ mile of an existing or proposed school. No impact would occur.
- d) The proposed project would not be located on a site that is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5. No impact would occur.
- e,f) There is no private airstrip within the vicinity of the project site. The University Airport is a public use airport designed to accommodate aircraft up to 12,500 pounds, which includes most single-engine and some light twin-engine planes. According to the 1994 LRDP EIR, although the University Airport, as a university-owned facility, is outside the jurisdiction of the local Airport Land Use commission, future land use compatibility guidelines to attenuate noise, height and safety impacts based on the Federal Aviation Administration requirements have been prepared by the Sacramento Area Council of Governments. The proposed conference center, hotel, and Graduate School of Management Building site is located on the central campus, which is located approximately one mile east of the University Airport and is not in the direct vicinity of the University Airport. The proposed Environmental Horticulture teaching and research fields would be relocated to a site in the west campus southeast of the University Airport. A single story headhouse/storage building and greenhouse would be included; however, these facilities would not increase safety hazards. No impacts due to safety hazards related to the airport would occur as a result of the proposed project.
- g) As discussed under Item 4e, the location and design of the proposed project would allow adequate emergency access. The project would not interfere with an adopted emergency response plan or emergency evacuation plan. The 1994 LRDP EIR concluded that increased campus operations using hazardous materials resulting from development allowed under the 1994 LRDP could exceed emergency response capabilities at UC Davis (Impact 4.6-22). Continued compliance with 1994 LRDP EIR Mitigation Measures 4.6-22 (a) through (e), incorporated into the proposed project, would ensure sufficient resources are available to

respond to a Level A hazardous materials incident and would require safety planning documents and safety training for new buildings. This impact would be reduced to a less-than-significant level.

The 1994 LRDP EIR identified that increased campus operations allowed under the 1994 LRDP, in conjunction with anticipated growth in the City of Davis, could contribute to cumulative demand for emergency response capabilities in the Davis area (Impact 4.6-23). Although 1994 LRDP EIR Mitigation Measure 4.6-23, incorporated as part of the proposed project, was identified to reduce the significance of the cumulative impact, the impact was considered significant and unavoidable because the University could not guarantee that the City of Davis and Yolo County would reach a Mutual Aid Agreement to provide first-response both in the campus and in the City and County. This significant and unavoidable impact was adequately evaluated in the 1994 LRDP EIR and fully addressed in the Findings and Overriding Considerations adopted by The Regents in connection with its approval of the 1994 LRDP and certification of the 1994 LRDP EIR. Since the 1994 LRDP EIR was published, the City of Davis and Yolo County have reached a Mutual Aid Agreement; therefore, this cumulative impact is now reduced to a less-than-significant level. No further mitigation is required.

- h) The proposed project would be surrounded by existing developed uses that include buildings, roadways, parking areas, which would minimize the potential for vegetation-related fire hazards. Implementation of the proposed project would not increase existing wildland fire hazards in the central campus because the project site is not located in an area containing large amounts of flammable brush, grass or trees. Therefore, implementation of the proposed project would not increase the existing wildland fire hazard in areas with flammable brush, grass, or trees over that which currently exists. No impact would occur.
- i) Standards of significance for hazards and hazardous materials impacts that were used in preparation of the 1994 LRDP EIR are presented earlier in this section. These standards are consistent with the hazards and hazardous materials questions in the current Environmental Checklist. As discussed above, with the incorporation of relevant 1994 LRDP EIR mitigation measures, the proposed project would not exceed the standards of significance identified in the 1994 LRDP EIR and would not result in new significant impacts related to hazards and hazardous materials that were not previously analyzed in the 1994 LRDP EIR.

Summary

1994 LRDP EIR Mitigation Measures 4.6-1 (a) through (c); 4.6-2 (d); 4.6-3; 4.6-4 (a); 4.6-16 (a) through (c); 4.6-17; 4.6-22 (a) through (d); 4.6-23; and 4.6-24 (a) and (b) would be implemented as part of the proposed project. The proposed project would not result in new or substantially increased significant hazards and hazardous materials impacts that have not already been adequately assessed in the 1994 LRDP EIR.

8. BIOLOGICAL RESOURCES

Background

The campus is located in a region composed primarily of agricultural lands that include remnant riparian (streamside) and urban areas. Habitat types found on the campus are discussed in the 1994 LRDP EIR on pages 4.7-2 to 4.7-8 and illustrated in Figure 4.7-1 on page 4.7-3. The proposed conference center facility, hotel, and Graduate School of Management site includes urban habitat and research gardens used by the Department of Environmental Horticulture. The Environmental Horticulture replacement field site includes Agricultural Land. These habitats are discussed further below.

Agricultural Lands: Agricultural lands include two habitat/cover types: (1) Cropland/Pasture habitat composed of an annual herbaceous plant species cover type and (2) Orchard/Vineyard habitat composed of a perennial woody plant species cover type. The project sites include cropland habitat.

Cropland is used for cultivation of annual or short-lived crops. It is a dynamic landscape feature that is frequently altered throughout the year. Most Cropland habitat supports a single crop that is planted in the spring and harvested during summer or fall. Planting and harvesting cycles are usually associated with the disking and tilling of fields which regularly and frequently disturbs the land. Cropland provides food and cover for wildlife species such as song birds and small rodents, and foraging opportunities for raptors due to the frequent flooding, mowing, or harvesting of the fields that make the prey readily available. The State-listed threatened Swainson's hawk relies heavily on Cropland for foraging. Plant species associated with Cropland habitat include cultivated crops and non-native herbs, shrubs, and trees associated with landscaped or disturbed edges along roads, irrigation ditches, and agricultural fields. Additional habitat elements that contribute to the value of Cropland when present are isolated oak trees and tree-lined, vegetated, or landscaped borders of fields and along roads. Most notable of the tree-lined streets are the walnut trees planted along Road, 98 and Russell Road and the olive trees along Hopkins Road and Olive Tree Lane. These habitat elements, when present, provide perching and nesting habitat for birds, as well as food, cover, and movement corridors for birds and other wildlife.

Urban Landscaping: Urban habitat consist of landscaped areas (trees, shrubs, and maintained grassy areas) throughout the central campus and all outlying areas of development. While the University Arboretum contains a significant collection of botanical specimens, it is included within this habitat designation because it is essentially a landscaped area subject to regular maintenance (rodent and weed control) as well as high frequency use by people (picnicking, jogging, walking, etc.).

The landscaped nature of the central campus, with the abundance of mature trees, provides wildlife habitat values (food and cover) for the developed areas of central campus. Many species of birds (including the Swainson's hawk) are known to nest in the central campus trees. Other resident and migratory hawks, owls, song birds, and woodpeckers are also known to use landscaped areas on the campus for nesting, food, and cover.

Special-Status Species such as state and federally listed rare, threatened or endangered species are discussed in the 1994 LRDP EIR on pages 4.7-8 through 4.7-18. Potential special status species that might be found on the campus are presented in Tables 4.7-1 and 4.7-2 of the 1994 LRDP EIR. Special-status species that could be affected by project construction include burrowing owls, Swainson's hawk, and valley elderberry long-horn beetle (VELB). Each of these species is described below.

Burrowing Owl: The burrowing owl is fully protected against take pursuant to Section 3503.5 of the California Fish and Game Code and is a California Department of Fish and Game (CDFG) species of special concern. The burrowing owl is also a designated Migratory Game Bird of Management Concern by the US Fish and Wildlife Service (USFWS). Burrowing owls are small birds with the relatively unique habits of being active during the day as well as in the evening, and of nesting underground. They typically use burrow systems formerly occupied by ground squirrels or other large burrow-dwelling rodents. Their diet is usually dominated by insects, but may also include small mammals, reptiles, and amphibians. Burrowing owls generally forage in open fields with relatively sparse, short vegetation; their foraging ability is disrupted by dense tall vegetation.

Swainson's Hawk: The Swainson's hawk 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 California Fish and Game Code and the Federal Migratory Bird Treaty Act. The Swainson's hawk is a relatively large bird-of-prey that typically nests in large trees in riparian corridors as well as isolated trees remaining in or adjacent to agricultural fields in the Central Valley. However, in the City of Davis, and on the central campus, these hawks also nest in the large trees among buildings, roads, and dwellings.

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

Valley Elderberry Longhorn Beetle (VELB): The VELB is listed as a threatened species under the federal Endangered Species Act. This species requires its host plant, the Mexican elderberry shrub, for its complete life cycle. The USFWS considers all elderberry shrubs within the historic range of VELB (the Central Valley and foothills up to 2,000 feet) as potential habitat for this species.

1994 LRDP EIR Standards of Significance

The environmental analysis in the 1994 LRDP EIR considered an impact to biological resources to be significant if campus or regional growth would:

- result in substantial, or potentially substantial, adverse change in the native flora or fauna, including candidate species and DFG "Species of Special Concern" from conversion of existing habitat to urban uses or disturbance of areas currently supporting such species;
- 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 the substantial reduction in acres of habitat (including wetlands) of native fish, wildlife, or plants;
- interfere substantially (creation of barriers to the free movement between habitats both locally and regionally) with the movement of any resident or migratory fish or wildlife species; or
- be in conflict with existing state or federal natural resource protection laws, policies, or guidelines.

1994 LRDP EIR Significant Impacts and Mitigation Measures

Impacts of campus growth through 2005-06 on biological resources are addressed in Section 4.7 (Biological Resources) of the 1994 LRDP Draft EIR. The WWTP Replacement Project EIR and the 1997-98 Major Capital Improvement Projects SEIR identified the loss of additional ruderal/annual grassland habitat over the amount assessed in the 1994 LRDP EIR and revised the magnitude of associated impacts, 1994 LRDP EIR Impacts 4.7-1, 4.7-5, and 4.7-9 (Appendix G of the WWTP Replacement Project Final EIR and Section 8 of the 1997-98 Draft SEIR). The 1997-98 Major Capital Improvement Projects SEIR, as revised by the Western Human Nutrition Center Tiered Initial Study and Mitigated Negative Declaration, presented a measure (identified as 1994 LRDP EIR Mitigation Measure 4.7-3(d)) to mitigate the cumulative impact on burrowing owl nesting habitat (Section 2 of the 1997-98 Draft SEIR, page 65 of the Initial Study). Appendix A of this document discusses revisions to the 1994 LRDP EIR in further detail. Significant impacts on biological resources identified in the 1994 LRDP EIR, as revised, that are relevant to the proposed project are presented in the following table. The levels of significance before and after application of mitigation measures identified in the 1994 LRDP EIR, as revised, are also presented in the table. The proposed project is within the scope of the analysis in the 1994 LRDP EIR as updated in subsequent documents, and there are no changed circumstances since the preparation of these documents that require reanalysis of the cumulative impacts.

<i>LRDP EIR IMPACT</i>	Level of Significance Prior to Mitigation	Level of Significance after/with Mitigation
4.7-1 – Development allowed under the 1994 LRDP would result in the conversion of approximately 231 acres of Agricultural Lands and Annual/Ruderal Grassland to Campus-related development and could result in the loss of the special-status plant species listed in Table 4.7-1 or added to the special-status plant list in the future. ¹	PS	LS
4.7-3 – Development allowed under the 1994 LRDP would result in the conversion of approximately 231 acres of Agricultural Land and Ruderal/Annual Grassland habitat to Campus-related development and could result in the loss of burrowing owl nesting habitat. ¹	PS	LS
4.7-4 – Development allowed under the 1994 LRDP would result in the conversion of approximately 231 acres of Agricultural Land and Ruderal/Annual Grassland habitat to Campus-related development which could result in the loss of nesting habitat for raptors (birds-of-prey). ¹	PS	LS
4.7-5 – Development allowed under the 1994 LRDP would result in the conversion of approximately 231 acres of Agricultural Land and Ruderal/Annual Grassland habitat to Campus-related development which would result in the loss of foraging habitat for the Swainson's hawk. ¹	S	LS
4.7-6 – Development allowed under the 1994 LRDP could result in the potential failure of Swainson's hawk nesting efforts.	PS	LS
4.7.7 – Development allowed under the 1994 LRDP could result in the loss of potential habitat for the valley elderberry longhorn beetle.	PS	LS
4.7-9 – Development allowed under the 1994 LRDP would contribute 231 acres of the cumulative loss in the region of 1,258 acres of Agricultural Land and Ruderal/Annual Grassland habitat for resident and migratory wildlife species. ¹	SU	SU
4.7-10 - Development allowed under the 1994 LRDP could contribute to the cumulative loss of valley elderberry longhorn beetle habitat.	SU	SU

SU = Significant and Unavoidable; S = Significant; LS = Less than Significant

¹ As amended in Impacts 4.4-4, 4.4-6, 4.4-15 through 4.4-19, and 4.4-22 of the 1997 WWTP Replacement Project EIR and Impact 811 of the 1997-98 Major Capital Improvements Projects Draft SEIR, and as summarized in Appendix A of the 1997-98 Major Capital Improvements Projects Final SEIR.

Mitigation measures in the 1994 LRDP EIR that are applicable to the proposed project and that will be required as part of project implementation include the following:

- ***LRDP EIR Mitigation Measure 4.7-1(a)*** – During the project planning phase, the Campus shall conduct a rare plant survey if the site was previously undeveloped. Surveys shall be conducted by qualified biologists in accordance with the most current DFG/USFWS guidelines or protocols and shall be conducted at the time of year when the plants in question are identifiable. (Identification periods are included in Table 4.7-1, however, survey timing for the various plant species is dependent in part on yearly rainfall patterns and is determined on a case-by-case basis.)
- ***LRDP EIR Mitigation Measure 4.7-3(b)*** – The Campus, in consultation with the DFG, shall conduct a pre-construction breeding-season survey (approximately February 1 through August 31) of proposed project sites during the same calendar year that construction is planned to begin. The survey shall be conducted by a qualified biologist to determine if any burrowing owls are nesting on or directly adjacent to any proposed project site.

If phased construction procedures are planned for the proposed project, the results of the above survey shall be valid only for the season when it is conducted.

- ***LRDP EIR Mitigation Measure 4.7-3(c)*** – During the construction stage, the Campus in consultation with the DFG, shall avoid all burrowing owl nest sites potentially disturbed by project construction during the breeding season while the nest is occupied with adults and/or young. The occupied nest site shall be monitored by a qualified biologist to determine when the nest is no longer used. Avoidance shall include the establishment of a 300-foot to 500-foot diameter non-disturbance buffer zone around the nest site. Disturbance of any nest sites shall only occur outside of the breeding season and when the nests are unoccupied based on monitoring by a DFG approved biologist. The buffer zone shall be delineated by highly visible temporary construction fencing.

Based on approval by DFG, pre-construction and pre-breeding season exclusion measures may be implemented to preclude burrowing owl occupation of the project site prior to project-related disturbance.

- ***1997-98 Mitigation Measure 4.7-3(d)*** – In addition to the compensation for the loss of Swainson's hawk foraging habitat identified in the 1994 LRDP EIR Mitigation Measure 4.7-5, the Campus shall also convert either the approximately 55 acres of existing orchards adjacent to Putah Creek at the Russell Ranch or a

portion of the 85 acres designated habitat restoration and research area to cover type suitable for burrowing owl nesting habitat.

- ***LRDP EIR Mitigation Measure 4.7-4(b)*** – *The Campus shall continue to conduct annual surveys to determine the location of nesting Swainson's hawks on the Campus. If nesting Swainson's hawks are found during the survey at a previously unknown location within one-half mile of a project site and not within 100 yards of a previously documented site, the Campus shall, prior to project construction, contact the California Department of Fish and Game to determine the potential for disturbance to nesting Swainson's hawks and will implement feasible changes in the construction schedule or other appropriate adjustments to the project in response to the specific circumstances.*

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.

- ***LRDP EIR Mitigation Measure 4.7-5*** – *As Agricultural Land and Ruderal/Annual Grassland is converted to Campus development under the 1994 LRDP, the Campus will compensate for the loss of Swainson's hawk foraging habitat at a 1:1 ratio of acres lost to acres preserved through the implementation of one or a combination of the following methods.*
 - *Approximately 40 acres of Cropland habitat in the "C" tract adjacent to the Putah Creek Reserve on the West Campus will remain Campus agricultural research uses but will be under land use restrictions that will ensure cropland cover types that are suitable as Swainson's hawk foraging habitat. No incompatible uses such as orchards, vineyard, or development will be allowed in the areas set aside for Swainson's hawk foraging habitat. However, normal crop rotations may periodically result in unsuitable cover types of annual crops.*
 - *Approximately 20 acres of land within the North Fork Cutoff that currently support livestock enclosures will be restored to a woodland and grassland habitat.*
 - *Approximately 55 acres of existing orchards adjacent to Putah Creek at the Russell Ranch will be removed, converted to a cover type suitable for Swainson's hawk foraging, and added to the Putah Creek Reserve.*

- *Approximately 85 acres at the Russell Ranch that have been designated as a habitat restoration and research area will include the establishment of cover types that are suitable Swainson's hawk foraging habitat.*
- ***LRDP EIR Mitigation Measure 4.7-6(a)*** – *The Campus shall conduct a pre-construction breeding season survey of the proposed project site, and within a one-half-mile radius of the site, to determine the presence or absence of any nesting Swainson's hawks.*

If any Swainson's hawks are nesting within a one-half-mile radius of the project site, the Campus shall, in consultation with DFG, determine the potential for disturbance to nesting Swainson's hawks and will implement feasible changes in the construction schedule or other appropriate adjustments to the project in response to the specific circumstances.

