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

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State Clearinghouse No. 2014052052

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UNIVERSITY OF CALIFORNIA
Davis Campus

July 2014

1 PROJECT INFORMATION

Project title:

Veterinary Medicine Student Services Development

Project location:

University of California, Davis
Yolo County

Lead agency’s name and address:

The Regents of the University of California
1111 Franklin Street
Oakland, CA 94607

Contact person:

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

Project sponsor’s name and address:

Environmental Stewardship and Sustainability
University of California
One Shields Avenue
436 Mrak Hall
Davis, CA 95616-8678

Location of administrative record:

See lead agency.

Identification of previous documents relied upon for tiering purposes:

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

- UC Davis Environmental Stewardship and Sustainability in 376 Mrak Hall on the UC Davis campus
- Reserves at Shields Library on the UC Davis campus
- Yolo County Public Library at 315 East 14th Street in Davis
2 INTRODUCTION

2.1 INITIAL STUDY

Pursuant to Section 15063 of the California Environmental Quality Act (CEQA) Guidelines (Title 14, California Code of Regulations, Sections 15000 et seq.), an Initial Study is a preliminary environmental analysis that is used by the lead agency as a basis for determining whether an EIR, a Mitigated Negative Declaration, or a Negative Declaration is required for a project. The CEQA Guidelines require that an Initial Study contain a project description, description of environmental setting, identification of environmental effects by checklist or other similar form, explanation of environmental effects, discussion of mitigation for significant environmental effects, evaluation of the project’s consistency with existing, applicable land use controls, and the name of persons who prepared the study.

2.2 TIERING PROCESS

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

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

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

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

- a discussion of general background and setting information for environmental topic areas;
- overall growth-related issues;
- issues that were evaluated in sufficient detail in the 2003 LRDP EIR for which there is no significant new information or change in circumstances that would require further analysis; and
- assessment of cumulative impacts.
This Initial Study will evaluate the potential environmental impacts of the proposed project with respect to the 2003 LRDP EIR to determine what level of additional environmental review, if any, is appropriate. As shown in the Determination in Section 6 of this document, and based on the analysis contained in this Initial Study, it has been determined that the proposed project would not result in any potentially significant impacts that cannot be mitigated to less-than-significant levels or that were not adequately addressed by the 2003 LRDP EIR.

The project would not result in new potentially significant impacts that were not previously identified in the 2003 LRDP EIR. Therefore, preparation of a Negative Declaration is appropriate (the Negative Declaration is presented in Appendix A).

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

2.3 Public and Agency Review

This Initial Study was circulated for public and agency review from May 16, 2014 to June 16, 2014. Copies of this document, the 2003 LRDP, and the 2003 LRDP EIR were available for review at the following locations:

- UC Davis Environmental Stewardship and Sustainability in 436 Mrak Hall on the UC Davis campus
- Reserves at Shields Library on the UC Davis campus
- Yolo County Public Library at 315 East 14th Street in Davis

Comments on this Initial Study were due by 5:00 PM on June 16, 2014 and could have been e-mailed to environreview@ucdavis.edu or sent to:

A. Sidney England  
Assistant Vice Chancellor – Environmental Stewardship and Sustainability  
University of California  
One Shields Avenue  
436 Mrak Hall  
Davis, CA 95616

During the public review period comment letters were received from Yocha Dehe Wintun Nation, Department of Toxic Substances Control, and the Central Valley Regional Water Quality Control Board.
The letters and responses to the letters are included in Appendix B of this Initial Study. The letters raise no new environmental issues and resulted in no changes to the environmental impact analysis in this Tiered Initial Study.

2.4 **PROJECT APPROVALS**

As a public agency principally responsible for approving or carrying out the proposed project, the University of California is the Lead Agency under CEQA and is responsible for reviewing and certifying the adequacy of the environmental document and approving the proposed project. Approval of the proposed project has been delegated to the Chancellor by The Board of Regents of the University of California (The Regents) and is expected to be considered by the Chancellor in Summer of 2014.

2.5 **ORGANIZATION OF THE INITIAL STUDY**

This Initial Study is organized into the following sections:

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

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

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

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

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

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

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

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

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

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

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

Appendix B—Comments and Responses to Comments: presents comment letters and responses to comment letters.
3 PROJECT DESCRIPTION

3.1 REGIONAL LOCATION
The approximately 5,300 acre UC Davis campus is located in Yolo and Solano Counties approximately 72 miles northeast of San Francisco, 15 miles west of the City of Sacramento, and adjacent to the City of Davis (see Figure 3.1). The campus is comprised of four campus units: the central campus, the south campus, the west campus, and Russell Ranch. Most academic and extracurricular activities occur within the central campus. The central campus is bounded generally by Russell Boulevard to the north, State Route 113 (SR 113) to the west, Interstate 80 (I-80) and the Union Pacific Railroad tracks to the south, and A Street to the east. The south campus is located south of I-80 and north of the South Fork of Putah Creek. The west campus is bounded by SR 113 to the east, Putah Creek to the south, Russell Boulevard to the north, and extends approximately one-half mile west of County Road 98. The south and west campus units are contiguous with the central campus, and are used primarily for field teaching and research. The approximately 1,600 acre Russell Ranch portion of the campus lies to the west, separated from the west campus by approximately one and one-half miles of privately owned agricultural land. Russell Ranch was purchased in 1990 for campus uses including large-scale agricultural and environmental research, study of sustainable agricultural practices, and habitat mitigation. Russell Ranch is bordered roughly by County Road 96 on the east, Putah Creek on the south, Covell Boulevard on the north, and Russell Boulevard and privately owned agricultural land on the west and northwest.

3.2 PROJECT OVERVIEW
UC Davis proposes to construct and operate the Veterinary Medicine Student Services (VMSS) Development which would consist of two new buildings: 1) the VMSS and Administration Center; and, 2) the Scrubs Café building. The project construction site is approximately two acres at the southeast corner of Garrod Drive and Garrod Drive near the Veterinary Medicine 3B building (Figure 2 and 3). The first new building would provide approximately 24,000 gsf of administrative space for the School of Veterinary Medicine and would provide space to meet the needs of the School of Veterinary Medicine Executive Office, Academic and Student Programs, Academic Personnel and Staff Administration, Fiscal Administration, Research and Graduate Education, Outreach and Fundraising, and Computing and Technology Services. The VMSS building would be two-stories in height with a maximum height of approximately 30 feet. The building would be rectangular in shape with the long axis of the building oriented to extend east-west and the main entrance of the building facing west.

The second new building, the Scrubs Café, would provide space for food service with approximately 11,000 gsf consisting of space for final food preparation and food serving, a production kitchen, a dry storage area, support spaces and indoor dining space. The Scrubs Café would be a one-story building with a building height of approximately 20 feet. In total, the two buildings would provide approximately 35,000 gsf of new building space at UC Davis. The project would include exterior landscaping along, pedestrian paths, bike parking, outdoor seating near the food service building, and an events lawn and landscaped area of approximately 15,000 square feet. Collectively, this Initial Study refers to the new development of both buildings and the entire site area of approximately two acres as the Veterinary VMSS Development.

Upon completion of the new replacement space on Garrod Drive, the existing School of Veterinary Medicine administrative space named Surge IV on Hutchison Drive would be removed and the site cleared of buildings. The removal of these Surge IV temporary buildings that were constructed in 1972 would decrease the amount of building space at UC Davis by 25,000 gsf. The Surge IV buildings are outdated and would require substantial maintenance to continue as academic buildings. With construction of the two new buildings and demolition of the Surge IV buildings, the net increase in space from the overall project would be approximately 10,000 gsf. This Initial Study evaluates the environmental impacts of the VMSS Development and the environmental impacts of the Surge IV Demolition.
Figure 2
Site Plan
3.3 **PROJECT SITE**

The VMSS Development site consists of approximately two acres east of Garrod Drive in the Health Sciences District of the UC Davis Central Campus. The site is partially vacant and was previously used as a construction staging area for construction of the Vet Med 3B building. In addition, a portion of the site currently serves as the route for Garrod Drive. The existing Garrod Drive will be realigned in the summer of 2014 to the north of the project site and the existing road on the project site will be removed. Land uses surrounding the project site include Parking Lot 50 and the Veterinary Medicine Teach Hospital to the west, undeveloped land and a plant nursery for the UC Davis Arboretum to the south, the future alignment of Garrod Drive to the north, and the Veterinary Medicine 3B academic building to the north. East of the project site is an area undergoing construction for a parking lot expansion which will provide parking for area uses including the proposed project. The parking lot expansion and associated pathways will also provide a connection for automobiles, pedestrians, and bicyclists to the campus arboretum east and south of the project site. The project site for the VMSS Development is designated as *Teaching and Research Open Space* land in the 2003 Long Range Development Plan.

The demolition site at the Surge IV complex consists of approximately one acre south of Hutchison Drive in the Core Campus east of Bloletti Way and south of Haring Hall. The modular buildings on the site were installed in 1972 and provide space for Veterinary Medicine administration functions. The buildings are oriented around a raised deck and overhead shade structure. Land uses surrounding the site include Hutchison Drive, a major campus roadway to the north, Parking Lot 43 to the east, landscaping and a bike path to the south, and a service drive and one-story academic buildings to the west. The demolition site is designated as an *Academic/Administrative High Density* land use area on the 2003 LRDP.

3.4 **PROJECT NEED AND OBJECTIVES**

The School of Veterinary Medicine originally occupied facilities within the core campus at UC Davis. To accommodate planned growth over the last 30 years, facilities planning efforts for the School of Veterinary Medicine have constructed new facilities in the Health Sciences District with the intent of eventually moving all veterinary medicine units from the core campus to the Health Sciences District. Through co-location of facilities in the Health Sciences District, the School of Veterinary Medicine would achieve improved efficiencies by bringing teaching and research efforts in close proximity to each other. Nearly all academic programs for the School of Veterinary Medicine have moved from the core campus. At this time, the remaining School of Veterinary Medicine functions are primarily the administrative units operating in Surge IV. Moving these School of Veterinary Medicine administrative functions from Surge IV in the core campus to the Health Sciences District would improve efficiency between the administrative and academic functions of the School of Veterinary Medicine.

Limited food service in the Health Sciences District has been provided in makeshift space with limited cooking, storage, food preparation, and limited seating for diners. The proposed project seeks to increase the building space for food service in the Health Sciences District and improve the efficiency of food service functions.

In addition, the Surge IV facilities were temporary buildings installed in 1972. The buildings are poorly insulated, not energy efficient, and would require substantial rehabilitation in the upcoming years to continue as University buildings.
The specific objectives of the proposed project are to:

- Provide space for School of Veterinary Medicine administrative functions within the Health Sciences District.
- Provide upgraded space as compared to the Surge IV buildings with improved user comfort, energy efficiency, and higher aesthetic appeal for the Veterinary Medicine Student Services functions.
- Remove the Surge IV buildings in order to minimize the number of energy inefficient buildings at UC Davis.
- Increase building space for food service and dining within the Health Sciences District.
- Connect the new building spaces to the campus bike and pedestrian network.
- Provide a visual and physical connection between uses and users in the Health Sciences District with the Campus Arboretum.

3.5 PROJECT ELEMENTS

3.5.1 Buildings

Three buildings are related to the proposed project:

School of Veterinary Medicine Student Services and Administration: The School of Veterinary Medicine Student Services and Administration building would provide approximately 24,000 gross square feet (gsf) of administrative space for the School of Veterinary Medicine and would provide space to meet the needs of the School of Veterinary Medicine Executive Office, Academic and Student Programs, Academic Personnel and Staff Administration, Fiscal Administration, Research and Graduate Education, Outreach and Fundraising, and Computing and Technology Services. The School of Veterinary Medicine Student Services building would be two-stories in height with a maximum height of approximately 30 feet. The building would be rectangular in shape with the long axis of the building oriented to extend east-west and the main entrance of the building facing west.

Scrubs Café: The Scrubs Café building would be a single-story building that would be constructed in the Health Sciences District along Garrod Drive east of the Veterinary Medicine Teaching Hospital. The new building would provide approximately 11,000 gsf for food service with space for food service including space for final food preparation and food serving, a production kitchen, a dry storage area, support spaces (receiving, trash, and recycling) and indoor dining space. The Scrubs Café would have a height of approximately 20 feet with the main entrance facing north and additional outdoor seating provided along the east side of the building.

Surge IV: Upon completion of the School of Veterinary Medicine Student Services and Scrubs Café buildings, the Surge IV buildings would be vacated and eventually demolished. The Surge IV building complex is a set of four temporary buildings constructed in 1972. The four buildings face a common raised deck area that is interior to the edges of the buildings and includes an overhead cover that creates a covered courtyard across the deck area. The Surge IV buildings consist of Temporary Building 200 (10,835 gsf), Temporary Building 201 (6,391 gsf), Temporary Building 202 (4,017 gsf), and Temporary Building 203 (3,793 gsf) for a total of approximately 25,000 gsf and an additional 2,800 square feet of covered deck area resulting in a total site area of approximately 28,000 square feet of impervious surfaces. With demolition of the project buildings, the site would be stabilized to prevent erosion and left as a vacant parcel. Future campus planning would be needed to determine an appropriate future use and the timing of a future redevelopment project.
With the construction of 35,000 gsf for the School of Veterinary Medicine Student Services and Scrubs Café buildings and then the demolition of 25,000 gsf at Surge IV, the proposed project would result in a net increase of approximately 10,000 gsf to the campus building square footage.

3.5.2 Landscaping

With construction of the two new buildings, the two acre project site would be landscaped with groundcover, shrubs, and new trees. The project site currently has no trees or landscaping. Upon completion, the building edges would be landscaped and the road edge would include tree plantings. The southeast corner of the project site would remain as landscaped open space with the design of concrete patio along the south edge of the School of Veterinary Medicine Student Services building and the east edge of the Scrubs Café building. Extending from the patio would be an events space with lawn area intended to provide informal gathering space during most days and space for more formal outdoor events such as receptions, lectures, and small parties.

3.5.3 Parking and Roadways

The proposed project would include no modifications to parking lots or roadways.

3.5.4 Utilities and Infrastructure

As discussed briefly below and analyzed in Section 7.16, the proposed project would require connections to campus utilities and infrastructure including electrical, domestic water, utility water, sanitary sewer, storm drainage, telecommunications, chilled water, and central steam service.

- Domestic Water: The project would connect to an existing 8-inch water main on the north side of the site. Project demand is estimated to peak at 13 gallons per minute (gpm) during regular usage and 1,750 gpm for firefighting.

- Utility Water: The project would connect to an existing six-inch water main on the south side of the site to obtain landscaping water. From the point of connection, landscaping water would be distributed throughout the project site. The campus uses a separate water system for landscaping water utilizing groundwater from shallow/intermediate aquifers. The project is expected to up to 50 gpm during peak flow.

- Sanitary Sewer: The project would connect to an existing sanitary sewer main on the southwest side of the project site. The main has adequate capacity to receive sanitary sewer effluent and would need no upgrades prior to reaching the campus wastewater treatment plant. The project is expected to produce a peak flow of approximately 6,100 gallons per day.

- Storm Drainage: The project would connect to the existing underground stormwater system at the northwest corner of the project site. In addition, a portion of the stormwater flow from the project site would be routed to on-site retention facilities in order to decrease the total amount of expected site runoff. During peak periods, the project is expected to produce a peak flow of 0.6 cubic feet per second of stormwater runoff.

- Electricity: Proposed point of connection on the north side of the project site. The project will extend the 12kv electrical service into the project site and terminate at an outdoor transformer adjacent to the building electrical room. System capacity is adequate for this project.
• Natural Gas: The project does not require a natural gas connection.

• Chilled Water: The project would connect to the campus chilled water system to provide cooling to the building space. The connection would be located at the 20-inch chilled water main on the south side of the project site. The project would utilize 94 tons of chilled water during peak periods.

• Steam: The project would connect to the campus steam system to provide heating to the building space. The project would connect to an existing steam line on the southwest side of the project site and would utilize approximately 1,158 lbs of steam per hour during peak periods.

• Telecommunications: The project would connect to the campus telecommunications system on the northwest side of the project site near the Vet Med 3B building.

3.5.5 Sustainable Design Elements

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

3.5.6 Population

The proposed project would increase the campus population by approximately 40 employees.

3.6 Construction Schedule and Staging

Construction of the proposed project is anticipated to begin in 2015 and end in 2016. Construction staging and contractor parking associated with the proposed project would occur within the project site and on the vacant, unused area immediately south of the project site.
4 CONSISTENCY WITH THE 2003 LRDP AND 2003 LRDP EIR

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

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

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

4.1 2003 LRDP SCOPE OF DEVELOPMENT

The 2003 LRDP anticipated Academic and Administrative square footage would increase to approximately 10,820,000 gsf through 2015-16. With implementation of the proposed project, the campus would achieve efficiencies in the co-location of veterinary medicine uses within the Health Sciences District. In 2012-13, the campus had approximately 8,270,000 gsf of academic and administrative space. The proposed project, with a net increase of 10,000 gsf of Academic and Administrative square footage, in combination with other recently approved and currently proposed projects, would not increase academic and administrative building space on campus to levels that would exceed those projected for 2015-16. Therefore, the proposed project is within the 2003 LRDP’s scope of development.

4.2 2003 LRDP LAND USE DESIGNATION

The project site for the VMSS Development is designated as Teaching and Research Open Space land in the 2003 Long Range Development Plan. The Teaching and Research Open Space designation provides space for formal and informal open space, developed facilities within the open space, and buildings to enhance the use of the open space. The Teaching and Research Open Space designation is the campus land use designation for the UC Davis Arboretum. The proposed project would develop approximately two acres within the arboretum with the Scrubs Café and the VMSS building serving as a new type of developed facility within the arboretum. The location of these facilities is intended to enhance access, interaction, and interest in the UC Davis Arboretum.

The demolition site at Surge IV is designated as an Academic/Administrative High Density land use area on the 2003 LRDP. The proposed demolition project would leave the area vacant which would be consistent with the Academic/Administrative High Density land use designation.
4.3 2003 LRDP Population Projections

The 2003 LRDP projects that, through 2015-16, the on-campus population will increase to include approximately 30,000 students, 14,500 faculty and staff, and 3,240 non-UC employees. In addition, the total number of household members associated with students and employees living in on-campus housing is expected to increase to approximately 1,775. The fall 2012 on-campus faculty and staff headcount was approximately 11,560, and the 2011-12 three-quarter average on-campus student population was approximately 30,047. The proposed project, would introduce no new students but would include a potential employment increase of approximately 40 new employees to the campus population. With the campus remaining approximately 6,000 employees below the 2003 LRDP projection, the project would not increase the campus population to a level that would approach that projected for 2015-16. Therefore, the proposed project is within the 2003 LRDP’s on-campus population projections.

4.4 2003 LRDP Objectives

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

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

The proposed project would support these main 2003 LRDP objectives by consolidating Veterinary Medicine facilities to the Health Sciences District for improved collaboration and efficiencies. In addition, the project would enrich campus life through the provision of new facilities designed as part of the UC Davis Arboretum so that campus users within the Health Sciences have a direct connection between an Academic and Administrative functions and the open space amenities in the Arboretum.

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

**Continuum of Open Spaces:** Provide a diversity of open space areas, from formal, programmed space to more naturalized habitat that supports environmental objectives and informal use. [LRDP Campus Systems; page 34.]

The proposed project would provide a new open space area between the UC Davis Arboretum and the new buildings. The new open space would be adjacent to the dining and outdoor seating area next to the proposed Scrubs Café building. This new formal open space would serve to implement the LRDP objective of providing a continuum of open space at UC Davis.

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1 The on-campus population includes students and employees on the UC Davis main campus and at other University owned and operated facilities in the City of Davis. The campus population is determined based on headcount, a method of counting faculty, staff, and students in which each person is counted as one unit regardless of whether he or she is employed or studying full-time or part-time. Student population figures represent student headcount averaged over the primary three academic quarters (i.e., fall, winter, spring).
Network:  *Link diverse open spaces into a network of connected places.* [LRDP Campus Systems; page 34.]

The new open space with the proposed project would connect the UC Davis Arboretum with a new open space and would provide a connection toward the open space and path network in the Health Sciences District.

**Arboretum Connections to Academic Core:** *Find opportunities to better connect the environment of pathways, open spaces, and buildings in the Central Campus to the Arboretum. Extend the landscape character of the Arboretum into the fabric of the Central Campus where appropriate.* [LRDP Central Campus Planning Area; page 41.]

The new open space with the proposed project would connect the UC Davis Arboretum with a new open space designed for a high level of visitor use and would provide a connection toward the open space and path network in the Health Sciences District.

**Health Sciences District-Entrances:**  *Clarify visitor/client entrances for the School of Medicine and School of Veterinary Medicine.* [LRDP Central Campus Planning Area; page 42.]

The VMSS Development would serve as gateway to the School of Veterinary Medicine facilities by offering a central meeting and dining location.

**Interconnected Spaces:** *Provide connected series of walkways and open spaces to create a cohesive campus environment.* [LRDP Central Campus Planning Area; page 42.]

The new open space with the proposed project would connect the UC Davis Arboretum with a new open space and would provide a connection toward the open space and path network in the Health Sciences District.

**New Formal Open Spaces:** *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. New quads, district centers, and garden walks are indicated on the 2003 LRDP map. The exact configuration of these will be addressed by the district planning process, providing more detailed site planning guidelines within the context of the 2003 LRDP.* [LRDP Systems; page 84.]

The proposed project would establish a district open space center by creating designing the courtyard and arboretum connection space to connect with the adjacent arboretum uses. The 2008/2009 UC Davis Physical Design Framework provided a detailed district planning effort and indicated that a new courtyard and connection space to the arboretum could be constructed in conjunction with an academic/administrative building on the project site. The proposed project matches the building alignment and courtyard concept in the approved 2008/2009 UC Davis Physical Design Framework.

**Arboretum Expansion:** *Expand the Arboretum east of the Health Sciences District to provide open space amenities to this part of campus, and to better connect to the open space network in the Academic Core.* [LRDP Systems; page 84.]

