



UC MERCED 2020 PROJECT

Addendum No. 7 to the 2009 UC Merced Long Range Development Plan
Environmental Impact Statement / Environmental Impact Report

The following Addendum has been prepared in compliance with CEQA.

Prepared for:

University of California, Merced
5200 N. Lake Road,
Merced, California 95343

Prepared by:

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June 2016

1.0 PROJECT INFORMATION

1. Project title:

UC Merced 2020 Project

2. Lead agency name and address:

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

3. Contact person and phone number:

Phillip Woods, AIA, AICP
Director of Physical & Environmental Planning
209-349-2561

4. Project location:

University of California, Merced
Merced County

5. Project sponsor's name and address: (See #2 & #3)

Office of Planning and Budget
University of California
767 E. Yosemite, Suite M
Merced, California 95343

6. Custodian of the administrative record for this project (if different from response to item 3 above.):

See Project Sponsor

7. Identification of previous EIRs relied upon for tiering purposes (including all applicable LRDP and project EIRs and address where a copy is available for inspection.)

The 2009 UC Merced Long Range Development Plan Final Environmental Impact Statement/Environmental Impact Report (2009 EIS/EIR) (SCH No. 2008041009). Copies of the document can be found at:

Kolligian Library
University of California
5200 North Lake Road
Merced, California 95343

2.0 INTRODUCTION

The University of California (“University”), as the lead agency pursuant to the California Environmental Quality Act (“CEQA”), prepared the Final Environmental Impact Statement/Environmental Impact Report (“Final EIS/EIR”) for the 2009 Long Range Development Plan (“LRDP”) for the University of California, Merced (“UC Merced”) and the UC Merced 2020 Project (the “UCM 2020 Project”) (State Clearinghouse No. 2008041009). In March 2009, The Board of Regents of the University of California (“The Regents”) certified that the Final EIS/EIR was completed in compliance with the California Environmental Quality Act (“CEQA”) and adopted Findings and a Statement of Overriding Considerations in connection with its approval of the 2009 LRDP, including the UCM 2020 Project.

The Final EIS/EIR consists of the November 2008 Draft Environmental Impact Statement/Environmental Impact Report (“Draft EIS/EIR”) and the March 2009 Final Environmental Impact Statement/Environmental Impact Report (“Final EIS/EIR”) (collectively the “2009 EIS/EIR”). Volumes 1 and 2 of the 2009 EIS/EIR assess the potential environmental effects of implementation of the 2009 LRDP and identify means to eliminate or reduce potential adverse impacts, and evaluate a reasonable range of alternatives to the 2009 LRDP. Volume 3 builds upon the broader programmatic analysis of campus development in 2009 EIS/EIR Volumes 1 and 2, and focuses on evaluating and disclosing environmental impacts that could potentially result if the development proposed as part of the UCM 2020 Project is implemented.

The 2009 LRDP is the land use planning document used by UC Merced to guide the development of the campus to eventually support a projected student body of 25,000 full time equivalent students on up to 815 net acres of land in Merced County. It includes both a land use diagram identifying the locations of planned land uses within the 815-acre campus and policies to guide the development of campus land uses and facilities. UC Merced has completed the construction of the Phase 1 campus that provides adequate facilities for enrollment of up to 5,600 full-time equivalent (FTE) students.¹ The UCM 2020 Project, also referred to as Phase 2, comprises the second phase of campus development, with facilities needed to support an enrollment level of up to 10,000 FTE students. These facilities would include academic, administrative, research, and recreational buildings, student residences and student services buildings, utilities and infrastructure, outdoor recreation areas, and associated roadways, parking, and landscaping.

¹ Phase 1 campus was planned and developed to provide facilities for an enrollment level of 5,000 FTE students. UC Merced has absorbed the additional enrollment by moving some of the campus’ administrative functions to downtown locations.

The 2009 UCM 2020 Project (herein referred to as “original UCM 2020 Project”) is described in Volume 3 of the 2009 EIR/EIS as the development of additional building space on the campus such that at the full build-out of the original UCM 2020 Project, the campus would contain up to 2.5 million square feet of building space and 5,000 student beds of on-campus housing to accommodate enrollment of up to 10,000 FTE students. UC Merced has completed construction of the first Phase 2 facilities, including the Student Services Building, Housing 4, and Classroom/Office Building 2.

In early 2013, the Campus commenced planning for the remaining facilities included in the original UCM 2020 Project, and determined that these facilities were best developed as a single integrated planned development, to be delivered in one or more phases in a portion of the area previously identified for the original UCM 2020 Project. The Campus put forth an amendment of the 2009 LRDP (LRDP Amendment No. 1) that would allow for the development of the remainder of the UCM 2020 development as a single integrated project. The 2013 LRDP amendment included the following changes to the 2009 LRDP text and the land use diagram:

- (1) Redefine campus districts and neighborhoods to create a better planning framework and identify a new Central Campus District within which the amended 2013 UCM 2020 Project would be developed;
- (2) Add a new land use designation called Campus Mixed Use (CMU) and apply this designation to a portion of the Central Campus District that currently had other land use designations under the existing LRDP;
- (3) Clarify within the built out portion of the Central Campus District (where facilities have already been developed) which areas would remain in residential land use, which areas would remain in student services, which area would remain in passive open space, and which area would be used for recreation;
- (4) Within the Central Campus District, add a transportation buffer overlay along the east side of Lake Road to ensure that the land is not developed with land uses that could preclude transportation improvements in the future; and
- (5) Make minor changes to the planned on-campus circulation system to provide additional access to the Central Campus District.

In May 2013, the Campus prepared UCM 2009 LRDP Addendum No. 6 (“Addendum No. 6”) to analyze the impacts that could result from the proposed amendment of the 2009 LRDP. The addendum was

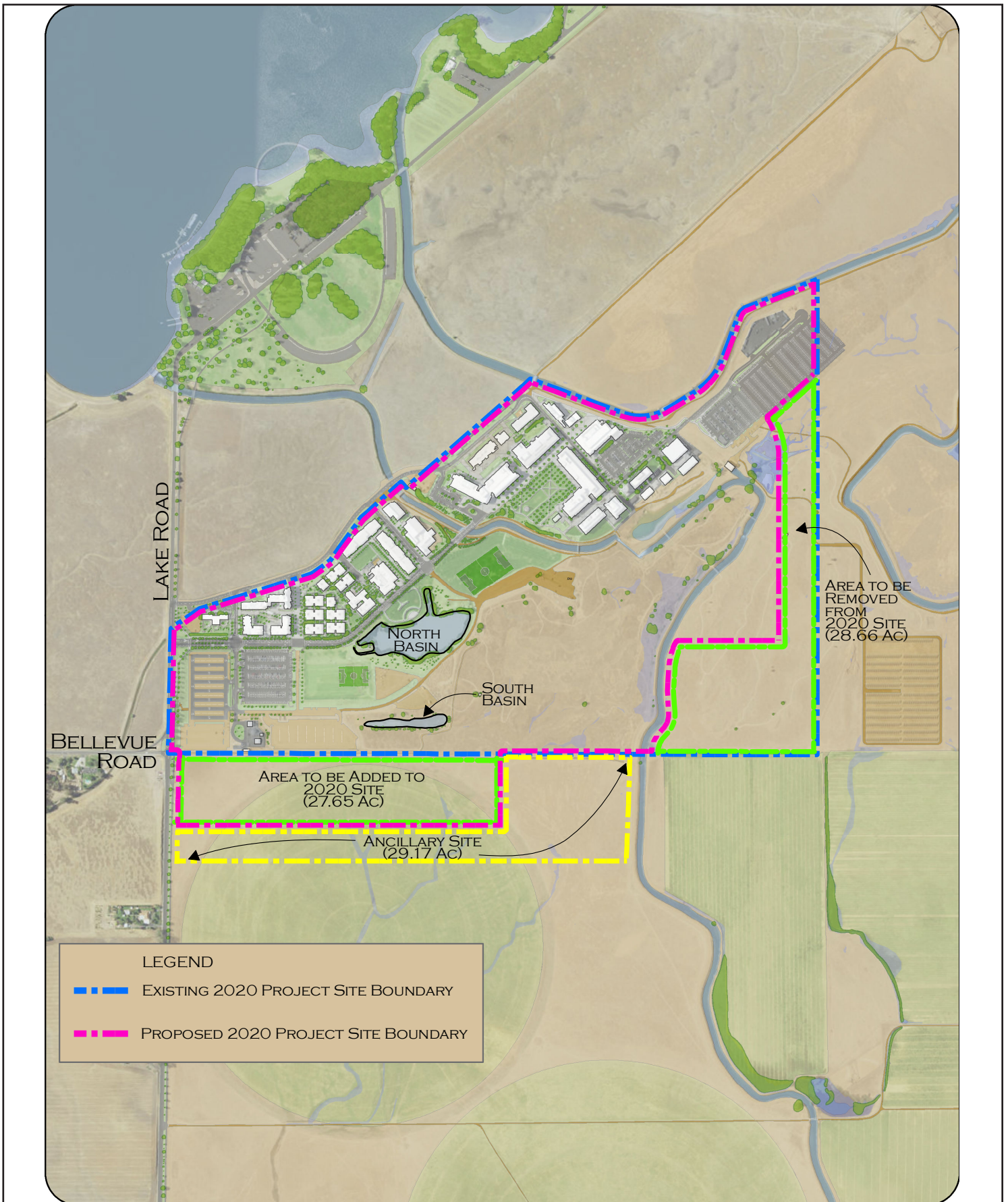
approved by the Regents of the University of California on May, 15th 2013. In essence, the 2013 LRDP amendment modified the 2009 LRDP in two key ways:

1. It reduced the total area within which the UCM 2020 Project would be built. The original UCM 2020 Project buildout would have included 355 acres of development within the Central Campus. With the 2013 LRDP amendment, the development area for the amended UCM 2020 Project was reduced to 219 acres.
2. It modified the Campus' land use diagram for the portion of the campus where the amended UCM 2020 Project would be built, while leaving the remainder of the land use diagram unchanged. The lands comprising the amended 2020 Project site were designated Campus Mixed Use (CMU). The creation of the CMU designation enabled flexibility to implement the amended UCM 2020 Project at higher densities than previously envisioned, as part of a single integrated planned development. The CMU designation did not modify the total square footage of new development proposed under the original UCM 2020 Project and the allowable land uses within the CMU also remained consistent with the land uses identified in the original UCM 2020 Project.

Following the approval of the 2013 LRDP amendment, the Campus continued with the planning and development of the amended 2020 Project and issued a Request for Proposal to invite bids from developers to plan, design, build and maintain the amended 2020 Project. While finalization of the Project Agreement with the 2020 Project developer is still underway, the Campus has determined that additional revisions to the amended 2020 Project and the 2009 LRDP are required in order to implement the UCM 2020 Project as proposed. Specifically, the following changes are required:

2020 Project Changes

- Modify the 2020 Project to accommodate a projected enrollment level of 9,793 FTE students and provide up to 4,807 student beds;
- Partially fill and alter the edge of North Basin and completely fill South Basin (**Figure 1**);
- Potentially locate student housing near wet laboratories and possibly other TAC sources such as generators and a second central plant;
- Revise the boundaries of the 2020 Project site by adding 27.65 acres immediately south of Bellevue Road and eliminating 28.66 acres east of Fairfield Canal. With this change, the total area of the 2020 Project site would be reduced from 219 acres to 218.04 acres. Use the area south of



SOURCE: University of California, Merced

FIGURE 1

Bellevue to construct parking. Construct an entrance from Lake Road about 500 feet south of Bellevue Road to access the parking area (**Figure 1**); and

- Use a temporary 29.17-acre ancillary site immediately south the parking area for construction laydown and staging (**Figure 1**).

2009 LRDP Amendments

- Re-designate two areas within the existing 2020 Project site and a 27.65 acre area added to the 2020 Project site immediately south of Bellevue Road extension to the CMU land use designation;
- Remove the Transportation buffer overlay that was established along the east side of Lake Road north of Bellevue Road as part of the 2013 LRDP amendment; and
- Revise a number of 2009 LRDP policies so that the 2020 Project is consistent with the 2009 LRDP.

Hereinafter, the revised UCM 2020 Project, including the proposed LRDP amendment, is referred to as “proposed UCM 2020 Project.” The slightly lower enrollment level and related student housing on the campus is consistent with the current enrollment projections for the campus. The alteration of North Basin and elimination of South Basin would allow for buildings to be constructed on those acres currently adjacent to or occupied by the two storm water basins. This would encourage clustered development and improved building organization for the proposed UCM 2020 Project. Similarly, the potential placement of student housing in proximity of science buildings that include laboratories also aligns with the goals of the UCM 2020 Project to use land efficiently. The exclusion of the area east of Fairfield Canal and the use of the land south of Bellevue for parking would allow for a more efficient use of the site and minimize infrastructure needs. Other approvals and changes listed above would assist with construction activities associated with the proposed UCM 2020 Project. The proposed land use designation change would encourage flexibility in building arrangement and land use efficiency envisioned for the proposed UCM 2020 Project.

The Campus has prepared this addendum, UCM 2009 LRDP Addendum No. 7, to evaluate whether these changes to the UCM 2020 Project and 2009 LRDP would result in new or more severe environmental impacts compared to those analyzed in the 2009 EIS/EIR. Section 15164(a) of the CEQA Guidelines states “The lead agency or responsible agency shall prepare an addendum to a previously certified EIR if some changes or additions are necessary but none of the conditions described in Section 15162 calling for preparation of a subsequent EIR or declaration have occurred.” As documented in Section 4.0 of this Addendum No. 7 to the 2009 EIS/EIR, implementation of the proposed UCM 2020 Project would not trigger any of the conditions necessitating preparation of a subsequent or supplemental EIR or negative

declaration; therefore, no additional environmental document beyond this addendum is necessary to evaluate the environmental effects from the implementation of the proposed UCM 2020 Project.

3.0 PROJECT DESCRIPTION

3.1 Description of Proposed Changes to the 2020 Project and 2009 LRDP

As noted above, four changes to the UCM 2020 Project, changes to 2009 LRDP land use diagram and revision of several LRDP policies are proposed. Each of the proposed changes is described below.

3.1.1 Change in Projected Enrollment Level and On-Campus Housing

Based on updated enrollment projections for the campus, the University has determined that the 2020 Project will provide facilities that will serve an enrollment level of 9,793 FTE students, instead of approximately 10,000 FTE previously projected through 2020. Based on this revised enrollment projection, the 2020 Project would construct additional student housing such that at buildout there would be approximately 4,807 student beds on the campus, instead of 5,000 student beds previously planned for an enrollment level of 10,000 FTE. Since both the proposed enrollment and the number of student beds are different from the numbers previously evaluated in the 2009 EIS/EIR, the effects of this change in numbers is evaluated in this addendum.

3.1.2 Alteration of North and South Basins

There are two existing storm water detention basins located in the central and south-western portion of the 2020 Project site. The two detention basins are called the North Basin and South Basin and are shown on **Figure 1**. The detention basins were built as water hazard features as part of the Merced Community Golf Course which was located on the Phase 1 portion of the campus site prior to the establishment of the campus. In March of 2002, the property was transferred to the University of California.

After the property was acquired by the University, both basins were put into use as storm water detention facilities. Storm water from the campus is discharged into North Basin. However, to keep water levels up for aesthetic purposes and most importantly sanitation purposes (algae and odor control), well water is also pumped from a pipe into the basin and the basin is aerated. North Basin is kept at spillway elevation. South Basin is much smaller and shallower than North Basin. Storm water from the campus discharges into this basin but no supplemental groundwater is added and it dries out periodically. There are about 2.6 acres of open water habitat, 1.1 acres of marsh habitat, and 0.7 acre of riparian fringe ringing North Basin. Habitats present in the South Basin consist of about 1.2 acres of open water habitat and 0.2 acres of riparian fringe.

The proposed UCM 2020 Project would completely fill South Basin and partially fill and alter the edge of North Basin to allow for the development of campus facilities on and adjacent to the current location of the basins. A smaller North Basin would be retained as a site amenity, but the groundwater required to maintain the basin would be significantly reduced. Storm water that currently discharges into these basins would be directed to new storm water facilities that would be located elsewhere on the 2020 Project site.

The filling and alteration of these basins was not previously contemplated and was not specifically evaluated in the 2009 EIS/EIR.

3.1.3 Development of Housing in Mixed Use Areas

The 2013 LRDP amendment allowed for a new land use category, Campus Mixed Use or CMU, and applied it to lands within the Central Campus District. With the approved CMU designation, housing could potentially be located in close proximity of wet laboratories and other possible toxic air contaminant (TAC) sources such as generators and a second central plant. Prior to this designation, residential land use areas were planned to be located at a distance from academic areas that could include wet laboratories or other TAC sources.

The location of student housing near laboratories and other TAC sources was not specifically analyzed in the 2009 EIS/EIR.

3.1.4 2020 Boundary Change and Construction of Parking and a New Entrance South of Bellevue Road

The Campus proposes to revise the southern boundary of the 2020 Project site to add an approximately 27.65-acre area that would be used to construct parking south of Bellevue Road. A permanent entrance to the parking would also be constructed on Lake Road. The location of the new entrance would be at a point that is approximately 500 feet south of the Bellevue Road and Lake Road intersection. The entrance would provide access to both the parking areas as well as a proposed ancillary site for logistics and staging that would be located immediately south of the project site. The new entrance would be used as a construction entrance to keep construction traffic from utilizing the existing Campus entrance north of Bellevue Road, and construction trucks would be required to access the new entrance only from the south via Lake Road.

This area is part of the larger 355-acre UCM 2020 Project site that was evaluated in the 2009 EIS/EIR for the development of campus facilities but no road entrance from Lake Road was envisioned for this

portion of the campus (another road entrance was included in the previous plan approximately 800 feet south of the new entrance that is now proposed).

3.1.5 Use of an Ancillary Site

The Campus proposes to use an approximately 29.17-acre area south of the new parking area (see **Figure 1**) as an ancillary site for logistics and staging for the duration of the construction of the 2020 Project. The site would be fenced. As noted above, the ancillary site would be accessed via the new road entrance described above.

This ancillary site is part of the larger 355-acre UCM 2020 Project site that was evaluated in the 2009 EIS/EIR for the development of campus facilities, but was not evaluated for use as an ancillary site.