- ***LRDP EIR Mitigation Measure 4.7-6(b)*** – *The Campus shall continue to conduct annual surveys to determine the location of nesting Swainson's hawks on and within ¼ mile of the Campus. If nesting Swainson's hawks are found during the survey at a previously unknown location within one-half mile of a project site and not within 100 yards of a previously documented site, the University shall, prior to project construction, contact the California Department of Fish and Game to determine the potential for disturbance to nesting Swainson's hawks and will implement feasible changes in the construction schedule or other appropriate adjustments to the project in response to the specific circumstances.*

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.

- ***LRDP EIR Mitigation Measure 4.7-7*** – *During the project design stage and as a condition of project approval, the Campus shall:*

(a) Conduct a project specific survey for all potential VELB habitat, including a stem count and an assessment of historic or current VELB use.

- ***LRDP EIR Mitigation Measure 4.7-9(a)*** – *Implement Mitigation Measures 4.7-1, 4.7-3, 4.7-4, 4.7-5, and 4.7-6.*
- ***LRDP EIR Mitigation Measure 4.7-9(b)*** – *The County of Yolo, when implementing the County-wide Habitat Management Plan, should impose a 1:1 mitigation ratio of habitat preserved to that converted on all development projects within their jurisdiction that convert Agricultural Land and Annual Grassland habitat to urban development.*

- ***LRDP EIR Mitigation Measure 4.7-10 – Implement Mitigation Measures 4.7-7 (a), (b), and (c).***

The mitigation measures listed above are incorporated into the proposed project, and the proposed project, as mitigated, is evaluated in the checklist on the following page.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Impact for which LRDP/ Program EIR is Sufficient	Less Than Significant Impact	No Impact
Would the project:					
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?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Conflict with any local applicable policies protecting biological resources?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Impact for which LRDP/ Program EIR is Sufficient	Less Than Significant Impact	No Impact
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other applicable habitat conservation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
g) Exceed an applicable LRDP or Program EIR Standard of Significance?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Discussion

- a) Special status species are addressed in the 1994 LRDP DEIR on page 4.7-8. For the purposes of the EIR, special status species were defined as those taxa that are listed as threatened or endangered under either the California or Federal Endangered Species Acts, species that are candidates for either State or federal listing, and species afforded protection under the California Fish and Game Code. Also included, as special status species, are DFG “Species of Special Concern.”

Plants

In accordance with 1994 LRDP EIR Mitigation Measure 4.7-1(a), a rare plant survey for special status species was performed for the Center for the Arts Performance Hall and South Entry Roadway and Parking Improvements Project, which included the proposed Conference Center, Hotel, and Graduate School of Management Building project site. Results of the May 1998 survey noted that the project site contains cropland and test plots associated with Environmental Horticulture teaching and research uses, ornamental trees and plantings, and some disturbed ruderal vegetation such as pricyox tongue, wild oats, rip-gut brome, canary grass, and wild radish. No special-status plants or habitats to support those species were identified on the project site.⁴

The proposed relocation site for Environmental Horticulture activities is currently used by the Animal Science Department for animal forage production. Therefore, this site would not offer suitable habitat for special-status species.

Wildlife

Burrowing Owls

The proposed project sites do not offer suitable nesting or foraging habitat for burrowing owls due to their vegetation cover. However, burrowing owls have been recorded at various central

campus locations and could potentially occupy the project sites prior to construction. Consistent with 1994 LRDP EIR Mitigation Measure 4.7-3(a), the campus would conduct pre-construction burrowing owls surveys. If the pre-construction surveys do not identify any owls in the vicinity of the project site, then no further mitigation would be required. However, should a burrowing owl nest be located, 1994 LRDP EIR Mitigation Measure 4.7-3(c) would be implemented. Implementation of 1994 LRDP EIR Mitigation Measure 4.7-3(c) would ensure that the location of burrowing owls on the project site would be known, occupied borrows would not be harmed, and active burrows would be protected.

Swainson's Hawks

The occurrence of the Swainson's hawk in and around the campus is well documented. Surveys for Swainson's hawk nests on the campus and within one-half mile of the central campus have been conducted annually since 1990. The results of these surveys documented over 50 different nest trees on the campus during that period.⁵ Most of the Swainson's hawk nests are located in the Putah Creek riparian corridor.

The closest nest site to the conference center, hotel, and Graduate School of Management Building project site during the last five years is over ¼ mile to the east. This nest site is located off the campus in an agricultural field to the south acre of the Union Pacific Railroad tracks. The nest is approximately 150 feet from the tracks and 200 feet from I-80. Due to the distance to the nest and the habituation of the birds at this nest site to the freeway, highway, and agricultural operation and noise, it is not anticipated that construction associated with the proposed project would adversely affect the nest at this location. Two other nest sites are between ¼ and ½ mile away from the project site. Both are on the opposite side of I-80 and would be screened by I-80, existing vegetation, and/or existing buildings. These nest sites would not be affected by project construction or operation of the proposed project.

Five Swainson's hawk nest sites are within ½ mile of the proposed relocation site for the Environmental Horticulture teaching and research fields activities. These sites are located within the riparian habitat along the North Fork cutoff to the north and along Putah Creek to the south. Teaching and research activities on the proposed Environmental Horticulture replacement fields site would not differ substantially from activities already occurring on the site. The nest sites would be screened by existing vegetation, and they would not be disturbed by construction activities associated with the proposed Environmental Horticulture storage/support building, greenhouse, access road, and parking area.

Nonetheless, due to the proximity of the nests to the project sites, construction of the project could potentially have a significant impact on nesting Swainson's hawks (Impact 4.7-6). 1994 LRDP EIR Mitigation Measures 4.7-6(a) and (b) were identified to reduce the potential failure of Swainson's hawk nest to a less-than-significant level.

In accordance with 1994 LRDP EIR Mitigation Measures 4.7-6(a) and (b), the campus would conduct pre-construction surveys beginning in March of the year of construction, which is at the beginning of the nesting season. By conducting presence/absence pre-construction surveys, nesting Swainson's hawks within ½ mile of the proposed project site would be identified. If a nesting pair is located during the pre-construction surveys, then consultation with CDFG would determine the potential for disturbance. In consultation with CDFG, the campus would implement feasible changes to the project in response to the specific circumstances to mitigate impacts to less-than-significant levels. Implementation of 1994 LRDP EIR Mitigation Measures 4.7-6(a) and (b), which will be included in the proposed project, would minimize impacts to nesting Swainson's hawks and other raptors to a less-than-significant level.

The proposed Conference Center, Hotel, and Graduate School of Management Building project site does not offer suitable foraging habitat for Swainson's hawks due to its proximity to urban development. The proposed relocation site for Environmental Horticulture, however, does offer potential foraging habitat. Environmental Horticulture teaching and research field activities would keep most of this area as cropland habitat, but up to two acres of the site would be developed for a proposed support/storage building, greenhouse, roadway, and parking area. The 1994 LRDP EIR identified that development allowed under the 1994 LRDP would contribute to the conversion of agricultural land and the loss of foraging habitat for the Swainson's hawk (Impact 4.7-5). The Draft Focused Tiered EIR will further evaluate the project's potentially significant impact on loss of Swainson's hawk foraging habitat and will identify mitigation to reduce this impact to a less-than-significant level.

Valley Elderberry Longhorn Beetle

Consistent with 1994 LRDP EIR Mitigation Measure 4.7-7(a), the proposed project site was surveyed in May 1998 for the presence of VELB habitat. No elderberry clusters were observed.⁶

- b) The proposed project sites are located in the central campus and are routinely disturbed. Therefore, the proposed project would not effect a sensitive natural community and no impact would occur.
- c) Although the Conference Center, Hotel, and Graduate School of Management Building project site is located near the University Arboretum, including Spafford Lake, there are no known streams, ponds, or wetlands known to occur or anticipated to occur on the proposed project site due to its highly disturbed nature. No impact would occur.
- d) Due to the type of habitat it supports, the disturbed nature of the site, and the uses on adjacent lands, development on the project sites would not substantially interfere with movement of wildlife or fish or impede the use of nursery sites. No impact would occur.

- e) The proposed project would involve the removal of ornamental trees. However, the project would not conflict with any local applicable policies protecting biological resources. No impact would occur.
- f) The proposed project sites are not included in any conservation plan and therefore would not conflict with any policies, ordinances, or adopted habitat conservation plans. No impact would occur.
- g) Standards of significance for biological resources impacts that were used in preparation of the 1994 LRDP EIR are presented earlier in this section. These standards are consistent with the biological resources questions in the current Environmental Checklist. As discussed above, with the incorporation of 1994 LRDP EIR mitigation measures, the proposed project would not exceed the standards of significance identified in the 1994 LRDP EIR and would not result in new significant impacts related to biological resources that were not previously analyzed in the 1994 LRDP EIR.

Summary

The proposed project would result in one potentially significant impact to biological resources associated with increased loss of agricultural land habitat for Swainson's hawk. This impact will be further evaluated in the project's Draft Focused Tiered EIR. Mitigation Measures 4.7-3 (b) and (c), 4.7-6(a) and (b) will be implemented as part of the project.

9. HYDROLOGY AND WATER QUALITY

Background

Putah Creek, the principal stream course in the Davis region, flows along the southern boundary of the Russell Ranch property and the west campus. The entire flow of Putah Creek is diverted to the South Fork of Putah Creek west of the I-80/SR 113 intersection. The historical channel of the North Fork of Putah Creek from the South Fork diversion to SR 113 is dry and is known as the North Fork Cutoff. The historical channel of the North Fork of Putah Creek east of SR 113 on the central campus is currently the Arboretum Waterway and is used for central campus storm water retention.

The 100-year flood plain in the campus is generally located along the Putah Creek, South Fork of Putah Creek, and historical North Fork of Putah Creek channels. A portion of the west campus along County Road 98 is also subject to inundation during a 100-year storm event and is designated as a flood hazard zone by the Federal Emergency Management Agency (FEMA) (see Figure 4.8-2 on page 4.8-4 of the 1994 LRDP Draft EIR).

The South Fork of Putah Creek receives treated effluent discharge from the new campus Wastewater Treatment Plant. The plant, which began operation in March 2000, is more reliable to operate than the outdated treatment system that was in use when the 1994 LRDP and 1994 LRDP EIR were prepared.

The existing storm water drainage system on campus consists of collectors, pump stations, transmission mains, and the Arboretum Waterway. Storm drainage from the central campus is discharged to the Arboretum Waterway, which serves a storm water retention basin for the central campus. Rainfall overflow is pumped into the South Fork of Putah Creek during large storm events.

The campus is underlain by the Lower Cache-Putah Basin, which is divided by relatively impervious soil layers into shallow/intermediate and deep aquifers. Domestic and fire water for the campus is drawn from wells in the deep aquifer (located up to 1,500 feet below the ground surface). Utility water is used primarily for landscape irrigation and is drawn from wells in the shallow/intermediate aquifer (200 to 600 feet below the ground surface). Groundwater underlying the campus is generally high in mineral content and is considered good quality for agricultural use and adequate quality for municipal use.

1994 LRDP EIR Standards of Significance

The environmental analysis in the 1994 LRDP EIR considered an impact to hydrology and water quality to be significant if campus or regional growth would:

- expose faculty, staff, students or visitors to flood hazards by being located within the 100-year flood plain as defined by the Federal Emergency Management Agency;

- result in substantial changes in absorption rates, drainage patterns, or the rate and amount of surface runoff which cause existing drainage capacity to be exceeded;
- substantially interfere with groundwater recharge; or
- substantially degrade surface and/or groundwater quality due to increases in sediments, erosion and contaminants generated by construction and/or implementation of the 1994 LRDP.

1994 LRDP EIR Significant Impacts and Mitigation Measures

Significant impacts identified in the 1994 LRDP EIR that are relevant to the proposed project are presented in the following table. The levels of significance before and after application of mitigation measures identified in the 1994 LRDP EIR are also presented. Impacts of campus growth through 2005-06 on hydrology and water quality were addressed in Sections 4.8 (Hydrology and Water Quality) and 4.14 (Utilities and Infrastructure) of the 1994 LRDP Draft EIR. Cumulative hydrology and water quality impacts were reevaluated in the WWTP Replacement Project EIR, but no changes were made to 1994 LRDP EIR impacts, mitigation measures, or levels of significance. Updates and revisions to the 1994 LRDP EIR are summarized in Appendix A of this document. The proposed project is within the scope of the analysis presented in the 1994 LRDP EIR as reevaluated in the WWTP Replacement Project EIR, and there are no changed circumstances since the preparation of these documents that require major revisions of the cumulative analysis. Please note that cumulative regional impacts 4.8-8 and 4.8-9 include mitigation measures to reduce the impacts to less-than-significant levels. However, these impacts are identified as significant and unavoidable because the University of California cannot guarantee implementation of a mitigation measure that is not within its jurisdiction to enforce and monitor. Impacts 4.14-1 and 4.14-11 also include measures to reduce the magnitude of the impacts. However, due to the unknown significance of these impacts, the impacts remain significant and unavoidable.

<i>LRDP EIR IMPACT</i>	Level of Significance Prior to Mitigation	Level of Significance after/with Mitigation
4.8-2 – New impervious surfaces associated with development allowed under the 1994 LRDP would increase surface runoff, and could exceed existing drainage capacity and result in localized flooding.	S	LS
4.8-3 – New impervious surface associated with development allowed under the 1994 LRDP could reduce the potential for groundwater recharge.	S	LS
4.8-4 – Increased siltation and sedimentation generated during construction activities associated with development allowed under	S	LS

<i>LRDP EIR IMPACT</i>	Level of Significance Prior to Mitigation	Level of Significance after/with Mitigation
the 1994 LRDP could adversely affect receiving water quality.		
4.8-5 – Increased runoff from additional impervious surfaces associated with development allowed under the 1994 LRDP could result in sedimentation and increased levels of urban contaminants which could adversely affect receiving water quality.	S	LS
4.8-6 – Increased flows to the Campus Wastewater Treatment Plant due to development allowed under the 1994 LRDP would generate increased discharge of treated effluent into the South Fork of Putah Creek which could adversely affect receiving water quality.	S	LS
4.8-8 – Urban and agricultural development allowed under the 1994 LRDP in the Putah Creek watershed, including the Campus, could reduce receiving water quality.	SU	SU
4.8-9 – Development allowed under the 1994 LRDP, in combination with cumulative development in the Lower Cache-Putah Groundwater Basin, would increase the amount of impervious surface and reduce groundwater recharge potential.	SU	SU
4.14-1 – Development allowed under of the 1994 LRDP would directly increase the demand for water supplied from the deep aquifer.	SU	SU
4.14-11 – Cumulative development allowed under the 1994 LRDP would result in increased demand for water from the deep aquifer.	SU	SU

SU = Significant and Unavoidable; S = Significant; LS = Less than Significant

Mitigation measures in the LRDP EIR that are applicable to the proposed project and that will be required as part of project implementation include the following:

- ***LRDP EIR Mitigation Measure 4.8-2(a)*** – *Prior to approval of final project design, the Campus shall prepare detailed drainage study to evaluate each specific development project under the 1994 LRDP to determine if project runoff would exceed the capacity of the existing Campus storm drainage system.*
- ***LRDP EIR Mitigation Measure 4.8-3*** – *The Campus shall incorporate where feasible as part of project design the following measures, or equally effective measures, to maximize percolation and infiltration of precipitation into the underlying groundwater aquifers:*
 - (a) *the use of pervious paving material; or*
 - (b) *preservation and utilization of natural drainage areas.*
- ***LRDP EIR Mitigation Measure 4.8-4(a)*** – *If project construction includes the disturbance of five acres or more of land, the Campus shall include in all construction contracts a requirement that Campus contractors file a Notice of*

Intent for coverage under the State General Construction Activity Storm Water Permit. The contractor shall comply with applicable permit requirements.

