UCMERCED

UC MERCED NORTH BOWL PARKING,
CORPORATION YARD, AND HOUSING 4 PHOTOVOLTAICS PROJECT

Addendum No.8 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:

Impact Sciences, Inc.
505 14th Street, Suite 1230
Oakland, California 94612

April 2017

I. PROJECT INFORMATION

1. Project Title:

   UC Merced North Bowl Parking, Corporation Yard, and Housing 4 Photovoltaics Project

2. Lead agency name and address:

   Office of Physical Planning Design & Construction
   25200 N. Lake Road,
   Merced, California 95343

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)

   See Lead Agency

6. Custodian of the administrative record for this project (if different than above.):

   See Lead Agency

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:

   Office of Planning and Budget, Physical and Environmental Planning
   University of California

II. 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). 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.

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 Draft EIS/EIR assess the potential environmental effects of implementation of the 2009 LRDP, 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 Draft 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 guiding land use planning document that will be used in developing a new University of California campus to eventually support a student body of 25,000 full time equivalent students on 815 acres of land in Merced County. The UCM 2020 Project comprises the second phase of the UC Merced Campus with facilities needed to support an enrollment level of approximately 10,000 full-time equivalent (FTE) students. The 2020 Project is currently under construction.

UC Merced proposes to enter into a Power Purchase Agreement (PPA) and Site License Agreement (SLA) with Sunpower that would allow the energy company to construct, operate and maintain a photovoltaic (PV) facility on two sites in the northeastern portion and one site in the northwestern portion of the campus. The PV systems would be constructed at three locations: the North Bowl parking lot, the adjacent campus corporation yard, and the roof of Housing 4 building. All of the proposed PV systems are collectively called the "Photovoltaics project" in this Addendum. The Campus has

set an ambitious goal to consume zero net energy, produce zero waste, and zero net greenhouse gas emissions by 2020. To accomplish this goal, UC Merced must decrease its dependence on fossil fuels and promote clean, local energy. Alternative energy projects, like the proposed Photovoltaics project, will play a vital role in meeting UC Merced's Triple Zero Commitment, as well as combating global climate change.

Burrowing owls are known to be present near the North Bowl parking lot and the corporation yard. The 2009 EIR/EIS includes a mitigation measure (Mitigation Measure BIO-9b) which requires that a 250 foot buffer must be maintained between construction activities and active burrowing owl nests in order to avoid significant impacts on nesting burrowing owls. UC Merced proposes to revise the wording of Mitigation Measure BIO-9b to allow the use of not only setbacks and buffers but also other measures such as visual screens to minimize impacts on nesting burrowing owls. The reworded mitigation measure would be consistent with the current guidance provided by the California Department of Fish and Wildlife (CDFW) related to nesting burrowing owls.

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." The proposed Photovoltaics project and the proposed change to Mitigation Measure BIO-9b, which are the changes to the previously approved 2009 LRDP project, are the subject of this Addendum. These changes do not trigger any of the conditions necessitating the preparation of a subsequent EIR or negative declaration; no additional environmental document beyond this Addendum is necessary to evaluate the impacts of the UCM Photovoltaics project or the change to the previously adopted mitigation measure. All impacts associated with construction of the Photovoltaics project would be mitigated through implementation of the 2009 EIS/EIR Mitigation Monitoring and Reporting Program.