3.1.6 Land Use Designation Change to CMU

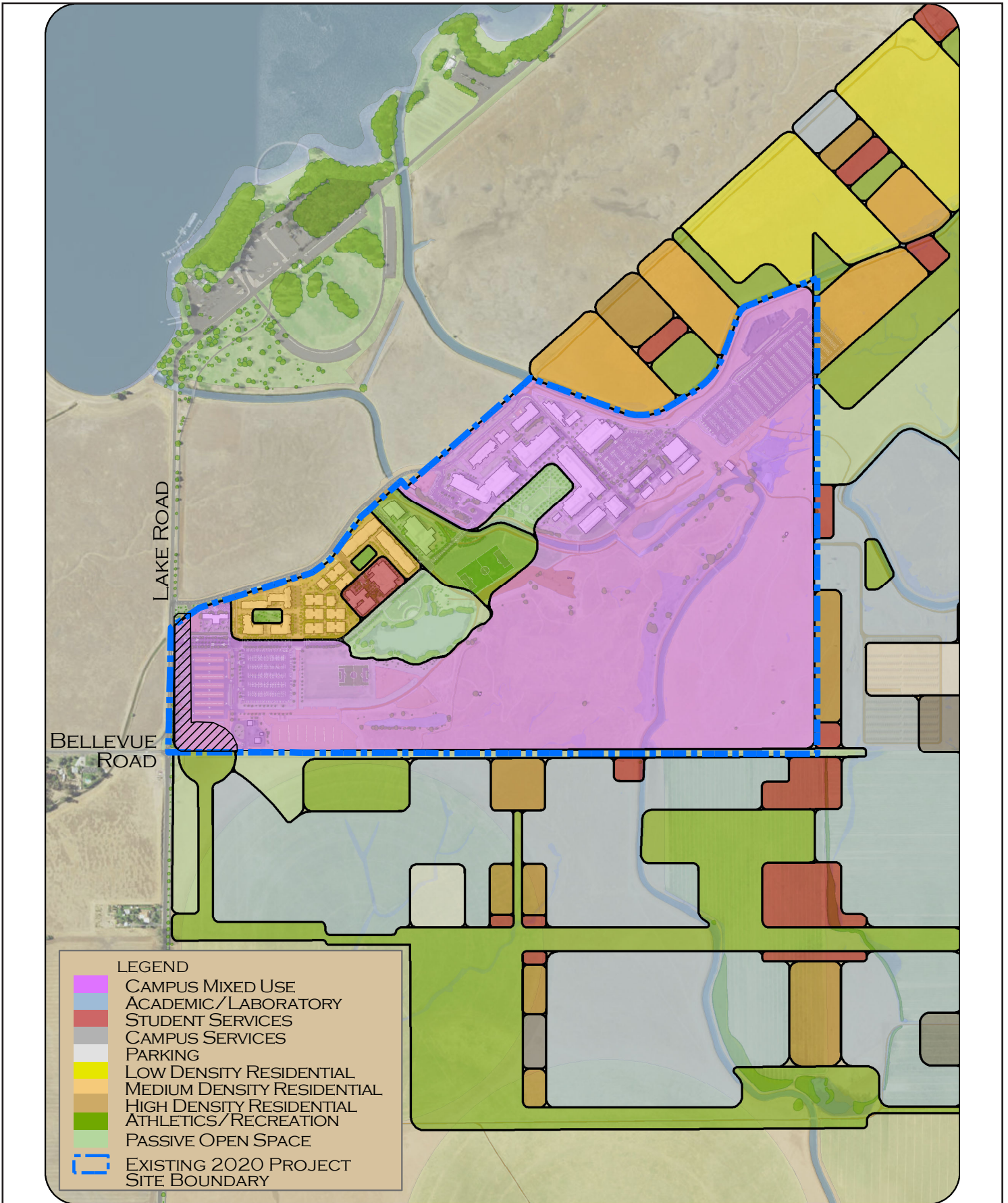
Figure 2 shows the current land use designations in the 2009 LRDP as amended in 2013 for the 2020 Project site. **Figure 3** presents the proposed land use designations for the project site. Specifically the following land use designation changes are proposed.

The area comprising North Basin and land surrounding it, is currently designated Passive Open Space. Land immediately east of North Basin is designated Athletic/Recreation. Both these land parcels would be designated CMU. In addition, as detailed in **Table 1**, the area to be added south of the Bellevue Road extension is currently under a number of land use designations, including Athletics/Recreation, Passive Open Space, Academic/Laboratory, and High Density Residential. This land would be re-designated to the CMU land use designation.

Table 1

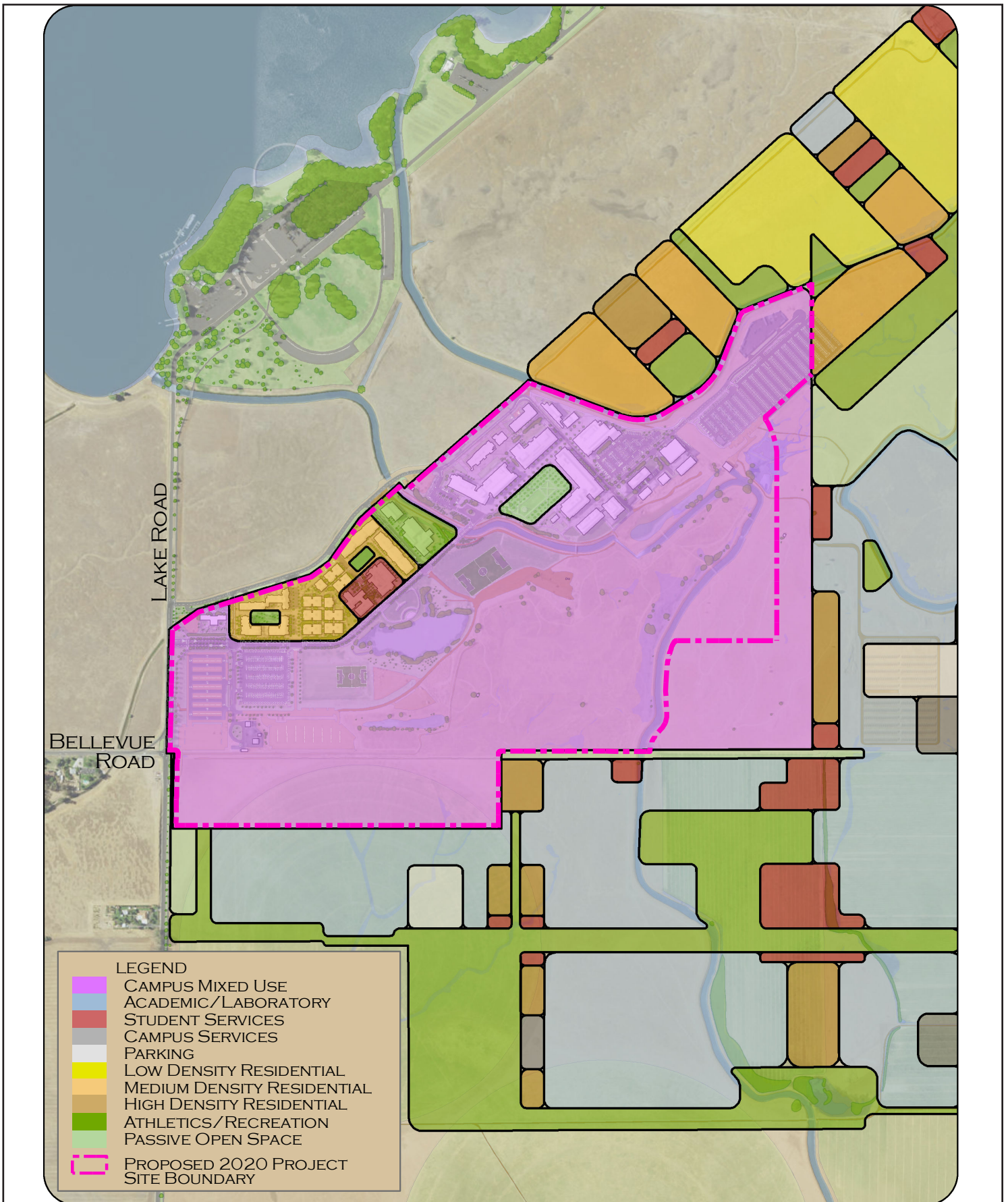
Proposed Land Use Designation Changes for the Area South of Bellevue

Current Land Use Designation	Approximate acres to be Re-designated CMU
Athletics/Recreation	8.46
Passive Open Space	6.44
Academic/Laboratory	11.93
High Density Residential	0.72



SOURCE: University of California, Merced

FIGURE 2



SOURCE: University of California, Merced

FIGURE 3

Proposed Land Use Designations

3.1.7 Removal of Transportation Buffer Overlay

A transportation buffer along the east side of Lake Road north of Bellevue Road was designated at the time of the 2013 LRDP amendment to disallow the development of new buildings within that area. The Campus has determined that such a buffer is neither needed nor desirable. As part of the proposed LRDP amendment, the transportation buffer overlay will be removed.

3.1.7 LRDP Policy Revisions

The Campus proposes to revise the following LRDP policies to make the revised 2020 Project consistent with the 2009 LRDP. The changes to the policies are shown in underline for text additions and strikeout for deletion of text.

Communities/Land Use Policies

COM-1: In areas of the campus except those designated CMU, ~~De~~velop the campus in a compact, grid-based format to minimize impacts on the land, and the cost of infrastructure; to maximize solar energy production and passive solar design opportunities and to ensure a pedestrian and bicycle-friendly environment.

COM-9: Locate uses that will attract community participation, such as performance, arts and spectator sports, ~~near or adjacent to the Town Center~~ to assure ease of access for the Merced community, and coordinate with the community in support of facilities that may be of joint use, such as conference centers.

COM-11: Within each student neighborhood outside of areas designated CMU, cluster student services, dining, passive and active recreation and other social and activity generating programs around the neighborhood center so as to reinforce its social purpose.

COM-12: A district plan shall be developed for each phase of campus construction in areas of the campus except those designated CMU. The district plan will provide details on architectural standards, infrastructure, services, and open space in accordance with this Long Range Development Plan. All development should be in accordance with the district plan.

COM-13: “Main Streets” ~~within the east and west campus~~ should be developed as mixed-use projects with student apartments above common facilities, student services, and recreation uses at ground level in order to generate activity along the streets.

Environments Policies (ENV)

ENV-14: Whenever parking occurs adjacent to principal roads, pedestrian or bicycle pathways, active recreation or passive open space areas, ~~it shall be screened~~ consideration should be given to screening the parking from direct view ~~with plant material or screen walls design~~ for maximum aesthetic effect, while maintaining a safe environment. Any landscaping for ~~interim~~ parking lots within street rights of way or on future development sites shall be ~~landscaped at a minimum within the vicinity of~~ anticipated street trees for surrounding streets, and ~~screen plantings at the edges~~ adjacent to pedestrian pathways.

Mobility Policies (MOB)

MOB-16: Design the secondary campus circulation system ~~in a grid pattern,~~ to disperse traffic and provide multiple connections to most destinations for all travel modes.

Sustainability Policies

TZC-1: Zero Net Energy: Achieve zero net energy by 2020 through aggressive conservation efforts and development of renewable power. Zero net energy means producing the same amount of renewable energy that is consumed. Buildings will be designed to ~~consume half of the energy and demand of other University buildings in California,~~ surpass Title 24 minimum efficiency standards by ~~320%~~ 20%, and achieve all ~~10~~ 6 LEED credits for optimizing energy efficiency.

SUST-5: Where feasible and cost effective, ~~D-~~design buildings to utilize exterior shading to reduce building cooling loads, and utilize exterior circulation systems such as arcades, loggias, or porches to protect major entries to ground floor functions, reducing the need for environmentally conditioned space in areas of high traffic.

SUST-6: Where feasible, ~~M-~~minimize grid connected peak electricity loads shifting electricity cooling (approximately 25% of total) away from peak electricity demand periods through chilled water thermal storage, gas or cogeneration-driven cooling, and/or solar power.

The changes listed above would not affect or alter any other aspect of the UCM 2020 Project. The same amount of building space would be developed on the project site. No changes to roadways outside the campus boundaries would be required. No changes to utilities would be needed to serve the 2020 Project, including the above listed proposed changes.

3.2 Project Objectives

The objective of the proposed UCM 2020 Project remains unchanged from the objective of the amended UCM 2020 Project described in 2009 LRDP EIR and Addendum No. 6, which is to support the

instructional and research mission of the University of California by providing essential academic space, infrastructure and facilities to support expanding enrollment up to 10,000 students and optimize the use of existing UC Merced campus infrastructure.

The implementation of the proposed UCM 2020 Project maximizes the efficient utilization of land area by allowing development on non-jurisdictional wetlands and encouraging cluster organization of buildings and facilities. The project also furthers the overall goal of UC Merced to create an environment that is welcoming to students, reflects new technologies in building design, and sets the standard for environmental stewardship and sustainability, while providing a model for growth in the San Joaquin Valley.

3.3 Surrounding Land Uses and Environmental Setting

The site of the proposed UCM 2020 Project is bounded to the west by Lake Road, and Ranchers Road and Le Grand Canal to the north, and undeveloped campus lands to the southeast. The northern and western portions of the project site are developed with academic, administrative, and student housing buildings; parking lots; and sports fields, and the southern and eastern portions are undeveloped land that has previously been graded.

Land outside the project site is mostly undeveloped grasslands used for cattle grazing and agricultural use. A few rural residential homes are located to the southwest of the project site along Lake Road.

3.4 Discretionary Approval Authority

As a public agency principally responsible for approving or carrying out the proposed UCM 2020 Project, the University of California is the Lead Agency under CEQA and is responsible for reviewing the adequacy of the existing environmental document, determining whether further environmental review is required as a result of the changes to the project, and approving the proposed project. Following approval of LRDP Addendum No. 7, the Regents will consider approval of Project design and execute the Project Agreement with the Project developer. The Campus anticipates construction of the proposed UCM 2020 Project would commence in the summer of 2016 with project completion in late 2020.

3.5 Consistency with the 2009 LRDP

The following discussion describes the proposed project's relationship to and consistency with the development projections, population projections, land use designations, and objectives contained in the 2009 LRDP and its relationship to the analysis contained in the 2009 EIS/EIR.

3.5.1 LRDP Scope of Development

The existing UC Merced campus space inventory totals approximately 1.4 million square feet. The proposed UCM 2020 Project remains unchanged from the description in the 2009 EIS/EIR and would add the same amount of building space and new facilities to the campus such that at completion of the proposed 2020 Project, the total building space on the campus would be up to 2.5 million square feet. Although there would be slightly fewer student beds (4,807 instead of 5,000 student beds), the enrollment level would also be slightly lower than previously projected. The level of development included in the 2020 Project is within the development envelope of the 2009 LRDP. At build-out of the entire campus, the campus would contain 6.25 million square feet of academic and research building space; 1.0 million square feet of building space for student services; 1.25 million square feet of building space for campus services; 400,000 square feet of athletic and recreational buildings; student housing with approximately 12,500 beds; approximately 15,500 parking spaces; and 140 acres of athletics and recreational land uses and open space. The proposed UCM 2020 Project is consistent with the scope of LRDP development.

3.5.2 LRDP Land Use Designation

The 2009 LRDP, which was amended in 2013, designates most of the 2020 Project site as Campus Mixed Use (CMU) which allows for high density, mixed use development, including academic buildings, residences, and student services. As part of the proposed changes, the Campus proposes to apply the same CMU land use designation on two areas within the 2020 Project site that are designated open space and athletic/recreation and the 27.65 acres to be added south of the Bellevue Road extension which is currently under multiple land use designations. With the LRDP amendment, the proposed UCM 2020 Project would be consistent with the 2009 LRDP.

3.5.3 LRDP Population Projections

Implementation of the proposed UCM 2020 Project is also within the scope of the 2009 LRDP in terms of population projections. The 2009 LRDP contemplates development necessary to accommodate 25,000 FTE students with half the students accommodated in on-campus housing. For the horizon year 2020, the LRDP contemplates an enrollment level of up to 10,000 students with 5,000 students accommodated in on-campus housing. The modifications to the amended UCM 2020 Project analyzed in this addendum will not increase the student, faculty, and staff populations, and upon completion of the proposed UCM 2020 Project, the Campus would be able to enroll 9,793 FTE students and house 4,807 of the students on campus. The proposed UCM 2020 Project is within the scope of the 2009 LRDP's campus population projections.

3.5.4 LRDP Objectives

The primary objective of the 2009 LRDP is to plan for the Merced campus' share of the University of California's short- and long-term enrollment demands. Development of the proposed UCM 2020 Project would support this LRDP objective by developing the necessary facilities on the campus for the projected enrollment level of 9,793 FTE students in a timely manner using a public-private partnership approach to the delivery of the facilities. In addition, the 2009 LRDP aims to model environmental stewardship and to provide a high-quality campus setting. The proposed UCM 2020 Project would be developed in a compact area which would allow for more efficient use of the existing infrastructure as well as promote a walkable campus. In addition, the project would support the 2009 LRDP's "Zero Net Energy Commitment" objectives by incorporating energy conservation measures in its design that would assist in the campus' sustainability efforts leading toward energy independence. The project would develop the new facilities in a compact manner which maximizes the use of land and existing infrastructure and minimizes the cost associated with building new infrastructure. The proposed project would employ U.S. Green Building Council's LEED for New Construction Rating System to work toward ensuring the building's design achieves LEED Gold certification at a minimum. Although the proposed LRDP amendment includes changes to some of the policies contained in the 2009 LRDP, the proposed changes would not conflict with any of the key objectives of the 2009 LRDP.

3.5.5 Relationship to the 2009 EIS/EIR

Volume 3 of the 2009 EIS/EIR presents a project-level analysis that assesses the potentially significant environmental effects of the original UCM 2020 Project. The original UCM 2020 Project would develop 2.5 million square feet of academic space to support an enrollment level of up to 10,000 FTE students and 5,000 student beds to house half the enrolled students in on-campus housing on a 355-acre site. Addendum No. 6 evaluated environmental impacts from the development of the UCM 2020 Project on a more compact 219-acre site and concluded that the land use designation change and reduced project site would not result in any changes to the findings of the 2009 EIS/EIR and adopted all applicable mitigation measures. This Addendum No. 7 takes into consideration a small reduction in the enrollment level that would be accommodated and on-campus housing that would be provided as part of the 2020 Project, further revisions of the project site boundaries, land use designation changes, a parking area and entrance south of the Bellevue Road extension, use of an ancillary site, several amendments to the LRDP policies, the alteration and filling of two storm water basins, possible placement of housing in mixed use areas, and construction activities proposed as part of the proposed UCM 2020 Project, and compares these modifications to the project evaluated in the 2009 EIS/EIR and Addendum No. 6. The analysis in this addendum shows that these proposed changes to the UCM 2020 Project would not result in new or more severe impacts than previously analyzed.

4.0 ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED

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

- | | | |
|--|--|--|
| <input type="checkbox"/> Aesthetics | <input type="checkbox"/> Agricultural and Forestry Resources | <input type="checkbox"/> Air Quality |
| <input type="checkbox"/> Biological Resources | <input type="checkbox"/> Cultural Resources | <input type="checkbox"/> Geology/Soils |
| <input type="checkbox"/> Hazards & Hazardous Materials | <input type="checkbox"/> Hydrology/Water Quality | <input type="checkbox"/> Land Use/Planning |
| <input type="checkbox"/> Noise | <input type="checkbox"/> Population and Housing | <input type="checkbox"/> Public Services |
| <input type="checkbox"/> Recreation | <input type="checkbox"/> Transportation/Traffic | <input type="checkbox"/> Utilities/Service Systems |
| <input type="checkbox"/> Greenhouse Gas Emissions | <input type="checkbox"/> Minerals | |

5.0 DETERMINATION

On the basis of the initial evaluation that follows:

I find that the proposed revisions to the UCM 2020 Project could have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, and that these effects have not been adequately analyzed by an earlier EIR. A TIERED ENVIRONMENTAL IMPACT REPORT will be prepared.

I find that although the proposed revisions to the UCM 2020 Project could have a significant effect on the environment, because all potentially significant effects (1) have been addressed adequately in an earlier environmental document pursuant to applicable standards, and (2) either no changes or no substantial changes to the project are proposed, and no new information of substantial importance has been identified. An ADDENDUM and FINDINGS will be prepared.