The proposed project would expand the UC Davis Arboretum by providing a new outdoor space that would connect to the arboretum. In addition, the new space would expand the UC Davis Arboretum by bringing more people into the arboretum. The new open space and buildings would be adjacent to the dining space at the Scrubs Café and the student services functions in the VMSS building. These functions would attract students, employees, and visitors to experience the arboretum.
4.5 2003 LRDP EIR CUMULATIVE IMPACTS ANALYSES

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

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

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

☐ Aesthetics  ☐ Agricultural Resources  ☐ Air Quality

☐ Biological Resources  ☐ Cultural Resources  ☐ Geology, Soils & Seismicity

☐ Hazards & Hazardous Materials  ☐ Hydrology & Water Quality  ☐ Land Use & Planning

☐ Mineral Resources  ☐ Noise  ☐ Population & Housing

☐ Public Services  ☐ Recreation  ☐ Transportation, Circulation & Parking

☐ Utilities/Service Systems  ☐ Mandatory Findings of Significance

As indicated in the checklist above and based on the analysis presented in this Initial Study, it has been determined that for all resource areas, the proposed project would not result in any significant impacts that cannot be mitigated to a less-than-significant level or are not adequately addressed by the 2003 LRDP EIR. This Initial Study has concluded that the project would incrementally contribute to, but would not exceed, certain significant cumulative impacts previously identified in the 2003 LRDP EIR, and that for such impacts, no new mitigation measures, other than those previously identified in the 2003 LRDP EIR have been identified to further reduce the impact. No project-specific potentially significant impacts or new mitigation measures have been identified and the Negative Declaration is included as Appendix A to this Initial Study.
6 DETERMINATION

On the basis of this initial evaluation:

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

☐ The proposed project COULD have a significant effect on the environment, the project impacts were adequately addressed in an earlier document or there will not be a significant effect in this case because revisions in the project have been made that will avoid or reduce any potential significant effect to a less-than-significant level. A MITIGATED NEGATIVE DECLARATION will be prepared.

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

______________________________  ______________________
Sid England       Date
Assistant Vice Chancellor – Environmental Stewardship and Sustainability
7 EVALUATION OF ENVIRONMENTAL IMPACTS

Introduction

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

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

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

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

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

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

7.1.1 Background

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

Campus

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

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

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

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

Project Site

The VMSS Development site consists of approximately two acres east of Garrod Drive in the Health Sciences District of the UC Davis Central Campus. The site is partially vacant and was previously used as a construction staging area for construction of the Vet Med 3B building. In addition, a portion of the site currently serves as the route for Garrod Drive. The existing Garrod Drive will be realigned in the summer of 2014 to the north of the project site and the existing road on the project site will be removed. Land uses surrounding the project site include Parking Lot 50 and the Veterinary Medicine Teach Hospital to the west, undeveloped land and a plant nursery for the UC Davis Arboretum to the south, the future alignment of Garrod Drive to the north, and the Veterinary Medicine 3B academic building to the
north. East of the project site is an area undergoing construction for a parking lot expansion which will provide parking for area uses including the proposed project. The parking lot expansion and associated pathways will also provide a connection for automobiles, pedestrians, and bicyclists to the campus arboretum east and south of the project site.

The demolition site at the Surge IV complex consists of approximately one acre south of Hutchison Drive in the Core Campus east of Bioletti Way and south of Haring Hall. The modular buildings on the site were installed in 1972 and provide space for Veterinary Medicine administration functions. The buildings are oriented around a raised deck and overhead shade structure. Land uses surrounding the site include Hutchison Drive, a major campus roadway to the north, Parking Lot 43 to the east, landscaping and a bike path to the south, and a service drive and one-story academic buildings to the west.

7.1.2 2003 LRDP EIR Standards of Significance

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

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

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

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

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

7.1.3 2003 LRDP EIR Impacts and Mitigation Measures

Impacts of campus growth under the 2003 LRDP through 2015-16 on aesthetics are evaluated in Section 4.1 of the 2003 LRDP EIR. The proposed project is within the scope of analysis in the 2003 LRDP EIR. Significant and potentially significant aesthetics impacts identified in the 2003 LRDP EIR that are relevant to the proposed project are presented below with their corresponding levels of significance before and after application of mitigation measures identified in the 2003 LRDP EIR. A mitigation measure is relevant to reduce the magnitude of cumulative impact 4.1-6, but this impact is identified as significant and unavoidable because the feasibility and/or implementation of mitigation falls within other jurisdictions and therefore cannot be guaranteed by the University of California.

<table>
<thead>
<tr>
<th>2003 LRDP EIR Impacts</th>
<th>Level of Significance Prior to Mitigation</th>
<th>Level of Significance After Mitigation</th>
</tr>
</thead>
<tbody>
<tr>
<td>AESTHETICS</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Mitigation measures in the 2003 LRDP EIR that are applicable to the proposed project are presented below. Since these mitigation measures are already being carried out as part of implementation of the 2003 LRDP, they are considered part of the project description and will not be readopted in this Initial Study or Negative Declaration. Nothing in this Initial Study in any way alters the obligations of the campus to implement 2003 LRDP EIR mitigation measures.

### 2003 LRDP EIR Mitigation Measures

**AESTHETICS**

<table>
<thead>
<tr>
<th>Mitigation Measure</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>4.1-3(a)</td>
<td>Design for specific projects shall provide for the use of textured nonreflective exterior surfaces and nonreflective glass.</td>
</tr>
<tr>
<td>4.1-3(b)</td>
<td>Except as provided in LRDP Mitigation 4.1-3(c), all new outdoor lighting shall utilize directional lighting methods with shielded and cutoff type light fixtures to minimize glare and upward directed lighting.</td>
</tr>
<tr>
<td>4.1-3(c)</td>
<td>Non-cutoff, non-shielded lighting fixtures used to enhance nighttime views of walking paths, specific landscape features, or specific architectural features shall be reviewed by the Campus Design Review Committee prior to installation to ensure that: (1) the minimum amount of required lighting is proposed to achieve the desired nighttime emphasis, and (2) the proposed illumination creates no adverse effect on nighttime views.</td>
</tr>
<tr>
<td>4.1-3(d)</td>
<td>The campus will implement the use of the specified lighting design and equipment when older lighting fixtures and designs are replaced over time.</td>
</tr>
<tr>
<td>4.1-6(a)</td>
<td>Implement LRDP Mitigation 4.1-3(a) and (b).</td>
</tr>
<tr>
<td>4.1-6(b)</td>
<td>The City of Davis and other surrounding jurisdictions can and should adopt (if necessary) and implement development standards and guidelines, which support the minimal use of site lighting for new developments.</td>
</tr>
</tbody>
</table>

### 7.1.4 Environmental Checklist and Discussion

**AESTHETICS**

<table>
<thead>
<tr>
<th>Impact Category</th>
<th>Potentially Significant Impact</th>
<th>Less than Significant with Project-level Mitigation</th>
<th>Impact adequately addressed in 2003 LRDP EIR</th>
<th>Less than Significant Impact</th>
<th>No Impact</th>
</tr>
</thead>
<tbody>
<tr>
<td>a)</td>
<td>Have a substantial adverse effect on a scenic vista?</td>
<td>[ ]</td>
<td>[ ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>b)</td>
<td>Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?</td>
<td>[ ]</td>
<td>[ ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>c)</td>
<td>Substantially degrade the existing visual character or quality of the site and its surroundings?</td>
<td>[ ]</td>
<td>[ ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
</tbody>
</table>
a,b) The 2003 LRDP EIR defined a scenic vista as an expansive view of a highly valued landscape from a publicly accessible viewpoint, and identified the only scenic vista on the UC Davis campus to be the view west across agricultural land to the Coast Range. On and near campus, viewpoints along SR 113, Hutchison Drive, La Rue Road, and Russell Boulevard provide scenic vistas to the west across agricultural land to the Coast Range. The project is not near these scenic viewpoints and would have no effect on scenic viewpoints. There are no scenic resources near the project site and no state scenic highways are nearby. No impact would occur.

c) The project site is a dirt and gravel area previously used for construction vehicles. Within the context of a developed campus area surrounding the site, the project site appears as an unusual element of the visual landscape. The proposed project would construct two attractive buildings along the road edge and would establish a publicly accessible courtyard facing out to the UC Davis Arboretum. With the expected aesthetic improvements to the project site, the project is not expected to degrade the visual character of the site or the area. No impact would occur.

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

The 2003 LRDP EIR found that campus development under the 2003 LRDP in conjunction with other development in the region would add new sources of light and glare that could adversely affect daytime or nighttime views in the area (Impact 4.1-6). LRDP Mitigation 4.1-6(a), included in the proposed project, requires the campus to implement Mitigation Measure 4.1-3(a) and (b), discussed above. LRDP Mitigation 4.1-6(b) indicates that local jurisdictions can and should adopt and implement development standards and guidelines that support reduced lighting. However, the feasibility and/or implementation of LRDP Mitigation 4.1-6(b) cannot be guaranteed by the University of California because enforcement and monitoring fall within other jurisdictions. For this reason, the impact is considered significant and unavoidable. This impact was adequately analyzed in the 2003 LRDP EIR and was fully addressed in the Findings and Statement of Overriding Considerations adopted by The Regents in connection with its approval of the 2003 LRDP. No conditions have changed and no new information has become available since certification of the 2003 LRDP EIR that would alter this previous analysis.
7.2 AGRICULTURAL RESOURCES

7.2.1 Background

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

Campus

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

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

Project Site

The project site is not agricultural land. The project site is designated as “Other” land in the FMMP.

7.2.2 2003 LRDP EIR Standards of Significance

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

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

7.2.3 2003 LRDP EIR Impacts and Mitigation Measures

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

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

a) The proposed project is located on Other land as designated by the FMMP and would involve no conversion of farmland. The FMMP land category Other typically refers to non-farming land that is isolated from nearby farming land because of previous development. No impact would occur.

b) Campus lands are state lands and are not eligible for Williamson Act agreements, nor are they subject to local zoning controls. Therefore, the proposed project would not conflict with existing zoning for agricultural use or a Williamson Act contract, and no impact would occur.

c) The project would involve no changes to the environment that could result in conversion of farmland. The project is not related to other land development and would need no utility upgrades or other secondary projects that could affect farmland. No impact would occur.
7.3  AIR QUALITY

7.3.1  Background

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

Campus

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

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

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

Air quality on the campus on any given day is influenced by both meteorological conditions and pollutant emissions. In general, meteorological conditions vary more than pollutant emissions from day to day, and tend to have a greater influence on changes in measured ambient pollutant concentrations. Ambient concentrations of CO and PM10, however, are particularly influenced by local emission sources. Based on monitoring data, the EPA classified the entire SVAB, which includes the campus, as a serious nonattainment area for O₃. However, in February 2008 the Sacramento Federal Non-attainment Area (SFNA) submitted a request to the EPA to “bump up” the classification to severe nonattainment. The EPA approved this voluntary request in May 2010. The EPA has classified the entire SVAB, which includes the campus, as a serious nonattainment area for O₃. Districts in the SVAB have requested a voluntary bump-up designation to “severe,” which would result in an attainment deadline of 2018. The Approved in April, 2012, the EPA Area Designations for the 2008 Ozone Standards approval of the voluntary bump-up is still pending in the SVAB is severe per the requested voluntary bump-up. The CARB has also designated the area as being in nonattainment-transitional under the state ambient air quality standards for O₃ and nonattainment for PM10. The designation of an area as attainment or nonattainment is based on monitored data throughout the SVAB.
Project Site

The project site is within the central campus at UC Davis and does not have nearby sensitive receptors such as elderly, children, or people with respiratory problems.

7.3.2 2003 LRDP EIR Standards of Significance

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

Criteria Pollutants

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

Toxic Air Contaminants

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

7.3.3 2003 LRDP EIR Impacts and Mitigation Measures

Impacts of campus growth under the 2003 LRDP through 2015-16 on air quality are evaluated in Section 4.3 of the 2003 LRDP EIR. As analyzed in Section 4 of this Initial Study, the proposed project is within the scope of analysis in the 2003 LRDP EIR. Significant and potentially significant air quality impacts identified in the 2003 LRDP EIR that are relevant to the proposed project are presented below with their corresponding levels of significance before and after application of mitigation measures identified in the 2003 LRDP EIR. Mitigation is relevant to reduce the magnitude of project-level impact 4.3-1 and cumulative impact 4.3-6, but these impacts are identified as significant and unavoidable because they cannot be fully mitigated. Mitigation is identified to reduce the magnitude of project-level impact 4.3-3, but this impact is identified as significant and unavoidable due to uncertainty about the effectiveness of the mitigation.

<table>
<thead>
<tr>
<th>2003 LRDP EIR Impacts</th>
<th>Level of Significance Prior to Mitigation</th>
<th>Level of Significance After Mitigation</th>
</tr>
</thead>
<tbody>
<tr>
<td>AIR QUALITY</td>
<td></td>
<td></td>
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</tbody>
</table>
2003 LRDP EIR Impacts

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

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

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

2003 LRDP EIR Mitigation Measures

<table>
<thead>
<tr>
<th>AIR QUALITY</th>
</tr>
</thead>
<tbody>
<tr>
<td>4.3-1(a) Vehicular Sources. The following measures will be implemented to reduce emissions from vehicles, as feasible.</td>
</tr>
<tr>
<td>• The campus shall continue to actively pursue Transportation Demand Management to reduce reliance on private automobiles for travel to and from the campus.</td>
</tr>
<tr>
<td>• Provide pedestrian-enhancing infrastructure to encourage pedestrian activity and discourage vehicle use.</td>
</tr>
<tr>
<td>• Provide bicycle facilities to encourage bicycle use instead of driving.</td>
</tr>
<tr>
<td>• Provide transit-enhancing infrastructure to promote the use of public transportation.</td>
</tr>
<tr>
<td>• Provide facilities to accommodate alternative-fuel vehicles such as electric cars and CNG vehicles.</td>
</tr>
<tr>
<td>• Improve traffic flows and congestion by timing of traffic signals to facilitate uninterrupted travel.</td>
</tr>
<tr>
<td>• When the campus purchases new vehicles, the campus will evaluate the practicality and feasibility of acquiring low-pollution vehicles that are appropriate for the task and will purchase these types of vehicles when practical and feasible. When replacing diesel engines in existing equipment, the campus will install up-to-date technology.</td>
</tr>
<tr>
<td>4.3-1(b) Area Sources. The following measures will be implemented to reduce emissions from area sources, as feasible.</td>
</tr>
<tr>
<td>• Use solar or low-emission water heaters in new or renovated buildings.</td>
</tr>
<tr>
<td>• Orient buildings to take advantage of solar heating and natural cooling and use passive solar designs.</td>
</tr>
<tr>
<td>• Increase wall and attic insulation in new or renovated buildings.</td>
</tr>
<tr>
<td>• For fireplaces or wood-burning appliances, require low-emitting EPA certified wood-burning appliances, or residential natural-gas fireplaces.</td>
</tr>
<tr>
<td>• Provide electric equipment for landscape maintenance.</td>
</tr>
<tr>
<td>4.3-1(c) The campus will work with the YSAQMD to ensure that emissions directly and indirectly associated with the campus are adequately accounted for and mitigated in applicable air quality planning efforts. The YSAQMD can and should adopt adequate measures consistent with applicable law to ensure that air quality standard violations</td>
</tr>
</tbody>
</table>
2003 LRDP EIR Mitigation Measures
AIR QUALITY

are avoided.

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

- All disturbed areas, including storage piles, which are not being actively utilized for construction purpose, shall be effectively stabilized of dust emissions using water, chemical stabilizer/suppressant, or vegetative ground cover.
- All on-site unpaved roads and off-site unpaved access roads shall be effectively stabilized of dust emissions using water or chemical stabilizer/suppressant.
- All land clearing, grubbing, scraping, excavation, land leveling, grading, cut and fill, and demolition activities shall be effectively controlled of fugitive dust emissions utilizing application of water or by presoaking.
- When demolishing buildings up to six stories in height, all exterior surfaces of the building shall be wetted during demolition.
- When materials are transported off-site, all material shall be covered, effectively wetted to limit visible dust emissions, or at least two feet of freeboard space from the top of the container shall be maintained.
- All operations shall limit or expeditiously remove the accumulation of mud or dirt from adjacent public streets at least once every 24 hours when operations are occurring. The use of dry rotary brushes is expressly prohibited except where preceded or accompanied by sufficient wetting to limit the visible dust emissions. Use of blower devices also is expressly forbidden.
- Following the addition of materials to, or the removal of materials from, the surface of outdoor storage piles, said piles shall be effectively stabilized of fugitive dust emissions by utilizing sufficient water or chemical stabilizer/ suppressant.

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

- Limit traffic speeds on unpaved roads to 15 mph.
- Install sandbags or other erosion control measures to prevent silt runoff to public roadways from sites with a slope greater than one percent.
- To the extent feasible, limit area subject to excavation, grading, and other construction activity at any one time.
- Limit the area subject to excavation, grading, and other construction activity at any one time.

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

- To the extent that equipment is available and cost effective, the campus shall encourage contractors to use alternate fuels and retrofit existing engines in construction equipment.
- Minimize idling time to a maximum of 5 minutes when construction equipment is not in use.
- To the extent practicable, manage operation of heavy-duty equipment to reduce emissions.
- To the extent practicable, employ construction management techniques such as timing construction to occur outside the ozone season of May through October, or scheduling equipment use to limit unnecessary concurrent operation.

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

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

<table>
<thead>
<tr>
<th>AIR QUALITY</th>
<th>Potentially Significant Impact</th>
<th>Less than Significant with Project-level Mitigation</th>
<th>Impact adequately addressed in 2003 LRDP EIR</th>
<th>Less than Significant Impact</th>
<th>No Impact</th>
</tr>
</thead>
<tbody>
<tr>
<td>Would the project…</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>a) Conflict with or obstruct implementation of the applicable air quality plan?</td>
<td>☐</td>
<td>☐</td>
<td>☑</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?</td>
<td>☐</td>
<td>☐</td>
<td>☑</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is in non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?</td>
<td>☐</td>
<td>☐</td>
<td>☑</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>d) Expose sensitive receptors to substantial pollutant concentrations?</td>
<td>☐</td>
<td>☐</td>
<td>☑</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>e) Create objectionable odors affecting a substantial number of people?</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☑</td>
<td>☐</td>
</tr>
</tbody>
</table>

a,b,c,d) Construction

The 2003 LRDP EIR found that construction activities under the 2003 LRDP could exceed YSAQMD thresholds (Impact 4.3-3). The state 24-hour PM10 standards could be violated when multiple construction projects (especially those involving ongoing grading or excavation activities) occur simultaneously in the same area. Housing or other sensitive receptors located adjacent to construction areas could be affected by high concentrations of PM10. In addition, exhaust pollutants would be emitted during use of construction equipment and large construction projects could exceed the YSAQMD thresholds.

Project details were modeled using the CalEEMod air quality model to determine the potential construction emissions from the proposed project. The model results indicate that the proposed project would not exceed the applicable threshold for NOx emissions which is consistent with the LRDP EIR determination for LRDP Impact 4.3-3 and the accompanying LRDP Mitigation LRDP Mitigation 4.3-3(c). In addition, as described in Section 4.3.2.3 of the LRDP EIR, other projects occurring simultaneously on campus as the proposed project could result in overall construction emissions that would exceed the YSAQMD thresholds for PM10 and ROG. Results of the construction emissions air quality modeling are shown below.
Table 4.1-6
Estimated Construction Emissions

<table>
<thead>
<tr>
<th>Construction Emissions</th>
<th>ROG (tpy)</th>
<th>NOx (tpy)</th>
<th>PM10 (lbs/day)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Proposed Project</td>
<td>0.883</td>
<td>2.49</td>
<td>5.43</td>
</tr>
<tr>
<td>YSAQMD Threshold</td>
<td>10 tpy</td>
<td>10 tpy</td>
<td>80 lbs/day</td>
</tr>
<tr>
<td>Exceeds Threshold?</td>
<td>NO</td>
<td>NO</td>
<td>NO</td>
</tr>
</tbody>
</table>

Source: CalEEMod output files.

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

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

Operation
Criteria Pollutants

Project details were modeled using the CalEEMod air quality model to determine the potential operational emissions from the proposed project. The table below provides the model output results and the resulting net emissions. The emissions are projected to not exceed the YSAQMD thresholds of significance.

Table 4.1-6
Estimated Operational Emissions

<table>
<thead>
<tr>
<th>Operational Emissions</th>
<th>ROG (tpy)</th>
<th>NOx (tpy)</th>
<th>PM10 (lbs/day)</th>
</tr>
</thead>
<tbody>
<tr>
<td>VMSS development</td>
<td>1.03</td>
<td>0.9</td>
<td>1.85</td>
</tr>
<tr>
<td>YSAQMD Threshold</td>
<td>10 tpy</td>
<td>10 tpy</td>
<td>80 lbs/day</td>
</tr>
<tr>
<td>Exceeds Threshold?</td>
<td>NO</td>
<td>NO</td>
<td>NO</td>
</tr>
</tbody>
</table>

Source: CalEEMod output files.
The 2003 LRDP EIR found that operational emissions under the 2003 LRDP could substantially contribute to violation of ambient state and federal air quality standards or hinder the attainment of the regional air quality plan (LRDP Impact 4.3-1). The project would contribute to this impact. The campus is located in an area that is in nonattainment of O₃ and PM₁₀ standards. The region is processing the 8 hour attainment plan for the SVAB, which is intended to implement regulations for ozone emissions and attainment of the federal air quality standard by 2018. LRDP Mitigation 4.3-1 (a-b), which includes measures that encourage alternative transportation and no- or low-emission building designs and operations, would help reduce daily emissions from campus vehicular and stationary sources. LRDP Mitigation 4.3-1(c) would ensure that the campus will coordinate with the YSAQMD during the update of the Clean Air Plan and other applicable air quality planning efforts. However, given the likelihood of exceedance of O₃ standards even with mitigation, it appears that the implementation of the 2003 LRDP, including the proposed project, could potentially hinder the attainment of the regional air quality plan. The impact is therefore considered significant and unavoidable at the LRDP program level. This impact was adequately analyzed in the 2003 LRDP EIR and was fully addressed in the Findings and Statement of Overriding Considerations adopted by The Regents in connection with its approval of the 2003 LRDP. No conditions have changed and no new information has become available since certification of the 2003 LRDP EIR that would alter this previous analysis.

Toxic Air Contaminants

Health Risk Assessment (HRA) calculations performed as part of the 2003 LRDP EIR predicted that the cancer risk from campus operations through academic year 2015-16 will be below 10 in one million for both the off-campus and on-campus Maximally Exposed Individual, assuming a 70-year exposure period. The non-cancer health risk was calculated to be below 1.0 on the hazard index. Therefore, the 2003 LRDP EIR concluded that development under the 2003 LRDP would not exceed either health risk standard, and the impact associated with TAC generation would be less than significant.

Cumulative Development

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

e) The proposed project would not generate odors and would be located near land uses that generate odors. No impact would occur.
7.4 BIOLOGICAL RESOURCES

7.4.1 Background

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

Campus

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

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

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

Habitat

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

Ruderal/Annual Grassland. Ruderal/Annual Grassland is found along the edges of roads and fields, vacant uncultivated areas, and along the levee banks and upland flood plain of Putah Creek. This habitat type is a result of regular past or current disturbance from agricultural practices, road and levee maintenance, and proximity to roads and buildings. It typically occurs as open treeless grassland composed primarily of annual plant species. However, since the early 1900s, no large areas of grassland remain on campus due to the extensive amounts of cultivation and development.

Special Status Species

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

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

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

**Project Site**

The project site is a gravel area previously developed for use as temporary parking and construction staging. In addition, part of the site is a campus roadway. The site contains no landscaping and no water features. Vegetation at the site consists of annual weeds that grow in between periods of herbicide applications.