III. PROJECT LOCATION AND DESCRIPTION

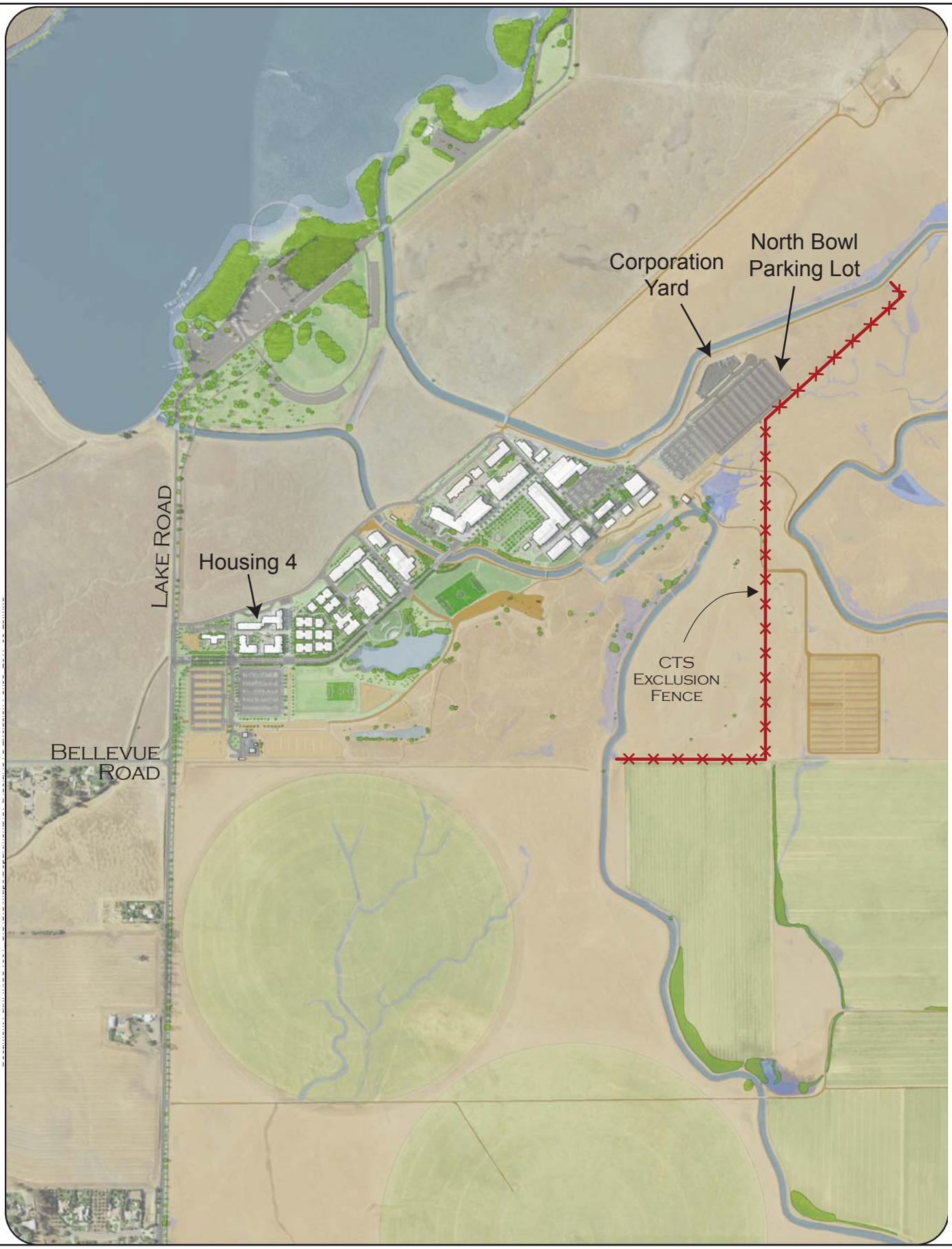
1. Description of the Photovoltaics Project

UC Merced proposes to enter into a PPA and SLA for up to 25 years with an energy company pursuant to which the energy company would install an approximately 4.8 megawatt (MW) PV system on three sites on the campus. The system would be constructed, operated, and maintained by the energy company. The project is proposed by the University of California to support the University Policy on Sustainable Practices (http://policy.ucop.edu/doc/3100155/SustainablePractices), UC Merced's Triple Zero Commitment, and in support of the sustainability strategies in the UCM 2009 LRDP.

The photovoltaics (PV) systems would be installed at three campus locations - the North Bowl parking lot, the campus corporation yard, and Housing 4 (refer to **Figure 1**). It is expected that the arrays, comprising nearly 16,000 PV, would generate approximately 10,000,000 kilowatt-hours (kWh) per year.