The 1994 LRDP EIR further states: *Compliance with the Permit would require the implementation of Best Management Practices (BMPs). BMPs include schedules of activities, prohibitions of practices, maintenance procedures, and other management practices to prevent or reduce pollution (i.e. straw bale dikes, silt fences, sediment traps, or similar methods).*

- ***LRDP EIR Mitigation Measure 4.8-5(a)*** – *The Campus shall ensure that project design includes a combination of the following Best Management Practice (BMPs), or equally effective measures:*
 - (i) *reduction of the area and length of time that the site is cleared and graded;*
 - (ii) *revegetation/stabilization of cleared areas as soon as possible;*
 - (iii) *Peak flow reduction and infiltration practices, such as grass swales, infiltration trenches and grass filter strips shall be incorporated.*
 - (iv) *Storm drain inlets shall be labeled to educate the public of the adverse impacts associated with dumping in receiving waters (i.e. “Don’t dump! Drains to creek”).*
 - (v) *Landscape areas, including borders shall use warm season grasses and drought tolerant vegetation wherever feasible to reduce demand for irrigation and thereby reducing irrigation runoff.*
 - (vi) *Efficient irrigation shall be installed in landscaped areas to minimize runoff and evaporation and maximize the water that will reach the plant roots. Such irrigation systems include drip irrigation, soil moisture sensors, and automatic irrigation systems.*

- ***LRDP EIR Mitigation Measure 4.8-6(a)*** – *The Campus shall continue to monitor effluent discharge, in compliance with WDR Order No. 92-040, from the wastewater treatment plant to identify any exceedances of established WDR effluent limits.¹*

1 In 1997, WDR Order No 90-040 was superceded by WDR Order No. 97-236.

- ***LRDP EIR Mitigation Measure 4.8-6(b)*** – *If the effluent limits established in WDR Order No. 92-040 are exceeded, and action is required by the CVRWQCB, the Campus shall make modifications to the pretreatment program to ensure compliance with established effluent limits.¹*
- ***LRDP EIR Mitigation Measure 4.8-6(c)*** – *The Campus shall apply for and comply with any requirements of a NPDES WDRs for the proposed new wastewater treatment plant prior to plant operation.*
- ***LRDP EIR Mitigation Measure 4.8-8(a)*** – *Implement Mitigation Measures 4.8-4(a) and (b), 4.8-5(a) and (b) and 4.8-6(a) through (c).*
- ***LRDP EIR Mitigation Measure 4.8-8(b)*** – *When the EPA adopts NPDES Municipal Storm Water Permit requirements for small municipalities, local jurisdictions in the Putah Creek Watershed would apply for, obtain, and implement a NPDES Municipal Storm Water Permit in accordance with EPA requirements.*
- ***LRDP EIR Mitigation Measure 4.8-8(c)*** – *Comprehensive Storm Water Pollution Prevention Plans and monitoring programs would 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 Best Management Practices or equally effective measures.*
- ***LRDP EIR Mitigation Measure 4.8-9(a)*** – *Implement Mitigation Measure 4.8-3(a) and (b).*
- ***LRDP EIR Mitigation Measure 4.8-9(b)*** – *Jurisdictions in the Lower-Cache Putah Creek Groundwater Basin should encourage development to be accomplished in a manner that would maximize percolation and infiltration of precipitation into the underlying groundwater aquifers through the use of pervious paving materials, cluster development, retention of natural drainage areas, and identification and retention of flood plains and areas of high recharge potential.*
- ***LRDP EIR Mitigation Measure 4.14-1(a)*** – *The Campus shall ensure that each project is designed to include the following domestic water conservation measures.*
 - (i) *Low-flow showerheads (2.0 gpm or less) shall be installed in all new showers.*

- (ii) *Toilets with low-water-use flush devices (with average savings of 1 gallon per flush) shall be installed in all new facilities and existing facilities should be retrofitted at a pace at least equal to new development.*
- ***LRDP EIR Mitigation Measure 4.14-3(a)*** – *The Campus shall ensure that each project is designed to include the following utility water conservation measures:*
 - (i) *landscape, where appropriate, with native, drought-resistant plants, drip irrigation systems;*
 - (ii) *apply heavy applications of mulch to landscaped areas to reduce evaporation; and*
 - (iii) *use treated wastewater for landscape irrigation where feasible.*
- ***LRDP EIR Mitigation Measure 4.14-3(b)*** – *The Campus shall continue to monitor the groundwater elevations at its existing wells to ascertain whether any long-term storage depletion of the shallow/intermediate aquifer is due to UC Davis activities.*
- ***LRDP EIR Mitigation Measure 4.14-11*** – *Implement Mitigation Measures 4.14-1(a) and (b).*

The mitigation measures listed above are incorporated into the proposed project, and the proposed project, as mitigated is evaluated in the checklist below.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Impact for which LRDP/ Program EIR is Sufficient	Less Than Significant Impact	No Impact
Would the project:					
a) Violate any water quality standards or waste discharge requirements?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Impact for which LRDP/ Program EIR is Sufficient	Less Than Significant Impact	No Impact
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)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
f) Otherwise substantially degrade water quality?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Impact for which LRDP/ Program EIR is Sufficient	Less Than Significant Impact	No Impact
h) Place within a 100-year flood hazard area structures, which would impede or redirect flood flows?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
j) Inundation by seiche, tsunami, or mudflow?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
k) Exceed an applicable LRDP or Program EIR Standard of Significance?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Discussion

- a) Storm drainage from the central campus (including the Conference Center, Hotel, and Graduate School of Management Building project site) is discharged into the South Fork of Putah Creek, via the Arboretum Waterway. During construction and after the project is completed, the site would continue to drain to the same location. The proposed site for relocated Environmental Horticulture teaching and research field activities is located in a portion of the west campus that is not drained by a storm drain system and runoff in this area is intercepted by roads that divide parcels. Storm water primarily evaporates or percolates into the soil.

Construction

Construction of the proposed project would include temporary earth disturbing activities, such as grading and excavation, which could result in increased rates of soil erosion leading to increased sediment loads in storm water runoff. This would adversely affect receiving water quality. Soils underlying all of the project site (Yolo and Reiff Series) are characterized as having minimum erosion potential (see Figure 4.9-1 on page 4.9-6 of the 1994 LRDP EIR and the discussion under Items 10b and 10c).

The area to be graded for site preparation for the proposed project would include approximately five acres. Temporary earth disturbing activities could result in an increased rate of soil erosion leading to increase sediment loads in storm water runoff, which would adversely affect Putah Creek water quality. Because the site’s soils are characterized as having minimum

erosion potential, it is anticipated that potential water quality impacts would be minimal. However, this impact would incrementally contribute to construction-related water quality impacts on the Arboretum Waterway and the South Fork of Putah Creek, as previously identified in the 1994 LRDP EIR. Implementation of 1994 LRDP EIR Mitigation Measure 4.8-4(a), which would be included in the proposed project, would reduce adverse impacts to surface water quality that would occur as a result of construction activities to a less than-significant-level by requiring the contractor to obtain coverage under the National Pollutant Discharge Elimination System (NPDES) state-wide General Permit for Discharge of Storm Water Associated with Construction Activity. As part of a recent agreement with the Central Valley Regional Water Quality Control Board, the campus has filed for coverage under the General Permit for the entire Davis campus. As part of this permit, the project's contractor would prepare and implement a project-specific storm water pollution prevention plan for construction activities associated with the proposed project. This would reduce potential construction-related surface water quality impacts to less-than-significant levels.

Operation

A maximum of approximately 4.25 acres of impervious surfaces would be created by the proposed Conference Center, Hotel, and Graduate School of Management Building project. The total amount of new impervious surface cover for the proposed project would be less than the total site acreage because portions of the site would include landscaped areas. The proposed relocation of Environmental Horticulture activities would increase impervious surfaces by approximately 0.3 acres to provide associated support buildings and parking.

Increased impervious surface cover would result in an associated increase in surface runoff, which could also contribute to increased sediment and urban contaminant loads in Putah Creek. The primary sources of storm water pollution attributable to the proposed project would be oil, grease (from parked vehicles), heavy metals and sediments from the parking areas and roadways that could adversely affect Arboretum Waterway and South Fork Putah Creek water quality. In addition, project landscaping would require irrigation. Landscape irrigation runoff can increase loads of sediments and nutrients (fertilizers and pesticides) in receiving waters. However, use of fertilizers, pesticides, and herbicides in campus landscaping activities is being reduced from past use.⁷

The 1994 LRDP EIR identified that increased runoff from surfaces developed under the 1994 LRDP could result in sedimentation and increased levels of urban contaminants in receiving water (Impact 4.8-5). 1994 LRDP EIR Mitigation Measure 4.8-5(a), identifying best management practices to be incorporated into project design, would be implemented as part of the proposed project. In compliance with this measure, the project would landscape with drought tolerant vegetation and would install efficient irrigation where feasible to reduce irrigation runoff. This would help reduce the project's operational impact on receiving waters to a less-than-significant level.

The 1994 LRDP EIR concluded that cumulative effects of urban and agricultural development in the Putah Creek Watershed could reduce receiving water quality of Putah Creek (Impact 4.8-8). 1994 LRDP EIR Mitigation Measures 4.8-8 (a) through (c) were identified to reduce this impact to a less-than-significant level, but the impact is considered significant and unavoidable because the University of California cannot guarantee implementation of 4.8-8 (b), which falls within other jurisdictions to enforce and monitor. The proposed project would contribute to, but not exceed, the cumulative urban development identified in the 1994 LRDP. This significant and unavoidable impact was adequately analyzed in the 1994 LRDP EIR and fully addressed by the Findings and Overriding Considerations adopted by The Regents in connection with its approval of the 1994 LRDP and certification of the 1994 LRDP EIR. There are no changed circumstances since the preparation of these documents that require reanalysis of cumulative impacts.

1994 LRDP EIR Mitigation Measure 4.8-6 (a) requires continued monitoring of WWTP effluent discharge. Mitigation Measure 4.8-6 (b) requires, in the event that effluent limits are exceeded, the campus will make modifications to the pretreatment program to ensure compliance. 1994 LRDP EIR Mitigation Measures 4.8-6 (a) and (b) are incorporated as part of the proposed project.

Copper

Final 2000 quarterly effluent testing from the campus WWTP (December 2000) detected copper in excess of the permitted level. The WWTP copper permit limit is 13 parts per billion (ppb), and the results of December 2000 sampling indicated copper concentrations of 16 ppb in the WWTP effluent. The previous sampling of effluent from the new WWTP, which opened in March 2000, indicated that the WWTP was in compliance with all permit limits, including copper (copper concentrations were 5.4 ppb in June 2000 and 10 ppb in September 2000).

The circumstances surrounding the subsequent effluent testing for the first quarter of 2001 were not typical. Effluent testing from one laboratory (that was experiencing several problems with its equipment) showed results for several parameters that were orders of magnitude higher than any other results the campus has experienced. This laboratory found copper levels of 14 ppb, just over the 13 ppb effluent limit. The same samples were sent to another certified laboratory and these results showed copper was non-detect (less than 5 ppb). Both sets of results were reported to the Regional Water Quality Control Board for evaluation, and the Board has not yet responded regarding its conclusions.

Consistent with CEQA, an EIR was prepared for the new campus WWTP that began operation in March 2000 (WWTP Replacement Project Draft EIR, October 1996, and Final EIR, March 1997). The WWTP Replacement Project EIR stated that, “continued discharge of treated effluent into the South Fork of Putah Creek could result in potential water quality

degradation because of the presence of toxic pollutants in the WWTP effluent” (WWTP Draft EIR page 4.1-54). Consistent with the 1994 LRDP EIR, this impact was considered potentially significant. To reduce this impact to a less than-significant-level, the following mitigation measures were adopted (WWTP Final EIR page 2-3) in addition to 1994 LRDP EIR mitigation measures.

4.1-6(a) *The Campus shall strictly implement the pretreatment program and aggressively enforce the local limits to reduce pollutant concentrations and ensure the NPDES permit limits would be met. Implementation of the pretreatment program to ensure that local limits are met will include monitoring, inspection of facilities, education, and enforcement, all as described above in “Regulatory Setting”, in Appendix E [of the WWTP Replacement Project Draft EIR], and in the UC Davis WWTP Final Local Limits Report (Krieger and Stewart 1995) or subsequent updates.*

4.1-6(b) *The Campus will modify the operation and/or treatment processes at the new WWTP as necessary to comply with all applicable permit conditions related to toxics that are in the final NPDES permit for the new WWTP.*

As required by the monitoring programs in both the previous and current WWTP Waste Discharge Requirements (WDRs), and consistent with the 1994 LRDP EIR and WWTP mitigation measures, the campus has monitored WWTP effluent on a quarterly basis.

Between March 1998 and through the first quarter of 2000, the copper concentration in effluent from the old WWTP averaged 33 ppb with a maximum concentration of 59 ppb (Phillips 2001). The results of toxicity testing using bioassays in 100 percent raw effluent show discharge from the old plant generally met or exceeded EPA standards¹.

A yearlong toxicity study of the Cache Creek and Putah Creek watersheds (1998-99) included sampling stations upstream and downstream of the old campus WWTP discharge to Putah Creek and included samples of 100 percent effluent from the old WWTP (California Regional Water Quality Control Board 2000). The study concluded that:

In the Putah Creek Watershed, minor levels of toxicity were detected and these tended to be watershed-wide events not related to the UC Davis wastewater treatment plant discharge. Also Putah Creek sampling was coordinated with that conducted by the UC Davis wastewater treatment plant. Results of the treatment plant’s self-monitoring indicated no toxicity to any of the test species during the study period.

Through three quarters of effluent sampling at the new WWTP, copper concentrations in effluent have been much lower than from the old WWTP, averaging 10 ppb with a maximum of 16 ppb in the December 2000 sample.

1 UC Davis Wastewater Treatment Plant self-compliance monitoring reports, using Ceriodaphnia, fathead minnow larvae, and algae.

In response to the December 2000 copper exceedance, and consistent with the 1994 LRDP EIR and WWTP Replacement Project EIR mitigation measures, the campus has taken several steps to bring copper concentrations into compliance with the permit limit. These steps (listed below) include strictly enforcing the pretreatment program and aggressively enforcing local limits by identifying and removing sources of copper to wastewater where feasible.

- Campus sewer disposal policies were changed in February 2001 to lower the local limit to zero and completely prohibit the discharge of any wastewater containing added copper that is generated by campus users.
- Staff from EH&S performed an audit of campus departments that maintain significant quantities of copper in their laboratories to ensure that all waste is being properly disposed.
- Staff at the campus WWTP are working with campus wastewater researchers, faculty, and outside professional engineers (Brown and Caldwell Environmental Engineering and Consulting) to identify whether operations at the WWTP can be modified to enhance the removal of copper during treatment.
- The campus retained the services of a firm that specializes in source control studies (Larry Walker Associates) to identify enhancements to the pretreatment program to reduce copper loadings.

The results of the EH&S audit of departments that maintain significant quantities of copper to date have indicated that nearly all campus copper users are properly collecting and disposing of their wastes. However, the survey identified several users that historically discharged wastewater containing copper but now handle copper waste appropriately.

The evaluation of methods to reduce copper concentrations in effluent from the WWTP, prepared by Brown and Caldwell (February 2001), concluded that:

- Limited data available from the new WWTP are not sufficient to conclude that copper concentrations are increasing with time. Trace metal concentrations in wastewater are variable particularly from a source as diverse as UC Davis.
- Improved effluent sampling and analysis techniques are needed. The methodology used to collect and analyze effluent samples at the new WWTP may be generating samples that are artificially high in copper levels. The two-person clean sampling method (EPA Method 1669) should be used to collect all compliance samples. This method ensures a more representative sample and reduces the potential for contamination. EPA has generated data showing that clean sampling can result in lower concentrations. Improved analysis techniques would distinguish between particulate copper and copper

in solution. The existing methodology used by the campus does not distinguish between these forms of copper.

- Potential localized sources of contamination at the effluent monitoring point should be removed because they could bias the compliance samples. Metal structures are present in the vicinity of the sampling point and should be evaluated as a potential source of contamination of the compliance samples.
- Chemical treatment methods could be added to the WWTP processes to remove copper. Ferric chloride could be added to raw sewage from the headworks. Ferric chloride and sodium sulfide could be added to the solids storage basin supernatant. Pilot programs are recommended to test the efficacy of these methodologies. If they are effective, and if source control and improved sampling and analysis methods don't reduce copper levels below permit limits, then these or other chemical treatment methods would be implemented.
- Wetlands could be constructed to polish effluent before it is discharged to Putah Creek. If measures described above are not sufficient to bring the WWTP into compliance for copper, a pilot wetland project could be used to evaluate whether this method would be feasible for reducing copper concentrations.

Brown and Caldwell concluded that implementation of the measures listed above would lower copper concentrations sufficiently to achieve compliance with the copper limit in the permit for the campus WWTP.

The source control evaluation concluded that a major potential source of copper in the WWTP effluent is corrosion of copper pipes. The study noted that replacing existing copper pipes and using alternative materials in new construction is not considered feasible. The study states that reducing velocities and temperatures in hot water circulating systems may reduce copper loadings and should be evaluated by the campus. The Unitrans Bus Maintenance Facility, in addition to UC Davis Fleet Services garage and other miscellaneous potential sources, was identified as a potential source of copper discharges that should be evaluated to ensure standard best management practices are being implemented.

In compliance with mitigation measures identified in the 1994 LRDP EIR and the WWTP Replacement Project EIR, the campus will evaluate and implement these recommendations if efficacious and feasible, and if needed after implementing the recommendations described above for reducing copper concentration at the WWTP. The campus has evaluated copper discharges from Art Department buildings and the Unitrans Maintenance Facility. In response to these evaluations, the campus is developing best management practices for the Art Department and incorporated an improved sewer oil/water separator system into the proposed Unitrans Maintenance Facility Expansion Project design.

The proposed project includes no special characteristics that would make it an atypical contributor of copper to the wastewater received at the WWTP due either to its design or the operation of the facility. The project would be required to comply with the campus pre-treatment program and therefore no copper containing compounds would be discharged to the sanitary sewer from the proposed facility. Similar to other laboratories on campus, the new facility would be subjected to periodic audits to ensure that all wastes including copper containing materials are disposed of properly. Therefore, as for most other campus buildings, the more likely source of copper from the proposed project would be corrosion of copper pipes.

If the concentration of copper in wastewater from future projects averages the same as that currently entering the plant, no change in effluent concentrations would occur. Unless a new project is an extremely large source of copper entering the WWTP, the effect of the new project on copper concentrations in effluent levels would be small. If future projects discharge at copper concentrations lower than current average levels, the cumulative effect would be to slightly decrease copper concentration in effluent at the WWTP effluent. If several new large projects discharge to the WWTP with copper levels twice current influent concentrations, copper concentration in effluent at the WWTP would increase by only one ppb.⁸

As identified in 1994 LRDP EIR and WWTP Replacement Project EIR mitigation measures, source control and modification of treatment processes at the WWTP are the correct methods to use to ensure the plant meets discharge limits and will reduce the impact of copper concentrations in WWTP effluent on water quality to a less-than-significant level. Because the proposed project will not be an atypical source of copper, it would not contribute to an increased exceedence of the permit limit for copper in effluent and would make a small contribution to the concentration of copper in WWTP effluent. No additional mitigation measures are required to address project-level and cumulative water quality impacts of increased discharges of wastewater to the WWTP. Therefore, the proposed project would not result in any discharges that would violate water quality standards and a less-than-significant impact would occur.