Phillip Woods
Signature

June 20, 2016

Date

PHILLIP WOODS
Printed Name

UC MERCED
For

6.0 EVALUATION OF ENVIRONMENTAL IMPACTS

As described in greater detail below and in the Environmental Checklist, the proposed UCM 2020 Project, with the implementation of relevant 2009 EIS/EIR mitigation measures (herein referred to as “EIS/EIR mitigation measures”), will contribute to the impacts previously identified in the 2009 EIS/EIR, but will not result in any new significant impacts, increase the severity of significant impacts previously identified in the 2009 EIS/EIR, or cause any environmental effects not previously analyzed and disclosed in the 2009 EIS/EIR. All significant impacts to which the proposed UCM 2020 Project would contribute are identified in the Environmental Checklist, and were analyzed in the 2009 EIS/EIR and listed in the 2009 EIS/EIR Findings and Addendum No. 6 Findings. The proposed UCM 2020 Project does not involve new information of substantial importance which would require mitigation measures or alternatives that are considerably different from those analyzed in the 2009 EIS/EIR. No additional mitigation measures are feasible to substantially lessen any significant and unavoidable impacts previously identified in the 2009 EIS/EIR.

While the proposed UCM 2020 Project will contribute to cumulative impacts previously identified in the 2009 EIS/EIR associated with full 2009 LRDP implementation, it will not result in any new significant cumulative impacts, increase the severity of significant cumulative impacts previously identified in the 2009 EIS/EIR, or cause any environmental effects not previously evaluated in the 2009 EIS/EIR. All significant cumulative impacts to which the proposed UCM 2020 Project would contribute are discussed in the Environmental Checklist.

This Addendum No. 7 addresses only those resource areas that would be potentially affected by the proposed changes to the UCM 2020 Project. Each of these resource areas and potential impacts from proposed changes are discussed below.

6.1 AESTHETICS

6.1.1 Relevant Elements of the Proposed UCM 2020 Project

The proposed UCM 2020 Project would develop the 2020 Project site, including the areas of North Basin and South Basin and the area south of Bellevue Road extension, with a total of 2.5 million square feet of academic space for 9,793 FTE students and on-campus housing for 4,807 students. Similar to the amended 2020 UCM Project, the buildout of the proposed UCM 2020 Project would be accommodated on a total of approximately 218 acres: although more land will be added to the 2020 Project site south of Bellevue Road extension, almost the same amount of land will be excluded from the project site east of Fairfield Canal. The CMU designation is proposed to allow construction of buildings in the areas of North Basin and an area just east of North Basin. The CMU designation permits buildings up to 10 stories (120 feet)

tall, depending on the number and size of the buildings. The CMU designated land south of Bellevue Road extension would be used to provide parking. The use of ancillary site would be temporary for the duration of project construction.

6.1.2 Analysis of Project

Development under the proposed UCM 2020 Project would not result in a new significant impact to scenic vistas.

Potential impacts of the original UCM 2020 Project on scenic vistas were evaluated in detail in Volume 3 of the 2009 EIS/EIR, along with program and project-level mitigation. The amended UCM 2020 Project did not change the conclusions of the 2009 EIS/EIR and applied the same mitigation measures to reduce potential impacts. Similar to the effects of the amended UCM 2020 Project, with the construction of the proposed UCM 2020 Project, it is likely that scenic vistas would be interrupted in some, although not all, locations.

Change in Projected Enrollment Level and On-Campus Housing

The small reduction in the projected 2020 enrollment level and the number of student beds to be constructed on the 2020 Project site would not alter previously evaluated impacts on scenic vistas as the total amount of building space to be constructed on the site would be the same as previously evaluated in the 2009 EIS/EIR and Addendum No. 6.

Alteration of North and South Basins

As described in the 2009 EIS/EIR, because the development of the UCM 2020 Project is proposed in the middle ground between Lake Yosemite and views to the southeast, the scenic vistas as currently available from the Lake Yosemite Regional Park would change with the construction of additional campus facilities. The alteration of North Basin and South Basin would allow for potential new buildings as tall as 10 stories (120 feet) to be constructed on the site of South Basin and adjacent to North Basin. Although the proposed UCM 2020 Project would allow these building heights to be developed in these areas, it is expected that the majority of the 2020 Project buildings would be three to six story buildings. Furthermore, the areas of North Basin and South Basin are at a lower elevation than Phase 1 campus, and the new buildings would be clustered. Therefore, the impact on scenic vistas as viewed from Lake Yosemite viewpoints would be substantially the same as the impact identified and analyzed for the amended UCM 2020 Project in the 2009 EIS/EIR. In addition, with the implementation of Mitigation Measure AES-1a this impact would be reduced to less than significant. Mitigation Measure AES-1a requires the University to plant tall trees along the western campus boundary to screen views of the

campus facilities from Lake Yosemite Regional Park. With respect to long-range views of the Sierra Nevada available from Lake Road, those views would not be lost due to potential building development in the areas of North Basin and South Basin due to intervening distance between the viewer and the buildings.

The 2009 EIS/EIR concluded that the UCM 2020 Project would obstruct views of the Sierra Nevada range from certain vantage points on the campus. By permitting building development on North Basin and South Basin with potentially dense and tall buildings under the proposed UCM 2020 Project, the impact to views of the Sierra Nevada range from certain vantage points on the campus could marginally increase. However, as with the amended UCM 2020 Project, this would not be a significant adverse impact because views would still be available from other campus vantage points. This less than significant impact would be further reduced by Mitigation Measure AES-1b. Mitigation Measure AES-1b requires where possible, major vehicular and pedestrian transportation corridors on the campus to be located and designed to provide views of the Sierra Nevada.

Development of Housing in Mixed-Use Areas

Given the mixed-use nature of the 2020 Project, student housing could potentially be placed near TAC sources. However, the same amount of academic space and on-campus housing would be constructed for the proposed UCM 2020 Project and the building heights would be the same as discussed above. Therefore the impact would be the same as was analyzed in the 2009 EIS/EIR, and the placement of student housing near science buildings or other potential TAC sources would not alter the previous analysis of impacts on scenic vistas.

Boundary Change and South of Bellevue Parking

The 28.66 acres to be removed east of Fairfield Canal and 27.65 acres to be added to the 2020 Project site south of the Bellevue Road extension were both previously analyzed for building development. The 27.65-acre area south of Bellevue to be added is proposed to be developed with campus parking and an entrance to access the parking area. Only a small portion of the parking area would adjoin the portions of Lake Road south of Bellevue Road. Although the parking area would be in the foreground of views of the Sierra Nevada from Lake Road, the use of the site for parking would not interrupt scenic vistas. Impacts to scenic vistas would be the same as or less than what was analyzed in the 2009 EIS/EIR, and would not alter the previous analysis of impacts to scenic vistas.

Use of Ancillary Site

The ancillary site is located south of the revised 2020 Project site, within the previously analyzed development footprint of the 815-acre campus. Similar to the proposed parking area, only a small portion of the ancillary site would adjoin the portions of Lake Road south of Bellevue Road. Although the construction staging site would be in the foreground of views of the Sierra Nevada from Lake Road, the use of the site for staging would not interrupt scenic vistas. Furthermore, the site would be in the foreground of the vistas only for the duration of construction. There would be no increase in impacts to scenic vistas.

LRDP Amendments

The proposed LRDP amendment would designate land that is currently designated open space and athletics/recreation to CMU and allow for the use of the re-designated land for the construction of campus facilities. As the land designated open space is occupied by North Basin, the impacts to scenic vistas from potential construction of facilities on North Basin allowed by re-designating this land are the same as the impacts described above for the partial filling and alteration of North Basin. The re-designation of athletic/recreation land to CMU would not result in any new or more severe impacts to scenic vistas as this area was evaluated for development in the 2009 EIS/EIR.

The proposed LRDP amendment would also re-designate land south of the Bellevue Road extension from multiple land use designations, including Athletics/Recreation, Passive Open Space, Academic/Laboratory, and High Density Residential, to CMU. Impacts to scenic vistas, including view of the Sierra Nevada, from development of a parking area allowed by CMU land use designation would be the same or less than the impacts from developing the area with other land use designations including high density residential. The re-designation would not result in any new or more severe impacts to scenic vistas as this area was evaluated for development in the 2009 EIS/EIR.

The removal of the transportation buffer overlay along Lake Road adjacent to the western boundary of the 2020 Project site would allow the area to be developed with new buildings that could potentially include a stadium. The proposed change would place large buildings in an area previously excluded from development of facilities. However, any new facilities developed in this area, including a stadium, would obstruct views of the Sierra Nevada from Lake Road to the west for only a limited distance along the roadway and scenic vistas would still be available from the rest of the roadway. The impact from this change would be less than significant.

The changes to 2009 LRDP policies would not result in any new or more severe impacts on scenic vistas as the changes to the policies do not allow the 2020 Project to construct buildings that are larger or taller than previously evaluated in the 2009 EIS/EIR.

In summary, the proposed UCM 2020 Project would not increase the magnitude of potential impacts to scenic vistas compared to the conclusions of the 2009 EIS/EIR and Addendum No. 6 for the amended UCM 2020 Project. No further environmental evaluation is required.

Development under the proposed UCM 2020 Project would not substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway.

The UC Merced campus is not located near any state-designated scenic highways and there are no resources present on the site that would qualify as scenic resources. Therefore, the proposed UCM 2020 Project would have no impact on scenic resources. No further environmental evaluation is required.

Development under the proposed UCM 2020 Project would not result in a substantial increase in the severity of previously identified impacts to the visual quality and character of the site and its surroundings.

The potential impacts of the original UCM 2020 Project to the visual quality and character of the site were evaluated in detail in Volume 3 of the 2009 EIS/EIR, along with program and project-level mitigation. Volume 3 concluded that build-out of the original UCM 2020 Project would result in a significant and unavoidable aesthetic impact as a result of permanently and substantially altering the visual quality and character of the project site and its surroundings. The Findings of Addendum No. 6 were consistent with the findings of the 2009 EIS/EIR with respect to impacts to visual quality and character of the site.

Change in Projected Enrollment Level and On-Campus Housing

The small reduction in the projected 2020 enrollment level and the number of student beds to be constructed on the 2020 Project site would not alter previously evaluated impacts on visual character and quality as the total amount of building space to be constructed would be the same as previously evaluated in the 2009 EIS/EIR and Addendum No. 6.

Alteration of North and South Basins

The proposed UCM 2020 Project would completely fill South Basin and partially fill and alter the edge of North Basin, which was not analyzed in the 2009 EIS/EIR. However the open water portion of South Basin dries up during the summer months and does not appear any different from the surrounding

grasslands. With respect to North Basin, at the present time, it is maintained as an aesthetic amenity by adding pumped groundwater during the summer months. Under the proposed UCM 2020 Project, this basin would be partially filled and would be maintained and improved as an aesthetic amenity. In addition, the proposed 2020 Project would provide other aesthetic amenities, including arroyos and detention basins to handle storm water that would be constructed elsewhere on the 2020 Project site. Therefore, this change to the UCM 2020 Project would not result in a new or more severe impact on visual character and quality of the area.

Development of Housing in Mixed Use Areas

Student housing could potentially be placed near TAC sources. However, the same amount of academic space and on-campus housing would be constructed for the proposed UCM 2020 Project, as was analyzed in the 2009 EIS/EIR. Therefore, the placement of student housing near science buildings or other potential TAC sources would not result in a new or more severe impact of the 2020 Project on visual character and quality of the area.

Boundary Change and South of Bellevue Parking

The 28.66 acres to be removed from the 2020 Project site east of Fairfield Canal and 27.65 acres to be added south of the Bellevue Road extension were both previously analyzed for development. The 27.65-acre area south of Bellevue is proposed to be developed with campus parking and an entrance to access the parking area. Although this area was not previously planned for provision of surface parking, this area was planned for the development of buildings and other campus facilities. Therefore, the change would not result in a new or more severe impact on visual character and quality.

Use of Ancillary Site

The ancillary site is located south of the proposed 2020 Project site, within the previously analyzed development footprint of the previous 355-acre 2020 Project site. Although this area was not originally planned as an ancillary site for the 2020 Project, construction activities at this location were anticipated as part of the larger development. Furthermore, the ancillary site would be temporary, lasting only the duration of the construction phase. There would be no substantial increase in impacts to visual character and quality.

LRDP Amendments

The proposed project would change the land use designation of North Basin and an area adjacent to the east of North Basin from Open Space or Athletic/Recreational to CMU which would allow for flexibility

in building arrangement and construction. This would not remove amount of area planned for recreational use or open space but instead allow flexibility of recreational areas to be strategically located in a way that enhances the character of the proposed UCM 2020 Project site. The proposed project would incorporate landscaping throughout the site to help integrate planned buildings with the surrounding area. The re-designation of open space or athletic/recreation land to CMU would not result in any new or more severe impacts to the visual quality of this area that was not evaluated for development in the 2009 EIS/EIR.

The proposed LRDP amendment would also re-designate land south of the Bellevue Road extension from multiple land use designations, including Athletics/Recreation, Passive Open Space, Academic/Laboratory, and High Density Residential, to CMU. Impacts to visual character and quality from development of a parking area allowed by CMU land use designation would be the same or less than the impacts from developing the area with other facilities. The re-designation would not result in any new or more severe impacts to visual character as this area was evaluated for development in the 2009 EIS/EIR.

The removal of the transportation buffer overlay along Lake Road adjacent to the western boundary of the 2020 Project site would allow the area would be developed with facilities similar to other facilities on the campus. As the facilities would be similar to other campus facilities, they would not result in any new or more severe impacts to visual character compared to those analyzed in the 2009 EIS/EIR.

The proposed changes to LRDP policies would not result in any new or more severe impacts to visual character compared to those analyzed in the 2009 EIS/EIR.

In summary, the proposed changes analyzed in this addendum would not substantially change the nature or magnitude of the impacts to visual character and quality or the conclusions of the 2009 EIS/EIR as analyzed for the amended UCM 2020 Project. As with the original 2020 Project, Mitigation Measure AES-3a would be implemented to reduce impacts from the proposed UCM 2020 Project. Mitigation Measure AES-3a requires the University to design new aboveground infrastructure on the campus to follow a specific set of standards to reduce the impact on scenic vistas and visually sensitive areas. As with the original and amended UCM 2020 Project, the mitigation would not reduce the impact. Therefore, the proposed UCM 2020 Project would have a significant and unavoidable impact on visual quality and character even after mitigation. No additional mitigation is feasible and no further documentation is required.

Development under the proposed UCM 2020 Project would not significantly increase the severity of previously identified impacts related to new sources of light and glare.

Potential impacts associated with creating new sources of light and glare as part of the original UCM 2020 Project were evaluated in detail in Volume 3 of the 2009 EIS/EIR, along with program and project-level mitigation. The 2009 EIS/EIR concluded that build-out of the original UCM 2020 Project would result in a significant and unavoidable impact associated with creating new sources of light and glare as a result of developing buildings with surfaces and windows that may reflect and cause glare. The Findings of Addendum No. 6 were consistent with the findings of the 2009 EIS/EIR with respect to impacts from light and glare.

Change in Projected Enrollment Level and On-Campus Housing

The small reduction in the projected 2020 enrollment level and the number of student beds to be constructed on the 2020 Project site would not alter impacts related to light and glare as the total amount of building space to be constructed on the site would be the same as previously evaluated in the 2009 EIS/EIR and Addendum No. 6.

Alteration of North and South Basins

The complete filling of South Basin and partial filling and alteration of the edge of North Basin could result in the placement of new sources of light and glare associated with new facilities and infrastructure in these areas that were not anticipated for new facilities in the 2009 EIS/EIR. However, these areas are central to the 2020 Project site and the light sources in these areas would be surrounded by light sources associated with the development of the larger 2020 Project. Furthermore, UC Merced has developed and adopted Campus standards for site lighting that would be incorporated into the proposed UCM 2020 Project. However, as with the amended UCM 2020 Project, campus standards would not fully reduce the project's impact related to nighttime illumination of an area that would otherwise be dark at night. Therefore, the impact would remain significant and unavoidable. The complete filling of South Basin and partial filling and alteration of the edge of North Basin along with the development of the land with new facilities would not change the nature or significantly increase the magnitude of the impacts resulting from new sources of light and glare or the conclusions of the 2009 EIS/EIR.

Development of Housing in Mixed Use Areas

Student housing could potentially be placed near TAC sources. However, the same amount of academic space and on-campus housing would be constructed for the proposed UCM 2020 Project, as was analyzed in the 2009 EIS/EIR. Therefore, the placement of student housing near science buildings or other potential

TAC sources would not change the nature or significantly increase the magnitude of the impacts resulting from new sources of light and glare or the conclusions of the 2009 EIS/EIR.

Boundary Change and South of Bellevue Parking

The 27.65-acre area to be added south of the Bellevue Road extension was previously analyzed for development in the 2009 EIS/EIR. The area is proposed to be developed with campus parking and an entrance to access the parking area. Although there would be an increase in nighttime lighting from the proposed parking area, potentially affecting nearby residential uses to the south and southwest, as compared to the currently rural landscape, the proposed UCM 2020 Project would comply with the adopted Campus standards for site lighting. These standards are included in all applicable design and construction contracts for the UC Merced campus. Furthermore, this proposed parking area was previously analyzed for development of uses such as high density residential, and athletic, as part of the larger 355-acre UCM 2020 Project. Therefore, the boundary change and placement of parking in the area south of Bellevue Road extension would not change the nature or significantly increase the magnitude of the impacts resulting from new sources of light and glare or the conclusions of the 2009 EIS/EIR.

Use of Ancillary Site

Although the area of the ancillary site was not originally planned for use as a construction site for the 2020 Project, construction activities at this location were anticipated as part of the larger development. With respect to the ancillary site, although a rural residence is located approximately 600 feet to the northwest and another residence is located approximately 300 feet southwest of the site, the use of the site would be temporary, lasting only the duration of the construction phase and lighting would be limited to the minimum required for site security. Furthermore, all lighting would be shielded to avoid off-site spill. There would be no substantial increase in impacts from light and glare.

LRDP Amendments

The proposed project would change the land use designation of some area around North Basin and an area adjacent to the east of North Basin from Open Space or Athletic/Recreational to CMU which would allow for flexibility in building arrangement and construction. This would not change the amount and types of facilities planned for the UCM 2020 Project site. Therefore, the re-designation of open space or athletic/recreation land to CMU would not result in any new or more severe impacts related to light and glare.

The proposed LRDP amendment would also re-designate land south of the Bellevue Road extension from multiple land use designations, including Athletics/Recreation, Passive Open Space,

Academic/Laboratory, and High Density Residential, to CMU. Impacts to light and glare from development of a parking area allowed by CMU land use designation would be the same or less than developing this area with other campus facilities. The re-designation would not result in any new or more severe impacts related to light and glare as this area was evaluated for development in the 2009 EIS/EIR.

The removal of the transportation buffer overlay along Lake Road adjacent to the western boundary of the 2020 Project site would allow the area to be developed with new buildings that could potentially include a stadium. The proposed change would add new light and glare sources to an area previously excluded from development of facilities. However, any new facilities developed in this area, including a stadium, would be required to comply with UC Merced lighting standards. Nonetheless, this development could result in substantial new nighttime light. The impact from increased nighttime light and glare was analyzed in the 2009 EIS/EIR and was found to be significant and avoidable. No further analysis is required.