The first set of arrays would be installed on the roof of Housing 4 in two locations, R1 and R2 (shown in **Figure 2**). The arrays would consist of 327 watt (W) high efficiency crystalline solar modules on 48 strings, installed on custom-built racking. The racking needed for mounting the panels has been previously installed on the roof of the housing building and the building structural system is designed to accommodate the panels. Adequate clearance would be provided on the rooftop for access by the fire department. The energy generated from the system would be routed through rooftop conduits to one of six 30-kilowatt alternative current (kWac) inverters, where the power would be converted from direct current (DC) to alternating current (AC) power. An AC run, approximately 145 linear feet (LF) long, would carry the energy from the inverters to the proposed equipment pad, located on the ground near the northeast corner of Tenaya Hall (**Figure 2**).

The second set of solar arrays would be located on an approximately 10-acre area in the northeastern portion of the campus on the North Bowl parking lot (**Figure 3**). The 24 arrays would be composed of 435W modules on over 1,500 strings. They would be installed atop trellises, at least 9.5 feet high, and would also provide vehicular shade for parking spaces. An approximately 4,865 LF AC-run network would channel the energy generated by the panels to one of three equipment pads, located on the parking lot site.



SOURCE: LSA, 2017

FIGURE **1**

IMPACT SCIENCES

Project Location

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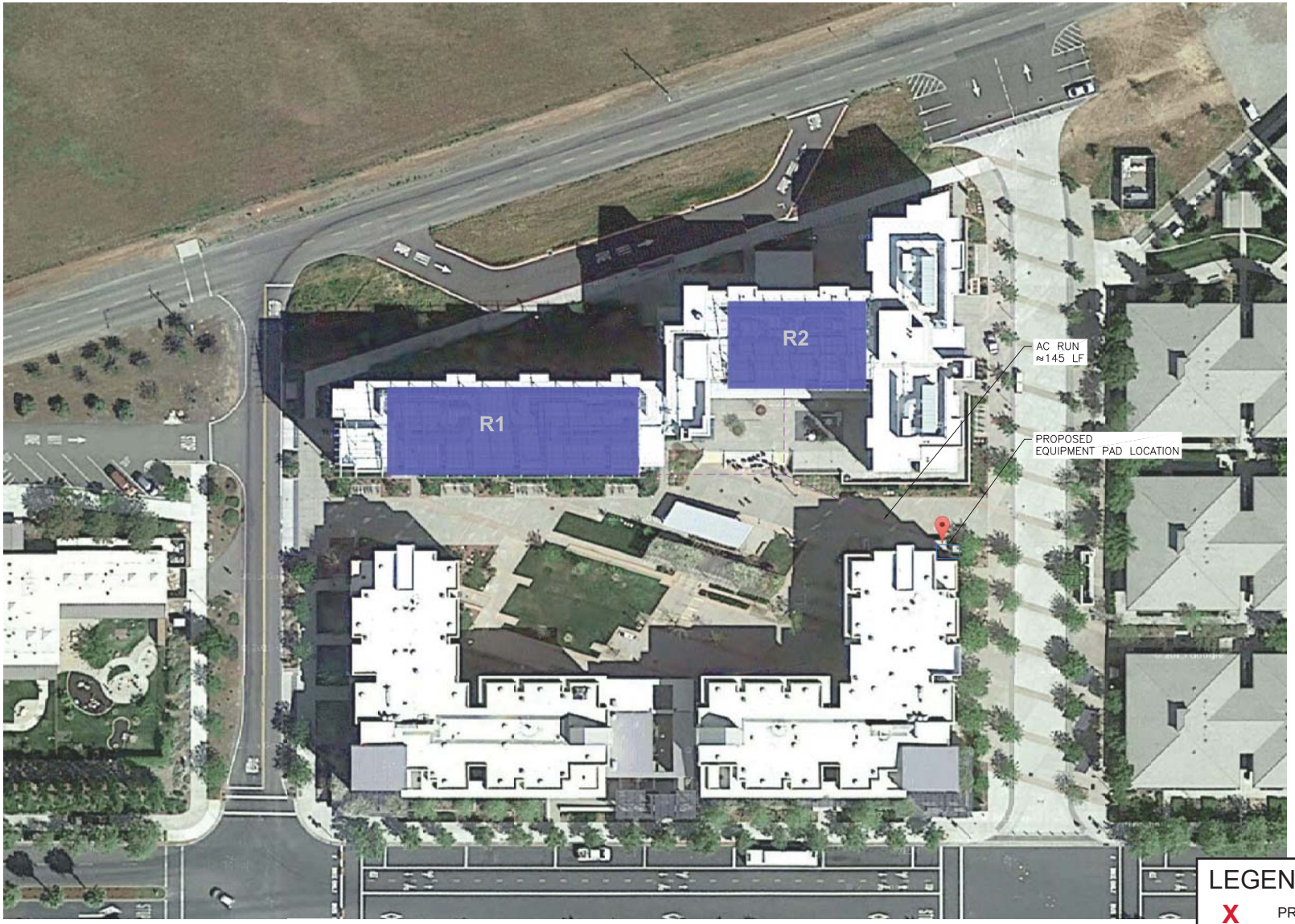