- b) As summarized in the Background discussion above, the campus is underlain by the Lower Cache-Putah Basin, which is divided by relatively impervious soil layers into shallow/intermediate and deep aquifers. Both aquifers are used regionally for domestic, municipal, agricultural, and industrial uses.

Groundwater Recharge

Implementation of the proposed project would include the construction of new buildings and associated parking and landscaping in the South Entry area of the central campus. In addition, the relocation of Environmental Horticulture activities occurring on the site would include the

construction of structures and parking in the west campus. A maximum of approximately 4.75 (4.25 associated with the Conference Center, Hotel, and Graduate School of Management Building project and 0.3 associated with relocation of Environmental Horticulture) of impervious surfaces would be created by the proposed project; therefore, the proposed project would not result in a measurable change in the condition of the aquifers. In addition, the campus assumed the type of development of the proposed project at the proposed project sites in the 1994 LRDP. However, the 1994 LRDP EIR did conclude that the increase in impervious surface associated with development allowed under the 1994 LRDP could reduce the potential for groundwater recharge (Impact 4.8-3). Implementation of 1994 LRDP EIR Mitigation Measure 4.8-3, incorporated as part of the project, would reduce this impact to a less-than-significant level. An effort will be made to minimize impervious surfaces during project design. Storm water drainage would be channeled where possible, through swales and over other pervious surfaces to filth runoff.

The 1994 LRDP EIR concluded that development allowed under the 1994 LRDP, in conjunction with other regional development in the Lower Cache-Putah Creek Groundwater Basin, would increase the amount of impervious surface coverage and reduce groundwater recharge potential (Impact 4.8-9). Although Mitigation Measures 4.8-9 (a) and (b), incorporated into the proposed project, would reduce the magnitude this impact, the impact would remain significant and unavoidable because the University of California cannot guarantee implementation of 1994 LRDP EIR Mitigation Measure 4.8-9 (b), which is not within the jurisdiction of the University to enforce and monitor. The proposed project would contribute to, but not exceed, the increase in impervious surfaces identified under the 1994 LRDP. This significant and unavoidable impact was adequately analyzed in the 1994 LRDP EIR and addressed by the Findings and Overriding Considerations adopted by The Regents in connection with its approval of the 1994 LRDP EIR. There are no changed circumstances since the preparation of these documents that require reanalysis of cumulative impacts.

Deep Aquifer

The campus domestic/fire water system uses wells that draw from the deep aquifer. The proposed project would result in increased domestic water demand. The Draft UC Davis Domestic Water Master Plan updated 1994 LRDP DEIR water use projections and assumptions.⁹ The Master Plan identified that increased development under the 1994 LRDP would increase campus demand for water from the campus domestic/fire water system to approximately 1,080 million gallons per year (mgy) by 2005-06. According to average assumptions identified in the Master Plan for mixed use facilities (120 gallons per year per asf), the proposed conference center facility (55,000 asf), and the Graduate School of Management Building (27,000 asf) would use approximately 9.8 million gallons per year. According to assumptions identified in the Master Plan for a hotel facility (0.04 mgy per room), the proposed hotel (75 rooms) would use approximately 3 million gallons per year. Activities at the proposed Environmental Horticulture structures would use very small amounts of domestic water. In total,

the project would use approximately 13 mgd of water from the campus domestic/fire water system, an amount that is within the water use projected for 2005-06. Domestic water use in 1999 was estimated at approximately 818 mgd. Incremental growth from 1999 to 2005-06 is projected at approximately 262 mgd. The proposed project would contribute to, but not exceed, this growth.

As stated on page 4.14-11 of the 1994 LRDP Draft EIR:

The limited existing data regarding groundwater elevations and the capacity of the deep aquifer cannot be used to conclude that the aquifer is capable of recharging. On the other hand, there is no evidence of any long-term groundwater depletion. The actual magnitude of the significance of the impact is unknown, because the status of the aquifer cannot be determined with available information. To ensure that this EIR takes a conservative approach, the EIR assumes that the impact is significant and unavoidable.

The proposed project would incrementally contribute to, but not exceed, the increased demand for water from the deep aquifer identified in the 1994 LRDP EIR (Impact 4.14-1). Although implementation of 1994 LRDP EIR Mitigation Measure 4.14-1 (a), incorporated as part of the proposed project, would reduce the magnitude of the project's contribution to this impact, the impact would remain significant and unavoidable. This impact was adequately analyzed in the 1994 LRDP EIR, and addressed in the Findings and Overriding Considerations adopted by The Regents in connection with its approval of the 1994 LRDP and certification of the 1994 LRDP EIR. There are no changed circumstances since the preparation of these documents that require reanalysis of cumulative impacts.

The 1994 LRDP EIR, as amended, concluded that cumulative growth allowed under the 1994 LRDP, in conjunction with regional growth, would result in increased demand for water from the deep aquifer, considered a significant and unavoidable impact (Impact 4.14-11). The proposed project would contribute to, but not exceed, domestic water demand from the deep aquifer assessed in the 1994 LRDP EIR. Although implementation of 1994 LRDP EIR Mitigation Measure 4.14-11, incorporated as part of the proposed project, would reduce the magnitude of this impact, it would remain significant and unavoidable. This significant and unavoidable impact was adequately analyzed in the 1994 LRDP EIR and was addressed by the Findings and Overriding Considerations adopted by The Regents in connection with its approval of the 1994 LRDP and certification of the 1994 LRDP EIR. There are no changed circumstances since the preparation of these documents that require reanalysis of cumulative impacts. As discussed in Section 16 (Utilities and Service Systems) of this Environmental Checklist, the project-level impact on the campus domestic/fire water system would be reduced to a less-than-significant level.

Shallow/Intermediate Aquifer

The proposed project would include landscaping, which would require irrigation. The campus relies on the shallow/intermediate aquifer to provide irrigation water. There would be an increase in water demand from the shallow/intermediate aquifer as a result of development of the project associated with landscape irrigation. Project operations would include water conservation measures such as the installation of low water use landscaping low flow spray systems, irrigation control devices, and application of mulch. It is not anticipated that the irrigation water needed for landscaping would result in a significant change in the quantity of groundwater due to direct withdrawals over that which currently exists. The 1994 LRDP EIR considered the impact to the shallow/intermediate aquifer as a result of development allowed under the 1994 LRDP less-than-significant (Impact 4.14-3) because aquifer monitoring data did not exhibit a declining trend. Although not required, implementation of 1994 LRDP EIR Mitigation Measure 4.14-3 (a), incorporated as part of the project, would ensure that the project includes utility water conservation measures. This measure would further reduce utility water demand and associated impacts on the shallow/intermediate aquifer.

Consistent with 1994 LRDP EIR Mitigation Measure 4.14-3 (b), Facilities Services measures static water levels in all utility wells in the fall and spring of each year. This information, in addition to other groundwater monitoring and pumping and precipitation data, is used to help forecast annual water supplies and balance usage between groundwater and surface water. By continuing these actions, impacts to the shallow/intermediate aquifer will remain less-than-significant.

- c) Stormwater from the proposed Conference Center, Hotel, and Graduate School of Management Building project site currently discharges into the South Fork of Putah Creek, via the Arboretum Waterway. The proposed Environment Horticulture relocation site is not drained by a storm drainage system and stormwater in this area primarily evaporates or percolates into the soil. The proposed project would not alter the existing drainage pattern and would not result in significant erosion or siltation on or off-site (see the discussion under Item 9a). This impact is less than significant.
- d) As described under Item 9a, the proposed project would result in an increase in surface water runoff associated with increased impervious surfaces and increased landscape irrigation. The increase in surface runoff due to project implementation would not be anticipated to result in a significant change in the total amount of surface runoff anticipated and evaluated in the 1994 LRDP EIR. This impact is considered less-than-significant. For a discussion of drainage system capacity, see Item 9e.
- e) Consistent with 1994 LRDP EIR Mitigation Measure 4.8-2(a), the campus evaluated the capacity of the storm drainage collection system at the point of connection and has determined that adequate capacity exists to serve the proposed project. A new line would be installed from

the Conference Center, Hotel, and Graduate School of Management Building project site to a point of connection located southwest of the site. The proposed Environment Horticulture relocation site is not drained by a storm drainage system and stormwater in this area primarily evaporates or percolates into the soil. Therefore, this impact is reduced to a less-than-significant level. For a discussion of stormwater runoff water quality impacts, see Item 9a.

f) Potential sources of water quality degradation as a result of the proposed project are discussed under Item 9a. This impact would be reduced to a less-than-significant level with implementation of 1994 LRDP EIR mitigation measures.

g,h) The proposed project sites are not located in an 100-year flood plain, as defined by the Federal Emergency Management Agency (please see Figure 4.8-2, 100-Year Flood Plain, on page 4.8-4 of the 1994 LRDP EIR). Therefore, implementation of the proposed project would not expose people or property to water-related hazards associated with the 100-year flood plain. No impact would occur.

i) The proposed project sites are not located near a levee or dam and would not be subject to risk of flooding due to failure of one of these structures. The campus is located approximately 23 miles downstream of Monticello Dam (Lake Berryessa) and the Putah Creek Diversion Dam. An inundation study prepared by the U.S. Bureau of Reclamation showed that the project site (and the campus and City of Davis) would be inundated under a maximum of 3 to 9 feet of water approximately 3.5 to 4 hours following a breach of the dam.¹⁰

The probability of a failure of Monticello Dam resulting in an uncontrolled release of water varies depending on the model used. However, the probability of such a release resulting in inundation of the project site is less than 1 in a million.¹¹ Furthermore, as of June 2000, the integrity of Monticello Dam was determined to be in satisfactory conditions and exhibited no unusual cracks, seeps, or deformations. Therefore, exposure to inundation as a result of dam failure would be less than significant.

j) The campus is not located in an area subject to seiches, tsunamis, or mudflows. The project site is flat and is not located in close proximity to any large water bodies. Therefore, no impact would occur.

k) Standards of significance for hydrology and water quality impacts that were used in preparation of the 1994 LRDP EIR are presented earlier in this section. These standards are consistent with the hydrology and water quality questions in the current Environmental Checklist. As discussed above, with the incorporation of relevant 1994 LRDP EIR mitigation measures, the proposed project would not exceed the standards of significance identified in the 1994 LRDP EIR and would not result in new significant impacts related to hydrology and water quality that were not previously analyzed in the 1994 LRDP EIR.

Summary

1994 LRDP EIR Mitigation Measures 4.8-2 (a), 4.8-3, 4.8-4 (a), 4.8-5 (a), 4.8-6 (a) and (b), 4.8-8 (a) through (c), 4.8-9(a) and (b), 4.14-1 (a), 4.14-3(a) and (b), and 4.14-11 would be incorporated as part of the project. The proposed project would not result in new or substantially increased significant hydrology and water quality impacts that have not already been adequately assessed in the 1994 LRDP EIR.

10. GEOLOGY AND SOILS

Background

There are a number of fault zones located within 100 miles of the campus; however, neither the campus nor the City of Davis is located within an Alquist-Priolo Special Study Zone. The East Valley fault, approximately located beneath Russell Ranch, is a subsurface, inferred fault that has not created any surface rupture. No other known faults traverse the campus. According to the Preliminary Map of Maximum Expectable Earthquake Intensity in California, the campus is located in a "moderate" severity zone. The University of California has adopted a Seismic Safety Policy which requires the identification and correction of potential earthquake hazards in existing structures and requires designs for new building structures that avoid seismic hazards.

Some soil conditions on the campus include dense subsurface soils, low groundwater levels and flat topography, suggesting that secondary seismic effects, such as liquefaction, are unlikely. Moderate to high shrink-swell potential is found in all underlying soils and can cause damage to foundations and other structures. Soils underlying the campus are shown in Figure 4.9-1 on page 4.9-6 of the 1994 LRDP DEIR. Soil descriptions and constraints are described on pages 4.9-5 through 4.9-9 of the 1994 LRDP DEIR.

1994 LRDP EIR Standards of Significance

The environmental analysis in the 1994 LRDP EIR considered a geotechnical impact to be significant if campus or regional growth would:

- expose people, structures or property to major seismic hazards such as groundshaking or liquefaction; or
- expose people, structures or property to damage from soil hazards such as shrink-swell potential or low soil strength.

1994 LRDP EIR Significant Impacts and Mitigation Measures

Impacts of campus growth through 2005-06 related to geotechnical factors and soils are addressed in Section 4.9 (Geotechnical Factors) of the 1994 LRDP Draft EIR. Significant impacts identified in the 1994 LRDP EIR that are relevant to the proposed project are presented in the following table. The levels of significance before and after application of mitigation measures identified in the 1994 LRDP EIR are also presented in the table. The proposed project is within the scope of the geotechnical analysis presented in the 1994 LRDP EIR, and there are no changed circumstances since the preparation of this document that require reanalysis of cumulative impacts. Please note that cumulative regional impact 4.9-3 included mitigation measures to reduce the impact to a less-than-significant level. However, this impact is identified as significant and unavoidable because the University of California

cannot guarantee implementation of mitigation measures that fall within other jurisdictions to enforce and monitor.

<i>LRDP EIR IMPACT</i>	Level of Significance Prior to Mitigation	Level of Significance after/with Mitigation
4.9-1 Development allowed under the 1994 LRDP could expose people, structures and property to strong ground shaking and secondary seismic effects from earthquakes in local or regional faults.	S	LS
4.9-3 Cumulative development, in conjunction with development allowed under the 1994 LRDP, would increase the cumulative number of people living and working in the Davis area who would be exposed to strong ground motion and other potential seismic effects from earthquakes in local or regional faults.	SU	SU

SU = Significant and Unavoidable; S = Significant; LS = Less than Significant

Mitigation measures in the 1994 LRDP EIR that are applicable to the proposed project and that will be required as part of project implementation include the following:

- **LRDP EIR Mitigation Measure 4.9-1(a)** – *Prior to final design, the Campus shall review and approve all building plans for compliance with the Uniform Building Code and Title 24.*
- **LRDP EIR Mitigation Measure 4.9-1(b)** – *Prior to occupancy, the Campus shall review and approve final building designs for appropriate seismic safety provisions. Appropriate seismic safety provisions shall include anchoring, bracing or restraining nonstructural elements such as furniture, shelving or equipment.*
- **LRDP EIR Mitigation Measure 4.9-1(c)** – *Each department required to maintain an Injury and Illness Prevention Plan (IIPP) shall incorporate appropriate seismic safety policies. As part of each Department's IIPP, earthquake preparedness drills shall be performed annually by building occupants.*
- **LRDP EIR Mitigation Measure 4.9-3(a)** – *Implementation of Mitigation Measures 4.9-1 (a) through (e).*
- **LRDP EIR Mitigation Measure 4.9-3(b)** – *City of Davis General Plan implementing and guiding policies for seismic safety recommend that the City:*

- (i) *continue to monitor studies of seismic activity in the region, and take appropriate action if significant seismic hazards, including earthquake faults, are discovered in the planning area; and*
- (ii) *continue to update and enforce Building Code requirements for seismic and geologic safety.*
- **LRDP EIR Mitigation Measure 4.9-3(c) – City of Davis General Plan implementing and guiding policies regarding expansive soils recommend that the City:**
 - (i) *investigate and mitigate geologic soils hazards, or locate development away from such hazards in order to preserve life and protect property;*
 - (ii) *require submission of a soils report for development sites where soils conditions are not well known;*
 - (iii) *require as a condition of approval of development, mitigation of any soils hazards identified; and*
 - (iv) *require that areas of highly unstable soils, on which construction cannot feasibly be made safe, be used for open space, including greenbelts and parks. Require that site plans for development delineate the hazardous areas, and show the proposed use of those areas as greenbelts or parks.*

The mitigation measures listed above are incorporated into the proposed project, and the proposed project, as mitigated, is evaluated in the checklist below.

Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Impact for which LRDP/ Program EIR is Sufficient	Less Than Significant Impact	No Impact
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Would the project:

- a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Impact for which LRDP/ Program EIR is Sufficient	Less Than Significant Impact	No Impact
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
ii) Strong seismic ground shaking?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
iii) Seismic-related ground failure, including liquefaction?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
iv) Landslides?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Result in substantial soil erosion or the loss of topsoil?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
f) Exceed an applicable LRDP or Program EIR Standard of Significance?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Discussion

- a-i) The proposed project involves the construction and operation of new occupied building space in the South Entry area of the central campus. The campus is not located within an Alquist-Priolo Earthquake Fault Zone (previously called Special Study Zones). The closest fault is located 12 miles northwest of the campus. The closest branches of the San Andreas fault system are the Green Valley (32 miles southwest) and the Rodgers Creek (47 miles southwest) faults. The San Andreas fault is located approximately 67 miles to the southwest (please see Table 4.9-2 on page 4.9-3 of the 1994 LRDP DEIR). Because the project is not located in an Alquist-Priolo Earthquake Fault Zone, there would be no exposure of persons or structures to risk of loss, injury or death involving fault rupture. No impact would occur.
- a-ii,
- iii) The campus is located in an area subject to moderate ground shaking during an earthquake event. As described on page 4.9-2 of the 1994 LRDP DEIR:

According to the Preliminary Map of Maximum Expectable Earthquake Intensity in California, prepared by the California Department of Mines and Geology, the Campus is located in a "moderate" severity zone, representing a probable maximum earthquake intensity of VII or VIII on the Modified Mercalli Scale which corresponds to an earthquake measuring 6.0 to 6.9 on the Richter Scale....Effects of ground shaking during such an event could include structural damage to stucco, masonry walls, and chimneys exposing people to the associated risks of falling objects and building collapse.