### 7.4.2 2003 LRDP EIR Standards of Significance

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

- Result in a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game (CDFG) or U.S. Fish and Wildlife Service (USFWS).
- Result in the “take” (defined as kill, harm, or harass) of any listed threatened or endangered species or the habitat of such species.
- Result in a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the CDFG or USFWS.
- Result in a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, or coastal wetland) through direct removal, filling, hydrological interruption, or other means.
- Interfere substantially with the movement of any native resident or migratory fish, or wildlife species or with established native, resident, or migratory wildlife corridors, or impede the use of native wildlife nursery sites.
- Conflict with any applicable local policies protecting biological resources such as a tree protection policy or ordinance.
An additional standard from the CEQA Guidelines’ Environmental Checklist (“f” in the checklist below) was found not applicable to campus growth under the 2003 LRDP.

### 7.4.3 2003 LRDP EIR Impacts and Mitigation Measures

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

#### 2003 LRDP EIR Impacts

<table>
<thead>
<tr>
<th>BIOLOGICAL RESOURCES</th>
<th>Level of Significance Prior to Mitigation</th>
<th>Level of Significance After Mitigation</th>
</tr>
</thead>
<tbody>
<tr>
<td>4.4-2 Development allowed under the 2003 LRDP would result in the conversion of approximately 550 acres of Agricultural Land and Ruderal/Annual Grassland habitat to campus-related development which would result in the loss of general wildlife habitat for resident and migratory species, including foraging habitat for the Swainson’s hawk.</td>
<td>PS</td>
<td>LS</td>
</tr>
<tr>
<td>4.4-4 Development allowed under the 2003 LRDP could result in the failure of nesting efforts by nesting raptors, including Swainson’s hawks or other birds of prey.</td>
<td>PS</td>
<td>LS</td>
</tr>
<tr>
<td>4.4-5 Development allowed under the 2003 LRDP would result in the loss of active nest sites for Swainson’s hawk.</td>
<td>PS</td>
<td>LS</td>
</tr>
</tbody>
</table>

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

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

#### 2003 LRDP EIR Mitigation Measures

<table>
<thead>
<tr>
<th>BIOLOGICAL RESOURCES</th>
</tr>
</thead>
<tbody>
<tr>
<td>4.4-2 The campus shall mitigate the loss of foraging habitat due to development through the establishment of 650 acres of mitigation lands located within or near the Putah Creek Riparian Reserve. Approximately 370 acres of this area shall be converted from existing agricultural uses to restored Valley-Foothill Riparian Woodland and Valley Grassland at Russell Ranch. An additional 280 acres of agricultural land will be protected with a habitat and farmland conservation mechanism either at the Russell Ranch or the Kidwell and McConeghy parcels. These grassland and agricultural lands would be available as foraging habitat for Swainson’s hawk and other special-status species such as prairie falcon, golden eagle, wintering or migrating birds and birds of prey that may occasionally forage on campus lands. Restored Valley-Foothill Riparian Habitat would be available as nesting habitat for Swainson’s hawk and other birds of prey. An additional 15-acre mitigation area shall be established along the North Fork Cutoff. This area shall be restored as an oak-grassland and would be a nesting and foraging site for Swainson’s hawk and other birds of prey.</td>
</tr>
<tr>
<td>4.4-4(a) The campus shall conduct a pre-construction survey of trees on and adjacent to a project site during the raptor breeding season (approximately March 1 to August 31). Additionally, the campus shall conduct surveys within a ½-mile radius of the site to determine the presence or absence of any nesting Swainson’s hawks. The surveys shall be conducted by a qualified biologist during the same calendar year that the proposed activity is planned to begin.</td>
</tr>
</tbody>
</table>
begin to determine if any nesting birds-of-prey would be affected. If phased construction procedures are planned for the proposed activity, the results of the above survey shall be valid only for the season when it is conducted. If any Swainson’s hawks are nesting within a one-half-mile radius of the project site or if other raptors are nesting in, on or adjacent to the project site, a qualified biologist shall determine the potential for disturbance to nesting raptors, including Swainson’s hawks. If the biologist determines that there is a significant potential for disturbance, the campus shall implement feasible changes in the construction schedule or make other appropriate adjustments to the project in response to the specific circumstances. If feasible project changes are not readily identifiable, the campus will consult with CDFG to determine what actions should be taken to protect the nesting efforts. If, after five years, a previously recorded nest site remains unoccupied by a Swainson’s hawk, it will no longer be considered as a Swainson’s hawk nest site subject to this mitigation.

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

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

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

Further:

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

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

### 7.4.4 Environmental Checklist and Discussion

<table>
<thead>
<tr>
<th>Biological Resources</th>
<th>Potentially Significant Impact</th>
<th>Less than Significant with Project-level Mitigation</th>
<th>Impact adequately addressed in 2003 LRDP EIR</th>
<th>Less than Significant Impact</th>
<th>No Impact</th>
</tr>
</thead>
<tbody>
<tr>
<td>Would the project…</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☑</td>
<td>☐</td>
</tr>
</tbody>
</table>
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?

☐ ☐ ☐ ☐ ☐ ☑

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?

☐ ☐ ☐ ☐ ☐ ☑

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?

☐ ☐ ☐ ☐ ☐ ☑

e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?

☐ ☐ ☐ ☐ ☐ ☑

f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?

☐ ☐ ☐ ☐ ☐ ☑

a) **Plants**

The project site contains no sensitive plant species.

**Wildlife**

The 2003 LRDP EIR found that development under the 2003 LRDP could result in the loss of special-status plant species (LRDP Impact 4.4-1), and could affect several wildlife species, including the burrowing owl, Swainson’s hawk, the valley elderberry longhorn beetle, the western pond turtle, and special-status fish species (LRDP Impacts 4.4-2 through 4.4-7 and 4.4-12 through 4.4-14). Under the proposed project, construction would be limited to a previously developed site within the core campus. The proposed project would redevelop the existing gravel area that is surrounded by a parking lot, roads and walkways, and limited horticultural landscaping. Because the project would permanently convert Ruderal/Grassland habitat, the project would result in the loss of Swainson’s Hawk foraging habitat as previously identified in LRDP Mitigation 4.4-2 and the campus will continue to implement LRDP Mitigation 4.4-2 (establishing permanent foraging habitat at the Russell Ranch mitigation area).

Implementation of LRDP Mitigation Measures 4.4-4(a)-(b) and 4.4-5 requires actions to ensure that active nests are not disturbed. Since the early 1990’s several Swainson’s hawks have nested within ½-mile of the project site. All are in areas where nesting birds have habituated to high levels of human activity. Implementation of LRDP Mitigation Measures 4.4-4(a)-(b) and 4.4-5 would reduce potential impacts to nesting Swainson’s Hawks to a less-than-significant level by requiring pre-construction surveys and ensuring that nesting is not disrupted. No additional impacts would occur to special status species because no other special status species are present on the site or surrounding area.

b,c) The project is not near riparian or wetland areas. No impact would occur.
d) The Putah Creek corridor, which is the southern boundary of the campus, is the principal corridor for the movement of native resident and migratory fish and wildlife through the UC Davis campus. It is the regional connection between the hills in western Yolo County and the Sacramento River. The project is approximately 1 mile from the Putah Creek corridor. Therefore, the project would not interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites. No impact would occur.

e) No trees are on the project site. No impact would occur.

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

7.5.1 Background

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

Campus

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

Archaeological Resources

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

Historic Resources

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

Project Site

The project site is within the UC Davis archaeologically sensitive zone because it is within 800 of the historic channel of Putah Creek. Previous archaeological monitoring in the vicinity of the project has not found sensitive materials. A series of auger tests at the project site and surrounding the project produced no archaeological materials.

7.5.2 2003 LRDP EIR Standards of Significance

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

Archaeological Resources

The 2003 LRDP EIR considers an impact on archaeological resources significant if growth under the 2003 LRDP would:
• Cause a substantial adverse change in the significance of a unique archaeological resource pursuant to CEQA Guideline § 15064.5.

• Disturb any human remains, including those interred outside of formal cemeteries.

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

• The archaeological artifact, object, or site contains information needed to answer important scientific questions and there is a demonstrable public interest in that information, or

• The archaeological artifact, object, or site has a special and particular quality, such as being the oldest of its type or the best available example of its type, or

• The archaeological artifact, object, or site is directly associated with a scientifically recognized important prehistoric or historic event or person.

For a resource to qualify as a unique archaeological resource, the agency must determine that there is a high probability that the resource meets one of these criteria without merely adding to the current body of knowledge (PRC § 21083.2(g)). An archaeological artifact, object, or site that does not meet the above criteria is a nonunique archaeological resource (PRC § 21083.2(h)). An impact on a nonunique resource is not a significant environmental impact under CEQA (CEQA Guidelines § 15064.5(c)(4)). If an archaeological resource qualifies as a historical resource under CRHR or other criteria, then the resource is treated as a historical resource for the purposes of CEQA (CEQA Guidelines § 15064.5(c)(2)).

Section 15064.5 of the CEQA Guidelines assigns special importance to human remains and specifies procedures to be used when Native American remains are discovered. These procedures are detailed under PRC § 5097.98. California Health and Safety Code § 7050.5(b) prohibits disturbance of human remains uncovered by excavation until the Coroner has made a finding relative to PRC § 5097 procedures.

**Historical Resources**

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

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

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

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

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

### 7.5.3 2003 LRDP EIR Impacts and Mitigation Measures

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

<table>
<thead>
<tr>
<th>2003 LRDP EIR Impacts</th>
<th>Level of Significance Prior to Mitigation</th>
<th>Level of Significance After Mitigation</th>
</tr>
</thead>
<tbody>
<tr>
<td>CULTURAL RESOURCES</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4.5-1</td>
<td>Implementation of the 2003 LRDP could damage or destroy an archaeological resource or historic building or structure as the result of grading, excavation, ground disturbance or other project development.</td>
<td>PS</td>
</tr>
<tr>
<td>4.5-2</td>
<td>Implementation of the LRDP could cause a substantial adverse change in the significance of a historical resource or unique archaeological resource, as defined in CEQA guidelines 15064.5, as the result of ground disturbance, alteration, removal or demolition associated with project development.</td>
<td>PS</td>
</tr>
<tr>
<td>4.5-3</td>
<td>Implementation of the LRDP could cause a substantial adverse change in the significance of a historical resource or unique archaeological resource, as defined</td>
<td>S</td>
</tr>
</tbody>
</table>
### 2003 LRDP EIR Impacts

#### CULTURAL RESOURCES

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

- **4.5-4** Implementation of the 2003 LRDP could disturb human remains, including those interred outside of formal cemeteries. **PS** **LS**
- **4.5-5** Development under the 2003 LRDP would contribute to cumulative damage to and loss of the resource base of unique archaeological resources and historical resources (including archaeological sites and historic buildings and structures) in Yolo and Solano counties. **S** **SU**

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

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

### 2003 LRDP EIR Mitigation Measures

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#### 4.5-1(a) As early as possible in the project planning process, the campus shall define the project’s area of potential effects (APE) for archaeological resources and, if structures are present on the site, for historic structures. The campus shall determine the potential for the project to result in cultural resource impacts, based on the extent of ground disturbance and site modification anticipated for the proposed project. Based on this information, the campus shall:

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

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

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

#### 4.5-1(b)

- Determine the level of archaeological investigation that is appropriate for the project site and activity, as follows:
  - Minimum: excavation less than 18 inches deep and in a relatively small area (e.g., a trench for lawn irrigation, tree planting, etc.). Implement LRDP Mitigation 4.5-1(b)(i).
  - Moderate: excavation below 18 inches deep and/or over a large area on any site that has not been characterized and is not suspected to be a likely location for archaeological resources. Implement LRDP Mitigation 4.5-1 (b)(i) and (ii).
  - Intensive: excavation below 18 inches and/or over a large area on any site that is within 800 feet of the historic alignment of Putah Creek, or that is adjacent to a recorded archaeological site. Implement LRDP Mitigation 4.5-1 (i), (ii) and (iii).

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

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

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

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

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

(vii) A written report of the results of investigations will be prepared by a qualified archaeologist and filed with the appropriate Information Center of the California Historical Resources Information System.

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

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

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

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

(ii) Perform appropriate technical analyses, prepare a full written report and file it with the appropriate
2003 LRDP EIR Mitigation Measures

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... information center, and provide for the permanent curation of recovered materials.

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

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

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

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

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

(iv) If, in the opinion of the qualified architectural historian, the nature and significance of the building is such that its demolition or destruction cannot be fully mitigated through documentation, the campus shall reconsider project plans in light of the high value of the resource, and implement more substantial modifications to the proposed project that would allow the structure to be preserved intact. These could include project redesign, relocation or abandonment. If no such measures are feasible, the campus shall implement LRDP Mitigation 4.5-3.

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

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

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

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

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

4.5-4(c) In the event of a discovery on campus of human bone, suspected human bone, or a burial, all excavation in the vicinity will halt immediately and the area of the find will be protected until a qualified archaeologist determines whether the bone is human. If the qualified archaeologist determines the bone is human, or if a qualified archaeologist is not present, the campus will notify the Yolo or Solano County Coroner (depending on the county of the find) of the find before additional disturbance occurs. Consistent with California Health and Safety Code § 7050.5(b), which prohibits disturbance of human remains uncovered by excavation until the Coroner has made a finding relative to PRC 5097 procedures, the campus will ensure that the remains and vicinity of the find are protected against further disturbance. If it is determined that the find is of Native American origin, the campus will comply with the provisions of PRC § 5097.98 regarding identification and involvement of the Native
2003 LRDP EIR Mitigation Measures

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American Most Likely Descendant (MLD).

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

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

7.5.4 Environmental Checklist and Discussion

CULTURAL RESOURCES

Would the project…

<table>
<thead>
<tr>
<th></th>
<th>Potentially Significant Impact</th>
<th>Less than Significant with Project-level Mitigation</th>
<th>Impact adequately addressed in 2003 LRDP EIR</th>
<th>Less than Significant Impact</th>
<th>No Impact</th>
</tr>
</thead>
<tbody>
<tr>
<td>a)</td>
<td>Cause a substantial adverse change in the significance of a historical resource as defined in Section 15064.5?</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☒</td>
</tr>
<tr>
<td>b)</td>
<td>Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5?</td>
<td>☐</td>
<td>☐</td>
<td>☒</td>
<td>☐</td>
</tr>
<tr>
<td>c)</td>
<td>Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>d)</td>
<td>Disturb any human remains, including those interred outside of formal cemeteries?</td>
<td>☐</td>
<td>☐</td>
<td>☒</td>
<td>☐</td>
</tr>
</tbody>
</table>

a) The project site has no signs of prior development or structures other than the existing campus roadway. No historic resources are on the site. No impact would occur.

b) The project site is within the archaeologically sensitive zone. In accordance with LRDP Mitigations 4.5-1, 4.5-2, and 4.5-3, auger testing was completed in 2013 to identify potential resources at the project site. The testing at the VMSS development site did not indicate that the VMSS development site would contain materials. In addition, construction monitoring of nearby projects did not reveal the presence of archaeological materials. Construction monitoring in accordance with LRDP Mitigation 4.5-4 (a-d) will occur at the VMSS development site in accordance with the adopted LRDP mitigation measures.

The 2003 LRDP EIR identified that development under the 2003 LRDP would contribute to the cumulative damage to and loss of archaeological resources in Yolo and Solano counties (LRDP Impact 4.5-5). Because any disturbance of native soils involves the potential to result in impacts to archaeological resources, the proposed project could contribute to this impact. LRDP Mitigation Measure 4.5-5, which is relevant to the proposed project, requires the campus to implement the measures discussed above to survey and protect cultural resources. If cultural resources are impacted
as a result of the project, the impact would be significant and unavoidable. This impact was adequately analyzed in the 2003 LRDP EIR and was fully addressed in the Findings and Statement of Overriding Considerations adopted by The Regents in connection with its approval of the 2003 LRDP. No new mitigation measures area available to further reduce this potential cumulative impact.

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

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

7.6.1 **Background**

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

**Campus**

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

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

**Project Site**

The project soils are typical of soils in the core campus area. The detailed structural design and foundation details of the building will be completed once a site specific geotechnical study is completed. The engineering and design process for the project facilities will incorporate the findings from the geotechnical survey to ensure adequate design for compliance with the California Building Code.

7.6.2 **2003 LRDP EIR Standards of Significance**

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

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

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

### 7.6.3 2003 LRDP EIR Impacts and Mitigation Measures

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

### 7.6.4 Environmental Checklist and Discussion

#### GEOLOGY, SOILS, & SEISMICITY

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

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

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

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

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

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

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

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

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

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

This section discusses the existing global, national, and statewide conditions related to greenhouse gases (GHG) and global climate change and evaluates the potential impacts on global climate from the implementation of the proposed project. The section also provides a brief discussion of the applicable federal, state, regional, and local agencies that regulate, monitor, and control GHG emissions. The analysis in this Initial Study finds that the proposed project would result in less than significant GHG impacts.

The following sources were used to prepare this section of the Initial Study:
- UC Davis 2003 Long Range Development Plan (2003 LRDP)
- YSAQMD’s Handbook for Assessing and Mitigating Air Quality Impacts
- CalEEMod emission model User’s Guide Version 2011.1
- The UC Davis 2009-2010 Climate Action Plan

7.7.1 **Environmental Setting**

**Background**

Global climate change refers to any significant change in climate measurements, such as temperature, precipitation, or wind, lasting for an extended period (i.e., decades or longer) (U.S. EPA 2008a). Climate change may result from:

- natural factors, such as changes in the sun’s intensity or slow changes in the Earth’s orbit around the sun;
- natural processes within the climate system (e.g., changes in ocean circulation, reduction in sunlight from the addition of GHG and other gases to the atmosphere from volcanic eruptions); and
- human activities that change the atmosphere’s composition (e.g., through burning fossil fuels) and the land surface (e.g., deforestation, reforestation, urbanization, desertification).

The primary change in global climate has been a rise in the average global tropospheric temperature of 0.2 degree Celsius per decade, determined from meteorological measurements worldwide between 1990 and 2005. Climate change modeling using 2000 emission rates shows that further warming is likely to occur, which would induce further changes in the global climate system during the current century (IPCC 2007). Changes to the global climate system and ecosystems, and to California, could include:

- declining sea ice and mountain snowpack levels, thereby increasing sea levels and sea surface evaporation rates with a corresponding increase in tropospheric water vapor due to the atmosphere’s ability to hold more water vapor at higher temperatures (IPCC 2007);
- rising average global sea levels primarily due to thermal expansion and the melting of glaciers, ice caps, and the Greenland and Antarctic ice sheets (model-based projections of global average sea level rise at the end of the 21st century (2090–2099) range from 0.18 meter to 0.59 meter or 0.59 foot to 1.94 feet) (IPCC 2007);
- changing weather patterns, including changes to precipitation, ocean salinity, and wind patterns, and more energetic aspects of extreme weather including droughts, heavy precipitation, heat waves, extreme cold, and the intensity of tropical cyclones (IPCC 2007);
• declining Sierra snowpack levels, which account for approximately one-half of the surface water storage in California, by 70 percent to as much as 90 percent over the next 100 years (Cal EPA 2006);
• increasing the number of days conducive to ozone formation by 25 to 85 percent (depending on the future temperature scenario) in high ozone areas located in the Southern California area and the San Joaquin Valley by the end of the 21st century (Cal EPA 2006);
• increasing the potential for erosion of California’s coastlines and sea water intrusion into the Sacramento and San Joaquin Delta and associated levee systems due to the rise in sea level (Cal EPA 2006);
• increasing pest infestation, making California more susceptible to forest fires (Cal EPA 2006);
• increasing the demand for electricity by 1 to 3 percent by 2020 due to rising temperatures resulting in hundreds of millions of dollars in extra expenditures (Cal EPA 2006); and
• summer warming projections in the first 30 years of the 21st century ranging from about 0.5 to 2 degrees Celsius (°C) (0.9 to 3.6 °F) and by the last 30 years of the 21st century, from about 1.5 to 5.8 °C (2.7 to 10.5 °F) (Cal EPA 2006).

The natural process through which heat is retained in the troposphere is called the “greenhouse effect.” The greenhouse effect traps heat in the troposphere through a threefold process as follows: (1) short-wave radiation in the form of visible light emitted by the Sun is absorbed by the Earth as heat; (2) long-wave radiation is re-emitted by the Earth; and (3) GHGs in the upper atmosphere absorb or trap the long-wave radiation and re-emit it back towards the Earth and into space. This third process is the focus of current climate change actions.

While water vapor and carbon dioxide (CO2) are the most abundant GHGs, other trace GHGs have a greater ability to absorb and re-radiate long-wave radiation. To gauge the potency of GHGs, scientists have established a Global Warming Potential (GWP) for each GHG based on its ability to absorb and re-emit long-wave radiation over a specific time period. The GWP of a gas is determined using CO2 as the reference gas, which has a GWP of 1 over 100 years (IPCC 1996). For example, a gas with a GWP of 10 is 10 times more potent than CO2 over 100 years. The use of GWP allows GHG emissions to be reported using CO2 as a baseline. The sum of each GHG multiplied by its associated GWP is referred to as “carbon dioxide equivalents” (CO2e). This essentially means that 1 metric ton of a GHG with a GWP of 10 has the same climate change impacts as 10 metric tons of CO2.

Greenhouse Gases

State law defines GHGs to include the following six compounds:

• Carbon Dioxide (CO2). Carbon dioxide primarily is generated by fossil fuel combustion from stationary and mobile sources. Due to the emergence of industrial facilities and mobile sources over the past 250 years, the concentration of carbon dioxide in the atmosphere has increased 35 percent (U.S. EPA 2008b). Carbon dioxide is the most widely emitted GHG and is the reference gas (GWP of 1) for determining the GWP of other GHGs. In 2004, 82.8 percent of California’s GHG emissions were carbon dioxide (California Energy Commission 2007).

• Methane (CH4). Methane is emitted from biogenic sources (i.e., resulting from the activity of living organisms), incomplete combustion in forest fires, landfills, manure management, and

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2 The troposphere is the bottom layer of the atmosphere, which varies in height from the Earth’s surface to 10 to 12 kilometers).
3 All Global Warming Potentials are given as 100-year values.
leaks in natural gas pipelines. In the United States, the top three sources of methane are landfills, natural gas systems, and enteric fermentation. Methane is the primary component of natural gas, which is used for space and water heating, steam production, and power generation. The GWP of methane is 21.

- **Nitrous Oxide (N2O).** Nitrous oxide is produced by natural and human-related sources. Primary human-related sources include agricultural soil management, animal manure management, sewage treatment, mobile and stationary combustion of fossil fuel, adipic acid production, and nitric acid production. The GWP of nitrous oxide is 310.