N

1 ARRAY LAYOUT
SCALE: 1/32" = 1'–0"

LEGEND

- X — PROPOSED TREE REMOVAL
- PROPOSED AC RUN
- PROPOSED EQUIPMENT PAD
- PROPOSED POINT OF INTERCONNECTION

SOURCE: Sunpower, 2017

FIGURE **2**

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Housing 4 Proposed PV Systems

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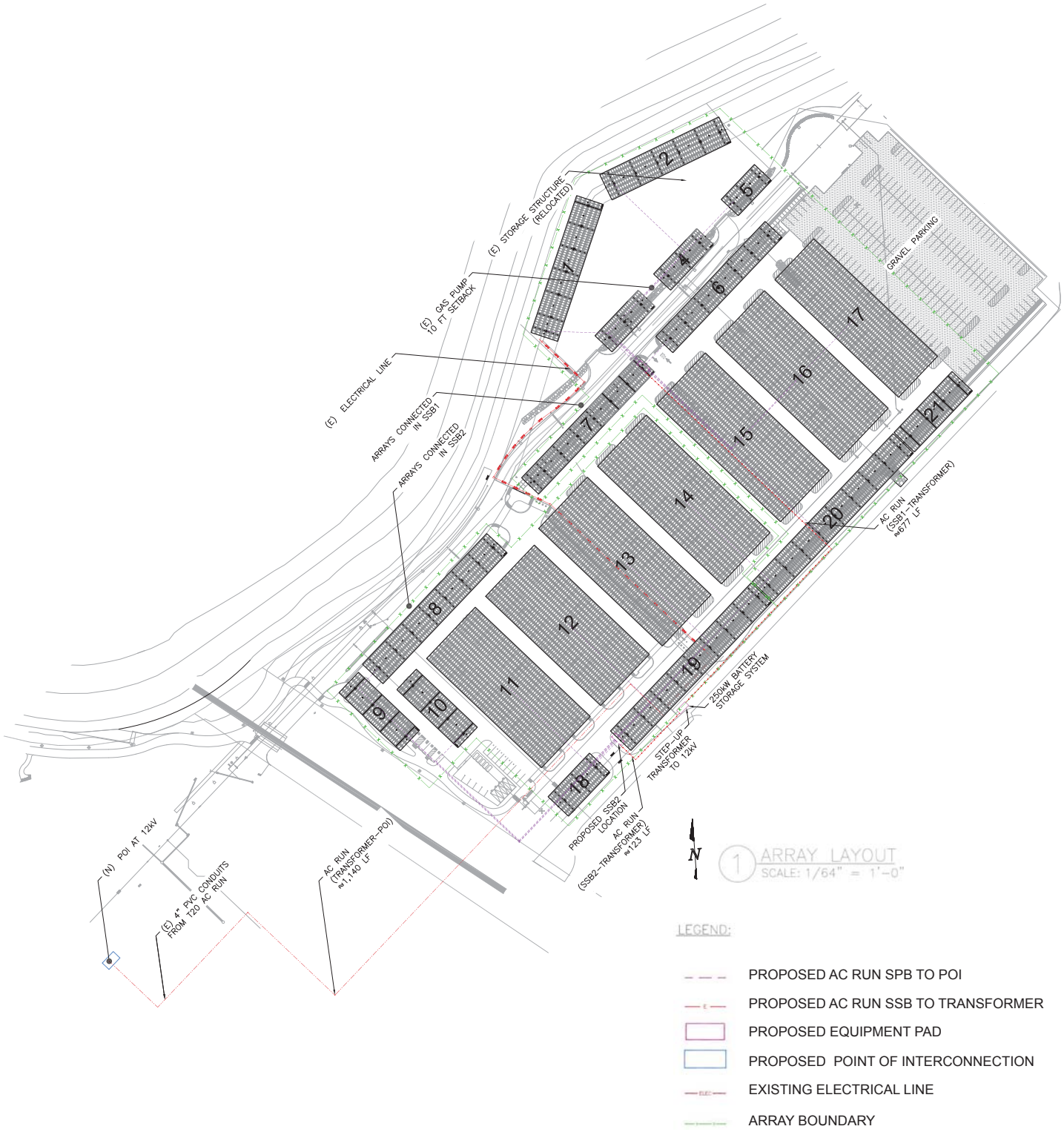