The changes to LRDP policies would not allow the campus to develop light and glare sources that could result in significant new or more severe light and glare impacts.

In summary, the proposed UCM 2020 Project would not change the nature or increase the magnitude of the potential impacts from light and glare or the conclusions of the 2009 EIS/EIR. No additional mitigation is feasible and no further environmental evaluation is required.

6.1.3 Analysis of Cumulative Impacts

Cumulative visual impacts of the original UCM 2020 Project are addressed in Volume 1 of the 2009 EIS/EIR. The 2009 EIS/EIR concluded that implementation of the original UCM 2020 Project, in conjunction with cumulative development, would alter the visual character and scenic vistas, and result in additional light and glare. The Findings of Addendum No. 6 were consistent with the findings of the 2009 EIS/EIR with respect to cumulative aesthetics impacts. As with the amended UCM 2020 Project, the cumulative impacts of the proposed UCM 2020 Project related to visual character, scenic vistas, and light and glare would be significant, and the cumulative impact to scenic resources would be less than significant. Implementation of Mitigation Measures AES-1a and 3a described above would not reduce the cumulative significant impacts, which would remain significant and unavoidable. The proposed UCM 2020 Project's cumulative aesthetic impacts are adequately addressed in the 2009 EIS/EIR. As discussed above, the proposed UCM 2020 Project will not result in a substantial increase in the severity of the previously identified cumulative impact and therefore a subsequent or supplemental EIR is not required.

6.1.4 Changes in Circumstances or New Information that could affect the Earlier Environmental Analysis

There are no changes in circumstances in which the proposed UCM 2020 Project would be undertaken. No new information has become available and no new regulations related to visual resources have come into effect since the certification of the 2009 EIS/EIR that would alter the previous analysis and change its conclusions relative to the proposed UCM 2020 Project.

6.1.5 Conclusion

The proposed UCM 2020 Project would not adversely affect any scenic resources. The proposed UCM 2020 Project would have a significant and unavoidable impact on visual quality and character and a significant and unavoidable impact related to light and glare. The differences between the amended UCM 2020 Project and the proposed UCM 2020 Project would not change the nature or increase the magnitude of potential impacts to aesthetic resources or the conclusions in the 2009 EIS/EIR.

AIR QUALITY

6.2.1 Relevant Elements of the Proposed UCM 2020 Project

The proposed UCM 2020 Project includes the construction of over 1.25 million square feet of academic buildings, in addition to on-campus housing, and support infrastructure, for a total of 2.5 million square feet of academic buildings, and on-campus housing for 4,807 students. Construction is expected to occur from 2016 to 2020. The proposed UCM 2020 Project would result in the development of campus facilities that would accommodate approximately 9,793 FTE students and associated faculty and staff.

Nearby sensitive receptors for the proposed UCM 2020 Project include the existing childcare facility on the campus and the residents of homes on Lake Road and Bellevue Road.

6.2.2 Analysis of Project

Development of the proposed UCM 2020 Project would not result in construction emissions that would violate an air quality standard or contribute substantially to an existing or projected air quality violation.

The potential impacts on air quality from construction emissions associated with the original UCM 2020 Project were evaluated in detail in Volume 3 of the 2009 EIS/EIR, along with program and project-level mitigation. The URBEMIS 2007 model was used to estimate the construction emissions reported in the 2009 EIS/EIR. Based on the estimated emissions of criteria pollutants, which were below significance

thresholds, the 2009 EIS/EIR concluded that the impact would be less than significant. Nonetheless, the UCM 2020 Project would implement Mitigation Measure AQ-1 to minimize construction-phase emissions. The findings of Addendum No. 6 were consistent with the findings of the 2009 EIS/EIR with respect to construction emissions of criteria pollutants.

Change in Projected Enrollment Level and On-Campus Housing

The small reduction in the projected 2020 enrollment level and the number of student beds to be constructed on the 2020 Project site would not alter the impacts related to construction emissions as the total amount of building space to be constructed on the site would be the same as previously evaluated in the 2009 EIS/EIR and Addendum No. 6.

Alteration of North and South Basins and Other Proposed Changes

Although the proposed UCM 2020 Project would construct the same amount of total building space on the project site, it would require slightly more construction due to the complete filling of South Basin and partial filling and alteration of the edge of North Basin and the project would also include the use of an ancillary site. However, despite these changes, the estimated construction emissions would be still not be more than the emissions estimated and reported in the 2009 EIS/EIR because the EIS/EIR estimated emissions from grading and constructing the facilities over an area of 355 acres and the proposed 2020 Project would grade only approximately 218 acres for facility construction plus cause limited disturbance within the 29.17-acre ancillary site. As a result, the proposed UCM 2020 Project would not change the nature or magnitude of the potential impacts resulting from construction emissions or the conclusions of the 2009 EIS/EIR as analyzed for the amended UCM 2020 Project.

LRDP Amendments

For the same reasons presented above, the LRDP amendments would not result in increased construction emissions.

In summary, the proposed UCM 2020 Project would not change the nature or increase the magnitude of the potential impacts related to construction emissions or the conclusions of the 2009 EIS/EIR. No further environmental evaluation is required.

The proposed UCM 2020 Project would not result in a substantial increase in the severity of previously identified impacts from operational emissions that would violate an air quality standard or contribute substantially to an existing or projected air quality violation.

URBEMIS2007 was used to estimate the operational emissions expected to result at the build-out of the original UCM 2020 Project. The expansion of the central plant was included in the operational emissions estimate. The analysis concluded that operational emissions from the implementation of the original UCM 2020 Project would exceed the San Joaquin Valley Air Pollution Control District (SJVAPCD) significance thresholds for ROG and NO_x. While the 2009 EIS/EIR Volume 3 Mitigation Measures AQ-2a through AQ-2c would be imposed to reduce the operational air quality impact, the impact would remain significant. Mitigation Measure AQ-2a requires the Campus to work with SJVAPCD to ensure direct and indirect emissions are accounted for and mitigated in the applicable air quality planning efforts. Mitigation Measure AQ-2b requires the Campus to implement specific measures to reduce vehicle emissions. Mitigation Measure AQ-2c requires the Campus to implement specific measures to reduce area source emissions. The UC Merced Campus has monitored vehicle traffic to the campus since the adoption of the 2009 LRDP and has determined that the trip generation rate used in the 2009 EIS/EIR was higher than what has been recorded. Therefore, the URBEMIS2007 model likely over-reported the operational emissions and can be used as a conservative estimate. The findings of Addendum No. 6 were consistent with the findings of the 2009 EIS/EIR with respect to violation of an air quality standard attributable to operational emissions.

The proposed UCM 2020 Project would support a slightly lower student enrollment growth than the amended UCM 2020 Project. Although slightly fewer students would live in on-campus housing, due to the lower enrollment level, the total number of daily vehicle trips generated by the proposed UCM 2020 Project would not exceed the number of vehicle trips previously evaluated. Therefore, the proposed UCM 2020 Project would not change the nature or increase the magnitude of the potential impacts resulting from operational emissions or the conclusions of the 2009 EIS/EIR and Addendum No. 6. As with the original and amended UCM 2020 Project, the proposed UCM 2020 Project would have a significant and unavoidable impact resulting from operational emissions. No additional mitigation is feasible and no further environmental evaluation is required.

The proposed UCM 2020 Project would not result in a substantial increase in the severity of the previously identified impact related to a cumulatively considerable net increase of a criteria pollutant for which the project region is nonattainment under an applicable federal or state ambient air quality standard (including releasing emissions, which exceed quantitative thresholds for ozone precursors).

The analysis in Volume 3 of the 2009 EIS/EIR concluded that implementation of the original UCM 2020 Project would result in a cumulatively considerable net increase of a criteria pollutant for which the project region is nonattainment under SJVAPCD air quality standards. Although Mitigation Measure AQ-2 would be implemented to reduce operational emissions, the impact from cumulative operational emissions would remain significant. Mitigation Measure AQ-2 is described above. The findings of

Addendum No. 6 were consistent with the findings of the 2009 EIS/EIR with respect to cumulatively considerable net increase of a criteria pollutant.

For reasons presented above, the proposed UCM 2020 Project would not increase the operational emissions estimated for the amended UCM 2020 Project. Therefore, as with the amended UCM 2020 Project, the operation of the proposed UCM 2020 Project would continue to have a significant and unavoidable cumulative impact related to criteria pollutants for which the project region is nonattainment. No additional mitigation is feasible and no further environmental evaluation is required.

The proposed UCM 2020 Project would not expose sensitive receptors to substantial pollutant concentrations.

Sensitive receptors, considered to be places where children, the elderly, and other sensitive people are located, are more susceptible to the effects of air pollution than the general population. Nearby toxic air contaminants (TAC) and carbon monoxide pollution can impact sensitive receptors. As determined by the analysis in the 2009 EIS/EIR, development of the campus, including the original UCM 2020 Project, would not result in TAC emissions that would result in a significant human health risk on- or off-site. The original UCM 2020 Project was also evaluated for its potential to cause high levels of carbon monoxide (CO) due to congestion resulting from project-related traffic. The results, which are included in Volume 1 of the 2009 EIS/EIR, indicate that under worst-case conditions, future CO concentrations would not exceed the state 1-hour and 8-hour standards. Based on this analysis, the 2009 EIS/EIR concluded that the original UCM 2020 Project would not cause CO levels that exceed state standards. Addendum No. 6 evaluated the impacts of TAC and CO emissions on nearby sensitive receptors for the amended UCM 2020 Project site and concluded that the land use designation change and reduction in the development area would not result in any changes to the findings of the 2009 EIS/EIR with respect to impacts to sensitive receptors from substantial TAC and CO emissions.

Development of Housing in Mixed Use Areas

As a result of the CMU designation, the proposed UCM 2020 Project has flexibility in the arrangement of facilities within CMU designation. Thus, the proposed project could locate on-campus student housing near potential sources of TAC emissions such as wet laboratory fume hoods, diesel generators, and natural gas boiler exhaust. The February 2016 memorandum by Golder Associates (Golder) (on file with the campus), provides an analysis of likely effects of the placement of future student housing near TAC sources within the proposed UCM 2020 Project site. The recommendations were derived from a qualitative analysis based on dispersion modeling for estimated emissions of TACs for potential future expansion of the University of California's proposed Richmond Bay Campus (RBC) in Richmond,

California. Since the emission source types considered in the RBC assessment are similar to those found at the UC Merced campus (both currently and planned for the future), the RBC human health risk assessment (HHRA) results were utilized for evaluating potential impacts to future residents of planned student housing on the proposed UCM 2020 Project site. Based on the RBC HHRA results and subsequent qualitative analysis for the proposed UCM 2020 Project, detailed in the attached memorandum, human health impacts could result if student housing was placed in close proximity and downwind of a TAC source. To avoid a significant health impact, the proposed UCM 2020 Project includes the following condition of project approval that the Developer must comply with. "The Developer shall evaluate and demonstrate that the residential health risk from the new and existing toxic air contaminant sources does not exceed the San Joaquin Valley Air Pollution Control District air quality standards for toxic air contaminants. If necessary, the standards may be achieved by adjusting the location of the residential buildings or the source of emissions, appropriately locating intakes on residential buildings, appropriately locating the exhaust stacks on the source of emissions, and/or including emissions controls at the source."

Development and placement of student housing in relation to possible TAC emission sources, in accordance with above condition of project approval would ensure less than significant impacts on sensitive receptors from harmful levels of pollutant concentrations.

Other Proposed Changes

The small reduction in the projected 2020 enrollment level and the number of student beds to be constructed on the 2020 Project site and other proposed changes to the UCM 2020 Project, including altering the two basins would not result in exposure of sensitive receptors to excessive TAC concentrations. With respect to the use of the area south of Bellevue as a parking area, although two rural residences are located about 550 feet to the west and southwest of the parking area, the operation of the parking area is not expected to generate substantial TAC emissions as only a small percentage of vehicles that would access the parking area and use the lots would be diesel fueled. With regard to the ancillary site, the same two residences are about 600 feet to the northwest and about 300 feet to the south respectively. The construction-related activities on the ancillary site would also not generate substantial TAC emissions because the ancillary site would be used mainly for storage of construction materials and over-night parking of construction equipment. Some TAC emissions would be generated when the equipment is mobilized at the start of the construction day and returned to the ancillary site at the end of the day. However, these TAC emissions would not adversely affect the nearby receptors because during most of the year, winds in the campus vicinity tend to come from the northwest. Based on the prevailing wind direction, receptors located west or southwest of the ancillary site would tend to be minimally

affected. Furthermore, the proposed UCM 2020 Project would implement Mitigation Measure AQ-1 to minimize construction-phase emissions.

LRDP Amendments

The LRDP amendment would change the land use designations of two parcels within the amended 2020 Project site and an area south of the Bellevue Road extension. These land use changes would not result in TAC emissions that would affect sensitive receptors. Similarly, the removal of the transportation buffer overlay or the changes to LRDP policies would not result in increased TAC emissions.

Therefore, the proposed UCM 2020 Project would not significantly change the nature or increase the magnitude of the potential impacts resulting from substantial pollutant concentration on sensitive receptors or the conclusions in the 2009 EIS/EIR. No further environmental evaluation is required.

6.2.3 Analysis of Cumulative Impacts

In addition to the analysis above, cumulative air quality impacts of campus development under the 2009 LRDP, including the UCM 2020 Project, are addressed in Volume 1 of the 2009 EIS/EIR. The 2009 EIS/EIR concluded that implementation of the 2009 LRDP, including the original UCM 2020 Project, in conjunction with cumulative development, would result in significant emissions from construction activities and from vehicle trips and stationary sources during operation. However, the cumulative impact from CO emissions would be less than significant. Implementation of Mitigation Measures AQ-2a through 2c described above would not reduce the cumulative significant impacts, which would remain significant and unavoidable. Addendum No. 6 evaluated the cumulative air quality impacts for the amended UCM 2020 Project site and concluded that the land use designation change and reduction in development area would not result in any changes to the findings of the 2009 EIS/EIR with respect to cumulative air quality impacts. The proposed UCM 2020 Project is identical to the amended UCM 2020 Project in terms of the scale of development as well as associated population, and as a result would make a similar contribution to cumulative impacts as the amended UCM 2020 Project. Therefore, the cumulative air quality impacts of the proposed UCM 2020 Project are adequately addressed in the 2009 EIS/EIR. The proposed UCM 2020 Project will not result in a substantial increase in the severity of the previously identified cumulative impact. No further environmental evaluation is required.

6.2.4 Changes in Circumstances or New Information that could affect the Earlier Environmental Analysis

There are no changes in circumstances in which the proposed UCM 2020 Project would be undertaken. No new information has become available and no new regulations related to air quality have come into

effect since the certification of the 2009 EIS/EIR that would alter the previous analysis and change its conclusions.

6.2.5 Conclusion

The proposed UCM 2020 Project would not result in construction emissions that would violate an air quality standard or contribute substantially to an existing or projected air quality violation, expose sensitive receptors to substantial pollution, or produce objectionable odors. The proposed UCM 2020 Project would have a significant and unavoidable impact from operational emissions and a significant and unavoidable cumulative impact related to criteria air pollutants. The differences between the amended UCM 2020 Project and the proposed UCM 2020 Project would not change the nature or increase the magnitude of potential impacts to air quality or the conclusions of the 2009 EIS/EIR.

6.3 BIOLOGICAL RESOURCES

6.3.1 Relevant Elements of the Proposed UCM 2020 Project

The proposed UCM 2020 Project would construct new buildings on the campus for a total of 2.5 million square feet of academic space and on-campus housing for 4,807 students. Facilities would be constructed on an area that is currently undeveloped but has previously been graded and is currently disturbed grassland. The 2020 Project site includes two man-made water features, North Basin and South Basin. The two basins are located adjacent to the developed campus and are managed and maintained as storm water basins. According to the Campus Facilities Maintenance Department, North Basin has been stocked with Bass in the past. The riparian areas around the basins are periodically thinned and trimmed back. The area to be added to the 2020 Project site south of Bellevue Road extension and the ancillary site are located on land that has been graded and disturbed in conjunction with agricultural operations. A portion of both the area added and the ancillary site is under annual grassland and a portion is under irrigated pasture (**Figure 1**).

6.3.2 Analysis of Project

The proposed UCM 2020 Project would not have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species.

Potential impacts to special-status plant and wildlife species for the entire 815-acre campus, including the UCM 2020 Project site, were analyzed in Volume 1 of the 2009 EIS/EIR. The analysis in the 2009 EIS/EIR concluded that development of the campus would result in both direct and indirect impacts on special-status plants. However with the implementation of the *Conservation Strategy* which is a part of campus

development and Mitigation Measure BIO-2, the impacts would be reduced to less than significant levels. Similarly, the analysis in the 2009 EIS/EIR concluded that campus development, including the original UCM 2020 Project, would not result in a substantial adverse impact on special-status invertebrate species, special-status amphibians (California tiger salamander [CTS] and western spadefoot), western pond turtle, Swainson's hawk, or special-status avian species from the loss of habitat because the environmental commitments detailed in the *Conservation Strategy*, along with the acquisition of Conservation Lands would reduce significant impacts to special-status wildlife to a less than significant level. Addendum No. 6 evaluated the special status plant and wildlife species present on the more compact UCM 2020 Project site and concluded that the land use designation change and reduced development area of the previously approved project would not result in any changes to the findings of the 2009 EIS/EIR with respect to impacts to special status plant and wildlife species.

Change in Projected Enrollment Level and On-Campus Housing

The small reduction in the projected 2020 enrollment level and the number of student beds to be constructed on the 2020 Project site would not alter the previously evaluated impacts on special-status species as the total amount of building space to be constructed on the site would be the same as previously evaluated in the 2009 EIS/EIR and Addendum No. 6 and the project site is the same as previously evaluated for the development of the 2020 Project.

Alteration of North and South Basins

The proposed UCM 2020 Project would entail the complete filling of South Basin and partial filling and alteration of the edge of North Basin, which was not analyzed in the 2009 EIS/EIR or Addendum No. 6. Both basins and the area surrounding them were surveyed by Salix Consulting Inc. in November 2015 to determine whether special-status plant or wildlife species or their habitats are present and could be affected by the proposed filling of these water bodies. The memorandum dated February 29, 2016, details the November 2015 site reconnaissance survey of North Basin and South Basin performed by Hunter Gallant and Jeff Glazner of Salix and a follow-up site visit by Jeff Glazner on February 4, 2016 (**Appendix A**). The site reconnaissance survey recorded about 2.6 acres of open water habitat, 1.1 acres of marsh habitat, and 0.7 acre of riparian fringe ringing North Basin. Habitats present in South Basin consist of about 1.2 acres of open water habitat and 0.2 acres of riparian fringe.

There are no special-status plant species within North Basin or South Basin. All of the special-status plants on the campus are associated with vernal pools and there are no vernal pools in the area of the two basins. Furthermore, recent botanical surveys conducted on the 2020 Project site in 2016 did not find any

listed plant species on the site. Therefore, no impact to special-status plants would occur from the filling or alterations to the basins.

With respect to special-status wildlife species, due to the fluctuating water levels and dry periods, South Basin would not support vernal pool invertebrates, western spadefoot, or CTS breeding. Since North Basin is supplied with water year round and contains bullfrogs, it also does not provide suitable habitat for CTS breeding, western spadefoot, or for vernal pool invertebrates.