- **Hydrofluorocarbons (HFCs).** HFCs typically are used as refrigerants in both stationary refrigeration and mobile air conditioning. The use of HFCs for cooling and foam-blowing is growing particularly as the continued phase-out of chlorofluorocarbons (CFCs) and hydrochlorofluorocarbons (HCFCs) gains momentum. The GWP of HFCs ranges from 140 for HFC-152a to 6,300 for HFC-236fa.

- **Perfluorocarbons (PFCs).** Perfluorocarbons are compounds consisting of carbon and fluorine. They are primarily created as a byproduct of aluminum production and semiconductor manufacturing. Perfluorocarbons are potent GHGs with a GWP several thousand times that of carbon dioxide, depending on the specific PFC. Another area of concern regarding PFCs is their long atmospheric lifetime (up to 50,000 years) (Energy Information Administration 2007). The GWPs of PFCs range from 5,700 to 11,900.

- **Sulfur Hexafluoride (SF6).** Sulfur hexafluoride is a colorless, odorless, nontoxic, nonflammable gas. It is most commonly used as an electrical insulator in high voltage equipment that transmits and distributes electricity. Sulfur hexafluoride is the most potent GHG that has been evaluated by the Intergovernmental Panel on Climate Change, with a GWP of 23,900. However, its global warming contribution is not as high as the GWP would indicate due to its low mixing ratio, as compared to carbon dioxide (4 parts per trillion [ppt] in 1990 versus 365 parts per million [ppm] of CO2).

**Intergovernmental Panel on Climate Change**

The World Meteorological Organization (WMO) and United Nations Environmental Program (UNEP) established the IPCC in 1988. The goal of the IPCC is to evaluate the risk of climate change caused by human activities. The IPCC reports its evaluations in special reports called “assessment reports.” The latest assessment report (i.e., Fourth Assessment Report, consisting of three working group reports and a synthesis report based on the first three reports) was published in 2007. In its 2007 report, the IPCC stated that global temperature increases since the mid-20th century were “very likely” attributable to man-made activities (greater than 90 percent certainty) (IPCC 2007).

**Federal**

In Massachusetts vs. EPA, the Supreme Court held that United States Environmental Protection Agency (U.S. EPA) has the statutory authority under Section 202 of the Clean Air Act (CAA) to regulate GHGs from new motor vehicles. On July 11, 2008, the U.S. EPA issued an Advanced Notice of Proposed Rulemaking (ANPRM) on regulating GHGs under the CAA. On April 10, 2009, the U.S. EPA published the Proposed Mandatory Greenhouse Gas Reporting Rule in the Federal Register (U.S. EPA 2009). On September 15, 2009, the U.S. EPA and the Department of Transportation’s (DOT) National Highway Traffic Safety Administration (NHTSA) issued a joint proposal to establish a national program consisting of new standards for model year 2012 through 2016 light-duty vehicles that will reduce GHG emissions and improve fuel economy.
Executive Order S-3-05 and the Climate Action Team
In June 2005, Governor Schwarzenegger established California’s GHG emissions reduction targets in Executive Order S-3-05. The Executive Order established the following goals: GHG emissions should be reduced to 2000 levels by 2010, 1990 levels by 2020, and 80 percent below 1990 levels by 2050.

CARB Early Action Measures
The CARB is responsible for carrying out and developing the programs and requirements necessary to achieve the goal of AB 32—the reduction of California's GHG emissions to 1990 levels by 2020. The first action under AB 32 resulted in the CARB’s adoption of a report listing three specific early-action GHG emission reduction measures on June 21, 2007. On October 25, 2007, the CARB approved an additional six early-action GHG reduction measures under AB 32. The CARB has adopted regulations for all early action measures.

State of California Greenhouse Gas Inventory and 2020 Limit
As required under AB 32, on December 6, 2007, the CARB approved the 1990 GHG emissions inventory, thereby establishing the emissions limit for 2020. The 2020 emissions limit was set at 427 MMTCO2e. The CARB also projected the state’s 2020 GHG emissions under “business as usual” (BAU) conditions—that is, emissions that would occur without any plans, policies, or regulations to reduce GHG emissions. The CARB used an average of the State’s GHG emissions from 2002 through 2004 and projected the 2020 levels based on population and economic forecasts. The projected net emissions totaled approximately 596 MMTCO2e. Therefore, the state must reduce its 2020 BAU emissions by approximately 29 percent in order to meet the 1990 target.

The inventory revealed that in 1990, transportation, with 35 percent of the state's total emissions, was the largest single sector, followed by industrial emissions, 24 percent; imported electricity, 14 percent; in-state electricity generation, 11 percent; residential use, 7 percent; agriculture, 5 percent; and commercial uses, 3 percent. AB 32 does not require individual sectors to meet their individual 1990 GHG emissions levels; the total statewide emissions are required to meet the 1990 threshold by 2020, however.

CARB Mandatory Reporting Requirements
In addition to the 1990 emissions inventory, the CARB also adopted regulations requiring the mandatory reporting of GHG emissions for large facilities on December 6, 2007. The mandatory reporting regulations require annual reporting from the largest facilities in the state, which account for approximately 94 percent of point source GHG emissions from industrial and commercial stationary sources in California. About 800 separate sources fall under the new reporting rules and include electricity-generating facilities, electricity retail providers and power marketers, oil refineries, hydrogen plants, cement plants, cogeneration facilities, and industrial sources that emit over 25,000 tons of carbon dioxide each year from on-site stationary combustion sources.

AB 32
In furtherance of the goals established in Executive Order S-3-05, the legislature enacted Assembly Bill 32 (AB 32, Nuñez and Pavley), the California Global Warming Solutions Act of 2006, which Governor Schwarzenegger signed on September 27, 2006. AB 32 represents the first enforceable statewide program to limit GHG emissions from all major industries with penalties for noncompliance. AB 32 requires the State to undertake several actions. The major requirements are discussed below.
AB 32 requires the CARB to adopt a scoping plan indicating how reductions in significant GHG sources will be achieved through regulations, market mechanisms, and other actions. The CARB Governing Board approved the Climate Change Scoping Plan on December 11, 2008.

Under the Scoping Plan, approximately 85 percent of the state’s emissions are subject to a cap-and-trade program where covered sectors are placed under a declining emissions cap. The emissions cap incorporates a margin of safety whereas the 2020 emissions limit will still be achieved even in the event that uncapped sectors do not fully meet their anticipated emissions reductions. Emissions reductions will be achieved through regulatory requirements and the option to reduce emissions further or purchase allowances to cover compliance obligations. It is expected that emission reduction from this cap-and-trade program will account for a large portion of the reductions required by AB 32.

**UC Davis Climate Action Plan**

As discussed earlier in this section, the UC Policy on Sustainable Practices – Climate Protection section targets three goals: reduction of GHG emissions back to 2000 levels by 2014, to 1990 levels by 2020, and ultimately climate neutrality. Climate neutrality is defined in the Policy as the University having a net zero impact on the Earth’s climate, which is to be achieved by minimizing GHG emissions as much as possible and using carbon offsets or other measures to mitigate the remaining GHG emissions.

UC Davis has prepared the 2009-2010 Climate Action Plan (CAP), which includes both the Davis and Sacramento campuses, as well as outlying facilities. The CAP describes and addresses policy and regulatory requirements of (1) the UC Policy on Sustainable Practices, (2) AB 32, (3) the American College and University Presidents Climate Commitment, (4) CEQA, and (4) U.S. EPA reporting requirements. The CAP provides documentation of how campus GHG emissions are calculated, a report of current (2008) emissions, estimates of past (to 1990) and future emissions (to 2020), a statement of GHG emission reduction goals, a characterization of options and methods to reduce emissions, and a blueprint for future action.

The CAP focuses on the 2014 and 2020 targets, with the understanding that climate neutrality will require fundamental shifts in global and national energy policy, energy production, and technologies currently using fossil fuels. Further, the CAP focuses on emissions related to campus operations, instead of commuting and air travel, because emissions related to commuting and air travel are less than one-quarter those of campus operations. The CAP does provide analysis of commuting and air travel reduction options, but does not quantify emissions reductions for those options.

In the CAP, GHG emissions were calculated back to 1990, using hard data whenever possible (and projected data when not), and including nearly every source of emissions. Calculated emissions for all of UC Davis, excluding commuting and air travel, for 2000 are 246,000 MTCO2e and for 1990 are 142,000 MTCO2e. In 2008, inventoried emissions in the California Climate Action Registry, excluding commuting and air travel, totaled 238,000, indicating that UC Davis had already met the 2014 target. Thus, the CAP defined a new emissions target of 210,000 MTCO2e, almost 15 percent below the 2000 emissions, as the new 2014 target. The UC Davis target to reach 1990 emissions by the year 2020 is about 40 percent below the 2008 emissions.

Four years of verified inventories of emissions have shown consistently that the Davis campus contributes about 70 percent of the emissions total, the Sacramento campus contributes about 29 percent of the total, and the outlying facilities contribute about 1 percent of the total.

**7.7.2 Standards of Significance**
In accordance with Senate Bill (SB) 97, the Natural Resources Agency adopted amendments to the State CEQA Guidelines on December 30, 2009, which includes criteria for evaluating GHG emissions. According to the amended Appendix G of the State CEQA Guidelines, a project would have a significant effect on the environment if it would:

- Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment; or
- Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases.

The amended State CEQA Guidelines include a new Section 15064.4, which states that, when making a determination of the significance of GHG emissions, a lead agency shall have discretion to determine whether to (1) use a model or methodology to quantify GHG emissions resulting from a project, and which model or methodology to use; and/or (2) rely on a qualitative analysis or performance based standards. Section 15064.4 also provides that a lead agency may consider the following factors when assessing the significance of GHG emissions on the environment: (1) The extent to which the project may increase or reduce GHG emissions as compared to the existing environmental setting; (2) whether the project emissions exceed a threshold of significance that the lead agency determines applies to the project; and (3) The extent to which the project complies with regulations or requirements adopted to implement a statewide, regional, or local plan for the reduction or mitigation of GHG emissions.

Under CEQA, “the determination of whether a project may have a significant effect on the environment calls for careful judgment on the part of the public agency involved, based to the extent possible on scientific and factual data.” CEQA grants agencies with the general authority to adopt criteria for determining whether a given impact is “significant.” When no guidance exists under CEQA, the agency may look to and assess general compliance with comparable regulatory schemes.

### 2003 LRDP EIR Impacts and Mitigation Measures

Impacts of campus growth under the 2003 LRDP through 2015-16 on GHG emissions were not evaluated in the 2003 LRDP EIR. The inclusion of GHG emissions as an environmental impact for CEQA analysis began in 2007-08 when AB 32 was enacted, and the guidance on this matter has been evolving since. In 2010, modifications to Appendix G of the State CEQA Guidelines resulted in the inclusion of detailed guidance for CEQA GHG impact analysis.

### Environmental Checklist and Discussion

#### GREENHOUSE GAS EMISSIONS

<table>
<thead>
<tr>
<th>Would the project…</th>
<th>Potentially Significant Impact</th>
<th>Less than Significant with Project-level Mitigation</th>
<th>Impact adequately addressed in 2003 LRDP EIR</th>
<th>Less than Significant Impact</th>
<th>No Impact</th>
</tr>
</thead>
<tbody>
<tr>
<td>a) generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☑</td>
<td>☐</td>
</tr>
<tr>
<td>b) conflict with an applicable plan, policy, or regulation adopted for the purpose or reducing the emissions of greenhouse gases?</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☑</td>
</tr>
</tbody>
</table>
a) In August 2007 the legislature enacted SB 97 (Dutton), which directed the Governor’s Office of Planning and Research (OPR) to develop guidelines under CEQA for the mitigation of greenhouse gas emissions by July 1, 2009 and directed the Resources Agency to adopt the guidelines by January 1, 2010. OPR submitted the Proposed Draft CEQA Guideline Amendments for Greenhouse Gas Emissions to the Resources Agency on April 13, 2009 (OPR 2009) and the Resources Agency adopted the guidelines on December 30, 2009. During development of the draft guidance, OPR requested that the CARB recommend a statewide method for setting thresholds of significance for GHG emissions, which lead agencies may adopt.

On October 24, 2008, CARB issued a Preliminary Draft Staff Proposal: Recommended Approaches for Setting Interim Significance Thresholds for Greenhouse Gases under the California Environmental Quality Act (Preliminary Draft Staff Proposal). In the Preliminary Draft Staff Proposal, the CARB proposed a tiered approach to determine the significance of two types of projects: (1) industrial; and (2) commercial/residential. For industrial projects, the CARB proposed a 7,000 MTCO2E threshold. With respect to commercial/residential projects, the CARB proposed a four-tiered threshold:

- Tier 1: Is the project exempt from further analysis under existing statutory or categorical exemptions? If yes, there is a presumption of less than significant impacts with respect to climate change.

- Tier 2: Does the project comply with a previously approved plan that addresses GHG emissions? (The plan must satisfy certain requirements (e.g., be consistent with AB 32 and/or SB 375).) If yes, there is a presumption of less than significant impacts with respect to climate change.

- Tier 3: Does the project satisfy certain minimum performance standards relating to construction and operational activities, or include equivalent mitigation measures, and emit no more than a yet to be determined quantity of emissions? If yes, there is a presumption of less than significant impacts with respect to climate change.

- Tier 4: The project will have significant climate change impacts.

CARB staff received public comments on the draft thresholds; however, as of this writing, the thresholds remain draft recommendations and the CARB has ceased any further development of the thresholds. The CARB has not indicated when or if it will resume development of the thresholds.

As of the time that this Initial Study was prepared, the University of California, Davis has not yet adopted project-level significance thresholds for GHG emissions relevant to the proposed project. While the project site is located in the YSAQMD, as noted above, the YSAQMD’s CEQA Handbook does not provide any quantitative thresholds for assessing GHG emissions. Several air quality management and air pollution control districts in California, including the Sacramento Metropolitan Air Quality Management District (SMAQMD), San Joaquin Valley APCD, and the Bay Area Air Quality Management District (BAAQMD), have adopted guidance documents for evaluating the significance of GHG emissions under CEQA. Other districts have published draft guidance documents that have not yet been formally adopted. The California Air Pollution Control Officers Association (CAPCOA) published a white paper in January 2008 examining approaches for local government to assess GHG emissions under CEQA. (CAPCOA 2008) Three potential thresholds that could be used to evaluate the project’s GHG emissions include the following:
• Apply the most stringent, recommended non-zero threshold of 900 MTCO2e per year, which the CAPCOA identified in its white paper and is estimated to capture at least 90% of all industrial projects.

• Apply SMAQMD-adopted guidance recommending that project achieve an approximately 30 percent reduction from business as usual (BAU) conditions (SMAQMD 2009).

• Apply BAAQMD-adopted thresholds for projects other than stationary sources on both a total emissions basis and a performance basis. The BAAQMD threshold for total emissions is 1,100 MTCO2e per year; the performance-based threshold is 4.6 MTCO2e per service population (employees plus residents) per year (BAAQMD 2010).

The analysis in this Initial Study utilizes the numeric threshold in the CAPCOA white paper in determining the significance of the project’s estimated emissions. The threshold has no regulatory authority unless adopted by an air district. Therefore, although this threshold is not binding on the project as regulatory authority, it is intended as a reasonably conservative reference point for the analysis of project impacts in the absence of directly applicable quantitative thresholds.

The SMAQMD guidance does not provide a quantitative threshold, but recommends that the project be analyzed with respect to AB 32 goals, specifically a reduction in GHG emissions to 1990 levels by 2020, or approximately a 30% reduction from business as usual (BAU). As stated in the SMAQMD CEQA guidance, GHG emissions impacts are believed by the SMAQMD to be better analyzed and mitigated at the program level. The UC Davis CAP requires that the campus as a whole reduce its GHG emissions by 30% in 2020 compared to its 1990 baseline, which is consistent with the State's goal under AB 32. Similar to AB 32, the UC Davis CAP does not plan to require that individual projects meet a 30% reduction target, only that the campus as a whole meet the target (AB 32 requires the State as a whole to reduce emissions by 30%, not individual sectors). Since the project is included in the campus growth projections used in the preparation of the CAP and the CAP will allow UC Davis to meet its AB 32 requirements (i.e., 30% reduction), the project will not hinder UC Davis from meeting AB 32 goals overall. Although the BAAQMD thresholds provide explicit numerical values, these values are based on projected increases in GHG emissions using growth data related to residential and commercial development specific to the Bay Area. Since the proposed project is outside the Bay Area, and the BAAQMD thresholds should only be seen as general guidance for assessing significance.

Construction activities associated with the project would also result in GHG emissions. While numerical thresholds have not been adopted by the YSAQMD for evaluating a project’s GHG emissions during construction, CEQA documents are recommended to provide estimated emissions from all sources of GHGs based on the available emission factors and data.

During construction, the proposed project would directly contribute to climate change through its contribution of GHG emissions from the exhaust of construction equipment, construction trucks, and construction workers’ vehicles. The manufacture of construction materials used by the projects would indirectly contribute to climate change (upstream emission source). Upstream emissions are emissions that are generated during the manufacture of products used for construction (e.g., cement, steel, and transport of materials to the region). The upstream GHG emissions for the project, which may also include perfluorocarbons and sulfur hexafluoride, are not estimated in this impact analysis because they are not within the control of the University and a lack of data precludes their quantification without speculation.
The CalEEMod model was used to estimate the potential emissions from the construction of the project. Construction GHG emissions would occur only during construction activities for a period of two years. It is common practice to amortize construction-related GHG emissions over the project’s lifetime in order to include these emissions as part of a project’s amortized lifetime total emissions so that GHG reduction measures will address construction GHG emissions as part of the operational GHG reduction strategies. The SMAQMD’s CEQA Guidance recommends using 25 years for conventional commercial buildings as a project lifetime (SMAQMD 2009). Therefore, the construction GHG emissions were amortized over a 25-year period and included in the project’s total annual operational emissions discussed below.

Summary of Operational Emissions
A summary of the operational GHG emissions at full occupancy of the proposed project is provided below in Table 7-6, Annualized Net New GHG Emissions (Metric Tons CO2e/year). Detailed emission projections are provided in Appendix B.

Table 7-6: Annualized Net New GHG Emissions (Metric Tons CO2e/year)

<table>
<thead>
<tr>
<th>Scope</th>
<th>Source</th>
<th>GHG Emissions (Metric Tons CO2e/year)*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mobile</td>
<td>Vehicles</td>
<td>64.0</td>
</tr>
<tr>
<td></td>
<td>Purchased Electricity and</td>
<td></td>
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<td></td>
<td>Stationary Combustion</td>
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<tr>
<td></td>
<td>Waste</td>
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</tr>
<tr>
<td>Other</td>
<td>Water</td>
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</tr>
<tr>
<td></td>
<td>Amortized Construction for</td>
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</tr>
<tr>
<td></td>
<td>25 years</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Total Annual GHG Emissions</strong></td>
<td><strong>211.7</strong></td>
</tr>
</tbody>
</table>

Source: CalEEMod Model Results.
Note: Totals in table may not appear to add exactly due to rounding.
* The potential net increase of 10 employees was used to calculate operational emissions.

As shown, the estimated net increase in total annual GHG emissions from the operation of the project are 211.7 MTCO2e per year.

As noted above, this analysis compares the project’s estimated GHG emissions to the CAPCOA threshold of 900 MTCO2e, which is the most stringent non-zero threshold proposed and more stringent than any guidelines actually adopted or proposed to date by California air districts. The project’s net increase in GHG emissions is well below that number.

In addition, AB 32 is anticipated to secure emission reductions through a variety of mechanisms, such as increasing energy efficiency standards and the procurement of renewable energy. The CARB has already begun to adopt strategies to reduce GHG emissions under AB 32 at the state level. Although the proposed project would be constructed and occupied before some of these measures take effect, others would reduce future emissions from the campus. Because it is difficult to accurately quantify any reductions from these measures at this time, in the interest of presenting an accurate and conservative emissions estimate, these measures have not been considered in the estimated emissions reported in Table 7-6.

In summary, because the net increase in GHG emissions resulting from the project is less than the CAPCOA threshold of 900 MTCO2e, the project’s impact would be less than significant. To entirely
eliminate the project’s less than significant impact, the campus will implement Mitigation Measure GHG-1.

**Mitigation Measure GHG-1:** Under the Strategic Energy Partnership Program (SEPP), the Campus will fund energy-efficiency improvements in existing buildings on the campus that will achieve a minimum GHG emissions reduction of 211.7 MTCO2e per year, within two years of the occupancy of the International Complex Project. The SEPP is forecasted to achieve a reduction of approximately 18,900 MTCO2e by the year 2014 (UC Davis 2010).

b) The applicable plan for the control of GHG emissions at UC Davis is the UC Davis CAP, which was adopted to allow UC Davis to meet the requirements of AB 32, the UC Policy on Sustainable Practices, and the American College and University Presidents Climate Commitment. The CAP sets goals for GHG reductions as well as policies to meet those goals. The proposed project is designed to conform to all applicable policies within the CAP, the UC Policy, and the Climate Commitment. Furthermore, as shown in the analysis above, the project’s annual GHG emissions will be small, and will be fully offset by the GHG emissions reduction that would be achieved by the implementation of Mitigation Measure GHG-1. Consequently the proposed project would not conflict with any plans, policies, or regulations to reduce GHG emissions. No impact would occur.
7.7.5 References


California Environmental Protection Agency (Cal EPA), Climate Action Team. 2006. Climate Action Team Report to Governor Schwarzenegger and the Legislature.


7.8 HAZARDS & HAZARDOUS MATERIALS

7.8.1 Background

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

Campus

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

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

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

Project Site

The project site was previously used as a gravel area for construction vehicles, construction staging, and is partly a campus asphalt roadway. The site was evaluated for signs of potential contamination. The evaluation determined that the project site includes no evidence of prior contamination or items of environmental concern. The evaluation did reiterate the campus practice to sample all construction sites for naturally occurring asbestos and implement control measures if naturally occurring asbestos is present on a particular site.

7.8.2 2003 LRDP EIR Standards of Significance
The 2003 LRDP EIR considers a hazards and hazardous materials impact significant if growth under the 2003 LRDP would:

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

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

### 7.8.3 2003 LRDP EIR Impacts and Mitigation Measures

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

<table>
<thead>
<tr>
<th>2003 LRDP EIR Impacts</th>
</tr>
</thead>
<tbody>
<tr>
<td>HAZARDS &amp; HAZARDOUS MATERIALS</td>
</tr>
<tr>
<td>Level of Significance Prior to Mitigation</td>
</tr>
<tr>
<td>4.7-12 Construction activities on campus under the 2003 LRDP would not expose construction workers and campus occupants to contaminated soil or groundwater.</td>
</tr>
</tbody>
</table>

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

Mitigation measures in the 2003 LRDP EIR that are applicable to the proposed project are presented below. Since these mitigation measures are already being carried out as part of implementation of the 2003 LRDP, they are considered part of the project description and will not be readopted in this Initial Study or Negative Declaration. Nothing in this Initial Study in any way alters the obligations of the campus to implement 2003 LRDP EIR mitigation measures.
The campus shall perform due diligence assessments of all sites where ground-disturbing construction is proposed.