The 1994 LRDP Draft EIR further states on page 4.9-4 that “some soil conditions on the campus include deep subsurface soils, low groundwater levels and flat topography, suggesting that secondary seismic effects, such as liquefaction, are unlikely. Typically [though], the soils deposited in the Central Valley consist of loose alluvial deposits and could be susceptible to liquefaction.” Pursuant to the 1994 LRDP EIR (page 4.9-4 of the LRDP Draft EIR), localized soil assessments would be performed for the proposed project site and would further identify site-specific liquefaction potential.

The proposed Conference Center, Hotel, and Graduate School of Management Building project involves the construction of an approximately 160,000 gsf of building space. The new Environmental Horticulture structures would comprise of approximately 6,000 gsf of enclosed building space. The proposed building space occupants could be exposed to groundshaking and secondary seismic effects from earthquakes. The 1994 LRDP EIR identified that development allowed under the 1994 LRDP could expose people, structures, and property to strong groundshaking and secondary seismic effects (Impact 4.9-1). 1994 LRDP EIR Mitigation Measures 4.9-1 (a) through (c), incorporated into the proposed project, would reduce this impact to a less-than-significant level. These mitigation measures would ensure that the proposed building addition is designed and constructed in compliance with applicable

California Uniform Building Code (CUBC) Zone 4 and Title 24 standards, and that seismic safety provisions and policies are maintained. No further mitigation is required.

The proposed project would add approximately 375 new employees to the campus. The 1994 LRDP EIR concluded that development allowed under the 1994 LRDP, in conjunction with cumulative development in the region, would increase the number of people living and working in the Davis area who would be exposed to strong ground motion and other potential seismic effects from earthquakes in local or regional faults (Impact 4.9-3). Although 1994 LRDP EIR Mitigation Measures 4.9-3 (a) through (c), incorporated into the proposed project, were identified to reduce the magnitude of this impact, the impact would remain significant and unavoidable because the University of California cannot guarantee implementation of Mitigation Measures 4.9-3 (b) and (c), which fall within other jurisdictions to enforce and monitor. As discussed in Section IV of this Tiered Initial Study, the proposed project is consistent with the 1994 LRDP population projections for 2005-06. As a result, the proposed project would contribute to, but not exceed the increase in population exposed to ground motion recognized in the 1994 LRDP EIR. The significant and unavoidable impact associated with seismic effects was adequately analyzed in the 1994 LRDP EIR and fully addressed by the Findings and Overriding Considerations adopted by The Regents in connection with its approval of the 1994 LRDP and certification of the 1994 LRDP EIR. There are no changed circumstances since the preparation of these documents that require reanalysis of cumulative impacts.

- a-iv) The proposed project site and surrounding area is located in an area of flat topography. Because the topography is flat, it would not be subject to landslides and no impact would occur.
- b) Construction of the proposed project would result in earth disturbing activities that could result in increased rates of erosion. As described under Item 9a, soils underlying the proposed project sites are primarily characterized as having minimal erosion potential. The proposed project would also increase impervious surfaces, thereby increasing runoff from the project site and potentially increasing rates of erosion. However, the erosion hazard of soils on the proposed project site is minimal. In addition, the proposed project would be designed to ensure that potential adverse effects related to soil constraints would be minimized to the maximum feasible extent in accordance with applicable CUBC requirements. 1994 LRDP EIR Mitigation Measures 4.8-4 (a), 4.8-5 (a), and 4.8-8 (a) through (c), incorporated into the proposed project as discussed in Item 9 (Hydrology and Water Quality), would further reduce erosion hazards associated with the proposed project. Therefore, impacts of substantial soil erosion or loss of topsoil would be reduced to less-than-significant levels.
- c) Lateral spreading, liquefaction potential, or other unstable soil conditions have not been identified as development constraints on campus. As described under Item 10(a)(iv), the campus is located in an area of flat topography so there would be no risk of landslides. Subsidence due to groundwater withdrawal has been identified at a few locations in Yolo County; however, none of the locations are at or near the campus.¹² Further, the 1994 LRDP

EIR did not identify impacts associated with subsidence. Although no significant adverse geologic or soil conditions occur on the sites, in compliance with the CUBC, and as described on page 4.9-10 of the 1994 LRDP DEIR, site-specific geotechnical studies would be performed by a registered geologist or engineer prior to building design. Recommendations presented in the geotechnical study would be implemented in project design to minimize any geotechnical hazards. Because no significant geologic or soil conditions occur on the project site, exposure of persons or structures to risk of loss, injury or death involving unstable soil conditions would be considered less than significant.

- d) The soils underlying the proposed project sites are primarily characterized as having moderate to high expansive soil characteristics. The 1994 LRDP EIR concluded that impacts related to development on expansive soils would be less-than-significant, because all development would be required to comply with the CUBC for building design and construction. The proposed project would also incorporate Mitigation Measure 4.9-1(a), requiring review of facility design to ensure compliance with the CUBC. Therefore, potential adverse effects associated with expansive soils or other geotechnical constraints of the proposed project site would be reduced to a less-than-significant level.
- e) The proposed conference center, hotel, and Graduate School of Management Building would connect to the campus sanitary sewer system and would not involve the installation of septic tanks or alternative wastewater disposal systems. The proposed Environmental Horticulture buildings would require a small septic system. Although no adverse geotechnical or soil conditions are anticipated, in compliance with the CUBC, a site-specific geotechnical study would be performed prior to project design (as discussed above under item 10c). Feasible recommendations presented in the geotechnical study would be implemented into project design. Therefore, this impact would be reduced to a less-than-significant level.
- f) Standards of significance for geology and soils impacts that were used in preparation of the 1994 LRDP EIR are presented earlier in this section. These standards are consistent with the geology and soils questions in the current Environmental Checklist. Based on the discussion presented above, with the incorporation of 1994 LRDP EIR mitigation measures, the proposed project would not exceed the standards of significance identified in the 1994 LRDP EIR and would not result in new significant impacts related to geology and soils that were not previously analyzed in the 1994 LRDP EIR.

Summary

1994 LRDP EIR Mitigation Measures 4.9-1 (a) through (c) and 4.9-3 (a) through (c) would be incorporated as part of the project. The proposed project would not result in new or substantially increased significant geology and soils impacts that have not already been adequately assessed in the 1994 LRDP EIR.

11. MINERAL RESOURCES

Background

Natural gas has been found on the main campus and at the Russell Ranch. Natural gas extraction techniques allow wells to be placed at considerable distances from the deposits. No other known or potential mineral resources have been identified on the campus.

1994 LRDP EIR

Mineral resources are briefly addressed in Section 4.9 (Geotechnical Factors) of the 1994 LRDP Draft EIR. The 1994 LRDP EIR did not identify impacts of campus development through 2005-06 on mineral resources.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Impact for which LRDP/ Program EIR is Sufficient	Less Than Significant Impact	No Impact
Would the project:					
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Exceed an applicable LRDP or Program EIR Standard of Significance?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Discussion

- a) As described on page 4.9-9 of the 1994 LRDP DEIR, there are no known mineral resources identified on the campus. Natural gas has been identified under a portion of the campus, but development of the proposed project would not affect the availability of any mineral resource. Therefore, no impact would occur.
- b) The proposed project would not result in the loss of availability of a locally important mineral resource recovery site delineation on a local general plan, specific plan, or other land use plan. No impact would occur.

- c) The 1994 LRDP EIR does not contain standards of significance for mineral resources. No impact would occur.

Summary

The proposed project would not result in any new or substantially increased significant mineral resource impacts. No mineral resource impacts were identified in the 1994 LRDP EIR.

12. CULTURAL RESOURCES

Background

The 1994 LRDP EIR describes known cultural (prehistoric and historic) resources on the campus. Prehistoric resources are those sites and artifacts associated with the indigenous, non-Euroamerican population, generally prior to contact with people of European descent. Historical resources include structures, features, artifacts and sites that date from Euroamerican settlement of the region.

Prehistoric Resources – At the time of first European contact the campus was within the territory of the Patwin. The Patwin controlled a 90-mile section of land running from Suisun Bay to Princeton on the Sacramento River, and from Long Valley-San Pablo Bay on the west to the Sacramento River on the east. Record searches were conducted for the central campus, west campus, south campus, Russell Ranch and the South Davis Research Park. Surface and subsurface cultural resource surveys have been performed for extensive areas of the campus as part of the site work for campus construction projects. Prehistoric Native American sites, including burials, have been identified at several locations on the central campus.

Historic Resources – 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, and several are considered significant historical resources. There are over 50 structures on campus that are over 45 years old. Most of these have not been evaluated for historical significance. Future analysis will be required under CEQA and the National Historic Preservation Act for any project that involves buildings over 45 years old that could be damaged or destroyed.

1994 LRDP EIR Standards of Significance

An impact was considered significant in the 1994 LRDP EIR if campus or regional growth would:

- result in the damage or destruction of prehistoric sites or artifacts that would meet CEQA and/or federal criteria for significance; or
- result in the damage or destruction of historical structures, features, artifacts, landscaping or sites that would meet CEQA, federal or campus criteria for significance.

1994 LRDP EIR Significant Impacts and Mitigation Measures

Impacts of campus growth through year 2005-06 on cultural resources are addressed in Section 4.10 (Cultural Resources) of the 1994 LRDP Draft EIR. Significant impacts identified in the 1994 LRDP EIR that are relevant to the proposed project are presented in the following table. The levels of significance before and after the application of mitigation measures identified in the 1994 LRDP EIR are also presented. The proposed project is within the scope of the cultural resources analysis presented in

the 1994 LRDP EIR, and there are no changed circumstances since the preparation of this document that require reanalysis of cumulative impacts. Please note that cumulative regional impact 4.10-4 included mitigation measures to reduce the impact to a less-than-significant level. However, this impact was identified as significant and unavoidable because the University of California cannot guarantee implementation of mitigation measures that fall within other jurisdictions to enforce and monitor.

<i>LRDP EIR IMPACT</i>	Level of Significance Prior to Mitigation	Level of Significance after/with Mitigation
4.10-1 Excavation, grading and construction activities could damage or destroy buried cultural (prehistoric or historic) resources.	SU	SU
4.10-4 Development allowed under the 1994 LRDP could contribute to a cumulative loss of prehistoric and historic resources in Yolo and Solano Counties.	SU	SU

SU = Significant and Unavoidable; S= Significant; LS = Less than Significant

Mitigation measures in the LRDP EIR that are applicable to the proposed project and that will be required as part of project implementation include the following:

- ***LRDP EIR Mitigation Measure 4.10-1(a)*** – *Prior to project approval, the Campus shall determine the level of archaeological investigation that is appropriate for the project site. The levels are:*

Minimum: in areas of known archaeological sensitivity (i.e. known sites) excavation less than 18” deep and in a relatively small area (e.g. routine maintenance and operations such as repairing broken facilities, a short trench for lawn irrigation, tree planting, etc.); in other areas, excavation less than 36” deep and in a relatively small area.

Moderate: excavation below 36” 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.

Intensive: excavation below 18” and/or over a large area on any site that is within 800’ of the historic alignment of Putah Creek (prior to 1880) or that is adjacent to a recorded archaeological site.

- ***LRDP EIR Mitigation Measure 4.10-1(b)*** - For sites requiring minimum investigation, the following steps will be taken.
 - (i) *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 anything is found. In addition, Campus employees whose work involves routinely disturbing the soil shall be trained to recognize evidence of potential archaeological sites and artifacts.*
 - (ii) *If resources are discovered during activities, all soil disturbing work within 100' of the find shall cease. The resources shall be evaluated by a qualified archaeologist who will determine and advise the Campus on the potential for the activity to affect a significant archaeological resource.*
 - (iii) *If the activity might affect a significant archaeological resource, consistent with CEQA and Appendix K of the CEQA Guidelines addressing archaeological impacts a plan for surveying the remainder of the site and conducting appropriate data recovery and other mitigations shall be prepared and implemented using the services of a qualified archaeologist.*
 - (iv) *If human remains are found, the County coroner shall be contacted. The coroner shall contact the Native American Heritage Commission, which shall notify the appropriate descendant. The Campus shall coordinate re-interment of Native American remains with the NAHC and the designated descendant.*

- ***LRDP EIR Mitigation Measure 4.10-1(d)*** - For sites requiring intensive investigation, the following steps shall be taken.
 - (i) *A subsurface investigation shall be conducted by a qualified archaeologist, prior to project approval. The archaeologist shall determine and advise the Campus on the potential for the project to affect a significant archaeological resource. If the project might affect a significant archaeological resource, the Campus shall adopt an appropriate mitigation plan at the time of project approval. If feasible, the Campus shall consider avoidance at significant archaeological sites as the preferred mitigation. At a*

minimum, data recovery at significant archaeological sites will be implemented.

(ii) *A qualified archaeologist shall be present during grading and excavation, as deemed appropriate.*

(iii) *Steps (i) through (iv) of item (b) shall be implemented.*

- ***LRDP EIR Mitigation Measure 4.10-4(a) - Implement Mitigation Measures 4.10-1(a) through 4.10-1(d), 4.10-2(a) through (c) and 4.10-3(a) through (c).***
- ***LRDP EIR Mitigation Measure 4.10-4(b) - The Yolo and Solano County General Plans and the City of Davis General Plan contain policies which address the preservation of cultural resources. It is within the jurisdiction of these agencies to implement the General Plan policies which encourage the protection and restoration of cultural resources.***

The mitigation measures listed above are incorporated into the proposed project, and the proposed project, as mitigated, is evaluated in the checklist below.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Impact for which LRDP/ Program EIR is Sufficient	Less Than Significant Impact	No Impact
Would the project:					
a) Cause a substantial adverse change in the significance of a historical resource as defined in §15064.5?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Disturb any human remains, including those interred outside of formal cemeteries?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Impact for which LRDP/ Program EIR is Sufficient	Less Than Significant Impact	No Impact
e) Cause a substantial adverse change in the significance of a historic landscape feature?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) Exceed an applicable LRDP Program EIR Standard of Significance?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Discussion

- a) There are no historical buildings or resources on the project site. Therefore, no impact would occur.
- b) As discussed on page 4.10-9 of the 1994 LRDP Draft EIR, any time earth is disturbed, buried cultural resources can be damaged or destroyed. This risk is highest along the banks of tributaries and slough channels of Putah Creek. The Conference Center, Hotel, and Graduate School of Management Building project site is located within an archaeologically sensitive zone in close proximity to Putah Creek. In addition, two important archaeological sites, identified by a records search conducted at the Northwest Information Center of the California Historical Resources Inventory, are recorded in the vicinity of the project. One of the sites, CA-SOL-397, is located at the Solano Park Apartments at the eastern boundary of the project site. The other site, CA-YOL-118, is located at First and A Streets, approximately ¼ mile northeast of the proposed Conference Center, Hotel, and Graduate School of Management Building project site. Previous construction activities at both those locations have unearthed prehistoric human burials and other associated artifacts. The boundaries of the sites are unclear, and there is a possibility that cultural deposits exist in the project area. In addition, burials were found during construction of the Center for the Arts Performance Hall and adjacent roadway.

Consistent with 1994 LRDP EIR Mitigation Measure 4.10-1(a), archeological surveys and auger testing were conducted on the proposed Conference Center, Hotel, and Graduate Schools of Management Building project site in 1997 and 2000.¹³ Surface surveys were conducted and subsurface testing was accomplished using augers (at 14 locations) to depths of four feet. Soil samples were removed from the probes and were passed through wire screens to identify any cultural material. No significant cultural material was identified by either the surface survey or the auger probes.

The proposed site for new Environmental Horticulture structures is within 800 feet from the historic channel of Putah Creek. However, cultural surveys in the vicinity (along Brooks Road to the north) have not found any archeological material.

Because the sites that would be disturbed by the project are in proximity to Putah Creek (within 800 feet) and in proximity of known areas of archeological sensitivity, the proposed project could result in a potentially significant impact on archeological resources. This potentially significant impact would be reduced to a less-than-significant level through implementation of 1994 LRDP EIR Mitigation Measure 4.10-1(d). In compliance with this mitigation measure, an archeologist will be present during grading and excavation activities, as appropriate.

The 1994 LRDP EIR concluded that implementation of the 1994 LRDP could contribute to a cumulative loss of cultural resources on the campus (Impact 4.10-1) and in Yolo and Solano counties (Impact 4.10-4). Although 1994 LRDP EIR Mitigation Measures 4.10-1 (a) and (c) and 4.10-4 (a) and (b), incorporated into the proposed project, would reduce the magnitude of these cumulative impacts, the cumulative impacts would remain significant and unavoidable because even if cultural resources are adequately recorded, destruction and/or removal from their place of origin reduces their value as a resource. In addition, implementation of Mitigation Measure 4.10-4(b) is not within the jurisdiction of the University to enforce and monitor. Significant and unavoidable 1994 LRDP EIR Impacts 4.10-1 and 4.10-4 were adequately analyzed in the 1994 LRDP EIR and fully addressed by the Findings and Overriding Considerations adopted by The Regents in connection with its approval of the 1994 LRDP and certification of the 1994 LRDP EIR. There are no changed circumstances since the preparation of these documents that require reanalysis of these cumulative impacts.