However, the marsh area within North Basin does provide suitable habitat for the western pond turtle, a state designated species of special concern. Although the western pond turtle has not been reported from previous surveys or observed during the November 2015 site reconnaissance, there is still potential for their occurrence and partial filling of North Basin and removal of some edge habitat would represent loss of potential habitat for this species. The 2009 EIS/EIR analyzed the impacts on the western pond turtle from the loss or disturbance of ponds and seasonal freshwater marsh communities, which included some of the waters associated with North Basin, and concluded that impact would be less than significant because the Campus would preserve substantially more acres of suitable habitat for this species on the conservation lands. In addition, as a condition of project approval, a qualified biologist will conduct a pre-construction survey of the area to be disturbed or filling and in the event that western pond turtles are observed in the area, the biologist will relocate them to appropriate habitat (such as Lake Yosemite). Therefore, the partial filling of North Basin would not result in a significant impact on western pond turtles.

With respect to Swainson's hawk, the trees that ring North and South Basins are small and are periodically trimmed back. Therefore, they do not provide appropriate nesting habitat for Swainson's hawks.

Development of Housing in Mixed Use Areas

The proposed 2020 Project could result in the development of student housing in proximity of sources of TACs such as wet laboratories, generators, and a second central plant. This development would not be different from the development of other buildings on the 2020 Project site, and would not result in any increased impacts on special-status plant or wildlife species.

Boundary Change and South of Bellevue Parking

The 27.65-acre area to be added to the proposed 2020 Project site south of the Bellevue Road extension was previously included in the area analyzed in the 2009 EIS/EIR for direct and indirect impacts to special-status plant and wildlife species for the 355-acre 2020 Project and for the entire 815-acre campus.

As noted above, the area has been disturbed and graded in conjunction with agricultural activities and provides limited habitat at this time. The area does contain burrows that could harbor San Joaquin kit fox, CTS, and/or burrowing owls. However, potential impacts to these species were anticipated in the 2009 EIS/EIR and mitigation measures were included that require pre-construction surveys of burrows and compliance with the Incidental Take Permits issued to the campus by the California Department of Fish and Game (CDFW) and US Fish and Wildlife Service (USFWS). The development of this area would be subject to the same pre-construction surveys and mitigation measures as the remainder of the 2020 Project site. Therefore, the boundary change and the development of parking and a road entrance in this area would not result in any new or more severe impacts to special-status species than previously analyzed in the 2009 EIS/EIR.

Use of Ancillary Site

The ancillary site is located within the previously analyzed development footprint of the 815-acre campus, and the entire ancillary site has been previously graded in conjunction with the agricultural use of the land. Therefore, the area does not contain habitat for listed plant species or vernal pool invertebrates. The ancillary site contains burrows that could harbor San Joaquin kit fox, CTS, and/or burrowing owls. The use of this area would be subject to the same pre-construction surveys and mitigation measures as the remainder of the 2020 Project site. Therefore, the use of the ancillary site would not result in any new or more severe impacts to special-status species than previously analyzed in the 2009 EIS/EIR.

LRDP Amendments

The proposed LRDP amendment would designate land that is currently designated open space and athletics/recreation to CMU and allow for the use of the land for construction of campus facilities. As the land designated open space is occupied by North Basin, the impacts on special-status species from re-designating this land are the same as the impacts described above for the partial filling and alteration of North Basin. The re-designation of athletic/recreation land to CMU would not result in any new or more severe biological resource impacts as this area is already disturbed and developed with recreational facilities.

The proposed LRDP amendment would also re-designate land to be added south of the Bellevue Road extension from multiple land use designations, including Athletics/Recreation, Passive Open Space, Academic/Laboratory, and High Density Residential, to CMU. Impacts to special-status species from development of a parking area allowed by CMU land use designation are the same as the impacts described above for the proposed UCM 2020 Project boundary change and added parking area. For

reasons presented above, the re-designation would not result in any new or more severe impacts to special-status species.

The removal of the transportation buffer overlay along Lake Road adjacent to the western boundary of the proposed 2020 Project site would not result in impacts to special-status species as this area has been previously graded in conjunction with the development of Phase 1 campus facilities and no suitable habitat is present in the area.

The changes to LRDP policies would not change the development footprint of the campus and therefore would not result in any new or increased impacts on special-status species than previously evaluated in the 2009 EIS/EIR.

In summary, the proposed UCM 2020 Project would not change the nature or increase the magnitude of the potential impacts to special-status plant or wildlife species or the conclusions of the 2009 EIS/EIR. No further environmental evaluation is required.

The proposed UCM 2020 Project would not substantially affect 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 U.S. Fish and Wildlife Service.

The analysis in the 2009 EIS/EIR concluded that there are no riparian areas or other sensitive natural communities present on the campus site and therefore no impacts would occur. Campus development, including the original UCM 2020 Project, would not result in a substantial adverse impact on vernal pool species critical habitat. As discussed in Section 4.4 of Volume 1 of the 2009 EIS/EIR, the designated critical habitat boundary for vernal pool species is located adjacent to the campus site but does not overlap with the campus boundary. Therefore, no critical habitat for vernal pool species would be directly impacted. Activities associated with campus development could indirectly affect critical habitat. However, the Campus would implement the environmental commitments in the *Conservation Strategy and Management Plan for Conservation Lands* which would avoid, minimize, and compensate for indirect impacts on critical habitat and ensure that critical habitat would not be diminished, thereby reducing the potential impact of the original UCM 2020 Project to less than significant. Addendum No. 6 concluded that the land use designation change and reduction in development area of the UCM 2020 Project would not result in any changes to the findings of the 2009 EIS/EIR with respect to impacts to riparian areas and natural communities.

Change in Projected Enrollment Level and On-Campus Housing

The small reduction in the projected 2020 enrollment level and the number of student beds to be constructed on the 2020 Project site would not alter the previously impacts on sensitive natural communities as the total amount of building space to be constructed on the site would be the same as previously evaluated in the 2009 EIS/EIR and Addendum No. 6 and the project site is the same as previously evaluated for the development of the 2020 Project.

Alteration of North and South Basins

A small amount of riparian habitat (up to 0.9 acre) is present along the edges of North and South Basins. The riparian habitat around North Basin is represented by an interrupted band of willow, primarily *Salix gooddingii*. The willows are more like landscape trees than riparian habitat as the band does not contain the typical understory shrub layer and dense ground cover. This riparian habitat would be removed in conjunction with the alteration of North Basin and South Basin. The acreage that would be removed is small, and some of it is not high quality riparian habitat. Furthermore, the removed habitat would be replaced with similar riparian fringe that would be developed along the arroyos and storm water features that would be built as part of the proposed UCM 2020 Project. Therefore this change to the 2020 Project would not result in any increased impacts on riparian habitat or any natural community.

Development of Housing in Mixed Use Areas

The proposed 2020 Project could result in the development of student housing in proximity of sources of TACs such as wet laboratories, generators, and a second central plant within the 2020 Project site. This development would not be different from the development of other buildings on the 2020 Project site, and would not result in any increased impacts on riparian habitat or any natural community.

Boundary Change and South of Bellevue Parking

The 27.65-acre area to be added south of the Bellevue Road extension was previously included in the area analyzed in the 2009 EIS/EIR for sensitive natural communities present on the 355-acre 2020 Project site and the larger 815-acre campus site. Therefore, the boundary change and the use of the area for the development of parking would not result in any new or more severe impacts to sensitive natural communities including riparian areas than previously analyzed in the 2009 EIS/EIR.

Use of Ancillary Site

The ancillary site is located within the previously analyzed development footprint of the 355-acre 2020 Project site and the 815-acre campus, and the entire ancillary site has been previously graded in

conjunction with the agricultural use of the land. Therefore, the area does contain riparian habitat or any other sensitive community.

LRDP Amendments

The proposed LRDP amendment would designate land that is currently designated open space and athletics/recreation to CMU and allow for the use of the land for construction of campus facilities. As the land designated open space is occupied by North Basin, the impacts on riparian habitat from re-designating this land are the same as the impacts described above for the partial filling and alteration of North Basin. The re-designation of athletic/recreation land to CMU would not result in any new or more severe biological resource impacts as this area does not contain any riparian habitat or natural community.

The proposed LRDP amendment would also re-designate land to be added south of the Bellevue Road extension from multiple land use designations to CMU. Impacts to sensitive natural communities, including riparian habitat, from development of a parking area allowed by CMU land use designation are the same as the impacts described above for the proposed UCM 2020 Project boundary change and added parking area. The re-designation would not result in any new or more severe impacts to riparian habitats as this area was surveyed and evaluated for development in the 2009 EIS/EIR.

The removal of the transportation buffer overlay along Lake Road adjacent to the western boundary of the proposed UCM 2020 Project site would not result in any new or more severe impacts to sensitive natural communities as the area was previously disturbed during the development of Phase 1 campus and does not contain any sensitive natural community.

The changes to LRDP policies would not change the development footprint of the campus and therefore would not result in any new or increased impacts on sensitive natural communities than previously evaluated in the 2009 EIS/EIR.

In summary, there would be no change the nature or increase the magnitude of the potential impacts to sensitive natural communities or the conclusions in the 2009 EIS/EIR. No further environmental evaluation is required.

The proposed UCM 2020 Project would not 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.

The impact to the waters of the U.S. from campus development, including the UCM 2020 Project, was analyzed in the 2009 EIS/EIR Volume 1, and compensation for losses of wetland acreage and functions was developed by the Campus. In 2011, the Campus implemented Phase 6 project which involved grading and filling of all vernal pools on the 815-acre campus and University Community North, including the site of the proposed UCM 2020 Project. There are still canal and irrigation wetlands remaining on the campus site; however, the analysis in the 2009 EIS/EIR accounted for the filling of canal and irrigation wetlands and a Compensatory Wetland Mitigation and Monitoring Plan was prepared by the Campus and approved by the regulatory agencies in 2008, pursuant to the Section 404 permit, which would compensate for the loss of these wetlands. The findings of Addendum No. 6 were consistent with the findings of the 2009 EIS/EIR with respect to impacts to federally protected wetlands.

Change in Projected Enrollment Level and On-Campus Housing

The small reduction in the projected 2020 enrollment level and the number of student beds to be constructed on the 2020 Project site would not alter the previously impacts on wetlands as the total amount of building space to be constructed on the site would be the same as previously evaluated in the 2009 EIS/EIR and Addendum No. 6 and the project site is the same as previously evaluated for the development of the 2020 Project.

Alteration of North and South Basins

The proposed UCM 2020 Project would completely fill South Basin and partially fill and alter the edge of North Basin. Although the alteration of these basins was not anticipated in the 2009 EIS/EIR, their alteration would not exacerbate the previously reported impact on jurisdictional wetlands, because in 2008 the U.S. Corps of Engineers determined that these features are non-jurisdictional water bodies.

Development of Housing in Mixed Use Areas

The proposed 2020 Project could result in the development of student housing in proximity of sources of TACs such as wet laboratories, generators, and a second central plant within the 2020 Project site. This development would not be different from the development of other buildings on the 2020 Project site, and would not result in any increased impacts on wetlands.

Boundary Change and South of Bellevue Parking

The proposed 28.66 acres to be removed east of Fairfield Canal and 27.65 acres to be added south of the Bellevue Road extension were both previously included in the 815-acre campus analyzed in the 2009 EIS/EIR. The area to be added contains some remnant vernal pools and seasonal wetlands. However, the

impact from filling of these features was analyzed in the 2009 EIS/EIR and is authorized by the permits issued to the Campus by the USACE. Therefore, the boundary change and proposed parking and entrance would not result in any new or more severe impacts to wetlands than as analyzed in the 2009 EIS/EIR.

Use of Ancillary Site

The ancillary site is located within the previously analyzed development footprint of the 815-acre campus, and the entire ancillary site has been previously graded in conjunction with the agricultural use of the land. There are some seasonal wetlands present on this site. However, the impact from filling of these features was analyzed in the 2009 EIS/EIR and is authorized by the permits issued to the Campus by the USACE. Therefore, the boundary change and proposed parking and entrance would not result in any new or more severe impacts to wetlands than as analyzed in the 2009 EIS/EIR.

LRDP Amendments

The proposed LRDP amendment would re-designate land that is currently designated open space and athletics/recreation to CMU and allow for the use of the land for construction of campus facilities. As the land designated open space is occupied by North Basin, the impacts on jurisdictional wetlands from re-designating this land are the same as the impacts described above for the partial filling and alteration of North Basin. The re-designation of athletic/recreation land to CMU would not result in any new or more severe impacts on wetlands as this area is already developed and contains no wetlands.

The proposed LRDP amendment would also re-designate land south of the Bellevue Road extension to CMU. Impacts to wetlands from development of a parking area allowed by CMU land use designation are the same as the impacts described above for the proposed UCM 2020 Project boundary change and added parking area. The re-designation would not result in any new or more severe impacts to wetlands as this area was surveyed and evaluated for development in the 2009 EIS/EIR.

The removal of the transportation buffer overlay along Lake Road adjacent to the western boundary of the 2020 Project site would not result in any impacts to wetlands as wetlands are not present in the transportation buffer.

The changes to LRDP policies would not change the development footprint of the campus and therefore would not result in any new or increased impacts on wetlands than previously evaluated in the 2009 EIS/EIR.

In summary, the proposed UCM 2020 Project would not change the nature or increase the magnitude of the potential impacts to the waters of the U.S. or the conclusions of the 2009 EIS/EIR. No further environmental evaluation is required.

The proposed UCM 2020 Project would not result in a new significant impact with regards to the movement of any native resident or migratory fish or wildlife species or migratory wildlife corridors or affect nesting birds.

Potential impacts to nesting birds and wildlife movement for the entire 815-acre campus, including the 2020 Project site, were analyzed in the 2009 EIS/EIR. As described in Section 4.4 of Volume 1, development of the original UCM 2020 Project would result in the removal of occupied burrowing owl nesting habitat and suitable nesting habitat for other special-status and non-special-status migratory birds, including raptors through the removal of annual grassland, irrigated pasture, and seasonal freshwater marsh communities, and the removal of individual trees and shrubs. Project construction noise would result in the potential disturbance to active special-status and non-special-status migratory bird nests adjacent to the construction sites. The impact to nesting birds would be potentially significant but would be reduced to a less than significant level through the implementation of Mitigation Measures BIO-9a and -9b. Mitigation Measures BIO-9a and -9b require the Campus to limit construction to the non-breeding season or conduct pre-construction nest surveys and establish appropriate buffers if active nests are found. Addendum No. 6 evaluated the potential for nesting birds on the more compact UCM 2020 Project site and concluded that the land use designation change and reduction in development area of the 2020 Project would not result in any changes to the findings of the 2009 EIS/EIR with respect to impacts to nesting birds.

Change in Projected Enrollment Level and On-Campus Housing

The small reduction in the projected 2020 enrollment level and the number of student beds to be constructed on the 2020 Project site would not alter the previously evaluated impacts on nesting species as the total amount of building space to be constructed on the site would be the same as previously evaluated in the 2009 EIS/EIR and Addendum No. 6 and the project site is the same as previously evaluated for the development of the 2020 Project.

Alteration of North and South Basins

The proposed UCM 2020 Project would entail the complete filling of South Basin and partial filling and alteration of the edge of North Basin, which includes potential habitat for nesting birds. The February 2016 memorandum describes dense thickets of the marsh that were observed around North Basin, that could provide suitable nesting habitat for tri-color blackbird, which is a current state designated species

of special concern and is also listed as a candidate species under California Endangered Species Act. Furthermore, the riparian habitat around the basins provides potential nesting habitat for bird species that are known to occur in the local riparian communities, including the white-tailed kite (a state fully protected species), black phoebe, American goldfinch, white-crowned sparrow, and American kestrel. Although, nesting by these species was not observed during the reconnaissance surveys, there is potential for nesting to occur. Therefore, marsh and riparian fringe around North Basin and the riparian fringe around the South Basin provide nesting habitat for many bird species, and should clearing and filling of the basins be planned at a time that nesting birds could be present in these habitats, nesting birds could be affected. However, the 2009 EIS/EIR includes Mitigation Measure BIO-9 that applies to all development on the campus (including the proposed UCM 2020 Project) and requires that in the event that construction activities are to commence during the nesting season, a pre-construction survey must be conducted to ensure no nesting birds are affected. With compliance with this mitigation measure, there would be no increase in impacts to nesting birds.

Development of Housing in Mixed Use Areas

The proposed UCM 2020 Project could result in the development of student housing in proximity of sources of TACs such as wet laboratories, generators, and a second central plant on the 2020 Project site. This development would not be different from the development of other buildings on the 2020 Project site, and would not result in any increased impacts on nesting birds.

Boundary Change and South of Bellevue Parking

The proposed 28.66 acres to be removed east of Fairfield Canal and 27.65 acres to be added south of the Bellevue Road extension were both previously included in the area analyzed in the 2009 EIS/EIR for development. Additionally, the area south of Bellevue which is proposed for the development of parking has been previously graded in conjunction with the agricultural use of the land and no trees are present on the site or near it except along Lake Road that could be used by birds for nesting. In addition, the area contains burrows that could harbor nesting burrowing owls. However, potential impacts to burrowing owls and nesting birds were anticipated in the 2009 EIS/EIR and Mitigation Measures BIO-9a and BIO-9b were included that requires pre-construction surveys for nesting birds and burrowing owls. The proposed UCM 2020 Project would implement the mitigation measures and would not result in an increase in impacts on nesting birds.

Use of Ancillary Site

The entire ancillary site has been previously graded in conjunction with the agricultural use of the land and no trees are present on the site or near it except along Lake Road that could be used by birds for

nesting. In addition, the ancillary site contains burrows that could harbor nesting burrowing owls. However, potential impacts to burrowing owls and nesting birds were anticipated in the 2009 EIS/EIR and Mitigation Measures BIO-9a and BIO-9b were included that requires pre-construction surveys for nesting birds and burrowing owls. The proposed UCM 2020 Project would implement the mitigation measures and would not result in an increase in impacts on nesting birds.

LRDP Amendments

The proposed LRDP amendment would designate land that is currently designated open space and athletics/recreation to CMU and allow for the use of the land for construction of campus facilities. As the land designated open space is occupied by North Basin, the impacts on nesting birds from re-designating this land are the same as the impacts described above for the filling of North Basin. The re-designation of athletic/recreation land to CMU would not result in any new or more severe biological resource impacts as this area does not contain any nesting habitat.

The proposed LRDP amendment would also re-designate land to be added south of the Bellevue Road extension to CMU. Impacts to nesting birds from development of a parking area allowed by CMU land use designation are the same as the impacts described above for the proposed UCM 2020 Project boundary change and added parking area. The re-designation would not result in any new or more severe impacts to nesting birds as this area was analyzed in the 2009 EIS/EIR and would implement the mitigation measures listed above.

The removal of the transportation buffer overlay along Lake Road adjacent to the western boundary of the 2020 Project site would not result in any impacts on nesting birds as the area does not contain nesting habitat.

The changes to LRDP policies would not change the development footprint of the campus and therefore would not result in any new or increased impacts on nesting birds than previously evaluated in the 2009 EIS/EIR.

In summary, the proposed UCM 2020 Project would not significantly change the nature or increase the magnitude of the potential impacts to nesting birds or the conclusions of the 2009 EIS/EIR. No further environmental evaluation is required.