### 7.8.4 Environmental Checklist and Discussion

<table>
<thead>
<tr>
<th>HAZARDS &amp; HAZARDOUS MATERIALS</th>
<th>Potentially Significant Impact</th>
<th>Less than Significant with Project-level Mitigation</th>
<th>Impact adequately addressed in 2003 LRDP EIR</th>
<th>Less than Significant Impact</th>
<th>No Impact</th>
</tr>
</thead>
<tbody>
<tr>
<td>a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☑</td>
</tr>
<tr>
<td>b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
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</tr>
<tr>
<td>c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?</td>
<td>☐</td>
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</tr>
<tr>
<td>d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
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<tr>
<td>e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?</td>
<td>☐</td>
<td>☐</td>
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</tr>
<tr>
<td>f) For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?</td>
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<td>☐</td>
<td>☐</td>
<td>☐</td>
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</tr>
<tr>
<td>g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☑</td>
</tr>
<tr>
<td>h) Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
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</tbody>
</table>

a,b) During construction, the proposed project is not expected to generate hazardous waste. The project would utilize gasoline and diesel fuel in construction equipment. This use is typical for a construction site and is currently taking place at the project and would not generate a hazard to the public or the environment. During operation, the VMSS development would utilize typical household cleaning products and occasional maintenance would include small amounts of paints and solvents. Use of these materials is typical for building operation and is typical for the day-to-day operation of campus buildings near the project site. Use of these materials would not generate a hazard to the public or the
environment because of the small quantities and standard practices for working with the materials. No impact would occur.

c) The proposed project is not within ¼ mile of an existing or proposed school. The nearest school is more than one mile from the project site. No impact would occur.

d) The Laboratory for Energy Related Research/South Campus Disposal site is the only campus site that is listed as a hazardous materials site pursuant to Government Code Section 65962.5. The proposed project would not disturb this site. No impact would occur.

The 2003 LRDP EIR found that construction activities under the 2003 LRDP would not expose construction workers and campus occupants to contaminated soil or groundwater (Impact 4.7-12). Campus policy requires that due diligence surveys be performed for all proposed project sites as part of the project planning process and the project survey has been completed. The evaluation determined that the project site includes no signs of environmental contamination. Federal and state regulations require that workers who may be exposed to contaminants during the course of their jobs know of the presence of contamination and be properly trained. In addition, these regulations require that appropriate engineering and administrative controls and protective equipment be provided to reduce exposure to safe levels. Current campus due diligence policy and Cal/OSHA regulations minimize the exposure of construction workers to contaminants. In addition, if contaminants are identified on project sites, the campus would coordinate site remediation. Therefore, the impact would be less than significant. To ensure that due diligence surveys are performed and to further reduce this less-than-significant impact, LRDP Mitigation 4.7-12 is being implemented as part of the proposed project.

e) The 2003 LRDP EIR found that development of certain projects on the west campus under the 2003 LRDP could result in safety hazards associated with aircraft. However, the proposed project is approximately 2 miles from the airport, and is not one of these projects and would not conflict with airport operations. Therefore, no impact would occur.

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

g) The proposed project would involve no road closures or access modifications that could affect emergency response operations or emergency evacuation routing. The adjacent Garrod Drive would remain operational during construction and operation of the proposed project. No impact would occur.

h) Areas along Putah Creek are the only areas on campus that could be susceptible to wildland fires. Urbanization will not occur in close proximity to these areas under the 2003 LRDP because land along Putah Creek is designated for Open Space and Teaching and Research Fields, and land adjacent to these open areas is designated primarily for Teaching and Research Fields and low density development. The proposed project is more than a mile from Putah Creek. Therefore, no impact would occur.
7.9 HYDROLOGY & WATER QUALITY

7.9.1 Background

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

Campus

Surface Water Resources

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

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

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

Groundwater Resources

The campus is underlain by sand and gravel alluvial deposits that include deep and shallow/intermediate depth aquifers. Deep gravel and sand aquifers underlie the campus between 600 to 1,500 feet below ground surface and supply the campus domestic/fire system. Historic annual domestic water use on campus over the past three decades has ranged from less than 600 million gallons per year (mgy) during drought conditions to nearly 900 mgy (UC Davis 1997). Despite the campus’ significant growth in recent decades, the campus’ deep aquifer demands have not significantly increased since the late 1960s (Ludorff and Scalmanini 2003), a trend that reflects the success of the campus’ water conservation efforts (Phillips 2014).

Shallow/intermediate depth sand and gravel aquifers underlie the campus at depths from 150 to 800 feet below ground surface and supply the campus utility water system, main campus agricultural water needs, and campus and tenant farmer irrigation needs at Russell Ranch. Over the past 10 years, an average of approximately 2,657 542 acre-feet per year of shallow/intermediate aquifer water was used for
agricultural purposes on campus, including approximately 1,813 acre-feet on the main campus and approximately 844 acre-feet at Russell Ranch (UC Davis Agricultural Services 2003, UC Davis ORMP 2003a (Phillips 2014). Water levels in the shallow/intermediate aquifer vary seasonally and strongly correlate to precipitation. A generally upward recharge trend over the period from 1957 to 2002 indicated that there has not been long-term overdraft of the shallow/intermediate depth aquifers (Ludorff and Scalmanini 2003). More recent monitoring does not suggest any obvious decrease in groundwater levels (Phillips 2014).

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

### Flooding & Drainage

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

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

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

### Project Site

The project site is flat with no drainage features. Water from the site infiltrates into the ground. Water from adjacent areas does not flow across the site because roadway separates the site from the adjacent flows.

#### 7.9.2 2003 LRDP EIR Standards of Significance

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

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

• Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on site or off site.

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

• Otherwise substantially degrade water quality.

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

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

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

7.9.3 2003 LRDP EIR Impacts and Mitigation Measures

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

<table>
<thead>
<tr>
<th>2003 LRDP EIR Impacts</th>
<th>Level of Significance Prior to Mitigation</th>
<th>Level of Significance After Mitigation</th>
</tr>
</thead>
<tbody>
<tr>
<td>HYDROLOGY &amp; WATER QUALITY</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4.8-1 Campus construction activities associated with implementation of the 2003 LRDP would not contribute substantial loads of sediment or other pollutants in storm water runoff that could degrade receiving water quality.</td>
<td>LS</td>
<td>LS</td>
</tr>
<tr>
<td>4.8-2 Development under the 2003 LRDP would increase impervious surface on the campus and could alter drainage patterns, thereby increasing runoff and loads of pollutants in storm water, which could affect water quality.</td>
<td>PS</td>
<td>LS</td>
</tr>
<tr>
<td>4.8-3 Implementation of the 2003 LRDP could alter drainage patterns in the project area and increase impervious surfaces, which could exceed the capacity of storm water drainage systems and result in localized flooding and contribution to offsite flooding.</td>
<td>PS</td>
<td>LS</td>
</tr>
<tr>
<td>4.8-4 Campus growth under the 2003 LRDP would increase discharge of treated effluent from the campus wastewater treatment plant into the South Fork of Putah</td>
<td>PS</td>
<td>LS</td>
</tr>
<tr>
<td>2003 LRDP EIR Impacts</td>
<td>Level of Significance Prior to Mitigation</td>
<td>Level of Significance After Mitigation</td>
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<td>--------------------------------------</td>
</tr>
<tr>
<td>HYDROLOGY &amp; WATER QUALITY</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Creek, which could exceed waste discharge requirements and degrade receiving water quality.</td>
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<td></td>
</tr>
<tr>
<td>4.8-5 Campus growth under the 2003 LRDP would increase the amount of water extracted from the deep aquifer and would increase impervious surfaces. This could result in a net deficit in the deep aquifer volume or a lowering of the local groundwater table but would not interfere substantially with recharge of the deep aquifer.</td>
<td>S</td>
<td>SU</td>
</tr>
<tr>
<td>4.8-6 Campus growth under the 2003 LRDP could increase the amount of water extracted from the shallow/intermediate aquifer and would increase impervious surfaces. Extraction from the shallow/intermediate aquifer could deplete groundwater levels and could contribute to local subsidence, and increased impervious coverage could interfere substantially with recharge. This could result in a net deficit in the intermediate aquifer volume or a lowering of the local groundwater table.</td>
<td>SU</td>
<td>SU</td>
</tr>
<tr>
<td>4.8-10 Development under the 2003 LRDP, in conjunction with construction activities, increased impervious surfaces, and alterations to drainage patterns associated with other development in the region that would increase impervious surface coverage in the watershed, could increase storm water runoff, and could provide substantial sources of polluted runoff, which could affect receiving water quality.</td>
<td>S</td>
<td>SU</td>
</tr>
<tr>
<td>4.8-11 Implementation of the 2003 LRDP in combination with regional development could alter drainage patterns and increase the rate or amount of surface runoff, which could exceed the capacity of storm water drainage systems and result in flooding within the Putah Creek watershed.</td>
<td>PS</td>
<td>LS</td>
</tr>
<tr>
<td>4.8-12 Growth under the 2003 LRDP and other development in the region would increase discharge of treated effluent to the Putah Creek watershed, which could degrade receiving water quality.</td>
<td>PS</td>
<td>LS</td>
</tr>
<tr>
<td>4.8-13 Growth under the 2003 LRDP and other development in the region would increase the amount of water extracted from the deep aquifer and increase impervious surfaces. This could result in a net deficit in the deep aquifer volume or a lowering of the local groundwater table but would not interfere substantially with recharge of the deep aquifer.</td>
<td>S</td>
<td>SU</td>
</tr>
<tr>
<td>4.8-14 Growth under the 2003 LRDP and other development in the region would increase the amount of water extracted from shallow/intermediate aquifers and increase impervious surfaces. This could contribute to local subsidence, substantially deplete groundwater supplies, and could interfere substantially with recharge of the shallow/intermediate depth aquifer, resulting in a net deficit in the shallow/intermediate aquifer volume or a lowering of the local groundwater table.</td>
<td>S</td>
<td>SU</td>
</tr>
</tbody>
</table>

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

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

2003 LRDP EIR Mitigation Measures

HYDROLOGY & WATER QUALITY
The campus shall continue to comply with the NPDES state-wide General Permit for Discharge of Storm Water Associated with Construction Activity by implementing control measures and BMPs required by project-specific SWPPPs and with the Phase II SWMP to eliminate or reduce non-storm and storm water discharges to receiving waters.

The campus shall comply with the measures in the Phase II SWMP to ensure that project design includes a combination of BMPs, or equally effective measures as they become available in the future, to minimize the contribution of pollutants to receiving waters.

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

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

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

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

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

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

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

(i) Install water efficient shower heads and low-flow toilets that meet or exceed building code conservation requirements in all new campus buildings, and where feasible, retrofit existing buildings with these water efficient devices.
(ii) Continue the leak detection and repair program.
(iii) Continue converting existing single-pass cooling systems to cooling tower systems.
(iv) Use water-conservative landscaping on the west and south campuses where domestic water is used for irrigation.
(v) Replace domestic water irrigation systems on the west and south campuses with an alternate water source (shallow/intermediate or reclaimed water), where feasible.
(vi) Install water meters at the proposed neighborhood to encourage residential water conservation.
(vii) Identify and implement additional feasible water conservation strategies and programs including a water awareness program focused on water conservation.

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

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

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

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

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

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

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

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

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

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

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

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

(i) Minimize paved surfaces.

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

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

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

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

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

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

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

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

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

- Give priority to demand reduction and conservation over additional water resource development (Policy WATER 1.1)
- Require water conserving landscaping (Policy WATER 1.2)
- Provide for the current and long-range water needs of the Davis Planning Area, and for protection of the quality and quantity of groundwater resources (Policy WATER 2.1)
- Manage groundwater resources so as to preserve both quantity and quality (Policy WATER 2.2)
2003 LRDP EIR Mitigation Measures
HYDROLOGY & WATER QUALITY

- Research, monitor and participate in issues in Yolo County and the area of origin of the City’s groundwater that affect the quality and quantity of water (Policy WATER 4.1)

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

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

7.9.4 Environmental Checklist and Discussion

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

j) Inundation by seiche, tsunami, or mudflow?

a,f) **Construction**

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

**Operation**

The 2003 LRDP EIR found that campus growth under the 2003 LRDP would increase discharge of treated effluent from the campus WWTP into the South Fork of Putah Creek, which could exceed waste discharge requirements and degrade receiving water quality (Impact 4.8-4). The proposed project would increase stormwater flows by approximately 0.6 cubic feet per second (cfs). With current and future discharge control programs and possible operational changes, the increased discharge from the WWTP associated with the proposed project as well as other projects under the 2003 LRDP is expected to comply with NPDES regulations, and therefore will not cause degradation of receiving water quality. The campus will continue to monitor effluent discharge in compliance with the applicable WDRs for the WWTP, and if effluent limits are exceeded, the campus will modify its pretreatment program and WWTP operation as appropriate. These practices are further confirmed in LRDP Mitigation 4.8-4(a), which is included as part of the project. In compliance with LRDP Mitigation 4.8-4(b), also relevant to part of the project, the campus will target monitoring and pretreatment for the contaminants specifically identified as of potential concern by the CVRWQCB. These measures would reduce the impact to a less-than-significant level.

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

The proposed project is projected to utilize approximately 13 gallons per minute (gpm) during peak periods from the deep aquifer. The 2003 LRDP EIR found that campus growth under the 2003 LRDP would increase the amount of water extracted from the deep aquifer and would increase impervious surfaces, which could result in a net deficit in the deep aquifer volume or a lowering of the local groundwater table but would not interfere substantially with recharge of the deep aquifer (Impact 4.8-5). The deep aquifer is confined with limited lateral and vertical recharge and is overlain by thick clay layers that are relatively impermeable. Because of these characteristics, increased impervious surfaces associated with development under the 2003 LRDP will not significantly affect the recharge capacity of the deep aquifer. The 2001 demand for water from the deep aquifer was approximately 2,671 acre-feet. The annual demand for deep aquifer water under the 2003 LRDP, including demand associated with the proposed project, is expected to increase to approximately 5,301 acre-feet through 2015-16 (UC Davis ORMP 2003c). In 2007-08, the campus used 2,419 acre-feet from the deep aquifer (D. Phillips, personal communication, 2008). LRDP Mitigation 4.8-5(a-c), included as part of the project, would require continued water conservation efforts, efforts to determine the ability of the deep aquifer to provide for the campus’ long-term water needs, and efforts to minimize withdrawals by UC Davis and the City of Davis from the same deep aquifers. If monitoring identifies that the aquifer is unable to meet the campus’ long-term needs, consistent with LRDP Mitigation 4.8-5(d), the campus would treat intermediate aquifer water and/or surface water to serve domestic water needs. Regardless of these mitigation measures, if UC Davis’ future demand for water from the deep aquifer increases, groundwater levels in the deep aquifer could lower, contributing to a net deficit in the overall groundwater budget. The effects of increased demand on the volume of the deep aquifer are currently not well understood (although consistent with LRDP Mitigation 4.8-5(b), the campus will continue to study these effects). Therefore, this impact is considered significant and unavoidable. This impact was adequately analyzed in the 2003 LRDP EIR and was fully addressed in the Findings and Statement of Overriding Considerations adopted by The Regents in connection with its approval of the 2003 LRDP. No conditions have changed and no new information has become available since certification of the 2003 LRDP EIR that would alter this previous analysis.

The 2001 demand for water from the deep aquifer was approximately 2,671 acre-feet. The annual demand for deep aquifer water estimated at full implementation of the 2003 LRDP, including demand associated with the proposed project, was projected to increase to approximately 5,301 acre-feet through 2015-16 (UC Davis ORMP 2003c). In 2012-13, the campus used 2,149 acre-feet from the deep aquifer, which was less than the 2000-01 water demand of 2,786 acre-feet from the deep aquifer (Phillips 2014). In compliance with LRDP Mitigation Measures 4.8-5(a) through (d), the campus will continue to implement water conservation strategies and hydrogeologic monitoring. However, UC Davis’ demand for water from the deep aquifer could increase. Therefore, the impact is considered significant and unavoidable at the LRDP program level. This impact was adequately analyzed in the 2003 LRDP EIR and was fully addressed in the Findings and Statement of Overriding Considerations adopted by The Regents in connection with its approval of the 2003 LRDP. No conditions have changed and no new information has become available since certification of the 2003 LRDP EIR that would alter this previous analysis. Accordingly, the project’s incremental use of water from the deep aquifer would result in a less than significant impact increase in the impact.

**Shallow/Intermediate Aquifer**

The proposed project is projected to utilize approximately 50 gallons per minute (gpm) during peak periods from the shallow/intermediate aquifer. The 2003 LRDP EIR found that the campus’ extraction from shallow/intermediate aquifers could deplete groundwater levels and could contribute to local subsidence. In addition, increased impervious coverage from the existing 9,000 square feet of
asphalt roadway to approximately 28,000 square feet of rooftop and hardscape could interfere with recharge of the shallow/intermediate aquifers because of the 17,000 square feet of additional impervious coverage. This could result in a net deficit in the intermediate aquifer volume or a lowering of the local groundwater table (Impact 4.8-6).

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

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

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

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

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

d,e) The 2003 LRDP EIR found that implementation of the 2003 LRDP would alter drainage patterns in the project area and would increase impervious surfaces, which could exceed the capacity of storm water drainage systems and result in localized flooding and contribution to offsite flooding (Impact 4.8-3). The proposed project is not located within a floodway designated by the California Department of Water Resources and is not within 10 feet of the levees along the South Fork of Putah Creek. Therefore, the project does not require an encroachment permit from the Reclamation Board. Campus runoff is not expected to significantly increase peak flows in Putah Creek under the 2003 LRDP because anticipated development represents only a minor increase in the percentage of impervious area in the watersheds. Campus discharges from the Arboretum Waterway to Putah Creek are not expected to exceed the existing pumping capacity of approximately 80 cfs (the current NPDES permit has a maximum discharge limit of 130 cfs). Pursuant to the campus Stormwater
Management Plan, the current campus standard for storm water management is a 10-year storm event (Wengler 2005). However, under existing conditions, localized flooding on some portions of the campus occurs during a 2-year storm event. In most cases, this flooding consists of temporary water ponding at storm drain inlets and along roads that does not result in property damage or other serious consequences. Without any improvements, increased runoff associated with development under the 2003 LRDP, including the proposed project, would increase the likelihood of localized flooding (West Yost & Associates 2000). In accordance with LRDP Mitigation 4.8-3(a), included in the project, a drainage study has been performed for the proposed project to determine if capacity in the existing storm drainage system exists. The proposed project would connect to the existing stormwater system and no system upgrades would be needed. Therefore, this impact would be less than significant.

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

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

g) The proposed project includes no housing and no housing would be placed in the 100-year floodplain as result of the project. No impact would occur.

h) The proposed project would be located outside of the 100-year floodplain. No impact would occur.

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

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

7.10.1 Background

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

Campus

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

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

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

Project Site

The VMSS Development site consists of approximately two acres east of Garrod Drive in the Health Sciences District of the UC Davis Central Campus. The site is partially vacant and was previously used as a construction staging area for construction of the Vet Med 3B building. In addition, a portion of the site currently serves as the route for Garrod Drive. The existing Garrod Drive will be realigned in the summer of 2014 to the north of the project site and the existing road on the project site will be removed. Land uses surrounding the project site include Parking Lot 50 and the Veterinary Medicine Teach Hospital to the west, undeveloped land and a plant nursery for the UC Davis Arboretum to the south, the future alignment of Garrod Drive to the north, and the Veterinary Medicine 3B academic building to the north. East of the project site is an area undergoing construction for a parking lot expansion which will provide parking for area uses including the proposed project. The parking lot expansion and associated pathways will also provide a connection for automobiles, pedestrians, and bicyclists to the campus arboretum east and south of the project site. The project site for the VMSS Development is designated as Teaching and Research Open Space land in the 2003 Long Range Development Plan.

The demolition site at the Surge IV complex consists of approximately one acre south of Hutchison Drive in the Core Campus east of Bioletti Way and south of Haring Hall. The modular buildings on the site were installed in 1972 and provide space for Veterinary Medicine administration functions. The buildings are oriented around a raised deck and overhead shade structure. Land uses surrounding the site
include Hutchison Drive, a major campus roadway to the north, Parking Lot 43 to the east, landscaping and a bike path to the south, and a service drive and one-story academic buildings to the west. The demolition site is designated as an *Academic/Administrative High Density* land use area on the 2003 LRDP.

### 7.10.2 2003 LRDP EIR Standards of Significance

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

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

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

### 7.10.3 2003 LRDP EIR Impacts and Mitigation Measures

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

### 7.10.4 Environmental Checklist and Discussion

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<td>Would the project…</td>
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<td>a) Physically divide an established community?</td>
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<td>b) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?</td>
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<td>c) Conflict with any applicable habitat conservation plan or natural community conservation plan?</td>
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<td>d) Result in development of land uses that are substantially incompatible with existing adjacent land uses or with planned uses?</td>
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a) The proposed project would have no potential to physically divide an established community because it would take place on an existing site designated for additional buildings and purposefully designed
as part of the overall campus land use plan and the surrounding roadway system. No impact would occur.

b) The applicable land use plan for the campus is the 2003 LRDP. The project site for the VMSS Development is designated as Teaching and Research Open Space land in the 2003 Long Range Development Plan. The Teaching and Research Open Space designation provides space for formal and informal open space, developed facilities within the open space, and buildings to enhance the use of the open space. The Teaching and Research Open Space designation is the campus land use designation for the UC Davis Arboretum. The proposed project would develop approximately two acres within the arboretum with the Scrubs Café and the VMSS building serving as a new type of developed facility within the arboretum. The location of these facilities is intended to enhance access, interaction, and interest in the UC Davis Arboretum. The proposed project would establish a district open space center by designing the courtyard and arboretum connection space to connect with the adjacent arboretum uses. The 2008/2009 UC Davis Physical Design Framework plan provided a detailed district planning effort for UC Davis and indicated that a new courtyard and connection space to the arboretum could be constructed in conjunction with an academic/administrative building on the project site. The proposed project matches the building alignment and courtyard concept in the approved 2008/2009 UC Davis Physical Design Framework. The proposed VMSS Development would be consistent with the 2003 LRDP. No impact would occur.

The demolition site at Surge IV is designated as an Academic/Administrative High Density land use area on the 2003 LRDP. The proposed demolition project would leave the area vacant which would be consistent with the Academic/Administrative High Density land use designation. The proposed demolition project would be consistent with the 2003 LRDP. No impact would occur.