SOURCE: Sunpower, 2017

FIGURE **3**

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North Bowl Parking Lot and Corporation Yard Proposed PV Systems

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The current would move from the equipment pads through a system of existing underground electric lines to a step-up transformer that would convert the energy to 12kV. From there, an existing overhead electrical line would direct the electricity northwest (**Figure 3**). There are existing small sized landscaping trees on the parking lot that would be removed or trimmed for the installation of the solar array system but no mature trees would be removed.

The third set of solar arrays would be located at the campus corporation yard, which is located adjacent to the North Bowl parking lot (**Figure 3**). At the corporation yard, the solar arrays would be installed on trellises at least 13.5 feet high along the perimeter of the corporation yard. A prefabricated storage structure would have to be relocated to the northwest corner of the corporation yard to make way for the PV panels.

The PV systems at the North Bowl parking lot, Corporation Yard, and Housing 4 would adhere to California Building Codes and Standards, California Public Utilities Commission's California Solar Initiative program requirements, and all California Energy Commission's technical and installation specifications and guidelines. The energy generated would be utilized on the campus.

Staging for the project would occur on a dirt lot adjacent to the northeastern end of the North Bowl parking lot. Construction activities for the parking lot and corporation yard installation would include the following: excavation to install the posts on which the panels would be mounted; construction of concrete pads for inverters; trenching to place conduits for wiring; installation of panels and wiring; and tie-in of the PV system to the campus substation. All non-paved areas would be restored to existing conditions once the arrays are installed. Project construction is expected to commence in spring 2017, and would be completed in approximately 2 to 3 months.

2. Description of the Proposed Changes to LRDP Mitigation Measure BIO-9b

LRDP Mitigation Measure BIO-9b was written in 2008-09 and as indicated in the mitigation measures, was based on the 1995 California Department of Fish and Wildlife (CDFW) staff report on burrowing owl mitigation. Since then, in 2012, CDFW published updated guidance that sets forth a variety of measures to avoid, minimize, and mitigate impacts on burrowing owls. The updated guidance, which is contained in the *2012 Staff Report on Burrowing Owl Mitigation*, was used to reword the LRDP mitigation measure. The proposed changes to the mitigation measure are presented below. Strikeout text

indicated the text that would be deleted and underlined text indicated the new text proposed to be added to the mitigation measure.

(b) Minimize impacts to burrowing owl and compensate for habitat loss.