The proposed UCM 2020 Project would not conflict with any applicable policies protecting biological resources.

As with the previously amended UCM 2020 Project, the proposed UCM 2020 Project would not result in an impact related to conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance. The proposed UCM 2020 Project would not change the nature or increase the magnitude of the potential impacts to biological resources or the conclusions of the 2009 EIS/EIR. No further environmental evaluation is required.

The proposed UCM 2020 Project would not conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan.

There are no Habitat Conservation Plans or Natural Community Conservation Plans that apply to the campus site. As analyzed in the 2009 EIS/EIR, the Campus would implement Mitigation Measure BIO-10 to ensure consistency with the Upland Species Recovery Plan for San Joaquin kit fox. Therefore, campus development would not conflict with any habitat conservation plans. The findings of Addendum No. 6 were consistent with the findings of the 2009 EIS/EIR with respect to conflicts with Habitat Conservation Plans or Natural Community Conservation Plans. The proposed UCM 2020 Project would not change the nature or increase the magnitude of the potential impacts related to the provisions of habitat conservation plans or the conclusions of the 2009 EIS/EIR. No further environmental evaluation is required.

6.3.3 Analysis of Cumulative Impacts

Cumulative biological impacts of campus development under the 2009 LRDP, including the UCM 2020 Project, are addressed in the 2009 EIS/EIR. The analysis concluded that with the implementation of the mitigation program put forth by the Campus, the cumulative impacts of campus development, including the UCM 2020 Project, on biological resources would not be cumulatively considerable. Addendum No. 6 evaluated the cumulative biological resource impacts for the amended UCM 2020 Project site and concluded that the amended project would not result in any changes to the findings of the 2009 EIS/EIR with respect to cumulative impacts. As noted above, sensitive biological resources are generally not present on the site of the proposed UCM 2020 Project, and to the extent that there could be any direct or indirect impacts from the development on the project site, they would be mitigated by the mitigation measures in the 2009 EIS/EIR and compliance with permits. As with the original UCM 2020 Project, the proposed UCM 2020 Project's contribution to cumulative impacts would not be considerable. No further environmental evaluation is required.

6.3.4 Changes in Circumstances or New Information that could affect the Earlier Environmental Analysis

There are no changes in circumstances in which the proposed project would be undertaken. No new information has become available and no new regulations related to biological resources have come into effect since the certification of the 2009 EIS/EIR that would alter the previous analysis and change its conclusions relative to the proposed UCM 2020 Project.

6.3.5 Conclusion

The proposed UCM 2020 Project would not have a substantial adverse effect on biological resources. The differences between the amended UCM 2020 Project and the proposed UCM 2020 Project would not change the nature or increase the magnitude of potential impacts to biological resources or the conclusions in the 2009 EIS/EIR.

6.4 CULTURAL RESOURCES

6.4.1 Relevant Elements of the Proposed UCM 2020 Project

The UC Merced Campus is located in an area with a long history of human occupation, first by the aboriginal inhabitants of the area and subsequently by settlers of European origin. The portions of the project site have been used for agricultural purposes, primarily grazing, and no potential historical archaeological remains or features associated with the Spanish or Mexican periods were noted to exist within or adjacent to the project site. The majority of the northern and northwestern portion of the campus site was used as a golf course in recent years. The Le Grand Canal, which borders the project site to the north, was built by the Merced Irrigation District between 1922 and 1927. The Fairfield Canal, which traverses the project site, was constructed by the Crocker-Huffman Land & Water Company between 1903 and 1909. There are no known paleontological resources within the project site or the vicinity and no paleontological deposits were identified during a 2001 survey.

6.4.2 Analysis of Project

The proposed UCM 2020 Project would not result in a new significant impact on cultural resources and paleontological resources.

Potential impacts to cultural resources within the entire 815-acre campus, including the original UCM 2020 Project site as well as the proposed UCM 2020 Project site, were analyzed in the 2009 EIS/EIR. The Le Grand Canal and Fairfield Canal were evaluated and recommended as not eligible for listing on the National Register of Historic Places (NRHP) or California Register of Historic Resources (CRHR). As

analyzed in the 2009 EIS/EIR, ground-disturbing construction activities have the potential to inadvertently unearth and damage buried cultural resources, human remains, or paleontological resources that were not identified by the 2001 survey of the campus. However, Mitigation Measure CUL-2 would reduce the impact to cultural resources to less than significant, Mitigation Measure CUL-3 would reduce the impact to human remains to less than significant, and Mitigation Measures CUL-4a and CUL-4b would reduce the impact to paleontological resources to less than significant. Mitigation Measure CUL-2 requires that if a buried cultural resource is inadvertently discovered during ground disturbing activities that work will stop and a qualified archaeologist will assess the significance. Mitigation Measure CUL-3 requires that if buried Native American remains are inadvertently discovered during ground disturbing activities that work will stop and the Campus will comply with state laws relating to Native American burials. Mitigation Measures CUL-4a and CUL-4b requires that if paleontological resources are inadvertently discovered during ground disturbing activities that work will stop and a paleontologist will assess the significance. In addition, a qualified paleontologist will be intermittently present during construction near certain formations. Therefore, the impact to cultural and paleontological resources from campus development would be less than significant. Addendum No. 6 did not analyze any area that was not previously covered in the 2009 EIS/EIR and thus did not result in any changes to the findings of the 2009 EIS/EIR with respect to impacts to cultural resources.

Change in Projected Enrollment Level and On-Campus Housing

The small reduction in the projected 2020 enrollment level and the number of student beds to be constructed on the 2020 Project site would not alter the previously evaluated impacts on cultural resources as the total amount of building space to be constructed on the site would be the same as previously evaluated in the 2009 EIS/EIR and Addendum No. 6 and the project site is the same as previously evaluated for the development of the 2020 Project.

Alteration of North and South Basins

The proposed UCM 2020 Project would disturb two man-made water features that likely have low potential for any culturally significant resources. However, similar to the amended UCM 2020 Project, Mitigation Measures CUL-2, CUL-3, and CUL-4a and CUL-4b would be implemented to ensure less than significant impacts if any unknown cultural resources, paleontological resources, or human remains are discovered during ground disturbing activities.

Development of Housing in Mixed Use Areas

The proposed UCM 2020 Project could result in the development of student housing in proximity of sources of TACs such as wet laboratories, generators, and potentially a second central plant on the 2020

Project site. This development would not be different from the development of other buildings on the 2020 Project site, and would not result in any increased impacts on cultural resources.

Boundary Change and South of Bellevue Parking

Although the boundaries of the UCM 2020 Project site would be changed, all areas proposed for inclusion in the UCM 2020 site boundary has been previously analyzed for cultural resources in the 2009 EIS/EIR. Furthermore, the entire proposed parking area has been previously graded in conjunction with the agricultural use of the land and the potential to encounter resources is low. Potential impacts to cultural resources from ground disturbing activities in the parking area were anticipated in the 2009 EIS/EIR and mitigation measures listed above were included to ensure proper handling of unknown cultural resources, paleontological resources, and human remains discovered during construction activities. There would not be an increase in impacts on cultural resources.

Use of Ancillary Site

The entire ancillary site has been previously graded in conjunction with the agricultural use of the land and the potential to encounter resources is low. Furthermore, the site is within the area analyzed in the 2009 EIS/EIR and mitigation measures listed above would apply to proper handling of unknown cultural resources, paleontological resources, and human remains discovered during construction activities. There would not be an increase in impacts on cultural resources.

LRDP Amendments

The proposed LRDP amendment would designate land that is currently designated open space and athletics/recreation to CMU and allow for the use of the land for construction of campus facilities. The land designated open space is occupied by a man-made water body, North Basin. Thus, North Basin would have low potential for culturally significant resources and impacts from partial filling and alteration of the lake would be less than significant. The re-designation of athletic/recreation land to CMU would not result in any new or more severe cultural resource impacts as this area is already developed with athletic facilities and was evaluated for development in the 2009 EIS/EIR.

The proposed LRDP amendment would also re-designate land south of the Bellevue Road extension to CMU. Impacts to cultural resources from the CMU land use designation would be the same as the impacts described above for the proposed UCM 2020 Project boundary change and added parking area. The re-designation would not result in any new or more severe impacts to cultural resources as this area was surveyed and evaluated for development in the 2009 EIS/EIR.

The removal of the transportation buffer overlay along Lake Road adjacent to the western boundary of the 2020 Project site would not result in any new cultural resource impacts.

The changes to LRDP policies would not change the development footprint of the campus and therefore would not result in any new or increased impacts on cultural resources than previously evaluated in the 2009 EIS/EIR.

In summary, the proposed UCM 2020 Project would not significantly change the nature or increase the magnitude of the potential impacts to cultural resources or the conclusions of the 2009 EIS/EIR. No further environmental evaluation is required.

6.4.3 Analysis of Cumulative Impacts

Cumulative cultural resources impacts of campus development under the 2009 LRDP, including the UCM 2020 Project, are addressed in the 2009 EIS/EIR. The 2009 EIS/EIR concluded that implementation of the 2009 LRDP, including the UCM 2020 Project, in conjunction with cumulative development, could potentially disturb previously unknown cultural and paleontological resources. Addendum No. 6 evaluated the cumulative cultural resource impacts for the amended UCM 2020 Project site and concluded that the amended project would not result in any changes to the findings of the 2009 EIS/EIR with respect to cumulative impacts. As with the amended UCM 2020 Project, the cumulative impacts of the proposed UCM 2020 Project to previously unknown cultural and paleontological resources would be reduced to less than significant with the mitigation measures described above. The proposed UCM 2020 Project's cumulative cultural resources impacts are adequately addressed in the 2009 EIS/EIR. No further environmental evaluation is required.

6.4.4 Changes in Circumstances or New Information that could affect the Earlier Environmental Analysis

There are no changes in circumstances in which the proposed project would be undertaken. No new information has become available and no new regulations related to cultural and paleontological resources have come into effect since the certification of the 2009 EIS/EIR that would alter the previous analysis and change its conclusions relative to the proposed UCM 2020 Project.

6.4.5 Conclusion

The proposed UCM 2020 Project would not have a substantial adverse effect on cultural resources. The differences between the amended UCM 2020 Project and the proposed UCM 2020 Project would not

change the nature or magnitude of potential impacts to cultural and paleontological resources or the conclusions in the 2009 EIS/EIR.

6.5 HYDROLOGY AND WATER QUALITY

6.5.1 *Relevant Elements of the Proposed UCM 2020 Project*

Lake Yosemite is located to the northwest of the project site and is fed by the Main Canal. The two canals within and adjacent to the project site, the Fairfield Canal and the Le Grand Canal, receive discharges from Lake Yosemite. The canals, operated and owned by MID, are constructed with earthen embankments. No area within the project site is included in the 100-year floodplain of any water body as defined by the Federal Emergency Management Agency (FEMA).

The project site is located within the Middle San Joaquin-Lower Chowchilla Watershed, within the northern San Joaquin subbasin. This watershed is defined by the U.S. Environmental Protection Agency (EPA) as a priority Category I watershed, indicating the watershed needs restoration.

The City of Merced supplies the Campus with water from an on-site well. There is a second well on the campus associated with the former golf course.

6.5.2 *Analysis of Project*

Construction-related earth disturbing activities under the proposed UCM 2020 Project would not result in a new significant impact related to soil erosion and sedimentation, and water quality would not be adversely affected.

Potential impacts on water quality from construction activities associated with campus development, including the UCM 2020 Project, were analyzed in the 2009 EIS/EIR. The analysis concluded that the grading and excavation activities for the original UCM 2020 Project would have the potential to cause erosion and sedimentation that could degrade water quality. However, the project would comply with the requirements of the Clean Water Act and would obtain a National Pollutant Discharge Elimination System (NPDES) General Construction Permit as well as implement erosion and sediment control Best Management Practices (BMPs). Any potential impact to water quality from soil erosion and sedimentation would be reduced to less than significant. The findings of Addendum No. 6 were consistent with the findings of the 2009 EIS/EIR with respect to impacts from construction-phase soil erosion and sedimentation.

Change in Projected Enrollment Level and On-Campus Housing

The small reduction in the projected 2020 enrollment level and the number of student beds to be constructed on the 2020 Project site would not alter the previously evaluated impacts related to soil erosion and water quality during construction as the total amount of building space to be constructed on the site would be the same as previously evaluated in the 2009 EIS/EIR and Addendum No. 6 and the project site is the same as previously evaluated for the development of the 2020 Project.

Alteration of North and South Basins

The proposed UCM 2020 Project would involve the construction of the same types of facilities as the amended UCM 2020 Project. However, with the alteration of North and South Basins, the proposed project could fill and construct on up to 2.5 acres more of non-jurisdictional wetlands than was previously analyzed for the amended UCM 2020 Project. This additional area of disturbance is minimal and similar to the amended UCM 2020 Project, the proposed project would comply with the requirements of the Clean Water Act, obtain a National Pollutant Discharge Elimination System (NPDES) General Construction Permit, and implement erosion and sediment control BMPs. Therefore, the potential for water quality effects would be less than significant, similar to what was analyzed in the 2009 EIS/EIR.

Development of Housing in Mixed Use Areas

There would be no additional construction-related earth disturbing activities associated with locating student housing in proximity to potential TAC sources in science laboratories, as these such facilities were previously planned for the amended UCM 2020 Project.

Boundary Change and South of Bellevue Parking

The proposed 28.66 acres to be removed east of Fairfield Canal and 27.65 acres to be added south of the Bellevue Road extension were both previously included in the area analyzed in the 2009 EIS/EIR. Thus, potential impacts from construction and development in the area where parking would be provided was anticipated in the 2009 EIS/EIR. There would not be an increase in impacts from soil erosion and sedimentation, and water quality.

Use of Ancillary Site

The entire ancillary site has been previously graded in conjunction with the agricultural use of the land. Furthermore, the site is within the area analyzed in the 2009 EIS/EIR and mitigation measures listed above would apply to construction related staging activities in this area. There would not be an increase in impacts on water quality.

LRDP Amendments

The proposed LRDP amendment would designate land that is currently designated open space and athletics/recreation to CMU and allow for the use of the land for construction of campus facilities. As the land designated open space is occupied by North Basin, the impacts of partially filling and altering the edge of the lake related to soil erosion and sedimentation, and water quality, allowed by re-designating this land, are the same as the impacts described above for the altering of North Basin. The re-designation of athletic/recreation land to CMU would not result in any new or more severe impacts to water quality as this area is already graded and developed with facilities and was evaluated for development in the 2009 EIS/EIR.

The proposed LRDP amendment would also re-designate land to be added south of the Bellevue Road extension to CMU. Soil erosion, sedimentation, and water quality impacts from development of a parking area allowed by CMU land use designation are the same as the impacts described above for the proposed UCM 2020 Project boundary change and added parking area. The re-designation would not result in any new or more severe impacts related to soil erosion, sedimentation, or water quality, than previously analyzed in the 2009 EIS/EIR.

The removal of the transportation buffer overlay along Lake Road adjacent to the western boundary of the 2020 Project site would not result in any new or more severe impacts related to soil erosion, sedimentation, and water quality than previously analyzed in the 2009 EIS/EIR.

The changes to LRDP policies would not change the development footprint of the campus and therefore would not result in any new or increased impacts related to soil erosion, sedimentation and water quality than previously evaluated in the 2009 EIS/EIR.

In summary, the proposed UCM 2020 Project would not substantially change the nature or increase the magnitude of the potential impacts due to soil erosion and sedimentation or the conclusions of the 2009 EIS/EIR. No further environmental evaluation is required.

The proposed UCM 2020 Project would not result in a new significant impact related to an increase the amount of storm runoff and alteration of existing drainage patterns that could increase the risk of flooding downstream and flooding to Cottonwood Creek and Fairfield Canal.

Potential impacts on flooding from increased runoff associated with campus development, including the UCM 2020 Project, were analyzed in the 2009 EIS/EIR. The analysis concluded that increased runoff due to increased impervious surfaces on the campus could result in flooding. However, to reduce storm water flows from the project site, detention facilities would be designed as part of the campus development.

These detention facilities would address downstream flooding within Cottonwood Creek by detaining and slowly releasing storm water. To ensure that the Fairfield Canal does not receive storm water in excess of the capacity of the canal, MID would install water elevation detectors. Therefore, the impact from increased storm water runoff would be less than significant. The findings of Addendum No. 6 were consistent with the findings of the 2009 EIS/EIR with respect to impacts from increased runoff and alteration of drainage patterns.

Change in Projected Enrollment Level and On-Campus Housing

The small reduction in the projected 2020 enrollment level and the number of student beds to be constructed on the 2020 Project site would not alter the previously evaluated impacts related to flooding as the total amount of building space to be constructed on the site would be the same as previously evaluated in the 2009 EIS/EIR and Addendum No. 6 and the project site is the same as previously evaluated for the development of the 2020 Project.

Alteration of North and South Basins

The development under the proposed UCM 2020 Project could increase impervious surfaces by up to 2.5 acres by completely filling South Basin and partial filling and altering of the edge of North Basin, and thus, increasing storm water runoff. However, alternate detention facilities are planned to be constructed as part of the proposed UCM 2020 Project to comply with MID and NPDES requirements and ensure that flooding impacts would be avoided.

Other Proposed Changes

Storm water runoff from the proposed UCM 2020 Project site or project vicinity would not be increased by the placement of student housing in proximity to potential TAC sources, or the use of the ancillary site.

The proposed parking area located south of the Bellevue Road extension would increase impervious areas with the construction of paved parking spaces. However, this area was previously analyzed for development within the 2009 EIS/EIR. Furthermore, the proposed UCM 2020 Project would comply with MID and NPDES requirements to ensure that flooding impacts would be avoided.

LRDP Amendments

The proposed LRDP amendment would designate land that is currently designated open space and athletics/recreation to CMU and allow for the use of the land for construction of campus facilities. As the land designated open space is occupied by North Basin, impervious areas would increase due to the

partial filling of the basin allowed by re-designating this land. Impacts from increased impervious areas are the same as the impacts described above for the partial filling and alteration of North Basin. The re-designation of athletic/recreation land to CMU would not result in any new or more severe impacts to water quality as this area was evaluated for development in the 2009 EIS/EIR.

The proposed LRDP amendment would also re-designate land south of the Bellevue Road extension to CMU. Impacts from increased impervious surfaces due to development of a parking area allowed by CMU land use designation are the same as the impacts described above for the proposed UCM 2020 Project boundary change and added parking area. The re-designation would not result in more severe impacts to water quality as this area was previously evaluated for development in the 2009 EIS/EIR and the project would comply with MID and NPDES requirements.

The removal of the transportation buffer overlay along Lake Road adjacent to the western boundary of the proposed UCM 2020 Project site would not result in any new or more severe impacts to water quality as analyzed in the 2009 EIS/EIR because the area was included in the development footprint of the 815-acre campus. Furthermore the area is already developed with some impervious surfaces.

The changes to LRDP policies would not change the development footprint of the campus and therefore would not result in any new or increased impacts related to runoff and flooding than previously evaluated in the 2009 EIS/EIR.

In summary, the proposed UCM 2020 Project would not change the nature or increase the magnitude of the flooding impacts due to storm water runoff or the conclusions of the 2009 EIS/EIR. No further environmental evaluation is required.