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

d) The 2003 LRDP EIR identifies that an impact could result if land uses are developed under the 2003 LRDP EIR that are substantially incompatible with existing adjacent land uses or with planned uses. The proposed project would enhance the surrounding uses by providing an additional high-profile campus building and activity center. No impact would occur.
7.11 **MINERAL RESOURCES**

7.11.1 **Background**

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

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

7.11.2 **2003 LRDP EIR**

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

7.11.3 **Environmental Checklist and Discussion**

<table>
<thead>
<tr>
<th>MINERAL RESOURCES</th>
<th>Potentially Significant Impact</th>
<th>Less than Significant with Project-level Mitigation</th>
<th>Impact adequately addressed in 2003 LRDP EIR</th>
<th>Less than Significant Impact</th>
<th>No Impact</th>
</tr>
</thead>
<tbody>
<tr>
<td>Would the project…</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?</td>
<td>☐</td>
<td>☑</td>
<td>☑</td>
<td>☐</td>
<td>☑</td>
</tr>
<tr>
<td>b) Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?</td>
<td>☐</td>
<td>☑</td>
<td>☑</td>
<td>☐</td>
<td>☑</td>
</tr>
</tbody>
</table>

a, b) Natural gas is the only known or potential mineral resource that has been identified on campus. Natural gas can be extracted at wells placed considerable distances from deposits. Therefore, development on campus would not impede extraction or result in the loss of availability of a known mineral resource. No impact would occur and no further analysis is required.
7.12 NOISE

7.12.1 Background

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

Campus

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

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

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

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

Project Site

Noise at the project site mainly consists of noise from off-site sources that would remain after construction of the proposed project. More than ¼ mile from the project is Interstate 80 to the south, a high-volume interstate freeway. To the west of the project is a parking lot associated with academic buildings in Health Sciences District. As noise sources, the freeway and parking lot are the dominate noise sources. In addition, nearby vehicle noise from the roads also contribute to noise at the site.

7.12.2 2003 LRDP EIR Standards of Significance
The 2003 LRDP EIR considers a noise impact significant if growth under the 2003 LRDP would result in the following:

- Exposure of persons to or generation of noise levels in excess of levels set forth in Table 4.10-3 of the 2003 LRDP EIR.

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

<table>
<thead>
<tr>
<th>Noise Source</th>
<th>Criterion Noise Level</th>
<th>Substantial Increase in Noise Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>Road Traffic and Other Long-Term Sources</td>
<td>65 dBA CNEL</td>
<td>&gt;=3 dBA if CNEL w/project is &gt;= 65 dBA</td>
</tr>
<tr>
<td></td>
<td></td>
<td>&gt;=5 dBA if CNEL w/project is 50-64 dBA</td>
</tr>
<tr>
<td></td>
<td></td>
<td>&gt;=10 dBA if CNEL w/project is &lt; 50 dBA</td>
</tr>
<tr>
<td>Railroad</td>
<td>Within 750 feet of railroad line(^d)</td>
<td>Not Applicable</td>
</tr>
<tr>
<td>Construction (temporary)</td>
<td>80 dBA (L_{eq}(16)) (^e) daytime (7:00 a-7:00 p)</td>
<td>Not Applicable</td>
</tr>
<tr>
<td></td>
<td>80 dBA (L_{eq}(16)) evening (7:00 p-11:00 p)</td>
<td>Not Applicable</td>
</tr>
<tr>
<td></td>
<td>70 dBA (L_{eq}(16)) nighttime (11:00 p-7:00 a)</td>
<td>Not Applicable</td>
</tr>
</tbody>
</table>

Source: 2003 LRDP EIR

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

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

\(^c\) \(L_{eq}(16)\) is an average measurement over a one-hour period.

\(^d\) Screening analysis distance criterion from FTA 1995.

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

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

### 7.12.3 2003 LRDP EIR Impacts and Mitigation Measures

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

<table>
<thead>
<tr>
<th>2003 LRDP EIR Impacts</th>
<th>Level of Significance Prior to Mitigation</th>
<th>Level of Significance After Mitigation</th>
</tr>
</thead>
<tbody>
<tr>
<td>NOISE</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
2003 LRDP EIR Impacts

| 4.10-1 | Construction of campus facilities pursuant to the 2003 LRDP could expose nearby receptors to excessive groundborne vibration and airborne or groundborne noise. | PS | LS |
| 4.10-2 | Implementation of the 2003 LRDP would result in increased vehicular traffic on the regional road network, which would substantially increase ambient noise levels at some locations. | S | SU |
| 4.10-4 | Implementation of the 2003 LRDP could potentially expose noise-sensitive land uses to significant rail noise. | PS | LS |
| 4.10-5 | The 2003 LRDP development in combination with other regional development would increase ambient noise levels. | S | SU |

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

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

2003 LRDP EIR Mitigation Measures

| 4.10-1 | Prior to initiation of construction, the campus shall approve a construction noise mitigation program including but not limited to the following: |
| | • Construction equipment shall be properly outfitted and maintained with feasible noise-reduction devices to minimize construction-generated noise. |
| | • Stationary noise sources such as generators or pumps shall be located 100 feet away from noise-sensitive land uses as feasible. |
| | • Laydown and construction vehicle staging areas shall be located 100 feet away from noise-sensitive land uses as feasible. |
| | • Whenever possible, academic, administrative, and residential areas that will be subject to construction noise shall be informed a week before the start of each construction project. |
| | • Loud construction activity (i.e., construction activity such as jackhammering, concrete sawing, asphalt removal, and large-scale grading operations) within 100 feet of a residential or academic building shall not be scheduled during finals week. |
| | • Loud construction activity as described above within 100 feet of an academic or residential use shall, to the extent feasible, be scheduled during holidays, Thanksgiving breaks, Christmas break, Spring break, or Summer break. |
| | • Loud construction activity within 100 feet of a residential or academic building shall be restricted to occur between 7:30 AM and 7:30 PM. |

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

For noise-sensitive uses adjacent to Russell Boulevard between Arthur Street and SR 113, and from SR 113 to La Rue/Anderson Road and from La Rue Road to Oak Street, soundwalls may be constructed for exterior residential and recreational land uses within approximately 100 feet of the centerline of Russell Boulevard, where
2003 LRDP EIR Mitigation Measures

NOISE

Construction of such walls would not interfere with driveway access.

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

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

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

7.12.4 Environmental Checklist and Discussion

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

a,b) The proposed project would result in additional people in outdoor spaces and within sight of Interstate 80. The distance to the freeway is more than ¼ mile and is partially interrupted by mature vegetation. Freeway noise would not interfere with outdoor activities and would not exceed significance thresholds. The potential impact would be less-than-significant.
c) Generation of noise levels on or adjacent to the project site associated with vehicle trips would contribute to ambient noise levels on campus. The proposed project would increase the campus population by approximately 40 employees and overall vehicle trips would increase with the addition of these employees and with the addition of new visitors to the VMSS development. The 2003 LRDP EIR found that implementation of the 2003 LRDP would result in increased vehicular traffic on the regional road network, which would substantially increase ambient noise levels at the following locations through 2015-16: Russell Boulevard, just west of Arlington; the west campus neighborhood site adjacent to SR 113; and on Hutchinson Drive west of SR 113 (Impact 4.10-2) and the project would contribute to these potential increases. LRDP Mitigation 4.10-2(a-b) would address this impact by requiring specific noise abatement and noise control programs on campus and in the City of Davis. However, the campus cannot ensure that LRDP Mitigation 4.10-2(a) would be implemented by the City, and it is uncertain whether this measure would effectively reduce noise to acceptable levels. Therefore, the impact would still be considered significant and unavoidable. This impact was adequately analyzed in the 2003 LRDP EIR and was fully addressed in the Findings and Statement of Overriding Considerations adopted by The Regents in connection with its approval of the 2003 LRDP. No conditions have changed and no new information has become available since certification of the 2003 LRDP EIR that would alter this previous analysis, and no new mitigation measures have been identified that would further reduce this impact.

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

d) There are no nearby sensitive receptors to the proposed VMSS development. Potential impacts from construction and operation of the VMSS Development upon sensitive receptors would be less-than-significant.

For the Surge IV demolition site, the 2003 LRDP EIR found that demolition/construction of campus facilities pursuant to the 2003 LRDP could expose nearby receptors to excessive groundborne vibration and airborne or groundborne noise (Impact 4.10-1). The Surge IV site is within 40 feet of adjacent academic/administrative uses. Construction under the 2003 LRDP, including the proposed project, would require temporary construction activities using conventional construction techniques and equipment that would not generate substantial levels of vibration or groundborne noise. Routine noise levels from conventional construction activities (with the normal number of equipment operating on the site) range from 75 to 86 dBA Leq at a distance of 50 feet, from 69 to 80 dBA Leq at a distance of 100 feet, from 55 to 66 dBA Leq at a distance of 500 feet, and 48 to 60 dBA Leq at a
distance of 1,000 feet (although noise levels would likely be lower due to additional attenuation from
ground effects, air absorption, and shielding from miscellaneous intervening structures). Noise from
project construction is predicted to be below the significance criteria of 80 dBA Leq daytime and
evening and 70 dBA Leq nighttime at a distance of 100 feet or more from the construction activity.
However, noise from construction would be audible and would temporarily elevate the local ambient
noise level to some degree at distances greater than 100 feet from construction. LRDP Mitigation 4.10
1, included in the proposed project, would be implemented to control demolition noise from the Surge
IV demolition project. The potential impact would be less than significant.

e) The proposed project is approximately 2 miles from the campus airport. The 2003 LRDP, including
the proposed project, does not propose changes to University Airport operations, nor does it propose
occupied uses within the airport’s 65 CNEL noise contour. Therefore, the project would not expose
people to excessive noise levels associated with this public use airport, and the impact is less than
significant.

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

7.13.1 Background

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

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

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

Project Site

The project site is currently vacant. No housing is located or planned on or adjacent to the project site. The proposed project would add approximately 40 employees to the campus population.

7.13.2 2003 LRDP EIR Standards of Significance

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

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

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

7.13.3 2003 LRDP EIR Impacts and Mitigation Measures

Impacts of campus growth under the 2003 LRDP through 2015-16 related to population and housing are evaluated in Section 4.11 of the 2003 LRDP EIR. As analyzed in Section 4 of this Initial Study, the
proposed project is within the scope of analysis in the 2003 LRDP EIR. A significant population and housing impact identified in the 2003 LRDP EIR that is relevant to the proposed project is presented below with its corresponding levels of significance. No mitigation was available to reduce the magnitude of this impact, so the impact is considered significant and unavoidable.

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

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

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

### 7.13.4 Environmental Checklist and Discussion

#### POPULATION & HOUSING

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

The proposed project would add approximately 40 employees to the campus population. The 2003 LRDP EIR found that implementation of the 2003 LRDP would directly induce substantial population growth in the area by proposing increased enrollment and additional employment (Impact 4.11-1). The impact analyses for all of the resource areas covered in this Initial Study address the campus population increases associated with the project. Where possible, this document mitigates associated environmental impacts to the extent feasible. In certain circumstances, impacts that are associated with campus population growth are identified as significant and unavoidable. Accordingly, the effect of direct population growth associated with the 2003 LRDP, including the proposed project, is also considered a significant and unavoidable impact. This impact was adequately analyzed in the 2003 LRDP EIR and was fully addressed in the Findings and Statement of Overriding Considerations adopted by The Regents in connection with its approval of the 2003 LRDP. No conditions have changed and no new information has become available since certification of the 2003 LRDP EIR that would alter this previous analysis.

The project would not indirectly induce population growth because the project would not add road or utility extensions to land that could later provide opportunities for more development. The project
site is a defined building site that was planned to accommodate the type of building in the proposed project.

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

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

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

7.14.1 Background

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

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

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

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

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

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

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

Project Site

The project site is currently vacant and there are no existing or planned public service facilities (fire, police, schools or libraries) on or adjacent to the site.

7.14.2 2003 LRDP EIR Standards of Significance
The 2003 LRDP EIR considers a public services impact significant if growth under the 2003 LRDP would:

- Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for any of the public services.

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

### 7.14.3 2003 LRDP EIR Impacts and Mitigation Measures

Impacts of campus growth under the 2003 LRDP through 2015-16 on public services are evaluated in Section 4.12 of the 2003 LRDP EIR. As analyzed in Section 4 of this Initial Study, the proposed project is within the scope of analysis in the 2003 LRDP EIR. Significant public services impacts identified in the 2003 LRDP EIR that are relevant to the proposed project are presented below with their corresponding levels of significance before and after application of mitigation measures identified in the 2003 LRDP EIR. Mitigation measures are included to reduce the magnitude cumulative impacts 4.12-6 and 4.12-7, but these impacts are identified as significant and unavoidable because they cannot be fully mitigated.

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

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

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

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

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

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

7.14.4 Environmental Checklist and Discussion

<table>
<thead>
<tr>
<th>PUBLIC SERVICES</th>
<th>Potentially Significant Impact</th>
<th>Less than Significant with Project-level Mitigation</th>
<th>Impact adequately addressed in 2003 LRDP EIR</th>
<th>Less than Significant Impact</th>
<th>No Impact</th>
</tr>
</thead>
<tbody>
<tr>
<td>Would the project…</td>
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<tr>
<td>a) Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>i) Fire protection?</td>
<td>☐</td>
<td>☐</td>
<td>☑</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>ii) Police protection?</td>
<td>☐</td>
<td>☐</td>
<td>☑</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>iii) Schools?</td>
<td>☐</td>
<td>☐</td>
<td>☑</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>iv) Parks?</td>
<td>☐</td>
<td>☐</td>
<td>☑</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>v) Other public facilities?</td>
<td>☐</td>
<td>☐</td>
<td>☑</td>
<td>☐</td>
<td>☐</td>
</tr>
</tbody>
</table>

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

The proposed net increase of 10,000 square feet for the VMSS development would be located in the central campus at UC Davis along Garrod Drive near the Vet Med 3B building and would add approximately 40 employees to the UC Davis population. The project would incrementally contribute to the demand for campus fire and police services that is anticipated under the 2003 LRDP.

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

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

Regional Fire and Police Protection

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

a, iii) Schools

The proposed project would add approximately 40 employees to the campus population, which could contribute to the number of school-age people living in the region. The 2003 LRDP EIR recognized that implementation of the 2003 LRDP, in conjunction with regional growth, would increase the number of school-age children living in the area. This could generate a cumulative demand for new school facilities, the construction of which could result in significant environmental impacts (Impact 4.12-7). Construction of new schools in the Cities of Davis, Winters, Dixon, and Woodland could result in development of agricultural areas, which could result in the permanent loss of prime farmland and habitat. Other potentially significant environmental impacts are too speculative to determine at this time. To the extent that the school-age dependents of new campus employees could contribute to the demand for new school facilities in these cities, in compliance with LRDP Mitigation 4.12-7, the campus would negotiate with respective school districts to determine the University’s fair share of costs for feasible mitigation to reduce associated significant environmental impacts. The campus’ contribution to mitigation for such effects could include implementation of preservation mechanisms for on-campus prime farmland and/or habitat conservation. However, impacts associated with an irreversible loss of prime farmland and habitat could not be mitigated to less-than-significant levels. Therefore, the impact related to school construction in the Cities of Davis, Winters, Dixon, and Woodland would be significant and unavoidable. This impact was adequately analyzed in the 2003 LRDP EIR and was fully addressed in the Findings and Statement of Overriding
Considerations adopted by The Regents in connection with its approval of the 2003 LRDP. No conditions have changed and no new information has become available since certification of the 2003 LRDP EIR that would alter this previous analysis.

ea, iv) Effects associated with parks are evaluated in Section 7.14, Recreation.

ea, v) Libraries

The proposed project would add approximately 40 employees to the campus population, which could add additional service demands to area libraries. UC Davis provides extensive academic library facilities in four general libraries that serve students, faculty, staff, and the general public, as well as in specialized libraries on campus. With its extensive existing libraries and ongoing update processes, UC Davis has adequate facilities to provide sufficient library services to serve the campus and general population’s needs through 2015-16. Therefore, construction of additional library facilities on campus as the result of campus growth under the 2003 LRDP is not anticipated. Furthermore, due to the small scale and infill nature of minor library expansions and renovations that could occur in the Cities of Davis, Dixon, Woodland, and Winters to serve cumulative growth through 2015-16, significant environmental impacts are not anticipated to result. Therefore, project-level and cumulative impacts associated with library services are considered less than significant.
7.15 RECREATION

7.15.1 Background

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

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

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

Project Site

The project site is currently vacant and there are no existing or planned active recreation facilities on or adjacent to the site. The campus arboretum is used by many visitors as a location for walking, jogging, and other types passive of recreation.

7.15.2 2003 LRDP EIR Standards of Significance

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

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

7.15.3 2003 LRDP EIR Impacts and Mitigation Measures

Impacts of campus growth under the 2003 LRDP through 2015-16 associated with recreation are evaluated in Section 4.13 of the 2003 LRDP EIR. As analyzed in Section 4 of this Initial Study, the proposed project is within the scope of analysis in the 2003 LRDP EIR. A significant recreation impact identified in the 2003 LRDP EIR that is relevant to the proposed project is presented below with its corresponding levels of significance before and after application of mitigation measures identified in the 2003 LRDP EIR. Mitigation measures are included to reduce the magnitude of cumulative impact 4.13-2 but this impact is identified as significant and unavoidable because it cannot be fully mitigated.
Mitigation measures in the 2003 LRDP EIR that are applicable to the proposed project are presented below. Since these mitigation measures are already being carried out as part of implementation of the 2003 LRDP, they are considered part of the project description and will not be readopted in this Initial Study or Negative Declaration. Nothing in this Initial Study in any way alters the obligations of the campus to implement 2003 LRDP EIR mitigation measures.

### 2003 LRDP EIR Mitigation Measures

**RECREATION**

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

### 7.15.4 Environmental Checklist and Discussion

**RECREATION**

Would the project...

<table>
<thead>
<tr>
<th>Would the project…</th>
<th>Potentially Significant Impact</th>
<th>Less than Significant with Project-level Mitigation</th>
<th>Impact adequately addressed in 2003 LRDP EIR</th>
<th>Less than Significant Impact</th>
<th>No Impact</th>
</tr>
</thead>
<tbody>
<tr>
<td>a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?</td>
<td>☐</td>
<td>☐</td>
<td>☑</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>b) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?</td>
<td>☐</td>
<td>☐</td>
<td>☑</td>
<td>☐</td>
<td>☐</td>
</tr>
</tbody>
</table>

a, b) The proposed project would contribute 40 new employees to the campus population as was previously expected under the 2003 LRDP. The proposed project would not build new recreational facilities.

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

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

7.16.1 Background

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

Campus

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

Level of service (LOS) is a general measure of traffic operating conditions whereby a letter grade, from A (the best) to F (the worst), is assigned to roadway intersections. These grades represent the comfort and convenience associated with driving from the driver’s perspective. To assess the worst-case traffic conditions, LOS is measured during morning (7 to 9 AM) and afternoon (4 to 6 PM) peak commute times. The LOS of campus roadways varies. Monitoring of campus intersections during peak hours in Fall 2001 and Fall 2008 found that the Hutchison Drive/Health Sciences Drive intersection (with LOS E during the PM peak hour) was the only study intersection to operate below the campus’ operation standard (standards are identified in the following section). The campus installed a traffic signal at this in 2006. The intersection of South La Rue Road and Old Davis Road was recently upgraded to include a roundabout to address the LOS degradation that had occurred since 2003.

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

Parking at UC Davis is provided by a combination of surface lots and parking structures. UC Davis Transportation and Parking Services (TAPS) oversees parking services on campus including selling parking passes, providing traffic control at special events, ticketing violators, and measuring parking utilization throughout campus on a quarterly basis. Approximately 11,500 parking spaces were provided on campus as of Fall of 2012.

Project Site

The proposed project would be served by Garrod Drive, a campus road that connects La Rue Road with other major campus roadways. Service and delivery vehicles will access the café loading area at the back of the building by turning south on Garrod Drive.

7.16.2 2003 LRDP EIR Standards of Significance
The following significance criteria were used to identify significant transportation and circulation impacts. For the purpose of this analysis, potentially significant traffic impacts are defined when the project causes any of the following:

- A conflict with an applicable plan, ordinance, or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit.

For intersections at UC Davis; pursuant to the 2003 LRDP EIR, LOS D is the minimum acceptable LOS.

- For signalized intersections, deteriorated peak hour intersection operations from an acceptable level (LOS D) to an unacceptable level (LOS E or worse).
- For unsignalized intersections, deterioration of the average of all movements from an acceptable level (LOS D) to an unacceptable level and meet the California Manual on Uniform Traffic Control Devices (MUTCD) peak hour signal warrant.
- For signalized and unsignalized intersections that operate unacceptably without the project, the addition of 10 or more vehicles to the intersection’s volume.

For intersections in the City of Davis, pursuant to the City of Davis General Plan, LOS E is the minimum acceptable LOS for the City of Davis, LOS F is acceptable for the City for the Davis Core Area (LOS F is acceptable and considered a “congested condition” for Core Area intersections); all City of Davis intersections analyzed in this study are Core Area intersections.

- For signalized intersections, exacerbated unacceptable (LOS F in the weekday AM or PM peak hour; LOS E or F in the Saturday peak hour) operations by increasing an intersection’s average delay by five seconds or more.
- For Core Area intersections that operate at congested conditions (LOS F in the weekday AM or PM peak hour or the Saturday peak hour), exacerbate operations by increasing an intersection’s average delay by five seconds or more.
- For unsignalized intersections that operate unacceptably (LOS F in the weekday AM or PM peak hour; LOS E or F in the Saturday peak hour; and meet MUTCD’s peak hour signal warrant without the project), exacerbate operations by increasing the overall intersection’s volume by more than one percent.
- For unsignalized intersections that operate unacceptably but do not meet MUTCD’s peak hour signal warrant without the project, add sufficient volume to meet the peak hour signal warrant.

These significance criteria for City of Davis intersections are consistent with those applied in the Second Street Crossing (Target Store) Project Draft Environmental Impact Report (SCH# 2005062142) and the Covell Village Project Draft Program Level EIR (SCH# 2004062089).

- A conflict with an applicable congestion management program, including, but not limited to level of service standards established by the county congestion management agency for designated roads and highways.
- A change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks.
• Substantially increased hazards due to a design feature (e.g., sharp curves or dangerous intersections) incompatible uses (e.g., farm equipment).

• Inadequate emergency access.