- c) As described on page 4.9-1 of the 1994 LRDP Draft EIR, subsurface soils on campus are comprised of unconsolidated alluvial sediments (to a depth of up to 3,000 feet below the surface) deposited by Putah Creek over the last five million years. Fossilized remains have been found in soils of this type. Although not restricted to specific soil depths, such fossils would likely be encountered in large, deep excavations or contouring-type activities, such as those associated with mining, quarrying, or road building, in which substantial amounts of rock or unconsolidated materials are exposed. The likelihood of damaging or destroying paleontological resources at any other proposed project site is minimal because shallow soils at the site have already been highly disturbed by agricultural activities and building foundations. In addition, it is not expected that new construction associated with the proposed project would involve deep excavations (i.e., deeper than 20 feet below ground surface) except for foundation footings. Also, implementation of the proposed project would not result in any impacts to any unique geological features as none have been identified at the project site. Therefore, no impacts on paleontological resources or unique geologic features are anticipated to occur.
- d) In compliance with 1994 LRDP EIR Mitigation Measure 4.10-1(b), incorporated into the proposed project, should human remains be encountered during proposed construction, work in the vicinity would halt and the County Coroner would be notified as stipulated by Public Resources Code 5097. Should the remains be determined to be Native American, Native American consultation would be carried out. Implementation of 1994 LRDP EIR Mitigation

Measure 4.10-1(b) would reduce the project's potential impact to human remains to a less-than-significant level.

- e) The proposed project would not involve demolition of landscape features meeting the requirements of historic significance because the project site has been previously disturbed for agricultural uses and developed for the recently relocated Administrative Annex trailers. No impact would occur.
- f) Standards of significance for cultural resources impacts that were used in preparation of the 1994 LRDP EIR are presented earlier in this section. These standards are consistent with the cultural resources questions in the current Environmental Checklist. As discussed above, with the implementation of 1994 LRDP EIR mitigation measures, the proposed project would not exceed the standards of significance identified in the 1994 LRDP EIR and would not result in new significant impacts related to cultural resources that were not previously analyzed in the 1994 LRDP EIR.

Summary

1994 LRDP EIR Mitigation Measures 4.10-1 (a) and (d) and 4.10-4 (a) and (b) are incorporated into the proposed project. The proposed project would not result in new or substantially increased significant cultural resource impacts that have not already been adequately assessed in the 1994 LRDP EIR.

13. AESTHETICS

Background

To the south and west, the campus is bordered by orchards, tilled fields and pastures interspersed with rural homes and agricultural structures. The City of Davis is adjacent to the eastern and northern boundaries of the campus. The City is primarily composed of one and two story homes and businesses. The downtown area retains the atmosphere of a small college town.

Each of the major components of the campus has a distinct visual character. The central campus is the most developed region of campus with a large number of academic and support buildings. Sproul Hall is the tallest building in Yolo County at 11 stories and few buildings are more than four-stories high. The low buildings and landscaping, combined with the urban location, keep night lighting from appearing particularly intrusive to individuals in nearby buildings and residences. The central campus is extensively landscaped, with mature vegetation and trees masking the mass of some academic buildings and obscuring long-range views. The Quad, a large lawn between the Memorial Union and Shields Library, is a focal point of the campus.

The campus has important natural features, including Putah Creek and the South Fork of Putah Creek, which flow west-to-east in the southern portion of the south campus, and the Arboretum Waterway which transects the central campus. For most of its length, the Arboretum Waterway is edged in concrete or riprap. The University Arboretum is located on both banks of the Waterway. East of Mrak Hall, the Arboretum Waterway has been widened to form Lake Spafford. A large, landscaped lawn area is adjacent to the lake. At the west end of the Arboretum Waterway, Arboretum Lake provides the backdrop for formal gardens, Putah Creek Lodge and a park-like lawn area with barbecues.

The 1994 LRDP identifies features of the visual environment that are valued by the campus community and should be preserved. For the central campus these are: (1) the large, open lawn of the Quad at the heart of the campus, (2) the framework of tree-lined streets, particularly around the Quad where the street tree branches arch to create a canopy overhead, (3) the Arboretum, with its large trees and variety of landscapes along the waterway, (4) the shingle-sided buildings from the founding years of the University Farm, (5) buildings from the second era of campus development such as Hart Hall and Walker Hall, (6) the open, green lawns that face the community along Russell Boulevard and A Street, and (7) bicycles.

1994 LRDP EIR Standards of Significance

The environmental analysis in the 1994 LRDP EIR considered an impact to aesthetics to be significant if campus or regional growth would:

- allow incompatible development in or near areas with high visual quality, such as Putah Creek and the Arboretum Waterway, or substantially affect the valued elements of the visual landscape identified in the LRDP.
- result in structures that would disrupt views of surrounding agricultural lands, the Coast Range, or the Sierra Nevada; or
- create substantial new sources of artificial light and/or glare.

1994 LRDP EIR Significant Impacts and Mitigation Measures

Impacts of campus growth through 2005-06 on aesthetics are discussed in Section 4.11 (Visual Quality/Aesthetics) of the 1994 LRDP Draft EIR. Significant impacts identified in the 1994 LRDP EIR that are relevant to the proposed project are presented in the following table. The levels of significance before and after application of mitigation measures identified in the 1994 LRDP EIR are also presented. The proposed project is within the scope of the analysis in the 1994 LRDP EIR and there are no changed circumstances since the preparation of this document that require reanalysis of the cumulative impacts. Please note that cumulative regional impact 4.11-5 included mitigation measures to reduce the impact to a less-than-significant level. However, this impact was identified as significant and unavoidable because the University of California cannot guarantee implementation of an associated mitigation measure, which falls within other jurisdictions to enforce and monitor.

<i>LRDP EIR IMPACT</i>		Level of Significance Prior to Mitigation	Level of Significance after/with Mitigation
4.11-1	Structures built on the Central Campus under the 1994 LRDP could affect valued elements of the Central Campus visual landscape identified in the LRDP.	PS	LS
4.11-4	Structures built under the LRDP could create glare, artificial light, heat and shade, making the immediate area uncomfortable for people.	PS	LS
4.11-5	Development allowed under the 1994 LRDP, in conjunction with other development in the region, would contribute to a cumulative alteration of the rural character of Yolo and Solano Counties.	SU	SU

SU = Significant and Unavoidable; S = Significant; LS = Less than Significant

Mitigation measures in the LRDP EIR that are applicable to the proposed project and that will be required as part of project implementation include the following:

- ***LRDP EIR Mitigation Measure 4.11-1(a)*** – *New structures in the Central Campus shall be designed to be compatible with those visual elements and policies identified in the LRDP.*
- ***LRDP EIR Mitigation Measure 4.11-1(b)*** – *Prior to approval of preliminary drawings, a Campus Design Review Board shall determine that the designs are consistent with the LRDP and applicable district planning guidelines for the district within which the new structure will be located.*
- ***LRDP EIR Mitigation Measure 4.11-1(c)*** – *Prior to siting any new structure on the Central Campus, the Campus shall identify major view corridors, taking into consideration the relationship of the view to each affected neighboring district.*
- ***LRDP EIR Mitigation Measure 4.11-1(d)*** – *The Campus Design Review Board shall review building designs to ensure that structures are not within major view corridors, except for structures that are designed to protect critical views.*
- ***LRDP EIR Mitigation Measure 4.11-4(a)*** – *Prior to design approval of the first structure approved following adoption of the 1994 LRDP, the Campus shall develop guidelines to minimize discomfort from light, heat, and glare.*

The guidelines could include, but would not be limited to, building surfaces, landscaping, orientation and exposure, and lighting.
- ***LRDP EIR Mitigation Measure 4.11-4(b)*** – *Prior to design approval of any building, the Campus Design Review Board shall assess the building design for compliance with the guidelines developed under Mitigation Measure 4.11-4(a).*
- ***LRDP EIR Mitigation Measure 4.11-5(a)*** – *Implement Mitigation Measures 4.11-2 and 4.11-4(a) and (b).*
- ***LRDP EIR Mitigation Measure 4.11-5(b)*** – *The City of Davis General Plan, Yolo County General Plan, and Solano county General Plan contain policies that address the preservation and protection of agricultural land. It is within the jurisdiction of these agencies to implement the General Plan policies which support the conservation of agricultural land and the prohibition of new development in designated agricultural areas.*

The mitigation measures listed above are incorporated into the proposed project, and the proposed project, as mitigated, is evaluated in the checklist below.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Impact for which LRDP/ Program EIR is Sufficient	Less Than Significant Impact	No Impact
Would the project:					
a) Have a substantial adverse effect on a scenic vista?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Substantially damage scenic resources, including, but not limited to, trees, rocks outcroppings, historic buildings within a State scenic highway?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Substantially degrade the existing visual character or quality of the site and its surroundings?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d) Create a new source of substantial light or glare, which would adversely affect day or nighttime views in the area?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e) Affect valued elements of the central campus visual landscape	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f) Exceed an applicable LRDP or Program EIR Standard of Significance?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Discussion

- a) The UC Davis campus occupies fairly flat terrain and is surrounded by one- and two-story development and agricultural uses. Consequently, views from numerous areas on and around the campus are relatively expansive, and on clear days the Sierra and the Coast ranges can be seen. The proposed project includes the construction and operation of new buildings, parking and landscaping in the south entry area of the central campus. The buildings would be three stories in height and exterior walls would be predominantly neutral in color and would use low glare producing materials. The proposed project would not have a substantial effect on the scenic vistas of the surrounding areas and, therefore, this impact would be less than significant.

- b) Highways in the vicinity of UC Davis (SR 113 and I-80) are not designated scenic highways. The site is not along a scenic highway. Therefore, the proposed project would have no impact on scenic resources within a State scenic highway.
- c,e) The Conference Center, Hotel, and Graduate School of Management project site is part of the central campus, which is visually characterized by a large number of academic and support buildings that range from one to eleven stories. The central campus also contains many large landscaped and open space areas intermixed with buildings.

Environmental Horticulture teaching and research fields currently occupy the eastern portion of the site, and the western portion of the site is currently vacant. Land uses in the immediate vicinity include the Center for the Arts Performance Hall and the South Entry Quad to the west, a portion of Parking Lot 2 to the south, Union Pacific Railroad tracks to the southeast, community gardens to the east, and Environmental Horticulture buildings and gardens to the north. The proposed project would change the visual character of the site by providing three-story buildings and associated landscaping and parking. However, the surrounding land uses include buildings and landscaping that are consistent with, and would visually complement, the proposed project.

The replacement Environmental Horticulture teaching and research fields site would be located in the west campus, south of Brooks Road and west of Highway 113. Adjacent land uses include agricultural fields and the open space. The relocation site is currently farmed for animal feed production. The project would change the type of vegetation grown on this parcel from primarily alfalfa to landscape vegetation (including turf, native plants, and ornamental plants). The proposed project would also include construction of a few small structures. The proposed structures and vegetation changes would be consistent with the types of structures and land uses in the area.

The 1994 LRDP EIR determined that depending on the location, height, massing, design and landscaping, new development could substantially alter the existing visual character and the collegiate atmosphere of the campus (Impact 4.11-1). Consistent with the 1994 LRDP EIR Mitigation Measure 4.11-1(a), the proposed buildings have been designed to extend the visual character of the central campus consistent with the visual elements on page 32 of the LRDP EIR.

Consistent with the 1994 LRDP EIR Mitigation Measure 4.11-1(a), the proposed project would be designed to extend the visual character of the campus. In addition, consistent with 1994 LRDP EIR Mitigation Measures 4.11-1(b) through (d), incorporated as part of the proposed project, the design of the project would be reviewed by the campus Design Review and Advisory Work Group (formerly the campus Design Review Board). This group is composed of the campus Architect, campus Planner, and program representatives.

Implementation of the proposed project would not adversely affect any of the valued visual elements identified in the 1994 LRDP central campus. Overall, development of the proposed project would be consistent with existing and planned land uses in the south entry area of the central campus and the west campus south of Brooks Road. Therefore, the proposed project would result in less-than-significant impacts on valued elements of the central campus, and long-distance views, and it would be compatible with the existing character of the area.

- d) Glare is caused by light reflections from pavement, vehicles, and building materials such as reflective glass and polished surfaces. During daylight hours, the amount of glare depends on the intensity and direction of sunlight. At night, artificial light can cause glare. The proposed project would increase existing lighting and light levels in the south entry area of the central campus. The 1994 LRDP EIR identified that structures built under the 1994 LRDP could create glare, artificial light, heat, and shade, making the immediate area uncomfortable for people (Impact 4.11-4). In compliance with 1994 LRDP EIR Mitigation Measure 4.11-4(a), the campus has developed guidelines to minimize discomfort from light, heat and glare. All lighting would be installed in accordance with campus Facilities Design Standards including cut-off lighting in buildings to reduce glare. In addition, the lighting standards of UC Davis' Architects and Engineers would also be implemented. With implementation of mitigation measure 4.11-4(a), the potential impacts associated with light and glare would be reduced to a less-than-significant level.

- f) Standards of significance for aesthetics impacts that were used in preparation of the 1994 LRDP EIR are presented earlier in this section. These standards are consistent with the aesthetics questions in the current Environmental Checklist. As discussed above, with the incorporation of relevant 1994 LRDP EIR mitigation measures, the proposed project would not exceed the standards of significance identified in the 1994 LRDP EIR and would not result in new significant impacts related to aesthetics that were not previously analyzed in the 1994 LRDP EIR.

Summary

1994 LRDP EIR Mitigation Measures 4.11-1 (a) through (d), and 4.11-4 (a) and (b), are incorporated into the proposed project. The proposed project would not result in new or substantially increased significant aesthetics impacts that have not already been adequately assessed in the 1994 LRDP EIR.

14. PUBLIC SERVICES

Background

Fire Protection

The UC Davis Fire Department provides fire protection, hazardous materials incident response, and emergency medical service to the campus. Recent figures show the campus Fire Department employs 18 line firefighters, in addition to fire prevention, supervisor, and support personnel. In addition, nine student firefighters are also employed.¹⁴ The 1994 LRDP EIR indicated that adequate fire protection service demand should be based on a ratio of personnel to increased square footage (specifically 3.5 fire fighters per 1,000,000 gsf). The campus Fire Department entered into two automatic aid agreements in 1994 with the City of Davis to maintain this ratio and to ensure adequate response times.

Police Protection

The campus Police Department provides police protection service for all on-campus buildings and facilities. Recent figures show the campus Police Department employs 31.5 sworn officers, in addition to other non-sworn personnel, including dispatchers and support staff.¹⁵ The 1994 LRDP EIR indicated that adequate police protection service demand should be based on a ratio of personnel to increased population (specifically 0.72 officers per 1,000 population). In 1999-00, the campus population of students, faculty, and staff was 32,775 (Table 1). Thus, the ratio of officers was approximately 0.96 per 1,000 students, faculty, and staff, which exceeded the campus standard.

Schools

The Davis Joint Unified School District (DJUSD) serves the City of Davis and portions of Yolo and Solano counties. With the exception of one elementary school, all DJUSD facilities are within City of Davis boundaries.

Other Public Facilities

The campus currently has four libraries located in the central campus, which serve both the campus population and the general public: Shields Library, Physical Sciences Library, Law Library, and Health Sciences Library. The Davis Library, a branch of the Yolo County Library, is located in the City of Davis.

The City of Davis maintains adequate park and recreation uses to accommodate buildout of the City. In addition, the campus provides parks and open space available to the general public.

1994 LRDP EIR Standards of Significance

The environmental analysis in the 1994 LRDP EIR considered an impact to fire protection, police protection, schools, parks and other public facilities (libraries) to be significant if campus or regional growth would:

- \$ substantially diminish the current level of fire protection service (i.e., response time, level of investigative services);
- \$ substantially diminish the current level of police protection service (i.e., response time, level of investigative services);
- \$ require expansion or realignment of the existing school system;
- \$ affect or require the designation of substantial additional parkland to remain in conformance with locally acceptable or adopted park standards;
- \$ require an expansion of library facilities or the library system.

1994 LRDP EIR Significant Impacts and Mitigation Measures

Impacts of campus growth through year 2005-06 on fire protection, police protection, schools, and other public facilities are addressed in Sections 4.12 (Fire and Police Protection) and 4.13 (Community Services) of the 1994 LRDP Draft EIR. Significant impacts identified in the 1994 LRDP EIR that are relevant to the proposed project are presented in the following table. The levels of significance before and after application of 1994 LRDP EIR Mitigation Measures are also presented. The proposed project is within the scope of the public services analysis presented in the 1994 LRDP EIR, and there are no changed circumstances since the preparation of this document that require reanalysis of the cumulative impacts. Please note that Cumulative Impacts 4.12-4, 4.12-5, and 4.13-5 include mitigation measures to reduce the impacts to a less-than-significant level. However, these impacts are identified as significant and unavoidable because the University of California cannot guarantee implementation of mitigation measures that fall within other jurisdictions to enforce and monitor.