The proposed UCM 2020 Project would not result in a new significant impact by substantially depleting groundwater supplies, placing housing or structures within a 100-year flood hazard area, exposing people or structure to flooding from levee or dam failure, or inundation by seiche, tsunami, or mudflow.

Potential impacts on groundwater, flooding, and inundation associated with campus development, including the original UCM 2020 Project, were analyzed in the 2009 EIS/EIR. The analysis concluded that with implementation of low impact development (LID) methods, bioswales, and detention and retention basins, campus development, including the original UCM 2020 Project, would have less than significant impacts on groundwater, flooding, and inundation. The findings of Addendum No. 6 were consistent with the findings of the 2009 EIS/EIR with respect to impacts from groundwater and flooding.

Change in Projected Enrollment Level and On-Campus Housing

The small reduction in the projected 2020 enrollment level and the number of student beds to be constructed on the 2020 Project site would not alter the previously evaluated impacts related to groundwater supplies and flood hazard as the total amount of building space to be constructed on the site would be the same as previously evaluated in the 2009 EIS/EIR and Addendum No. 6 and the project site is the same as previously evaluated for the development of the 2020 Project.

Alteration of North and South Basins

As previously mentioned, the proposed UCM 2020 Project site would have slightly more impervious surfaces than the amended UCM 2020 Project due to the partial filling of North Basin and complete filling of South Basin. However, detention basins and landscaped areas would be incorporated throughout the proposed UCM 2020 Project site to assist with groundwater recharge. Furthermore, although storm water is currently being discharged into North Basin, water levels are kept at spillway elevation for aesthetic purposes by utilizing groundwater that is pumped into the basin. Therefore, the partial filling of North Basin would reduce the amount of groundwater that is pumped on the campus.

Other Proposed Changes

The placement of student housing in mixed use areas or use of an ancillary site would not affect groundwater supplies.

As mentioned above, the proposed boundary change and parking area south of the Bellevue Road extension would increase impervious areas. However, the proposed UCM 2020 Project would not add any additional parking that was not previously analyzed in the 2009 EIS/EIR. Additionally, detention basins and landscaped areas would be incorporated throughout the proposed UCM 2020 Project site to assist with groundwater recharge. Thus, the proposed boundary change and parking area would not result in any new or more severe impacts to groundwater supplies.

LRDP Amendments

The proposed LRDP amendment would designate land that is currently designated open space and athletics/recreation to CMU and allow for the use of the land for construction of campus facilities. As the land designated open space is occupied by North Basin, impervious areas would increase due to the partial filling of the basin allowed by re-designating this land. Impacts to groundwater from increased impervious areas are the same as the impacts described above for the partial filling of North Basin. The re-designation of athletic/recreation land to CMU would not result in any new or more severe impacts to

water quality as this area is already developed with athletic facilities and was evaluated for development in the 2009 EIS/EIR.

The proposed LRDP amendment would also re-designate land south of the Bellevue Road extension CMU. Impacts to groundwater supply from development allowed by CMU land use designation are the same as the impacts described above for the proposed UCM 2020 Project boundary change and added parking area. The re-designation would not result in any new or more severe impacts to groundwater as this area was evaluated for building development in the 2009 EIS/EIR and supplementary storm water basins and landscaped areas are planned throughout the proposed UCM 2020 Project site that would promote groundwater recharge.

The removal of the transportation buffer overlay along Lake Road adjacent to the western boundary of the UCM 2020 Project site would not result in any impacts to groundwater.

The changes to LRDP policies would not change the development footprint of the campus and therefore would not result in any new or increased impacts on groundwater than previously evaluated in the 2009 EIS/EIR.

In summary, the proposed UCM 2020 Project would not change the nature or increase the magnitude of the potential impacts due to groundwater supply, flooding, or inundation, or the conclusions of the 2009 EIS/EIR. No further environmental evaluation is required.

6.5.3 Analysis of Cumulative Impacts

Cumulative hydrology and water quality impacts of campus development under the 2009 LRDP, including the original UCM 2020 Project, are addressed in Volume 1 of the 2009 EIS/EIR. The 2009 EIS/EIR concluded that campus development in conjunction with other cumulative development would produce additional storm water runoff, potentially release sediment and urban pollutant runoff, and affect groundwater. The analysis concluded that the cumulative impacts to local and regional flooding, water quality, and groundwater recharge would be less than significant. However, campus development would have a significant cumulative impact related to groundwater extraction, and that even with implementation of Cumulative Mitigation Measures HYD-3a and HYD-3c, the impact would remain significant and unavoidable. Cumulative Mitigation Measure HYD-3a requires the University to support Merced Area Groundwater Pool Interests (MAGPI). Cumulative Mitigation Measure HYD-3c requires the University to implement an aggressive water conservation program detailed in the Mitigation Monitoring and Reporting Program. The findings of Addendum No. 6 were consistent with the findings of the 2009 EIS/EIR with respect to cumulative hydrology and water quality impacts.

The proposed UCM 2020 Project is similar to the amended UCM 2020 Project in terms of the scale and type of facilities that would be constructed and the total population that would be accommodated in the facilities, and is within the scope of development envisioned under the 2009 LRDP. As a result, the proposed UCM 2020 Project would not result in a demand for groundwater that exceeds the previous estimate, and the project will not result in a substantial increase in the severity of this previously identified cumulative impact. The proposed UCM 2020 Project's cumulative hydrology and water quality impacts are adequately addressed in the 2009 EIS/EIR. No further environmental evaluation is required.

6.5.4 Changes in Circumstances or New Information that could affect the Earlier Environmental Analysis

There are no changes in circumstances in which the proposed UCM 2020 Project would be undertaken. No new information has become available and no new regulations related to hydrology and water quality have come into effect since the certification of the 2009 EIS/EIR that would alter the previous analysis and change its conclusions relative to the proposed UCM 2020 Project.

6.5.5 Conclusion

The proposed UCM 2020 Project would not have a substantial adverse effect on hydrology and water quality. The changes to the amended UCM 2020 Project would not change the nature or increase the magnitude of potential impacts related to hydrology and water quality or the conclusions of the 2009 EIS/EIR.

6.6 LAND USE AND PLANNING

6.6.1 Relevant Elements of the UCM 2020 Project

The UC Merced Campus is located in unincorporated Merced County. The campus site is within the City of Merced's Sphere of Influence (SOI).

6.6.2 Analysis of Project

The proposed UCM 2020 Project would not create a new conflict with the 2030 Merced County General Plan or the City of Merced 2030 General Plan.

Potential impacts related to land use from the development of the campus, including the UCM 2020 Project, were analyzed in the 2009 EIS/EIR. The analysis in the 2009 EIS/EIR concluded that the development of the campus site would not conflict with the 2030 Merced County General Plan or the City of Merced 2030 General Plan because the University is a state entity, and there is no municipal

jurisdiction over the campus. In addition, the campus site is identified as part of the UC Merced UCP with the land use designations of institutional and mixed use. The City of Merced's Vision 2015 General Plan states that the future of Merced includes the 10th University of California campus (UC Merced, including the UCM 2020 Project). Therefore, the UCM 2020 Project would not conflict with the City of Merced 2030 General Plan and the impact would be less than significant. The findings of Addendum No. 6 were consistent with the findings of the 2009 EIS/EIR with respect to land use impacts. The proposed UCM 2020 Project is the same as the amended UCM 2020 Project in terms of its scale and location of development, and types of land uses. As both the total population and the number of students that would live on the campus would be less than the numbers previously evaluated, the revised project would reduce rather than increase the magnitude of the previously evaluated impacts. Therefore, the proposed UCM 2020 Project would not change the nature or magnitude of the land use impacts or the conclusions of the 2009 EIS/EIR. No further environmental evaluation is required.

Development under the proposed UCM 2020 Project would not physically divide an established community or conflict with any applicable habitat conservation plan or natural community conservation plan.

The campus site, including the proposed UCM 2020 Project site, is located outside of an existing community and surrounded by grazing lands. Therefore project development would not physically divide an established community. There are no habitat conservation plans or natural community conservation plans applicable to the campus site, including the proposed UCM 2020 Project site. Therefore, there would be no impact to an established community or conflict with a habitat conservation plan or natural community conservation plan. No further environmental evaluation is required.

6.6.3 Analysis of Cumulative Impacts

There would be no cumulative effects related to land use and planning as analyzed in the 2009 EIS/EIR. No further environmental evaluation is required.

6.6.4 Changes in Circumstances or New Information that could affect the Earlier Environmental Analysis

There are no changes in circumstances in which the proposed UCM 2020 Project would be undertaken. No new information has become available and no new regulations related to land use and planning have come into effect since the certification of the 2009 EIS/EIR that would alter the previous analysis and change its conclusions relative to the proposed UCM 2020 Project. Although the City of Merced has since then adopted a new General Plan, information from a draft version of the City's General Plan was available and used in the preparation of the 2009 EIS/EIR.

6.6.5 Conclusion

The proposed UCM 2020 Project would not have a substantial adverse effect on land use and planning. The proposed changes to the UCM 2020 Project would not change the nature or increase the magnitude of potential impacts from land use and planning or the conclusions of the 2009 EIS/EIR.

6.7 NOISE

6.7.1 *Relevant Elements of the Proposed UCM 2020 Project*

The proposed UCM 2020 Project would construct a total of 2.5 million square feet of academic space and on-campus housing for 4,807 students in an area with some existing buildings and facilities. Noise sources in the area include traffic on local roadways and noise from agricultural operations. Additional sources include the airstrip to the southeast used by planes involved in agricultural operations and the Lake Yosemite recreational facilities used by boaters to the northwest. Noise-sensitive receptors in the vicinity of the site include a few residences located along Lake and Bellevue Roads to the west and southwest of the campus site. In addition, Lake Yosemite Regional Park is located to the north.

6.7.2 *Analysis of Project*

Implementation of the proposed UCM 2020 Project would not result in a substantial increase in vehicular traffic on the regional road network, and no new significant impact associated with increased ambient traffic noise levels at existing off-site noise sensitive uses would occur.

Potential impacts related to noise from operational traffic associated with the development of the campus, including the original UCM 2020 Project, were analyzed in the 2009 EIS/EIR. The analysis in the 2009 EIS/EIR concluded that the operation of the original UCM 2020 Project would increase traffic volumes on the local roadway network but the increase in noise levels along the affected roadways would be less than the significance criteria and therefore the impact of the project on roadway noise levels would not be significant. The findings of Addendum No. 6 were consistent with the findings of the 2009 EIS/EIR with respect to traffic noise impacts.

Change in Projected Enrollment Level and On-Campus Housing

The small reduction in the projected 2020 enrollment level and the number of student beds to be constructed on the 2020 Project site would not increase the magnitude of the previously evaluated impacts related to traffic-generated noise levels. This is because even though slightly fewer students would live on the campus than previously evaluated, the total number of students enrolled would be

lower as well such that the proposed UCM 2020 Project would result in fewer vehicle trips than previously analyzed for traffic (Fehr & Peers 2016) and traffic-noise impacts.

Alteration of North and South Basins

Although the proposed UCM 2020 Project would completely fill South Basin and partially fill and alter the edge of North Basin the proposed project entails the same amount of building space, the same size of campus population, including on-campus residents, and the approximate same location as the amended UCM 2020 Project. Therefore this change would not result more vehicle trips than previously analyzed.

Development of Housing in Mixed Use Areas

The placement of student housing in proximity to potential TAC sources would not change the results of the previous noise impact analysis.

Boundary Change and South of Bellevue Parking

The proposed 28.66 acres to be removed east of Fairfield Canal and 27.65 acres to be added south of the Bellevue Road extension were both previously analyzed in the 2009 EIS/EIR for development. There are two sensitive receptors to the northwest and south of the proposed parking entrance. However both receptors are more than 500 feet from the potential entrance. Furthermore, the proposed parking area would not increase the amount of parking that was previously planned for the amended UCM 2020 Project site. Thus, no additional operational vehicle trips and associated increase in ambient traffic noise would result compared to what was analyzed before.

Use of Ancillary Site

Amendment No. 7 would allow for the use of the ancillary site for the duration of the construction of the proposed UCM 2020 Project. The site would be used only for the duration of construction and once the project is completed, the site would be vacated and restored. There would be no operational traffic associated with this site and therefore no long term traffic related noise increase (for construction period traffic noise, see discussion under the following impact).

LRDP Amendments

The proposed LRDP amendment would designate land that is currently designated open space and athletics/recreation to CMU and allow for the use of the land for construction of campus facilities. The proposed LRDP amendment would also re-designate land south of the Bellevue Road extension to CMU

to allow for the construction of a parking area. These land use changes would not increase vehicular traffic to the campus and associated noise levels.

The removal of the transportation buffer overlay along Lake Road adjacent to the western boundary of the 2020 Project site would not result in any more vehicular traffic than previously analyzed for noise impacts.

The changes to LRDP policies would not change the development footprint or the total amount of development on the campus and therefore would not result in any new or increased impacts traffic or other operational noise impacts than previously evaluated in the 2009 EIS/EIR.

In summary, the proposed UCM 2020 Project would not change the nature or significantly increase the magnitude of the potential impacts from vehicular noise or the conclusions of the 2009 EIS/EIR. No further environmental evaluation is required.

Construction of the proposed UCM 2020 Project would not result in a new significant impact related to the exposure of existing off-site and future on-site noise-sensitive receptors to elevated noise levels and groundborne vibration.

Potential impacts related to construction noise from the development of the campus, including the original UCM 2020 Project, were analyzed in the 2009 EIS/EIR. The analysis in the 2009 EIS/EIR concluded that construction of the original UCM 2020 Project would expose existing off-site and future on-site noise-sensitive receptors to elevated noise levels. In general, construction activities would include ground clearing, earthmoving, foundations, erection of structures and finishing. Mitigation Measure NOI-3 would reduce the noise impact from construction to less than significant. Mitigation Measure NOI-3 requires that a construction noise mitigation program be prepared and approved. Pile driving during construction is not anticipated but if it were required it could produce groundborne vibration levels that might be perceptible to nearby sensitive receptors. Mitigation Measures NOI-4a and NOI-4b would be implemented to reduce the vibration impact to less than significant. Mitigation Measures NOI-4a and NOI-4b require impact pile driving to be avoided where possible and that sensitive uses adjacent to construction be given advance notice of any activities that may cause vibration. The findings of Addendum No. 6 were consistent with the findings of the 2009 EIS/EIR with respect to construction noise impacts.

The proposed UCM 2020 Project would involve the construction of the same types of facilities in approximately the same area as the amended UCM 2020 Project. There would be minimal additional construction activities needed to partially or completely fill North Basin and South Basin, and these would occur in parts of the campus that are distant from both off-campus and on-campus receptors. The

parking area south of the Bellevue Road extension would be approximately 500 feet from the nearest off-site receptor to the west and about 750 feet from the receptor to the southwest. This parking area is in the same area as previously analyzed for the construction of campus facilities. Noise from construction of the parking area would be comparable to or less than construction noise produced from construction of the previously planned residential buildings, student services buildings, and other campus facilities. Therefore, the noise impacts from the construction of the parking area would not be any greater than analyzed from the construction of campus facilities south of the Bellevue Road extension. Furthermore, construction noise mitigation measures discussed above would be implemented.

As noted earlier, there are two sensitive receptors to the northwest and south of the ancillary site. However both receptors are more than 300 feet from the western edge of the ancillary site. The parking area entrance would also be used by construction traffic to access the ancillary site. Although there would be noise from construction vehicles utilizing Lake Road, the worker and hauling trips would be less than the operational vehicle trips analyzed in the 2009 EIS/EIR for noise impacts. Therefore, the construction traffic would not result in a new significant noise impact. With respect to other noise from activities on the ancillary site, the 2009 EIS/EIR evaluated the effect of construction activities on this portion of the former 2020 Project site on the nearby off-site residential receptor and found that with mitigation, the impact from construction noise and vibrations would be less than significant. The proposed UCM 2020 Project would be required to implement the mitigation measures identified in the 2009 EIS/EIS to address construction-phase noise effects, including the noise from the ancillary site. The use of the ancillary site would not result in new or more severe noise impacts than previously evaluated in the 2009 EIS/EIR.

The proposed LRDP amendments would not change the total amount of construction that would take place on the 2020 Project site or the campus as a whole. Therefore there would be no increase in construction noise compared to that previously evaluated in the 2009 EIS/EIR.

Therefore, the proposed UCM 2020 Project would not change the nature or increase the magnitude of the potential impacts due to increased construction noise levels or the conclusions of the 2009 EIS/EIR. No further environmental evaluation is required.

Implementation of the proposed UCM 2020 Project would not result in a new significant impact related to exposing existing off-site noise-sensitive land uses, such as residences, to noise levels exceeding noise thresholds.

Potential impacts related to exposure of existing off-site noise-sensitive land uses on the campus to elevated noise levels were analyzed in the 2009 LRDP EIS/EIR. The analysis in the 2009 LRDP EIS/EIR concluded that implementation of the original UCM 2020 Project would produce daily noise-generating

activities on the campus such as student gatherings and conversations, athletic and recreational activities, social events, landscaping and maintenance activities, on-site traffic, and mechanical equipment noise. The 2009 LRDP EIS/EIR analyzed impacts from the development of a multi-purpose stadium in the center of what is now the currently proposed parking area south of the Bellevue Road extension. Campus housing was originally proposed in the 2009 LRDP adjacent to the stadium, and 2009 LRDP EIS/EIR analysis noted that noise levels at these onsite receptors during events would exceed noise thresholds. The 2009 LRDP EIS/EIR concluded that this impact was significant and unavoidable, even with implementation of applicable mitigation measures.

The proposed UCM 2020 Project would remove the transportation buffer overlay along Lake Road adjacent to the western boundary of the 2020 Project site, which would allow the area to be developed with new buildings that could potentially include a stadium. Existing nearby noise-sensitive receptors on Bellevue Road to the southwest of the potential multi-use stadium could be exposed to excessive noise level from stadium events. Similar to the conclusion of the 2009 LRDP EIS/EIR with respect to stadium noise, this would be a potentially significant impact and Mitigation Measure NOI-2b would be implemented, which requires a design-level study to be conducted by a qualified acoustical professional to define reasonable and feasible noise mitigation for noise-sensitive receptors that are predicted to be exposed to noise levels that exceed the noise significance thresholds. Similar to the conclusion of the 2009 LRDP EIS/EIR, even with mitigation incorporated, the noise impact from special event venue noise would remain significant and unavoidable.

Implementation of the proposed UCM 2020 Project would not result in a new significant impact related to exposing new on-site noise-sensitive land uses, such as residences, to noise levels exceeding noise thresholds.

Potential impacts related to exposure of new on-site noise-sensitive land uses on the campus to elevated noise levels were analyzed in the 2009 EIS/EIR. The analysis in the 2009 EIS/EIR concluded that as part of the original UCM 2020 Project noise-sensitive uses could be developed adjacent to existing noise-generating uses, including traffic along Lake Road. A portion of the original UCM 2020 Project site along the southwestern edge of the site between Yosemite Avenue and Bellevue Road would have been exposed to traffic noise levels that would have exceeded the threshold for residential uses. However, residential or other noise-sensitive uses were not proposed for that area and the effect was determined to be less than significant. As a result of the proposed boundary change, the proposed UCM 2020 Project site would extend just south of Bellevue Road into this area, however no residential or noise sensitive uses are planned and no new on-site sensitive receptors would be affected by any elevated traffic noise levels. Therefore, the proposed UCM 2020 Project would not expose new on-site noise sensitive receptors to

noise levels exceeding noise thresholds. The impact would be less than significant. No further environmental evaluation is required.