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

### 7.16.3 2003 LRDP EIR Impacts and Mitigation Measures

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

<table>
<thead>
<tr>
<th>2003 LRDP EIR Impacts</th>
<th>Level of Significance Prior to Mitigation</th>
<th>Level of Significance After Mitigation</th>
</tr>
</thead>
<tbody>
<tr>
<td>4.14-1</td>
<td>Implementation of the 2003 LRDP would cause unacceptable intersection operations at on-campus intersections.</td>
<td>S</td>
</tr>
<tr>
<td>4.14-2</td>
<td>Implementation of the 2003 LRDP would cause unacceptable intersection and freeway LOS operations at off-campus facilities, including facilities contained in the Yolo County and Solano County Congestion Management Plans.</td>
<td>S</td>
</tr>
<tr>
<td>4.14-4</td>
<td>Implementation of the 2003 LRDP would increase demand for transit services.</td>
<td>PS</td>
</tr>
<tr>
<td>4.14-5</td>
<td>Growth in population levels in the core area of the central campus would result in increased conflicts between bicyclists, pedestrians, and transit vehicles, causing increased congestion and safety problems.</td>
<td>PS</td>
</tr>
</tbody>
</table>

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

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

### 2003 LRDP EIR Mitigation Measures

<table>
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<tbody>
<tr>
<td>TRANSPORTATION, CIRCULATION, &amp; PARKING</td>
</tr>
<tr>
<td>4.14-1(a) UC Davis shall continue to actively pursue Transportation Demand Management strategies to reduce vehicle-trips to and from campus.</td>
</tr>
<tr>
<td>4.14-1(b) UC Davis shall continue to monitor AM and PM peak hour traffic operations at critical intersections and roadways on campus.</td>
</tr>
<tr>
<td>4.14-1(c) UC Davis shall review individual projects proposed under the 2003 LRDP as they advance through the environmental clearance phase of development to determine if intersection or roadway improvements are needed</td>
</tr>
</tbody>
</table>
TRANSPORTATION, CIRCULATION, & PARKING

with the additional traffic generated by the proposed project. If intersection operations are found to degrade to unacceptable levels, UC Davis shall construct physical improvements such as adding traffic signals or roundabouts at affected study intersections.

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

4.14-2(b) UC Davis shall continue to monitor AM and PM peak hour traffic operations at critical intersections and roadways in the campus vicinity at least every three years to identify locations operating below UC Davis, City of Davis, Yolo County, Solano County, or Caltrans LOS thresholds and to identify improvements to restore operations to an acceptable level.

4.14-2(c) UC Davis shall review individual projects proposed under the 2003 LRDP as they advance through the environmental clearance phase of development to determine if intersection or roadway improvements are needed with the additional traffic generated by the proposed project. If intersection operations are found to degrade to unacceptable levels, UC Davis shall contribute its fair share towards roadway improvements at affected study intersections.

4.14-3(b) UC Davis shall continue to monitor parking demand on a quarterly basis to identify campus parking areas with a parking utilization over 90 percent. UC Davis shall provide additional parking if a proposed project is expected to increase the winter utilization rate to over 90 percent on the central campus, Health Sciences District, and/or major facilities of the west and south campus.

4.14-4 UC Davis shall monitor transit ridership to identify routes operating over capacity with increased campus growth. UC Davis shall work with transit providers to identify additional service required with campus growth or new transit routes needed to serve future development areas.

4.14-5 UC Davis shall monitor core area pedestrian and bike activity and accidents. UC Davis shall improve bike and pedestrian facilities or alter transit operations to avoid increased bicycle accident rates or safety problems.

7.16.4 Environmental Checklist and Discussion

<table>
<thead>
<tr>
<th>TRANSPORTATION, CIRCULATION, &amp; PARKING</th>
<th>Potentially Significant Impact</th>
<th>Less than Significant with Project-level Mitigation</th>
<th>Impact adequately addressed in 2003 LRDP EIR</th>
<th>Less than Significant Impact</th>
<th>No Impact</th>
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<tbody>
<tr>
<td>Would the project…</td>
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<tr>
<td>a) Conflict with an applicable plan, ordinance, or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?</td>
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<td>b) Conflict with an applicable congestion management program, including, but not limited to level of service standards established by the county congestion management agency for designated roads and highways?</td>
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<td>c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?</td>
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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)? ☑
e) Result in inadequate emergency access? ☐
f) Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities? ☑

a) The proposed project would result in new vehicle trips from approximately 40 new employees and from daily visitors to the VMSS development and a small amount of service and delivery trips to the building. Vehicles are expected to use Garrod to access the project site.

The 2003 LRDP EIR found that implementation of the 2003 LRDP, including the proposed project, would cause unacceptable intersection operations at on-campus intersections (Impact 4.14-1) and the proposed project would result in vehicle trips that would contribute to these exceedances. LRDP Mitigation 4.14-1(a-c), included in the proposed project, requires that the campus continue to pursue Transportation Demand Management strategies to reduce vehicle-trips, monitor peak hour traffic operations at critical locations, review individual projects to determine if intersection operations will degrade to unacceptable levels, and implement physical improvements when intersection operations degrade. The 2003 LRDP EIR found that additional vehicle trips under the 2003 LRDP would cause the LOS at ten on-campus intersections to drop below acceptable levels. The campus has already completed a mitigation measure with the 2011 completion of the intersection roundabout at Old Davis Road and La Rue Road and has completed improvements at Health Sciences Drive at the intersection of Hutchison Drive. Potential further improvements could be needed at intersections along Old Davis Road and at the Interstate 80 ramp terminals at Old Davis Road. Peak hour intersection monitoring conducted in 2012 indicated that existing road volumes are below the projections from the 2003 LRDP and that no additional mitigations are necessary in the near future. The proposed project would contribute a minor amount of peak hour traffic from new employees and visitors to the site. With on-going implementation of LOS measures identified in the 2003 LRDP EIR, the impact associated with the project’s contribution to degraded on-campus intersection operations would be less than significant.

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

d) The proposed project would involve no design feature hazards and no incompatible roadway uses. No impact would occur.

e) Impacts related to emergency access are discussed in Section 7.7, Hazards and Hazardous Materials. Roadways would remain open to emergency vehicles. No impact would occur.

f) Impacts related to emergency access are discussed in Section 7.7, Hazards and Hazardous Materials. Roadways would remain open to emergency vehicles. No impact would occur.
7.17 UTILITIES & SERVICE SYSTEMS

7.17.1 Background

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

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

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

Project Site

The proposed project would require connections to campus utilities and infrastructure including electrical, domestic water, utility water, sanitary sewer, storm drainage, telecommunications, chilled water, and central steam service. These utilities and service systems are discussed below:

- **Domestic Water:** The campus’ domestic/fire water system obtains water from six deep aquifer wells to serve the needs of campus buildings, landscape irrigation on the west and south campuses, and heating and cooling systems at the Central Heating and Cooling Plant (CHCP). The system includes approximately 144,000 linear feet of distribution pipelines, a water tower and a ground storage tank with a combined capacity of approximately 500,000 gallons, an underground storage reservoir with a capacity of approximately 1.3 million gallons, and a booster pump station. In 2007-08, annual domestic water consumption was approximately 2,419 acre-feet and peak demand was 3,100 gpm. The project would connect to an existing 8-inch water main on the north side of the site. Project demand is estimated to peak at 13 gallons per minute (gpm) during regular usage and 1,750 gpm for firefighting.

- **Utility Water:** The campus’ utility water system obtains water from six intermediate-depth aquifer wells to provide water for landscape irrigation, greenhouse irrigation, and some laboratories. The system includes one 100,000-gallon water tower. In 2007-08, annual utility water consumption was approximately 493 acre-feet and peak demand was 1.0 mgd. The project would connect to an existing six-inch water main on the south side of the site to obtain landscaping water. From the point of connection, landscaping water would be distributed throughout the project site. The campus uses a separate water system for landscaping water utilizing groundwater from shallow/intermediate aquifers. The project is expected to up to 50 gpm during peak flow.

- **Wastewater:** UC Davis operates a campus wastewater conveyance and treatment system that is independent from regional facilities. The campus Wastewater Treatment Plant (WWTP) is located in the south campus, and treated effluent from the plant discharges to Putah Creek. The
peak month capacity of the campus WWTP, as regulated under the existing NPDES permit issued by the CVRWQCB, is 2.7 mgd average dry weather month. Recent upgrades have raised the capacity to 3.85 mgd average dry weather monthly. The maximum monthly in 2007 was 2.4 mgd. The project would connect to an existing sanitary sewer main on the southwest side of the project site. The main has adequate capacity to receive sanitary sewer effluent and would need no upgrades prior to reaching the campus wastewater treatment plant. The project is expected to produce a peak flow of approximately 6,100 gallons per day.

- **Storm Drainage:** The central campus and developed parts of the west and south campuses are served by campus storm water drainage systems. The central campus drainage system involves a system of underground pipes that drain to the Arboretum Waterway (providing the only major detention storage in the system), from which storm water it is pumped to the South Fork of Putah Creek during large storm events. Rainwater at the project site would drain to underground pipes connected to the campus stormwater drainage system. The project would connect to the existing underground stormwater system at the northwest corner of the project site. In addition, a portion of the stormwater flow from the project site would be routed to on-site retention facilities in order to decrease the total amount of expected site runoff. During peak periods, the project is expected to produce a peak flow of 0.6 cubic feet per second of stormwater runoff.

- **Solid Waste:** UC Davis provides solid waste collection and recycling services for the campus. In 2007-08, approximately 14,300 tons of materials were diverted for recycling and reuse. The amount of materials diverted represents approximately 60 percent of the total waste generated on the Davis campus. The campus has recently begun utilizing the Yolo County Landfill rather than continue using the campus landfill. The Yolo County Landfill has a permitted capacity of 657,000 tons per year and is anticipated to have adequate capacity for continued operation through the year 2080. The landfill currently accepts approximately 160,000 tons per year.

- **Electricity:** The main campus currently receives electricity from the Western Area Power Administration (WAPA) through PG&E transmission lines at the campus substation located south of I-80. The campus electrical system has an available capacity of 64.4 megawatts (MW). Annual electrical usage on campus in 2007-08 was approximately 235 million kilowatt-hours (KWh) per year. Proposed point of connection on the north side of the project site. The project will extend the 115 KVA electrical service into the project site and terminate at an outdoor transformer adjacent to the building electrical room. System capacity is adequate for this project.

- **Natural Gas:** The project does not require a natural gas connection.

- **Chilled Water:** The project would connect to the campus chilled water system to provide cooling to the building space. The connection would be located at the 20-inch chilled water main on the north side of the project site. The project would utilize 94 tons of chilled water during peak periods.

- **Steam:** The project would connect to the campus steam system to provide heating to the building space. The project would connect to an existing steam line on the southwest side of the project site and would utilize approximately 1,158 lbs of steam per hour during peak periods.

- **Telecommunications:** The majority of all telephone, data, video, and wireless infrastructure and facilities on campus are owned by the campus and operated by the UC Davis Communications Resources Department. The main campus switching facility is located in the Telecommunications Building. As new buildings are constructed, the Communications Resources Department coordinates with the UC Davis Office of Design and Construction Management to design and direct the installation of intra- and inter-building telecommunications facilities in accordance with established standards. The project would connect to the campus
telecommunications system on the northwest side of the project site near the Vet Med 3B building.

7.17.2 2003 LRDP EIR Standards of Significance

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

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

7.17.3 2003 LRDP EIR Impacts and Mitigation Measures

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

<table>
<thead>
<tr>
<th>2003 LRDP EIR Impacts</th>
<th>Level of Significance Prior to Mitigation</th>
<th>Level of Significance After Mitigation</th>
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<tr>
<td>UTILITIES &amp; SERVICE SYSTEMS</td>
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<tr>
<td>4.15-1</td>
<td>Implementation of the 2003 LRDP would require the expansion of campus domestic/fire water extraction and conveyance systems, which would not cause significant environmental impacts.</td>
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<td>2003 LRDP EIR Impacts</td>
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<td>UTILITIES &amp; SERVICE SYSTEMS</td>
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<tr>
<td>4.15-2</td>
<td>Implementation of the 2003 LRDP would require the expansion of campus utility water extraction and conveyance systems, which would not cause significant environmental impacts.</td>
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<tr>
<td>Level of Significance Prior to Mitigation</td>
<td>LS</td>
<td>Level of Significance After Mitigation</td>
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<tr>
<td>4.15-3</td>
<td>Implementation of the 2003 LRDP would require the expansion of wastewater treatment and conveyance facilities, the construction and operation of which would not result in significant environmental impacts.</td>
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<tr>
<td>4.15-4</td>
<td>Implementation of the 2003 LRDP would require the expansion of campus storm drainage conveyance and detention facilities, which would not result in significant environmental impacts.</td>
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<td>4.15-6</td>
<td>Implementation of the 2003 LRDP would require the expansion of the campus electrical system, which would not result in significant adverse environmental impacts.</td>
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<td>4.15-7</td>
<td>Implementation of the 2003 LRDP would require the expansion of natural gas transmission systems, which would result in environmental impacts.</td>
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<td>4.15-9</td>
<td>Implementation of the 2003 LRDP would require expansion of campus communication facilities, which would not result in significant environmental impacts.</td>
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<tr>
<td>4.15-10</td>
<td>Implementation of the 2003 LRDP together with other regional development could generate a cumulative demand for wastewater treatment facilities in the region, the construction of which could result in significant environmental impacts on habitat.</td>
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<td>Level of Significance: LS=Less than Significant, S=Significant, PS=Potentially Significant, SU=Significant and Unavoidable</td>
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Mitigation measures in the 2003 LRDP EIR that are applicable to the proposed project are presented below. Since these mitigation measures are already being carried out as part of implementation of the 2003 LRDP, they are considered part of the project description and will not be readopted in this Initial Study or Negative Declaration. Nothing in this Initial Study in any way alters the obligations of the campus to implement 2003 LRDP EIR mitigation measures.

<table>
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<tr>
<th>2003 LRDP EIR Mitigation Measures</th>
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<td>UTILITIES &amp; SERVICE SYSTEMS</td>
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<tr>
<td>4.15-1(a)</td>
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<td>4.15-1(b)</td>
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<tr>
<td>4.15-2(a)</td>
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<td>4.15-2(b)</td>
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| 4.15-3 | Once preliminary project design is developed, the campus shall review each project to determine whether existing capacity of the sanitary sewer line at the point of connection is adequate. If the capacity of the sewer line is
determined inadequate, the campus will upgrade the system to provide adequate service to the project site prior to occupation or operation.

4.15-4 Once preliminary project design is developed, the campus shall review each project to determine whether existing storm drainage system is adequate at the point of connection. If the storm drainage system is determined inadequate, the campus will upgrade the system to provide adequate storm water drainage and/or detention prior to occupation or operation.

4.15-6(a) Once preliminary project design is developed, the campus shall review each project to determine whether the existing electrical system is adequate at the point of connection. If the electrical system is determined inadequate, the campus will upgrade the system to provide adequate service to the project prior to occupation or operation.

4.15-6(b) The campus would continue to meet or exceed Title 24 energy conservation requirements for new buildings, and it would continue to incorporate energy efficient design elements outlined in the UC Davis Campus Standards & Design Guide in new construction and retrofit projects. These energy conservation standards may be subject to modification as more stringent standards are developed.

4.15-7(a) Once preliminary project design is developed, the campus shall review each project to determine whether existing capacity of the natural gas supply pipeline at the point of connection is adequate. If the capacity of the pipeline is determined inadequate, the system will be updated to provide adequate service to the project site prior to occupation or operation.

4.15-7(b) To minimize disturbance to archaeological resources associated with CA-Yol-118, PG&E can and should implement directional drilling or other alternative means to trenching, or should have a qualified archaeological monitor present and provide a representative of the local Native American community an opportunity to monitor during construction.

4.15-9 Once preliminary project design is developed, the campus shall review each project to determine whether existing capacity of the telecommunications system is adequate. If the capacity is determined to be inadequate, the campus will upgrade the system to provide adequate service to the project site prior to occupation or operation.

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

### 7.17.4 Environmental Checklist and Discussion

<table>
<thead>
<tr>
<th>Would the project…</th>
<th>Potentially Significant Impact</th>
<th>Less than Significant with Project-level Mitigation</th>
<th>Impact adequately addressed in 2003 LRDP EIR</th>
<th>Less than Significant Impact</th>
<th>No Impact</th>
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<tbody>
<tr>
<td>a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?</td>
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<td>b) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?</td>
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<td>c) Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?</td>
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d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?  

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e) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project’s projected demand in addition to the providers existing commitments?  

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

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

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

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

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a) The project is estimated to generate approximately 6,100 gallons per day of wastewater. The permitted peak monthly average capacity of the campus WWTP is currently 2.7 mgd, and growth under the 2003 LRDP, including the proposed project, is anticipated to increase the volume of discharge to 3.85 mgd through 2015-16. Recently completed upgrades to the plant increased its capacity to 3.85 mgd. As discussed further in item “a,f” in Section 7.8, Hydrology and Water Quality, with continuation of current practices and implementation of 2003 LRDP EIR mitigation measures, the campus anticipates meeting the WWTP’s permit requirements. Therefore, the impact associated with possible exceedances of WWTP requirements would be less than significant.

b) **Domestic Water Facilities**

A connection for the VMSS Development would take place along the north side of the project site. Domestic water demand for the development is estimated to be 500 gallons per minute during peak usage. The 2003 LRDP EIR identified that campus development under the 2003 LRDP would require the expansion of campus domestic/fire water extraction and conveyance systems, the construction of which would not cause significant environmental impacts (LRDP Impact 4.15-1). The short (approximately 20 feet) domestic water line connection associated with the project would be constructed within an existing right-of-way/within a previously disturbed area where cultural and biological resources would not likely occur. In addition, the campus would survey the site before construction and perform monitoring during construction (in compliance with 2003 LRDP Mitigations 4.4-1 and 4.5-1) to avoid inadvertent biological and cultural resource impacts.

Therefore, effects associated with domestic water utility extensions would be less than significant. LRDP Mitigation 4.15-1(a-b), included in the proposed project, would further reduce the significance of this impact by requiring the water conservation strategies outlined in LRDP Mitigation 4.8-5(a) (see Hydrology and Water Quality section) and by requiring the campus to review the project to determine if the domestic/fire water supply is adequate at the point of connection and if any upgrades to the system are required. The utility evaluation has been completed and no system upgrades would be needed.
Utility Water Facilities

A connection for the VMSS Development would take place on the south side of the project site. Utility water demand for the project is estimated 50 gallons per minute during peak use. The 2003 LRDP EIR identified that campus development under the 2003 LRDP would require the expansion of campus utility water extraction and conveyance systems, the construction of which would not cause significant environmental impacts (LRDP Impact 4.15-2). The short (20 feet in length) utility water line connection associated with the project would be constructed within an existing right-of-way/within a previously disturbed area] where cultural and biological resources would not likely occur. In addition, the campus would survey the site before construction and perform monitoring during construction (in compliance with 2003 LRDP Mitigations 4.4-1 and 4.5-1) to avoid inadvertent biological and cultural resource impacts.

Therefore, effects associated with domestic water utility extensions would be less than significant. LRDP Mitigation 4.15-2(a-b), included in the proposed project, would further reduce the significance of this impact by requiring the water conservation strategies outlined in LRDP Mitigation 4.8-6(a) (see Hydrology and Water Quality section) and by requiring the campus to review the project to determine if the utility water supply is adequate at the point of connection and if any upgrades to the system are required. The utility evaluation has been completed no upgrades would be needed to serve the project.

Wastewater Facilities

Sanitary sewer service for the project would be provided by the campus wastewater treatment system and a sewer connection at the southwest corner of the project site would serve as the connection point. The project is estimated to generate approximately 6,100 gallons per day of wastewater. The 2003 LRDP EIR identified that implementation of the 2003 LRDP, including the proposed project, would require the expansion of campus wastewater treatment and conveyance facilities, the construction and operation of which would not result in significant environmental impacts (Impact 4.15-3). Future expansion of the existing WWTP and installation of new sanitary sewer conveyance lines would primarily occur on previously disturbed ground. In addition, the campus would survey the site before construction and perform monitoring during construction (in compliance with 2003 LRDP Mitigations 4.4-1 and 4.5-1) to avoid inadvertent biological and cultural resource impacts. Therefore, this impact would be less than significant. LRDP Mitigation 4.15-3, included in the proposed project, would further reduce the significance of this impact by ensuring the campus practice of reviewing projects to determine if there is adequate capacity to provide sanitary sewer service, and to upgrade the system as necessary. The utility study for the VMSS development identified that the system connection would be adequate and that no upgrades to the sanitary sewer system would be necessary.

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

c) The project is expected to generate approximately 0.6 cubic feet per second of stormwater during a peak event and would connect to a storm drain line is located on the northwest side of the site. The 2003 LRDP EIR identified that implementation of the 2003 LRDP would require the expansion of storm drainage conveyance and detention facilities, the construction and operation of which would not result in significant environmental impacts (Impact 4.15-4). In addition, the campus would survey the site before construction and perform monitoring during construction (in compliance with 2003 LRDP Mitigations 4.4-1 and 4.5-1) to avoid inadvertent biological and cultural resource impacts. LRDP Mitigation 4.15-4, included in the proposed project, would further reduce this less-than-significant impact by ensuring the campus practice of reviewing projects to determine if there is adequate capacity to provide storm water drainage service for the proposed project, and to upgrade the system as necessary. The project’s utility study identified that no upgrades would be necessary to adequately serve the proposed project.

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

e) The campus’ WWTP would provide wastewater treatment for the proposed project. As discussed in item (b) above, LRDP Mitigation 4.15-3, included in the proposed project, would ensure the campus practice of reviewing projects to determine if there is adequate capacity to provide sanitary sewer service, and to upgrade the system as necessary. Therefore, this impact would be less than significant.

f) All non-recycled and nonhazardous solid wastes collected on campus are disposed at the Yolo County Central landfill located east of Pole Line Road and Davis Waste Removal also delivers waste material to the Yolo County Central Landfill. For UC Davis, in 2007-08, approximately 14,300 tons of materials were diverted for recycling and reuse. The amount of materials diverted represents approximately 60 percent of the total waste generated on the Davis campus.

Currently, the County Landfill disposes of approximately 160,000 tons/year and has a permitted annual capacity to receive materials totaling over 657,000 tons/year. The County’s existing municipal solid waste permit issued by California Integrated Waste Management Board in 2008 included an expansion that allows for continued disposal of municipal solid waste at the County Landfill through approximately 2080. The addition of University waste from the Castilian Hall Redevelopment would not result in any changes in current or planned operations at the County
Landfill or cause it to exceed its permitted capacity or change the impact conclusions of the County’s Landfill EIR. The potential impact would be less than significant.

g) The proposed project would comply with all applicable statutes and regulations related to solid waste. Therefore, no impact would occur.

h) The proposed project would not trigger the need for expanded electricity or natural gas facilities but would contribute to the overall increase in demand that was projected in the 2003 LRDP EIR. The 2003 LRDP EIR identified that growth under the 2003 LRDP would require the expansion of the campus electrical system and the campus/PG&E natural gas transmission systems (LRDP Impacts 4.15-3, 4.15-4, and 4.15-5). Electrical/natural gas utility extensions required by the proposed project would be constructed within existing right-of-ways/within a previously disturbed area. In addition, the campus would survey the site before construction and perform monitoring during construction (in compliance with 2003 LRDP Mitigations 4.4-1 and 4.5-1) to avoid inadvertent biological and cultural resource impacts. Therefore, environmental effects associated with utility extensions would be less than significant. LRDP Mitigations 4.15-6(a,b) and 4.15-7(a), included in the proposed project, would further reduce the significance of this impact by requiring the campus to continue to incorporate energy efficient design elements, meet or exceed Title 24 energy conservation requirements, and review the project to determine if the relevant utility supply is adequate at the point of connection and if any upgrades to the utility system are required. The Regent’s Policy on Green Building Design and Clean Energy Standards, adopted July 17, 2003, set a goal for all new building projects, other than acute-care facilities, approved after the 2004-05 fiscal year, to outperform the required provisions of the California Energy Code (Title 24) energy-efficiency standards by at least 20 percent.