<i>LRDP EIR IMPACT</i>	Level of Significance Prior to Mitigation	Level of Significance After/With Mitigation
4.12-1 - Development allowed under the 1994 LRDP could result in a reduction of the level of fire protection service provided by the UC Davis Fire Department.	S	LS
4.12-2 - Development allowed under the 1994 LRDP would result in new buildings and facilities in areas where water pressure may be low.	S	LS

<i>LRDP EIR IMPACT</i>	Level of Significance Prior to Mitigation	Level of Significance After/With Mitigation
4.12-3 - Development allowed under the 1994 LRDP could result in a reduction of the level of police protection service provided by the UC Davis Police Department.	S	LS
4.12-4 - Cumulative development allowed under the 1994 LRDP could result in decreased level of service from City of Davis fire protection services.	SU	SU
4.12-5 - Cumulative development allowed under the 1994 LRDP could result in decreased level of service from the City of Davis police protection services.	SU	SU
4.13-5 - Cumulative development of the Davis area would generate an increase in the number of school age students in the DJUSD.	SU	SU

SU = Significant and Unavoidable; S = Significant; LS = Less than Significant

Mitigation measures in the 1994 LRDP EIR that are applicable to the proposed project and that will be required as part of project implementation include the following:

- ***LRDP EIR Mitigation Measure 4.12-1*** - *The Campus shall implement one or more of the following measures in order to maintain current level of fire protection services:*
 - (a) *hire additional firefighters and support staff as necessary to maintain the existing ratio of 3.5 firefighters per 1,000,000 square feet of building area on the UC Davis Campus;*
 - (b) *add additional equipment or improve techniques to meet needs of fire protection; or*
 - (c) *expand mutual aid assistance from adjacent jurisdictions.*
- ***LRDP EIR Mitigation Measure 4.12-2*** - *Prior to the construction of new buildings or facilities, the Campus shall determine the water pressure of the domestic/fire water system serving the site. If the pressure is determined to be below the industry standard set for fire water flows, then the Campus shall upgrade the domestic/fire water system to provide the appropriate water pressure and flow to the proposed building or facility site.*
- ***LRDP EIR Mitigation Measure 4.12-3*** - *The Campus shall implement one or more of the following measures in order to maintain current level of police protection services:*

- (a) *hire additional sworn-officers and support staff as necessary to maintain the existing ratio of 0.72 sworn-officers per 1,000 daily population;*
 - (b) *add additional equipment or improve techniques to meet needs of police protection needs; or*
 - (c) *expand mutual aid assistance from adjacent jurisdictions.*
- ***LRDP EIR Mitigation Measure 4.12-4(a) - Implement Mitigation Measures 4.12-1 and 4.12-2***
 - ***LRDP EIR Mitigation Measure 4.12-4(b) - The General Plan describes how City of Davis ordinances and assessment districts can ensure that the needed additional fire services and facilities are provided in coordination with development. Furthermore, City of Davis policy does not allow construction in new development areas until all necessary public services (including water, fire hydrants, and roads meeting the Fire Department's specifications) are in place. It is in the jurisdiction of the City of Davis to construct and staff fire stations, or increase efficiency as necessary to provide all portions of the fire department's service area with five-minute response capability as is indicated in the Davis General Plan.***
 - ***LRDP EIR Mitigation Measure 4.12-5(a) - Implement Mitigation Measure 4.12-3.***
 - ***LRDP EIR Mitigation Measure 4.12-5(b) - The Fiscal Analysis section of the Technical Supplement to the City of Davis General Plan indicates how needed capital improvements and additional police personnel may be funded. Funds to expand police services may be obtained through construction taxes and assessment fees imposed upon new residential and commercial development in the City. In this way the financial burden for increased service would be placed on new residents, including incoming Campus employees buying new homes in Davis, and students living off-Campus in newly constructed rental units. It is within the jurisdiction of the City of Davis to hire additional police officers and support staff, or increase efficiency, as needed to maintain the existing level of service to the community as identified in the Davis General Plan.***
 - ***LRDP EIR Mitigation Measure 4.13-5 - The Fiscal Analysis section of the Technical Supplement to the City of Davis General Plan describes the City's existing plans to construct schools needed in the future and illustrates how***

additional facilities could be funded. It is within the jurisdiction of the City of Davis and DJUSD to plan and construct new school facilities in the Davis Planning Area, as indicated in the Davis General Plan. As new areas of housing are developed in the Davis Planning Area, the City of Davis would address resulting impacts to DJUSD schools.

Mitigation measures listed above are incorporated into the proposed project, and the proposed project as mitigated is evaluated in the checklist below.

Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Impact for which LRDP/ Program EIR is Sufficient	Less Than Significant Impact	No Impact
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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:

(i)	Fire protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(ii)	Police protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(iii)	Schools?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(vi)	Parks?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(v)	Other public facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

b) Exceed an applicable LRDP or Program EIR Standard of Significance?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Discussion

a-i) The campus Fire Department provides service to the project area. Design and construction of the proposed project would conform to all applicable building codes and fire/life safety codes.

In addition, the proposed project would include fire safety features such as a fire sprinkler system.

The proposed project would contribute a total of approximately 166,000 gsf (160,000 gsf associated with the conference center, hotel, and Graduate School of Management Building and 6,000 gsf associated with the new Environmental Horticulture buildings) of additional enclosed building space to the campus. The 1994 LRDP EIR identified that assumed development could result in a reduction of fire protection services provided by the UC Davis Fire Department (Impact 4.12-1). The 1994 LRDP EIR identified an adequate level of fire protection services for the campus was 3.5 firefighters per 1,000,000 gsf of campus building space. To meet this, the proposed project (with 166,000 gsf) would require less than one additional firefighter. In compliance with 1994 LRDP EIR Mitigation Measure 4.12-1 and in order to maintain an adequate level of fire protections services, the campus Fire Department entered into automatic aid agreements with the City of Davis in 1994. Continued compliance with 1994 LRDP EIR Mitigation Measure 4.12-1, incorporated as part of the proposed project, would reduce the project's impact on fire protection services to a less-than-significant level.

Development allowed under the 1994 LRDP is projected to increase the daily maximum peak domestic/fire water demand to a total demand of approximately 12,593 gpm at buildout. Current capacity of the existing domestic/fire water system is 10,892 gpm (West Yost 2000a). The 1994 LRDP EIR identified that development allowed under the 1994 LRDP could result in the construction of new facilities in areas where water pressure may be low (Impact 4.12-2). Peak demand for fire flows is substantially higher than peak domestic water demand. Therefore, campus domestic/fire water system distribution lines are sized to meet peak fire flows. 1994 LRDP EIR Mitigation Measure 4.12-2, incorporated as a part of the proposed project, was implemented to reduce any significant water pressure impacts that may arise to a less-than-significant level. In compliance with Mitigation Measure 4.12-2, the fire water demand associated with the proposed project was assessed and was determined be within the current system capacity. No further mitigation is required.

The 1994 LRDP EIR concluded that cumulative growth under the 1994 LRDP could result in a decreased level of service from City of Davis fire protection services (Impact 4.12-4). Although implementation of 1994 LRDP EIR Mitigation Measures 4.12-4 (a) and (b), incorporated as part of the project, would reduce the magnitude of this impact, this cumulative impact is considered significant and unavoidable because implementation of Mitigation Measure 4.12-4 (b) is not within the University's jurisdiction to enforce and monitor. The proposed project would contribute to, but not exceed, the increase in development and associated demand on City of Davis fire protection identified in the 1994 LRDP. This significant and unavoidable impact was adequately analyzed in the 1994 LRDP EIR and fully addressed by the Findings and Overriding Considerations adopted by The Regents in connection with its approval of the 1994 LRDP and certification of the 1994 LRDP EIR. There are no changed

circumstances since the preparation of these documents that require reanalysis of cumulative impacts.

- a-ii) The campus Police Department provides service to the project area. The 1994 LRDP EIR concluded that development allowed under the 1994 LRDP could result in a reduction of the level of police protection service provided by the UC Davis Police Department (Impact 4.12-3). Implementation of Mitigation Measure 4.12-3, incorporated as part of the project, would reduce increased demand on police protection services to a less-than-significant level. In compliance with 1994 LRDP EIR Mitigation Measure 4.12-3 (a), UC Davis police protection service demand is based on a ratio of personnel to increased population (0.72 sworn officers per 1,000 population of students, faculty, and staff). The proposed project would contribute 375 additional staff to the campus population, requiring less than one sworn officer. Recent figures show the campus has approximately 0.96 sworn officers per 1,000 students, faculty, and staff, which exceeds the campus standard and would adequately serve the proposed project. In accordance with 1994 LRDP EIR Mitigation Measure 4.12-3 (b), the campus Police Department has also updated its communications center with the addition of a state-of-the-art radio system. In addition, in compliance with Mitigation Measure 4.12-3 (c) the campus has Mutual Aid Agreements with law enforcement agencies from the City of Davis, Yolo County, and the state to ensure that adequate campus police protection services and response times are provided. Continued implementation of 1994 LRDP EIR Mitigation Measures 4.12-3 (a) through (c), incorporated as part of the proposed project, would reduce the project's impact to police protection services to a less-than-significant level.

The 1994 LRDP EIR concluded that cumulative growth under the 1994 LRDP could result in a decreased level of service from the City of Davis police protection services (Impact 4.12-5). Although implementation of 1994 LRDP EIR Mitigation Measures 4.12-5 (a) and (b), incorporated as part of the proposed project, would reduce the project's contribution to this impact, this cumulative impact is considered significant and unavoidable because implementation of Mitigation Measure 4.12-5 (b) is not within the University's jurisdiction to enforce and monitor. The proposed project would contribute to, but not exceed, growth levels and associated demand on City of Davis police protection services assessed under the 1994 LRDP. This significant and unavoidable impact was adequately analyzed in the 1994 LRDP EIR and fully addressed by the Findings and Overriding Considerations adopted by The Regents in connection with its approval of the 1994 LRDP and certification of the 1994 LRDP EIR. There are no changed circumstances since the preparation of these documents that require reanalysis of cumulative impacts.

a-iii,

- iv) The proposed project's increase in permanent campus population (375 additional employees) is within the population projections evaluated in the 1994 LRDP EIR (see Section IV, Consistency with the 1994 LRDP EIR). Therefore, the project's contribution to demand for local schools and parks was considered in the 1994 LRDP EIR. The 1994 LRDP EIR

considered the indirect increase in the number of school age students in the Davis Joint Unified School District and the increased demand for parks and recreational facilities resulting from growth allowed under the 1994 LRDP a less-than-significant impact.

The 1994 LRDP EIR concluded that cumulative development in the Davis area would generate an increased number of school age students in the Davis Joint Unified School District (Impact 4.13-5). Although implementation of 1994 LRDP EIR Mitigation Measure 4.13-5, incorporated as part of the proposed project, would reduce the project's contribution to this impact, this cumulative impact is considered significant and unavoidable because implementation of Mitigation Measure 4.13-5 is not within the University's jurisdiction to enforce and monitor. The proposed project would contribute to, but not exceed, population projections and associated demand on Davis Joint Unified Schools assessed under the 1994 LRDP. This significant and unavoidable impact was adequately analyzed in the 1994 LRDP EIR and fully addressed by the Findings and Overriding Considerations adopted by The Regents in connection with its approval of the 1994 LRDP and certification of the 1994 LRDP EIR. There are no changed circumstances since the preparation of these documents that require reanalysis of cumulative impacts.

The 1994 LRDP EIR concluded that cumulative buildout in the Davis area would increase demand for parks and recreational facilities. These cumulative impacts were considered less-than-significant because the City maintains adequate park and recreation uses to accommodate buildout of the City. In addition, the campus provides parks and open space available to the general public. The proposed project would contribute to, but not exceed, demand for parks and recreational facilities associated with buildout of the 1994 LRDP because population growth associated with the project is consistent with the growth projected in the 1994 LRDP.

- a-v) The proposed project would not result in the need for new or altered maintenance or public services over that identified in the 1994 LRDP because both population and gsf (and asf) are within the projections of the 1994 LRDP. The impact is considered less than significant and no mitigation is required.
- b) Standards of significance for public services impacts that were used in preparation of the 1994 LRDP EIR are presented earlier in this section. These standards are consistent with the public services questions in the current Environmental Checklist. As discussed above, with the incorporation of relevant 1994 LRDP EIR mitigation measures, the proposed project would not exceed the standards of significance identified in the 1994 LRDP EIR and would not result in new significant impacts related to public services that were not previously analyzed in the 1994 LRDP EIR.

Summary

1994 LRDP EIR Mitigation Measures 4.12-1, 4.12-2, 4.12-3 (a) through (c), 4.12-4 (a) and (b), 4.12-5 (a) and (b), and 4.13-5 are incorporated as part of the proposed project. The proposed

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project would not result in new or substantially increased significant public services impacts that have not already been adequately assessed in the 1994 LRDP EIR.

15. RECREATION

Background

The campus contains many park-like areas including: landscaped open space between buildings; the Quad and Arboretum Waterway in the central campus; and the Putah Creek Reserve in the west campus. Recreational facilities on campus include structures and fields used for physical education, intercollegiate athletics, intramural sports, sports clubs, and general recreation.

1994 LRDP EIR Standards of Significance

The environmental analysis in the 1994 LRDP EIR considered an impact to recreation to be significant if campus or regional growth would:

- \$ affect or require the designation of substantial additional parkland to remain in conformance with locally acceptable or adopted park standards.

1994 LRDP EIR Significant Impacts and Mitigation Measures

Impacts of campus growth through year 2005-06 on recreation issues were addressed in Section 4.13 (Community Services) of the 1994 LRDP Draft EIR. No significant recreation impacts were identified in the 1994 LRDP EIR or subsequent documents. The proposed project is within the scope of the recreation analysis presented in the 1994 LRDP EIR and there are no changed circumstances since the preparation of this document that require reanalysis of the cumulative impacts.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Impact for which LRDP/ Program EIR is Sufficient	Less Than Significant Impact	No Impact
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Exceed an applicable LRDP or Program EIR Standard of Significance?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Impact for which LRDP/ Program EIR is Sufficient	Less Than Significant Impact	No Impact
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Discussion

- a) The proposed project would increase the campus population by approximately 375 employees. This growth would not result in a significant increase in the use of existing campus recreation facilities such that substantial physical deterioration of the facilities would occur or be accelerated. In addition, this growth is within the population growth analyzed under the 1994 LRDP EIR. The 1994 LRDP includes plans for the development of 20 acres of new athletic fields and 12 acres of new recreational facilities to accommodate projected population growth under the 1994 LRDP. Since adoption of the 1994 LRDP, the campus has constructed the new Dairy Road Recreation Fields and begun construction on the Activities and Recreation Center to meet increased demand for recreation uses. Therefore, the impact of the proposed project on recreational facilities would be less than significant.

The 1994 LRDP EIR, as amended, concluded that cumulative buildout in the Davis area would increase demand for parks and recreational facilities. This cumulative impact was considered less-than-significant because the City of Davis maintains adequate park and recreation uses to accommodate buildout of the city. In addition, the campus provides parks and open space available to the general public. The proposed project would contribute to, but not exceed, the additional demand for parks and recreational facilities caused by implementation of the 1994 LRDP.

- b) The proposed project does not include recreational facilities and would not require the construction of new recreational facilities. Therefore, no impact would occur.
- c) Standards of significance for recreation that were used in the preparation of the 1994 LRDP EIR are presented earlier in this section. These standards are consistent with the recreation questions in the current CEQA Environmental Checklist. Based on the discussion presented above, the proposed project would not exceed the standards of significance for recreation identified in the 1994 LRDP EIR. The project would not result in new impacts related to recreation.

Summary

The proposed project would not result in new or substantially increased significant recreation impacts that have not already been adequately assessed in the 1994 LRDP EIR.

16. UTILITIES AND SERVICE SYSTEMS

Background

The proposed Conference Center, Hotel, and Graduate School of Management Building Project would require connections to campus utilities and infrastructure including solid waste, domestic water, utility water, sewer, storm drainage, electricity, and telecommunications. Natural gas service would not be supplied through the campus system, but would be secured by the developer from PG&E. The new Environmental Horticulture buildings would connect to campus electrical and domestic water systems. The replacement teaching and research fields site is currently served by an adequate agricultural water connection. The campus utility and service systems that would serve the proposed project are discussed below.

Solid Waste

UC Davis operates a Class III sanitary landfill and provides solid waste collection and disposal services for the campus. Currently, the campus generates approximately 40 to 50 tons of solid waste per day. The permitted capacity of the landfill is 500 tons per day. The campus is in the process of closing Waste Management Unit 1, and Waste Management Unit 2 is currently becoming operational. Waste Management Unit 2 has an anticipated life to 2030.

Domestic and Utility Water

Domestic water is supplied from the deep aquifer by the campus domestic/fire water system. Utility water is supplied from the shallow/intermediate aquifer by the campus utility water system. The deep and shallow/intermediate aquifers are discussed in Item 9, the Hydrology and Water Quality section, of this Environmental Checklist. The current peak hour capacity of the campus domestic water supply reservoir and wells is approximately 10,892 gpm. Total peak hour domestic water demand at buildout of the 1994 LRDP is estimated to be 12,593 gpm¹⁶. The peak hour current capacity of the campus utility water distribution system is approximately 5,365 gpm. Total peak maximum utility water demand at buildout of the 1994 LRDP is estimated to be 5,180 gpm¹⁷.

Wastewater

The existing campus wastewater system is operated by the campus and is not connected to any regional facility. Major system elements include collectors, sanitary sewer mains, eight lift stations, a treatment plant, and an effluent outfall to the South Fork of Putah Creek near Old Davis Road. The new campus Wastewater Treatment Plant, which began operation in March 2000, is more reliable to operate than the outdated treatment system that was in use when the 1994 LRDP was prepared. The current peak month capacity of the UC Davis WWTP, as regulated under the existing NPDES permit, is 2.7 mgd. The WWTP was designed to accommodate the growth anticipated in the 1994 LRDP through 2005-06.

Storm Drainage

The existing storm water drainage system on campus consists of collectors, pump stations, transmission mains, and the Arboretum Waterway. Storm drainage from the central campus is discharged to the Arboretum Waterway (a storm water retention basin for the central campus). Rainfall overflow is pumped into the South Fork during large storm events. The campus storm water system is discussed in Item 9, the Hydrology and Water Quality section, of this Environmental Checklist.