6.7.3 Analysis of Cumulative Impacts

Cumulative traffic noise impacts of campus development under the 2009 LRDP, including the original UCM 2020 Project, are addressed in Volume 1 of the 2009 EIS/EIR. The 2009 EIS/EIR concluded that campus development, in conjunction with cumulative development, would increase regional traffic noise above significance thresholds. Feasible mitigation measures are not available and the impact would remain significant and unavoidable. The findings of Addendum No. 6 were consistent with the findings of the 2009 EIS/EIR with respect to cumulative noise impacts. As the proposed UCM 2020 Project is substantially the same as or slightly smaller than the amended UCM 2020 Project in terms of the growth in campus population that it would accommodate, the proposed UCM 2020 Project's cumulative traffic noise impacts would be the same as those projected for the amended UCM 2020 Project and are adequately addressed in the 2009 EIS/EIR. The proposed UCM 2020 Project would not result in a substantial increase in the severity of this previously identified cumulative impact. No additional mitigation is feasible and no further analysis is required.

6.7.4 Changes in Circumstances or New Information that could affect the Earlier Environmental Analysis

There are no changes in circumstances in which the proposed UCM 2020 Project would be undertaken. No new information has become available and no new regulations related to noise have come into effect since the certification of the 2009 EIS/EIR that would alter the previous analysis and change its conclusions relative to the proposed UCM 2020 Project.

6.7.5 Conclusion

The proposed UCM 2020 Project would not have a substantial adverse effect related to noise. The changes to the amended UCM 2020 Project would not change the nature or increase the magnitude of potential impacts from noise or the conclusions of the 2009 EIS/EIR.

6.8 TRANSPORTATION/TRAFFIC

6.8.1 Relevant Elements of the Proposed UCM 2020 Project

Access to the UCM 2020 Project site would be from Bellevue Road, Lake Road, and Yosemite Avenue. Lake Road is a two-lane north-south road extending from Yosemite Avenue to its northern terminus at Lake Yosemite north of the campus. Bellevue Road is a two-lane east-west road extending from Fox Road

to its eastern terminus at Lake Road adjacent to the campus site. Yosemite Avenue is a two-lane east-west road extending from Highway 59 to its eastern terminus at Arboleda Drive. Campus Parkway is a planned north-south, divided four-lane roadway that is planned for development between Highway 99 and Bellevue Road.

As part of the proposed UCM 2020 Project, a traffic signal would be installed at the intersection of Lake and Bellevue Roads, and Bellevue Road would be extended to the east up to Fairfield Canal. With the construction of the Bellevue Road extension, operational traffic to the campus would access the campus from three roadways – Bellevue Road extension, Scholar’s Lane, and Ranchers Road. In addition, the proposed UCM 2020 Project includes another entrance to the campus approximately 600 feet south of Bellevue and Lake Road intersection. This entrance would provide access to new parking lots in the southern portion of the 2020 Project site as well as access to the ancillary site.

During construction of the project, equipment trucks, tractor trailers and personal vehicles would access the ancillary site from the new entrance on Lake Road and would access the project site via on-campus temporary roads from the south of the 2020 Project site.

The Campus has been monitoring vehicle traffic accessing the campus once every three years since the adoption of the 2009 LRDP and has determined based on the data gathered that the trip generation rate used in the 2009 EIS/EIR was higher than the trips that are being generated on the campus.

6.8.2 Analysis of Project

Implementation of the proposed UCM 2020 Project would not result in new or more severe roadway segment or intersection impacts under Existing Plus UCM 2020 Project conditions.

As analyzed in the 2009 EIS/EIR, no roadway segments were projected to be over capacity with the addition of the original UCM 2020 Project traffic. Therefore, the impact to local roadway segments under the Existing Plus UCM 2020 Project conditions was determined to be less than significant. As analyzed in the 2009 EIS/EIR, three intersections would experience significant level of service impacts with the addition of traffic associated with the original UCM 2020 Project. The Campus would implement Mitigation Measure TRANS-1 to mitigate the impacts but because the intersection improvements are the responsibility of others, the impact would still remain significant and unavoidable. The findings of Addendum No. 6 were consistent with the findings of the 2009 EIS/EIR with respect to impacts to local roadway segments and intersections.

Background traffic volumes on roadway segments serving the campus site have not increased much compared to 2008 conditions because the economy was sluggish for a period of time. The proposed

changes to the UCM 2020 Project would not increase the amount of building space and facilities that would be developed on the campus, compared to the previously evaluated UCM 2020 Project. While it change the amount of on-campus housing for students and enrollment levels, even though slightly fewer students would live on the campus than previously evaluated, the total number of students enrolled would be lower as well such that the proposed UCM 2020 Project would result in fewer vehicle trips than previously analyzed for traffic impacts (Fehr & Peers 2016). Therefore, the proposed project would result in substantially the same or slightly smaller volume of traffic as was previously estimated for the amended UCM 2020 Project. As all of the assumptions and data for the proposed project are substantially the same as before, the proposed UCM 2020 Project would not change the nature or increase the magnitude of the potential impacts to local roadway segments and intersections under Existing Plus UCM 2020 Project conditions or the conclusions of the 2009 EIS/EIR. No further evaluation is required.

With respect to construction traffic, although there would be construction vehicles utilizing Lake Road to access the campus, the worker and hauling trips would be less than the operational vehicle trips analyzed in the 2009 EIS/EIR for traffic impacts. Additionally, as mentioned above, the proposed entrance south of Bellevue Road would be used as a construction entrance to keep traffic from utilizing the existing Campus entrances north of Bellevue Road and the new entrance via Bellevue Road extension. Therefore, no new roadway segment impacts would occur.

Implementation of the proposed UCM 2020 Project would not result in new or more severe roadway segment or intersection impacts under 2020 Plus UCM 2020 Project conditions.

As analyzed in the 2009 EIS/EIR, the 2020 Project would add traffic to several intersections in excess of the significance criteria and thereby result in significant impacts on roadway segments. At the study intersections however, the project would result in less than significant impacts. The Campus would implement Mitigation Measure TRANS-1 to mitigate the roadway segment impacts but because the roadway improvements are the responsibility of others, the impact would still remain significant and unavoidable. The findings of Addendum No. 6 were consistent with the findings of the 2009 EIS/EIR with respect to impacts to roadway segments and intersections.

The proposed changes to the UCM 2020 Project would not increase the amount of building space and facilities that would be developed on the campus. As noted above, although the total enrollment and number of students housed on campus would be lower, the total number of trips to the campus would be slightly lower than previously evaluated. Therefore, the proposed project would result in substantially the same or lower volume of traffic as was previously estimated for the amended UCM 2020 Project. As all of the assumptions and data for the proposed project are substantially the same as before, the proposed UCM 2020 Project would not change the nature or increase the magnitude of the potential

impacts to intersections and roadway segments under 2020 Plus UCM 2020 Project conditions or the conclusions of the 2009 EIS/EIR. No further environmental evaluation is required.

6.8.3 Analysis of Cumulative Impacts

The 2009 EIS/EIR included an evaluation of cumulative traffic impacts through 2030. The findings of Addendum No. 6 were consistent with the findings of the 2009 EIS/EIR with respect to cumulative traffic impacts. As the proposed UCM 2020 Project is substantially the same as the amended UCM 2020 Project in terms of its location, the scale of development, and the population growth it would facilitate, it is adequately analyzed for its cumulative impacts in the 2009 EIS/EIR. No further environmental evaluation is required.

6.8.4 Changes in Circumstances or New Information that could affect the Earlier Environmental Analysis

Since certification of the 2009 EIS/EIR, the CEQA Guidelines Appendix G checklist has been amended to exclude parking impacts and the checklist question related to traffic impacts now requires a consideration of not just the capacity of street systems but all modes of transportation. These changes do not affect the analysis completed in the 2009 EIS/EIR. There are no additional changes in circumstances in which the project would be undertaken and no new information has become available since the certification of the 2009 EIS/EIR that would alter the previous analysis or change its conclusions relative to the proposed UCM 2020 Project.

6.8.5 Conclusion

The changes to the UCM 2020 Project would not change the nature or increase the magnitude of potential impacts to transportation and traffic or the conclusions of the 2009 EIS/EIR.

6.9 OTHER RESOURCE TOPICS

6.9.1 Relevant Elements of the Proposed UCM 2020 Project

As with the previously approved 2020 Project, the proposed UCM 2020 Project would construct a total of 2.5 million square feet of academic space and on-campus housing for 4,807 students in an area with some existing buildings and facilities.

6.9.2 Analysis of Project

The proposed changes to the 2020 Project, including the changed enrollment and housing levels, the complete filling of South Basin and partial filling and alteration of the edge of North Basin, development of housing in mixed use areas, boundary change and development of parking south of Bellevue Road extension, use of an ancillary site, and the proposed LRDP amendments would not increase the amount of building space or the population on the campus and would place the development in the same area as previously analyzed. Consequently the proposed UCM 2020 Project would not result in new or more severe impacts on agricultural resources, geology and soils, hazardous materials, population and housing, public services and recreation, utilities, and greenhouse gas emissions. No further evaluation is required.

6.9.3 Analysis of Cumulative Impacts

The 2009 EIS/EIR included an evaluation of cumulative impacts on agricultural resources, geology and soils, hazardous materials, population and housing, public services and recreation, utilities, and greenhouse gas emissions. The findings of Addendum No. 6 were consistent with the findings of the 2009 EIS/EIR with respect to cumulative impacts in all of these resource areas. As the proposed UCM 2020 Project is substantially the same as the amended UCM 2020 Project in terms of its location, scale of development, and the population growth it would facilitate, it is adequately analyzed for its cumulative impacts in the 2009 EIS/EIR. No further environmental evaluation is required.

6.9.4 Changes in Circumstances or New Information that could affect the Earlier Environmental Analysis

There are no changes in circumstances in which the proposed UCM 2020 Project would be undertaken. No new information has become available and no new regulations related to agricultural resources, geology and soils, hazardous materials, population and housing, public services and recreation, utilities, and greenhouse gas emissions have come into effect since the certification of the 2009 EIS/EIR that would alter the previous analysis and change its conclusions relative to the proposed UCM 2020 Project.

6.7.5 Conclusion

The proposed UCM 2020 Project would not have a substantial adverse effect related to agricultural resources, geology and soils, hazardous materials, population and housing, public services and recreation, utilities, and greenhouse gas emissions. The changes to the amended UCM 2020 Project would not change the nature or increase the magnitude of potential impacts to these resources or the conclusions of the 2009 EIS/EIR.

7.0 ALTERNATIVES

Volume 3 of the 2009 EIS/EIR analyzed a reasonable range of potentially feasible alternatives to the original UCM 2020 Project as required by the California Environmental Quality Act (CEQA), including the No Project Alternative and the Reduced Density Alternative (*State CEQA Guidelines* Section 15126.6). The No Project Alternative would avoid all significant environmental impacts of the original UCM 2020 Project. However, the No Project Alternative would not meet any of the project objectives. The Reduced Density Alternative would reduce the significant and unavoidable population and cumulative impacts of the original UCM 2020 Project, but not to a less than significant level. Some of the less than significant impacts would be further reduced under this alternative. Therefore, the Reduced Density Alternative was determined to be the environmentally superior alternative. Addendum No. 6 found that the 2009 EIS/EIR adequately addressed environmental impacts of the amended UCM 2020 Project, therefore it was appropriate to rely upon the alternative analysis in the 2009 EIS/EIR for the amended UCM 2020 Project.

Similarly, the analysis presented in this addendum demonstrates that the proposed UCM 2020 Project will not result in new or more severe environmental impacts than the previously analyzed UCM 2020 Project and that the 2009 EIS/EIR adequately addresses environmental impacts of the proposed UCM 2020 Project. Therefore, the alternative analysis for the amended UCM 2020 Project, as described in the 2009 EIS/EIR, is adequate for the proposed UCM 2020 Project. No further evaluation of additional alternatives is required.

8.0 SUPPORTING INFORMATION SOURCES

Fehr and Peers. 2016. Memorandum: Comparison of 2009 and 2016 enrollment and housing projections for traffic impacts. June 20.

Golder Associates. 2016. Memorandum: Siting Guidance–Evaluation of Potential Toxic Air Contaminant Impacts to Future Student Housing Building, University of California Merced Campus. February.

Salix Consulting. 2016. Memorandum: 2020 Project Site–Biological Site Survey of North and South Basins. February.

UC Merced. 2009. *Long Range Development Plan*, Environmental Impact Statement/Environmental Impact Report. Prepared by Impact Sciences, Inc., ICF Jones & Stokes, and Fehr & Peers.

UC Merced. 2009. *Long Range Development Plan*. Prepared by the University of California, Merced.

UC Merced. 2013. Addendum No. 6 to the 2009 *Long Range Development Plan*, Environmental Impact Statement/Environmental Impact Report. Prepared by Impact Sciences, Inc.

9.0 ADDENDUM PREPARERS

Impact Sciences, Inc.

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Project Planner: Angela Pan

APPENDIX A

Habitat Assessment Memorandum



MEMORANDUM

To: Phillip Woods, UCM Director of Physical and Environmental Planning

From: Jeff Glazner (Salix) and Shabnam Barati (ISI)

Date: February 29, 2016

RE: 2020 Project Site – Biological Site Survey of North and South Basins

The purpose of this memo is to provide a description of the biological resources and habitats present in and immediately adjacent to the North and South Basins, two storm water basins that are located on the 2020 project site.

Background

There are two existing storm water detention basins located in the central and south-western portion of the 2020 project site. The two detention basins are called the North Basin and South Basin and are shown on Exhibit 1. The detention basins were built as water hazard features as part of the Merced Community Golf Course which was located on the Phase 1 portion of the campus site prior to the establishment of the campus. In March of 2002, the property was transferred to the University of California.

In 2002 an Environmental Impact Report was prepared by UC Merced for UC Merced's Long Range Development Plan (2002 EIR). The 2002 EIR included an evaluation of the basin features and noted that in November and December of 2000, EIP Associates performed a wetland delineation of the 197-acre golf course property. Based on a field review by the U.S. Army Corps of Engineers (Corps), the basins were determined not to be jurisdictional wetlands and therefore were not delineated as such. The EIR also states that CTS were not detected in focused surveys of the basins on the former golf course site. In 2002, a Supplement to the Biological Assessment (BA) for the UC Merced Campus Project was prepared and included an evaluation

of the two basins on the Phase 1 Campus site. The BA supplement concluded that the basins are not considered suitable breeding habitat for CTS because of the developed condition (i.e., golf course) of surrounding lands, permanence of water bodies, potential effects of pesticide and fertilizer runoff, and potential for the presence of competing and predatory species (nonnative fish and bullfrog). Based on the above, the detention basins were determined not to be jurisdictional wetlands by the Corps. After the property was acquired by the University, both basins were put into use as storm water detention facilities.

Storm water from the campus is discharged into the North Basin. However, to keep water levels up for aesthetic purposes and most importantly sanitation purposes (algae and odor control), well water is also pumped from a pipe into the basin and the basin is aerated. The North Basin is kept at spillway elevation. The South Basin is much smaller and shallower than the North Basin. Storm water from the campus discharges into this basin but no supplemental groundwater is added and it dries out periodically.

The two basins are located adjacent to the developed campus and are managed and maintained as storm water basins. According to the Campus Facilities Maintenance Department, the North Basin has been stocked with Bass in the past. The riparian areas around the basins are periodically thinned and trimmed back.

Scope of Survey and Methodology

On November 6, 2015, Hunter Gallant and Jeff Glazner from Salix conducted a site reconnaissance survey of the North Basin and the South Basin with a follow-up site visit by Jeff Glazner on February 4, 2016. The site reconnaissance survey was a methodical walk of all areas and particular emphasis was given to areas supporting trees and habitat that might be used by special-status species. The survey did not include dip sampling of the water in the two basins to evaluate aquatic life in the basins.

Survey Results

North Basin

Exhibit 1 shows the habitats present in the North Basin. There are about 2.6 acres of open water habitat, 1.1 acres of marsh habitat, and 0.7 acre of riparian fringe ringing the North Basin.

The marsh habitat is primarily common rush (*Juncus effusus*), hardstem bulrush (*Schoenoplectus acutus*), and cattail (*Typha latifolia*). Wildlife species known to occur in open water and marsh habitat within the North Basin include bullfrog, snowy egret, mallard, cinnamon teal, and red-winged blackbird. Because the North Basin contains water year round and contains bullfrogs, it does not provide suitable habitat for CTS breeding or for vernal pool invertebrates. Although the western pond turtle (a State Species of Special Concern) has not been reported from previous surveys of the North Basin, the basin does provide suitable habitat for the species. The dense thickets of the marsh around the basin provide suitable nesting habitat for tri-color

blackbird (currently a State Species of Special Concern; also listed as a candidate species under California Endangered Species Act). However, nesting by these species was not observed during the site surveys.

The riparian habitat around the North Basin is represented by an interrupted band of willow, primarily *Salix gooddingii*. Given its close proximity to the developed areas of the campus, the riparian area is landscaped and thinned regularly. The willows are more like landscape trees than riparian habitat as the band does not contain the typical understory shrub layer and dense ground cover. Birds known to occur in the local riparian communities include white-tailed kite (a State Fully Protected Species), belted kingfisher, black phoebe, western wood-pewee, tree swallow, and house wren. Common amphibians and reptiles known to occur in riparian communities include Pacific tree frog and common garter snake. However, some but not all of these species were observed during the site surveys.

South Basin




Exhibit 1 shows the habitats present in this basin which consist of about 1.2 acres of open water habitat and 0.2 acres of riparian fringe. The South Basin supports minimal wetland vegetation due to the fluctuating water levels and dry periods. It is sparsely ringed by willows. Wildlife species known to occur in open water habitat within the South Basin include Pacific tree frog, snowy egret, greater yellowlegs, and American avocet. Because the South Basin contains fluctuating water levels and dry periods, it would not support vernal pool invertebrates and is not likely to support CTS breeding.

The riparian habitat around the South Basin is represented by an interrupted band of small stature willows, primarily *Salix gooddingii*. Birds known to utilize this habitat include black phoebe, American goldfinch, white-crowned sparrow, and American kestrel. Common amphibians and reptiles known to occur in riparian communities include Pacific tree frog and common garter snake. However, some but not all of these species were not observed during the site surveys.



Future Evaluations/Surveys

The marsh and riparian fringe around the North Basin and the riparian fringe around the South Basin provide nesting habitat for many bird species. Should clearing and filling of the basins be planned at a time that nesting birds could be present in these habitats, a pre-construction survey must be conducted in compliance with the mitigation measures identified in the 2009 EIR/EIS and the Migratory Bird Treaty Act. A need for an aquatic survey is not indicated at this time.

North Basin Components

-  Open Water (±2.6 acres)
-  Riparian Fringe (±0.7 acre)
-  Marsh (±1.1 acres)

South Basin Components

-  Open Water (±1.2 acres)
-  Riparian Fringe (±0.2 acre)

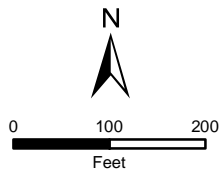


Exhibit 1
NORTH BASIN AND SOUTH BASIN
COMPONENTS
UC Merced
Merced County, CA