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

<table>
<thead>
<tr>
<th>MANDATORY FINDINGS OF SIGNIFICANCE</th>
<th>Potentially Significant Impact</th>
<th>Less than Significant with Project-level Mitigation</th>
<th>Impact adequately addressed in 2003 LRDP EIR</th>
<th>Less than Significant Impact</th>
<th>No Impact</th>
</tr>
</thead>
<tbody>
<tr>
<td>Would the project…</td>
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</tr>
<tr>
<td>a) Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?</td>
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<td>b) Does the project have impacts that are individually limited, but cumulatively considerable? (“Cumulatively considerable” means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?</td>
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<td>c) Does the project have environmental effects that will cause substantial adverse effects on human beings, either directly or indirectly?</td>
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**a)** The proposed project would not significantly affect fish or wildlife habitat, nor would it eliminate examples of California history or prehistory. Cumulative regional impacts could be significant, but mitigation measures to reduce these potentially significant impacts to less-than-significant levels are not available or are not within the jurisdiction of the University of California to enforce and monitor. These impacts were adequately analyzed in the 2003 LRDP EIR and fully addressed in the Findings and Statement of Overriding Considerations adopted by The Regents in connection with its approval of the 2003 LRDP. No conditions have changed and no new information has become available since certification of the 2003 LRDP EIR that would alter this previous analysis.

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

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

_____ Certificate of Fee Exemption

_X___ Pay Fee
9 REFERENCES


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


UC Davis. 2002. UC Davis Bicycle Plan.

UC Davis. 1997, October. UC Davis Water Management Plan.

UC Davis Agricultural Services. 2003. UC Davis Irrigation Database (from Irrigation Services Billing) for crops and aquaculture.


UC Davis ORMP. 2003c. Campus Water Balance.

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


10 AGENCIES & PERSONS CONSULTED

UC Davis Design Construction Management

11 REPORT PREPARED

Matt Dulcich, UC Davis Environmental Stewardship and Sustainability

Sid England, UC Davis Environmental Stewardship and Sustainability
NEGATIVE DECLARATION

Lead Agency: University of California

Project Proponent: University of California, Davis

Project Location: UC Davis Central Campus, east of Garrod Drive.

Project Description: UC Davis proposes to construct and operate the Veterinary Medicine Student Services development which would consist of two new buildings: 1) the Veterinary Medicine Student Services and Administration Center; and, 2) the Scrubs Café building. The project construction site is approximately two acres at the southeast corner of Garrod Drive and Garrod Drive near the Veterinary Medicine 3B building. The first new building would provide approximately 24,000 square feet of administrative space for the School of Veterinary Medicine. The School of Veterinary Medicine Student Services building would be two-stories in height with a maximum height of approximately 30 feet. The building would be rectangular in shape with the long axis of the building oriented to extend east-west and the main entrance of the building facing west.

The second new building, the Scrubs Café, would provide space for food service with approximately 11,000 square feet consisting of space for final food preparation and food serving, a production kitchen, a dry storage area, support spaces and indoor dining space. The Scrubs Café would be a one-story building with a building height of approximately 20 feet. In total, the two buildings would provide approximately 35,000 square feet of new building space at UC Davis. The project would include exterior landscaping along, pedestrian paths, bike parking, outdoor seating near the food service building, and an events lawn and landscaped area of approximately 15,000 square feet. Collectively, this Initial Study refers to the new development of both buildings and the entire site area of approximately two acres as the Veterinary Medicine Student Services (VMSS) Development.

Upon completion of the new replacement space on Garrod Drive, the existing School of Veterinary Medicine administrative space named Surge IV on Hutchison Drive would be removed and the site cleared of buildings. The removal of these Surge IV temporary buildings that were constructed in 1972 would decrease the amount of building space at UC Davis by 25,000 square feet. The Surge IV buildings are outdated and would require substantial maintenance and rehabilitation to continue as academic buildings. With construction of the two new buildings and demolition of the Surge IV buildings, the net increase in building space from the overall project would be approximately 10,000 square feet. This Initial Study evaluates the environmental impacts of the VMSS Development and the environmental impacts of the Surge IV Demolition.
Mitigation Measure: No project-specific mitigation measures are required for the project.

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

Determination: In accordance with CEQA, a Tiered Initial Study has been prepared by UC Davis that evaluates the environmental effects of the proposed project. On the basis of the project's Tiered Initial Study the campus found that the proposed project could not have a significant effect on the environment that has not been previously addressed in the 2003 LRDP EIR, and no new mitigation measures, other than those previously identified in the 2003 LRDP EIR, are required.

Public Review: In accordance with Section 15073 of the CEQA Guidelines, the Draft Tiered Initial Study for the project was circulated for public and agency review from May 16, 2014 to June 16, 2014. Comments received during the review period and responses to these comments are included in Appendix B to the Tiered Initial Study.
APPENDIX B:
COMMENTS AND RESPONSES TO COMMENTS
LETTERS RECEIVED:

Letter 1: Governor’s Office of Planning and Research: State CEQA Clearinghouse
Letter 2: Central Valley Regional Water Quality Control Board
Letter 3: Department of Toxic Substances Control
Letter 4: Yocha Dehe Wintun Nation
June 17, 2014

Sid England
University of California, Davis
One Shields Avenue
Davis, CA 95616

Subject: UC Davis Veterinary Medicine Student Services Development
SCH#: 2014052052

Dear Sid England:

The State Clearinghouse submitted the above named Negative Declaration to selected state agencies for review. On the enclosed Document Details Report please note that the Clearinghouse has listed the state agencies that reviewed your document. The review period closed on June 16, 2014, and the comments from the responding agency (ies) is (are) enclosed. If this comment package is not in order, please notify the State Clearinghouse immediately. Please refer to the project’s ten-digit State Clearinghouse number in future correspondence so that we may respond promptly.

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

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

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

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

Sincerely,

Scott Morgan
Director, State Clearinghouse

Enclosures

cc: Resources Agency

1400 TENTH STREET P.O. BOX 3044 SACRAMENTO, CALIFORNIA 95812-3044
TEL (916) 445-0613 FAX (916) 323-3018 www.opr.ca.gov
Document Details Report
State Clearinghouse Data Base

SCH# 2014052052
Project Title UC Davis Veterinary Medicine Student Services Development
Lead Agency University of California, Davis

Type Neg Negative Declaration
Description UC Davis proposes to construct and operate the Veterinary Medicine Student Services Development which would consist of two new buildings: 1) the Veterinary Medicine Student Services and Administration Center and, 2) the Scrubs Cafe building. The project construction site is approximately two acres at the southeast corner of Garrod Drive and Garrod Drive near the Veterinary Medicine 3B building.

Lead Agency Contact
Name Sid England
Agency University of California, Davis
Phone (530) 752-2432
Fax
Email
Address One Shields Avenue
City Davis
State CA Zip 95616

Project Location
County Yolo
City Davis
Region
Lat / Long
Cross Streets Garrod Drive
Parcel No.
Township 8N
Range 2E
Section 18
Base MDB&M

Proximity to:
Highways SR 113 and I-80
Airports University
Railways UPRR
Waterways Putah Creek
Schools Davis Joint Unified
Land Use University Office and food service space

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

Reviewing Agencies Resources Agency; Department of Conservation; Department of Fish and Wildlife, Region 2; Office of Historic Preservation; Department of Parks and Recreation; Department of Water Resources; Caltrans, Division of Aeronautics; California Highway Patrol; Caltrans, District 3 S; Department of Housing and Community Development; Air Resources Board; Regional Water Quality Control Bd., Region 5 (Sacramento); Native American Heritage Commission; Public Utilities Commission; Department of Toxic Substances Control

Date Received 05/16/2014 Start of Review 05/16/2014 End of Review 06/16/2014
Response to Letter 1

The June 17, 2014 letter from the Governor’s Office of Planning and Research State Clearinghouse and Planning Unit indicates that the 30-day comment period ended on June 16, 2013 and that, the State Clearinghouse had received a comment letter from the Central Valley Regional Water Quality Control Board and the Department of Toxic Substances Control (DTSC). The comment letter from the CVRWQCB was dated May 30, 2014 and is included in this Appendix B as Letter 2. The comment letter from the DTSC was dated June 12, 2014 and is included in this Appendix B as Letter 3. The comment letter from the Yocha Dehe Wintun Nation was dated June 26, 2014 and is included in Appendix B as Letter 4.

The letter from the State Clearinghouse confirmed that the comment period had concluded. The letter raised no new environmental issues and no new environmental impacts are expected that were not previously addressed in the Initial Study.
Central Valley Regional Water Quality Control Board

30 May 2014

Sid England
University of California
Environmental Stewardship and Sustainability, UC Davis
1 Shield Avenue
Davis, CA 95616

CERTIFIED MAIL
7013 2250 0000 3465 2053

COMMENTS TO REQUEST FOR REVIEW FOR THE NEGATIVE DECLARATION, UC DAVIS VETERINARY MEDICINE STUDENT SERVICES DEVELOPMENT PROJECT, SCH NO. 2014052052, YOLO COUNTY

Pursuant to the State Clearinghouse’s 16 May 2014 request, the Central Valley Regional Water Quality Control Board (Central Valley Water Board) has reviewed the Request for Review for the Negative Declaration for the UC Davis Veterinary Medicine Student Services Development Project, located in Yolo County.

Our agency is delegated with the responsibility of protecting the quality of surface and groundwaters of the state; therefore our comments will address concerns surrounding those issues.

Construction Storm Water General Permit
Dischargers whose project disturb one or more acres of soil or where projects disturb less than one acre but are part of a larger common plan of development that in total disturbs one or more acres, are required to obtain coverage under the General Permit for Storm Water Discharges Associated with Construction Activities (Construction General Permit), Construction General Permit Order No. 2009-009-DWQ. Construction activity subject to this permit includes clearing, grading, grubbing, disturbances to the ground, such as stockpiling, or excavation, but does not include regular maintenance activities performed to restore the original line, grade, or capacity of the facility. The Construction General Permit requires the development and implementation of a Storm Water Pollution Prevention Plan (SWPPP).

For more information on the Construction General Permit, visit the State Water Resources Control Board website at:
Phase I and II Municipal Separate Storm Sewer System (MS4) Permits

The Phase I and II MS4 permits require the Permittees reduce pollutants and runoff flows from new development and redevelopment using Best Management Practices (BMPs) to the maximum extent practicable (MEP). MS4 Permittees have their own development standards, also known as Low Impact Development (LID)/post-construction standards that include a hydromodification component. The MS4 permits also require specific design concepts for LID/post-construction BMPs in the early stages of a project during the entitlement and CEQA process and the development plan review process.

For more information on which Phase I MS4 Permit this project applies to, visit the Central Valley Water Board website at:

For more information on the Phase II MS4 permit and who it applies to, visit the State Water Resources Control Board at:

Industrial Storm Water General Permit

Storm water discharges associated with industrial sites must comply with the regulations contained in the Industrial Storm Water General Permit Order No. 97-03-DWQ.

For more information on the Industrial Storm Water General Permit, visit the Central Valley Water Board website at:

Clean Water Act Section 404 Permit

If the project will involve the discharge of dredged or fill material in navigable waters or wetlands, a permit pursuant to Section 404 of the Clean Water Act may be needed from the United States Army Corps of Engineers (USACOE). If a Section 404 permit is required by the USACOE, the Central Valley Water Board will review the permit application to ensure that discharge will not violate water quality standards. If the project requires surface water drainage realignment, the applicant is advised to contact the Department of Fish and Game for information on Streambed Alteration Permit requirements.

If you have any questions regarding the Clean Water Act Section 404 permits, please contact the Regulatory Division of the Sacramento District of USACOE at (916) 557-5250.

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1 Municipal Permits = The Phase I Municipal Separate Storm Water System (MS4) Permit covers medium sized Municipalities (serving between 100,000 and 250,000 people) and large sized municipalities (serving over 250,000 people). The Phase II MS4 provides coverage for small municipalities, including non-traditional Small MS4s, which include military bases, public campuses, prisons and hospitals.
Clean Water Act Section 401 Permit – Water Quality Certification
If an USACOE permit, or any other federal permit, is required for this project due to the disturbance of waters of the United States (such as streams and wetlands), then a Water Quality Certification must be obtained from the Central Valley Water Board prior to initiation of project activities. There are no waivers for 401 Water Quality Certifications.

Waste Discharge Requirements
If USACOE determines that only non-jurisdictional waters of the State (i.e., "non-federal" waters of the State) are present in the proposed project area, the proposed project will require a Waste Discharge Requirement (WDR) permit to be issued by Central Valley Water Board. Under the California Porter-Cologne Water Quality Control Act, discharges to all waters of the State, including all wetlands and other waters of the State including, but not limited to, isolated wetlands, are subject to State regulation.

For more information on the Water Quality Certification and WDR processes, visit the Central Valley Water Board website at:

Low or Limited Threat General NPDES Permit
If the proposed project includes construction dewatering and it is necessary to discharge the groundwater to waters of the United States, the proposed project will require coverage under a National Pollutant Discharge Elimination System (NPDES) permit. Dewatering discharges are typically considered a low or limited threat to water quality and may be covered under the General Order for Dewatering and Other Low Threat Discharges to Surface Waters (Low Threat General Order) or the General Order for Limited Threat Discharges of Treated/Untreated Groundwater from Cleanup Sites, Wastewater from Superchlorination Projects, and Other Limited Threat Wastewaters to Surface Water (Limited Threat General Order). A complete application must be submitted to the Central Valley Water Board to obtain coverage under these General NPDES permits.

For more information regarding the Low Threat General Order and the application process, visit the Central Valley Water Board website at:

For more information regarding the Limited Threat General Order and the application process, visit the Central Valley Water Board website at:
If you have questions regarding these comments, please contact me at (916) 464-4684 or tcleak@waterboards.ca.gov.

Trevor Cleak
Environmental Scientist

cc: State Clearinghouse Unit, Governor's Office of Planning and Research, Sacramento
Response to Letter 2

The August 12, 2013 letter from the Central Valley Regional Water Quality Control Board lists potential permits that would be needed for the project in relation to water quality control. Details of the on-going UC Davis compliance with water quality requirements are provided in Section 7.9 of the Initial Study. Permits needed for the project would be obtained prior to project implementation.

The comment letter raised no new environmental issues and no new environmental impacts are expected that were not previously addressed in the Initial Study.
June 12, 2014

Mr. A. Sidney England  
Assistant Vice Chancellor  
Environmental Stewardship and Sustainability  
University of California  
One Shields Avenue  
436 Mrak Hall  
Davis, CA 95616

NOTICE OF INTENT TO ADOPT A NEGATIVE DECLARATION FOR UC DAVIS VETERINARY MEDICINE STUDENT SERVICES DEVELOPMENT PROJECT, DAVIS, YOLO COUNTY

Dear Mr. England:

The Department of Toxic Substances Control (DTSC) has reviewed the Notice of Intent to Adopt a Negative Declaration (NOI) and draft Tiered Initial Study (TIS), dated May 16, 2014, for the University of California (UC) Davis Veterinary Medicine Student Services Development project. The due date to submit comments is June 16, 2014.

UC Davis proposes to construct and operate the Veterinary Medicine Student Services Development which would consist of two new buildings: 1) the Veterinary Medicine Student Services and Administration Center, and 2) the Scrubs Café building. The project construction site is approximately two acres at the southeast corner of where Garrod Drive makes a 90-degree bend near the Veterinary Medicine 3B building on the existing UC Davis campus in Davis, California (Site). Upon completion of the new replacement space on Garrod Drive, the existing School of Veterinary Medicine administrative space named Surge IV on Hutchison Drive would be removed and the site cleared of buildings.
Based on a review of the NOI and draft TIS, DTSC would like to provide the following comments:

1. Because the project is school site related, DTSC recommends that an environmental review, such as a Phase I Environmental Site Assessment and/or Preliminary Endangerment Assessment (PEA), be conducted to determine whether there has been or may have been a release or threatened release of a hazardous material, or whether a naturally occurring hazardous material is present based on reasonably available information about the property and the area in its vicinity. Such an environmental review should generally be conducted as part of the California Environmental Quality Act (CEQA) process. Also, such an environmental review is recommended for compliance with the requirements of California Education Code, section 17268(a) or 17213(a). If UC Davis elects to proceed to conduct an environmental assessment at the Site under DTSC oversight, it should enter into a Voluntary Cleanup Agreement with DTSC to oversee the preparation of the environmental assessment.

2. The presence of existing or former old structures at the Site may result in potential environmental concerns due to lead from lead-based paint and/or organochlorine pesticides from termiticide applications and polychlorinated biphenyls (PCBs) from electrical transformers, light ballast or window caulking or glazing. DTSC recommends that these environmental concerns be investigated and possibly mitigated, in accordance with DTSC’s “Interim Guidance, Evaluation of School Sites with Potential Soil Contamination as a Result of Lead from Lead-Based Paint, Organochlorine Pesticides from Termiticides, and Polychlorinated Biphenyls from Electrical Transformers, dated June 9, 2006”, and in accordance with the recommendations provided in the United States Environmental Protection Agency’s website “PCBs in Caulk in Older Buildings” (http://www.epa.gov/pccsincaulk/index.htm).

3. If the Site was previously used for agricultural purposes, pesticides (such as DDT, DDE, and toxaphene) and fertilizers (usually containing heavy metals) commonly used as part of agricultural operations are likely to be present. These agricultural chemicals are persistent and bio-accumulative toxic substances. DTSC recommends that these environmental concerns be investigated and possibly mitigated, in accordance with the “Interim Guidance for Sampling Agricultural Soils (Third Revision), dated August 2008”. This guidance should be followed to sample agricultural properties where development is anticipated.

4. If a response action is required at the Site based on the results of the above investigations, and/or other information, the TIS will require an analysis of the potential public health and environmental impacts associated with any proposed response action, pursuant to requirements of the CEQA
(Pub. Resources Code, div. 13, §21000 et seq.), and its implementing Guidelines (Cal. Code Regs., tit. 14, §15000 et seq.), prior to approval or adoption of the TIS for the project. Included in the TIS, if necessary, should be a discussion of the mitigation and/or removal actions and associated cumulative impacts to the Site and the surrounding environment. If sufficient information to discuss the proposed mitigation and/or removal actions and their associated impacts to the Site and the surrounding environment are not available for inclusion in the TIS, then an Addendum or Subsequent to the TIS may be required.

DTSC is also administering the Cleanup Loans and Environmental Assistance to Neighborhoods (CLEAN) Program which provides low-interest loans to investigate and cleanup hazardous materials at properties where redevelopment is likely to have a beneficial impact to a community. These loans are available to developers, businesses, schools, and local governments.

For additional information on DTSC’s Schools process or CLEAN Program, please visit DTSC’s web site at www.dtsc.ca.gov. If you would like to discuss this matter further, please contact me at (916) 255-3695, or via e-mail at bud.duke@dtsc.ca.gov.

Sincerely,

Harold (Bud) Duke, PG
Senior Engineering Geologist
Northern California Schools
Brownfields and Environmental Restoration Program

cc: (via e-mail)

State Clearinghouse (State.clearinghouse@opr.ca.gov)
Office of Planning and Research

Michael O’Neill (MONEill@cde.ca.gov)
Department of Education – Sacramento, CA

Lisa Constansio (LConstansio@cde.ca.gov)
Department of Education – Sacramento, CA

Nancy Ritter (Nancy.Ritter@dtsc.ca.gov)
DTSC CEQA Tracking Center – Sacramento, CA

CEQA Reading File – Chatsworth Office
Response to Letter 3

The State of California, Department of Toxic Substances Control provided a comment letter on June 12, 2014 in response to the 30-day public and agency review period for the Vet Med Student Services Building. The comment letter identified that as a routine course of action, UC Davis should consider possible environmental contamination at the project site that may have occurred from prior land uses.

UC Davis continues to implement LRDP Mitigation 4.7-12 for campus construction projects and conducts a due diligence assessment for new construction projects. As noted on page 69 of this Initial Study, LRDP Mitigation 4.7-12 is applicable to the proposed project and will be implemented with the proposed project. A phase 1 site assessment has been conducted at the project site and no items of environmental concern were identified and no basis for additional site testing was recommended. The issue raised by the Department of Toxic Substances Control is being addressed as part of the standard campus project coordination process. The comment letter from the DTSC does not raise new information that could result in a potentially significant impact. No new analysis has been included in this Initial Study and no new mitigation measures are proposed.
June 26th, 2014

A. Sidney England
Dept. of Environmental Stewardship and Sustainability
436 Mrak Hall
University of California
One Shields Avenue
Davis, CA 95616

RE: UC Davis Veterinary Medicine Student Services Development Project

Dear Mr. England:

Thank you for your project notification letter dated May 16, 2014 regarding cultural information on or near the proposed UC Davis UC Davis Veterinary Medicine Student Services Development Project, Davis, Yolo County, CA. We appreciate your effort to contact us and wish to respond.

The Cultural Resources Department has reviewed the project and concluded that it is within the aboriginal territories of the Yocha Dehe Wintun Nation. Therefore, we have a cultural interest and authority in the proposed project area.

Based on the information provided, the Tribe has concerns that the project could impact undiscovered archaeological/cultural deposits. Additionally, Yocha Dehe Wintun Nation requests a site visit to the project area to evaluate our cultural concerns. Please contact the following individual to coordinate a date and time for the site visit.

Mr. James Sarmento
Cultural Resources Manager
Yocha Dehe Wintun Nation
Office: (530) 723-0452, Email: jsarmento@yochadehe-nsn.gov

Please refer to identification number YD – 05212014-01 in any correspondences concerning this project.

Thank you for providing us with this notice and the opportunity to comment.

Sincerely,

[Signature]

Marshall McKay
Tribal Chairman

Yocha Dehe Wintun Nation
PO Box 18 Brooks, California 95606  p) 530.796.3400  f) 530.796.2143  www.yochadehe.org
Response to Letter 4

The June 26, 2014 letter from the Yocha Dehe Wintun Nation requested a site visit. A site visit was conducted with James Sarmento and the campus will coordinate with Mr. Sarmento to provide access for Yocha Dehe monitoring during construction.

The comment letter raised no new environmental issues and no new environmental impacts are expected that were not previously addressed in the Initial Study.