Electricity

The campus receives power from Pacific Gas and Electric Company and the Western Area Power Administration through the campus Main Receiving Station located south of I-80. Operations on the periphery of campus (outside the campus electrical system) are also served by ENRON. The Main Receiving Station converts the power from the transmission level voltage of 115kV to the campus distribution voltage of 12.47 kV. Recent estimated annual electrical usage on campus was approximately 170 million-kilowatt hours per year.

Telecommunications

The campus installed its telecommunications system in 1987. The main switching facility is located in the Telecommunications Building, east of the Central Heating and Cooling Plant. The majority of all voice and data switching equipment and network infrastructure facilities are owned by the campus and operated by UC Davis Communications Resources Service. As new buildings are constructed, Communications Resources 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.

1994 LRDP EIR Standards of Significance

The environmental analysis in the 1994 LRDP EIR, as amended by the 1997-98 Major Capital Improvement Projects SEIR, considered an impact to utilities and service systems to be significant if campus or regional growth would:

- \$ result in a significant increase in the consumption of potable water and require substantial expansion of water supply treatment or distribution;
- \$ result in the need for increased chilled water or steam generation capacity or major distribution improvements;
- \$ require substantial expansion of wastewater treatment and distribution capacity;

- \$ exceed available landfill capacity;
- \$ require substantial expansion of the telecommunication service and distribution system;
- \$ create an energy demand in excess of supply or major infrastructure; or
- \$ require the development of new sources of energy.

1994 LRDP EIR Significant Impacts and Mitigation Measures

Significant impacts identified in the 1994 LRDP EIR and the 1997-98 Major Capital Improvement Projects SEIR that are relevant to the proposed project are presented in the following table. Potential impacts to the deep and shallow/intermediate aquifer are addressed under Item 5 of this checklist titled Hydrology and Water Quality. The level of significance before and after application of mitigation measures identified in these documents is also presented in this table. The proposed project is within the scope of the analysis in the 1994 LRDP EIR as updated in subsequent documents, and there are no changed circumstances since the preparation of these documents that require reanalysis of the cumulative impacts.

<i>LRDP EIR IMPACT</i>	Level of Significance Prior to Mitigation	Level of Significance After/With Mitigation
4.14-2 – Development allowed under the 1994 LRDP would directly increase the demand for water from the domestic/fire water system on the UC Davis Campus.	S	LS
4.14-4 – Development allowed under the 1994 LRDP would directly increase the amount of water demanded from the utility water system serving the UC Davis Campus.	S	LS
4.14-6 – Development allowed under the 1994 LRDP would result in a direct increase in the wastewater generated on the Campus.	S	LS

SU = Significant and Unavoidable; S = Significant; LS = Less than Significant

Mitigation measures in the 1994 LRDP EIR that are applicable to the proposed project and that will be required as part of project implementation include the following:

- ***LRDP EIR Mitigation Measure 4.14-2(a)-*** *Prior to final project design, the Campus shall review each project to determine if existing water supplies are adequate. When determined necessary, the Campus shall construct additional wells into the deep aquifer to meet existing and future domestic water demand.*
- ***LRDP EIR Mitigation Measure 4.14-2(b) –*** *Implement Mitigation Measure 4.14-1(a) and (b).*

(See Mitigation Measures 4.14-1(a) and (b) under Item 9, Hydrology and Water Quality, of this Environmental Checklist)

- **LRDP EIR Mitigation Measure 4.14-4** – *The Campus shall review each project to determine if existing water supply is adequate. When determined necessary, the Campus shall develop additional wells into the shallow/intermediate aquifer to meet the water demands of the Campus utility water system.*
- **LRDP EIR Mitigation Measure 4.14-6(a)** - *Until the existing wastewater treatment plant is upgraded or replaced by facilities with the capacity to treat loads expected from all contemplated Campus development, the Campus shall review each project to ensure that no new structures are constructed that would cause the wastewater treatment plant to exceed its permitted capacity.*
- **LRDP EIR Mitigation Measure 4.14-6(b)** - *If implementation of the project would result in an increased load above the current capacity, the Campus shall employ measures to either increase the plant's capacity or reduce the existing load, such that no permit standards are exceeded. Possible strategies to increase the plant's capacity or reduce the existing load could include the following:*
 - (i) *incrementally increasing the total suspended solids capacity at the existing plant;*
or
 - (ii) *reducing the volume of wastewater generated by existing facilities through implementation of water conservation measures.*

Mitigation measures listed above, are incorporated into the proposed project, and the proposed project as mitigated is evaluated in the checklist below.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Impact for which LRDP/ Program EIR is Sufficient	Less Than Significant Impact	No Impact
Would the project:					
a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

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	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Impact for which LRDP/ Program EIR is Sufficient	Less Than Significant Impact	No Impact
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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 provider's existing commitments?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
g) Comply with applicable federal, state, and local statutes and regulations related to solid waste?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
h) Require or result in the construction of new electrical or natural gas facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Impact for which LRDP/ Program EIR is Sufficient	Less Than Significant Impact	No Impact
i) Require or result in the construction of new telecommunication facilities, the construction of which would cause significant environmental effects?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
j) Exceed an applicable LRDP or Program EIR Standard of Significance?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Discussion

a) The proposed Conference Center, Hotel, and Graduate School of Management Building project would discharge wastewater into the campus sanitary sewer system. The project would connect to an eight-inch diameter sewer line (that was installed to serve the Center for the Arts Performance Hall) at a point located to the southeast of the future South Entry Quad. The proposed project does not include uses that are likely to result in discharge of inappropriate materials to the sanitary sewer system, and the project would be required to comply with the campus pretreatment program. However, as discussed further in Item 9 (a) in the Hydrology and Water Quality section of this Environmental Checklist, the December 2000 results of quarterly effluent testing from the campus WWTP detected copper in excess of the permitted level. The WWTP copper permit limit is 13 ppb, and the results of December 2000 sampling indicated copper concentrations of 16 ppb in the WWTP effluent.

The circumstances surrounding effluent testing for the first quarter of 2001 were unusual. Effluent testing from one laboratory (that was experiencing several problems with its equipment) showed results that were orders of magnitude higher than any other results the campus has experienced. This laboratory found copper levels of 14 ppb, just over the 13 ppb effluent limit. The same samples were sent to another certified laboratory and these results showed copper was non-detect (less than 5 ppb). Both sets of results were reported to the Regional Water Quality Control Board for evaluation.

The campus is pursuing several steps to bring copper concentrations into compliance, including strictly enforcing the pretreatment program and aggressively enforcing local limits by identifying and removing sources of copper to the wastewater where feasible. The proposed project would not be an atypical source of copper and would not have a substantial effect on copper concentrations in effluent (see Item 9 (a)).

1994 LRDP EIR Mitigation Measures 4.8-6 (a) through (c), incorporated as part of the proposed project, require the campus to continue monitoring WWTP effluent discharge, modify the pretreatment program as needed to ensure compliance, and apply and comply with

requirements of NPDES WDRs for the campus WWTP. In addition, WWTP Replacement Project EIR Mitigation Measure 4.1-6 (a) requires the campus to strictly implement the pretreatment program and enforce the local limits to reduce pollutant concentrations and ensure NPDES permit limits will be met. WWTP Replacement Project EIR Mitigation Measure 4.1-6 (b) requires the campus to modify the operation and/or treatment processes at the WWTP as necessary to comply with all applicable permit conditions related to toxics.

Implementation of mitigation measures previously adopted as part of the 1994 LRDP and WWTP Replacement Project will reduce the copper concentration in WWTP effluent to within the permit limit. No new significant impacts have been identified and no new mitigation measures are required.

- b) Wastewater from the proposed project would be treated at the campus Wastewater Treatment Plant. The plant, which began operation in March 2000, has a permitted capacity of 2.7 mgd, sufficient for development allowed under the 1994 LRDP including the proposed project. Therefore, no impact would occur.
- c) The proposed Conference Center, Hotel, and Graduate School of Management project would connect to the campus storm drainage collection system at a point located southwest of the proposed project site. The campus evaluated the proposed point of connection and determined that adequate capacity exists to serve the proposed project.^{18,19} As described in Item 9, the Hydrology and Water Quality section of this checklist, the proposed project would increase paved surfaces by approximately 4.25 acres. However, an effort would be made to minimize impervious surfaces during landscape design, and storm water drainage would be channeled, where possible, through swales and over other pervious surfaces to filter runoff and maximize percolation. The proposed project's impact on the capacity of the campus storm drainage system would be less-than-significant.
- d) The proposed project would require domestic water supplied by the campus domestic/fire water system, which obtains water from the deep aquifer. Utility water, obtained from the shallow/intermediate aquifer, would be required by the proposed project for landscape irrigation. Please review Item 9, the Hydrology and Water Quality section of this Environmental Checklist, for a discussion of potential impacts to these aquifers.

Domestic Water

The proposed Conference Center, Hotel, and Graduate School of Management Building project would connect to the campus domestic water system at a point located approximately 70 feet southwest of the proposed project site. The project would connect to a ten-inch diameter water main that was installed under the realigned Old Davis Road as part of the Center for the Arts Performance Hall project. An existing domestic water line that crosses a portion of the site would need to be removed, relocated, or abandoned in place. In addition, a service

extension to a six-inch main serving the fire hydrant in the Environmental Horticulture complex would be installed. As discussed in Item 9(b) of this Environmental Checklist, the proposed project's domestic water demand would be approximately 12.5 mgd, an amount that is within the domestic water use projected for 2005-06. The proposed Environmental Horticulture headhouse/storage building would connect to the campus domestic water system at a point located under Brooks Road. The connection would be adequate to serve the minor domestic water demand associated with this new building

The 1994 LRDP EIR identified that development allowed under the 1994 LRDP would directly increase the demand for water from the campus domestic/fire water system (Impact 4.14-2). Consistent with 1994 LRDP EIR Mitigation Measure 4.14-2(a), incorporated into the proposed project, the domestic/fire water system was evaluated to determine if adequate supply exists to meet the peak use and peak fire-flow demands of the proposed project. The campus has determined that capacity exists at the proposed points of connection to adequately serve the proposed project.²⁰ Therefore, this impact would be less-than-significant.

Utility Water

The proposed Conference Center, Hotel, and Graduate School of Management Building would connect to the campus utility water system at a point located either to the north or the east of the future South Entry Quad under the realigned Old Davis Road (currently under construction). The proposed project would include approximately 0.75 acre of additional open space and landscaping that would require utility water for irrigation. Peak hour utility water demand by 2006 is estimated to be 5,180 gpm (West Yost 2006). The 1994 LRDP EIR identified that development allowed under the 1994 LRDP would directly increase the amount of water demanded from the campus utility water system (impact 4.14-4). Consistent with 1994 LRDP EIR Mitigation Measure 4.14-4, the campus reviewed the existing utility water system and determined that capacity exists at the alternate points of connection to serve the proposed project.²¹ Therefore, this impact would be less than significant.

- e) The project would connect to the existing campus sanitary sewer system at a point located southwest of the project site. The campus determined that adequate sanitary sewer capacity exists to serve the proposed project.²² Therefore, the proposed project's impact on the campus wastewater collection system capacity is less-than-significant.

- f) Operation of the proposed facilities would generate non-hazardous solid waste for disposal at the campus landfill, which would result in an increase in solid waste over existing conditions. The campus landfill has sufficient capacity to accommodate the increased quantity of solid waste generated by the implementation of the 1994 LRDP. This projection assumes an annual growth rate of 1.8 percent, which represents generation by 2006 of approximately 60 tons of solid waste per day. Currently, the campus generates approximately 40 to 50 tons of solid waste per day. The permitted capacity of the landfill is 500 tons per day. The proposed project would not generate waste that exceeds the permitted capacity, nor would it exceed 1994 solid waste

projections because the proposed project is within the scope of the 1994 LRDP and LRDP EIR. Therefore, the proposed project's impact on the capacity of the campus landfill would be less-than-significant.

The 1994 LRDP EIR concluded that development allowed under the 1994 LRDP would result in increased generation of solid waste in the Davis area. This cumulative impact was considered less-than-significant because adequate landfill capacity exists to accommodate buildout of the City of Davis. The proposed project would contribute to, but not exceed, demand for solid waste disposal capacity associated with buildout of the 1994 LRDP.

g) The proposed project would comply with all applicable federal, state and local statutes and regulations related to solid waste; therefore, no impact would occur.

h) **Electricity**

The proposed project, as required of all new buildings constructed in California, would comply with Title 20, Energy Building Regulations, and Title 24, Energy Conservation Standards of the California Code of Regulations. It is campus policy to exceed Title 24 code requirements by 10 percent and to encourage design choices that allow provision of the most energy efficient buildings possible. The project would be included in the campus's load management program, which voluntarily reduces loads when the state's energy reserves fall below critical levels.

Electricity would be provided for the proposed project from the campus's distribution system. The Conference Center, Hotel, and Graduate School of Management Building project would connect to the system at a point located southeast of the project site under the realigned Old Davis Road. The new Environmental Horticulture structures would connect to the campus electrical system via an extension to an overhead line located either off Brooks Road on Road C-2A. The project would contribute to the peak demand for electricity on campus. However, the proposed project would begin operation close to the completion date of the Electrical Improvements Phase 2B project (in 2002). Phase 2B improvements will provide a new system capacity of 60,000 kVA, sufficient capacity to meet the electrical needs of recently completed facilities and anticipated new campus development, including the proposed project. With completion of the Phase 2B project, adequate capacity is expected to serve electricity to the proposed project.²³ Therefore, impacts on the electrical distribution system capacity would be less-than-significant.

There is current uncertainty with respect to the cost and supply of electricity throughout California. Because it is early to determine future sources of energy, it would be speculative to evaluate environmental impacts from the construction and operation of new generating facilities that may be triggered by the project in conjunction with other development in the region. In addition, the California Energy Commission conducts environmental review for all large generating facilities that are proposed in California. The Commission prepares a CEQA-equivalent document that analyzes and discloses environmental impacts from the construction

and operation of new power plants and imposes mitigation measures as conditions of project approval to address significant impacts.

Natural Gas

The developer of the proposed project would secure natural gas service from PG&E and would not connect to campus natural gas infrastructure. Therefore, no impact would occur. The project would connect to the PG&E main line along the Union Pacific rail line, at a point located approximately 200 feet south of the project site.

- i) As new buildings are constructed, UC Davis Communications Resources 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 Conference Center, Hotel, and Graduate School of Management Building would connect to an existing campus telecommunication line at a point located under Mrak Hall Drive. In addition, the project could connect to a private telecommunication service via a wireless connection. Adequate capacity is expected at the alternate points of connection. Therefore, the proposed project's impact on the campus telecommunication distribution capacity is less than significant.
- j) Standards of significance for utilities and service systems impacts that were used in preparation of the 1994 LRDP EIR are presented earlier in this section. These standards are consistent with the utilities and service systems questions in the current Environmental Checklist. Based on the discussion presented above, with the incorporation of 1994 LRDP EIR mitigation measures, the proposed project would not exceed the standards of significance in the 1994 LRDP EIR. The project would not result in new significant impacts related to utilities and service systems that were not previously analyzed in the 1994 LRDP EIR.

Summary

The proposed project would not result in any new or significant impacts to utilities and service systems that have not already been adequately examined in the 1994 LRDP EIR. No significant utilities and service impacts were identified.

17. MANDATORY FINDINGS OF SIGNIFICANCE

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Impact for which LRDP/ Program EIR is Sufficient	Less Than Significant Impact	No Impact
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?	■	□	□	□	□
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)?	□	□	■	□	□
c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	□	□	■	□	□

Discussion

a) The proposed project would not eliminate examples of California history or prehistory. However, the proposed project could potentially affect foraging habitat for Swainson’s hawk. This impact will be evaluated in greater detail in the Focused Tiered EIR. Cumulative regional impacts could be significant, but mitigation measures to reduce these potentially significant impacts to a less-than-significant level are not within the jurisdiction of the University of California to enforce and monitor. These potentially significant and unavoidable impacts were adequately analyzed in the 1994 LRDP EIR, cannot be mitigated further by the University, and were fully addressed in the Findings and Statement of Overriding Considerations adopted by The Regents in connection with approval of the

1994 LRDP and certification of the 1994 LRDP EIR. There are no changed circumstances since the preparation of these documents that require reanalysis of cumulative impacts.

- b,c) The proposed project is consistent with the 1994 LRDP, as described in Section IV of this Tiered Initial Study. The cumulative impacts of the development of the campus pursuant to the 1994 LRDP were identified and adequately analyzed in the 1994 LRDP EIR. The proposed project would incrementally contribute to but not exceed significant and unavoidable impacts identified in the 1994 LRDP EIR related to agriculture resources, visual resources, geology and soils, hydrology and water quality, air quality, hazardous materials and waste, public services, and cultural resources. These potentially significant and unavoidable impacts were adequately analyzed in the 1994 LRDP EIR, cannot be further mitigated by the University, and were fully addressed in the Findings of Overriding Consideration adopted by The Regents in connection with approval of the 1994 LRDP and certification of the 1994 LRDP EIR. There have been no changed circumstances since the preparation of these documents that require reanalysis of cumulative impacts. The Focused Tiered EIR will further evaluate the levels of significance of cumulative impacts on land use, transportation, noise, and biological resources.

18. Fish and Game Determination

Based on the information above, the project has a potential to adversely affect wildlife or the habitat upon which habitat depend. Therefore, a California Department of Fish and Game filing fee will be paid.

Certificate of Fee Exemption

Pay fee

VIII. REFERENCES

See endnotes.

IX. REPORT PREPARERS

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ENDNOTES

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