The CDFWG (20121995) recommends that take avoidance (preconstruction) surveys be conducted to locate active burrowing owl burrows in the construction work area and within a an approximately 500-foot-wide buffer zone around the construction area. The project proponent or its contractor shall retain a qualified biologist to conduct take avoidance preconstruction surveys for active burrows according to the CDFWG's 2012 Staff Report on Burrowing Owl Mitigation (California Department of Fish and Game 19952012 Staff Report).

A qualified biologist shall conduct take avoidance (pre-construction) surveys no less than 14 days prior to initiating ground disturbance activities and surveillance surveys should be conducted as frequently as recommended in the 2012 Staff Report. If ground-disturbing activities are delayed or suspended for more than 30 days after the take avoidance (preconstruction) survey, the site shall be resurveyed. The preconstruction surveys shall include a breeding season survey and a wintering season survey.

If no burrowing owls are detected, no further mitigation for effects on nesting burrowing owls is required.

If active burrowing owls are detected, the following additional measures are required:

- Occupied burrows shall not be disturbed during the breeding season (February 1 to August 31), which requires a 250 foot no disturbance buffer.
- Project implementation shall seasonally and spatially avoid negative impacts and disturbances that could result in the take of burrowing owls, nests or eggs.
- If burrowing owls and their habitat can be protected in place on or adjacent to a construction site, buffer zones, visual screens or other measures shall be used to minimize disturbance impacts while project activities are occurring. In order to use buffer zones, visual screens and other measures, a qualified biologist shall determine the exact measures following the guidance

described in the 2012 Staff Report. Additionally, if visual screens are to be erected during the breeding season, they shall be installed between the hours of noon and 2 PM, when burrowing owls are least likely to be above ground and disturbed.

- Burrow exclusion and closure shall be avoided to the greatest extent possible, but if exclusion or closure of active burrows is necessary, it shall not occur until:

    1. A Burrowing Owl Exclusion Plan is developed by the project proponent and approved by the applicable local CDFW office;
    2. Permanent loss of occupied burrow(s) and habitat is mitigated in accordance with the 2012 Staff Report.
    3. Site monitoring is conducted prior to, during, and after exclusion of burrowing owls from their burrows sufficient to ensure take is avoided. Conduct daily monitoring for one week to confirm young of the year have fledged if the exclusion occurs immediately after the end of the breeding season.

~~• If owls must be moved away from the project site during the nonbreeding season, passive relocation techniques (e.g. installing one-way doors at burrow entrances) shall be used instead of trapping, as described in CDFG guidelines. At least 1 week will be necessary to complete passive relocation and allow owls to acclimate to alternate burrows.~~

~~• When destruction of occupied burrows is unavoidable during the nonbreeding season (September 1 to January 31), unsuitable burrows shall be enhanced (enlarged or cleared of debris) or new burrows created (by installing artificial burrows) at a ratio of 2:1 on protected lands approved by the CDFG. Newly created burrows shall follow guidelines established by the CDFG (1995). These guidelines also require compensation for loss of foraging habitat described in detail under **Impact BIO-8** above.~~

(*Applicability – Campus and University Community*)

3. Project Objectives

The objective of the proposed Photovoltaics project is to support the campus' initiative for a cleaner future by providing renewable energy and thereby lessening fossil fuel

dependence by UC Merced. The PV systems would maximize the utilization of the area's natural resources while only minimally impacting the physical and aesthetic aspects of the campus. An additional benefit of the project is realized by offering students and faculty an opportunity for direct field observation of the latest solar technologies to support the University's research and education mission. The implementation of the systems would add to the modernization of UC Merced's energy acquisition and set the standard for environmental stewardship and sustainability.

Changes to the wording of the 2009 LRDP Mitigation Measure BIO-9b would help the Photovoltaic project and other projects on the campus to be completed in a timely manner and not be burdened by unnecessary highly restrictive constraints. Burrowing owls would still be considered when planning projects and would be protected from indirect effects of campus construction activities. The reworded mitigation measure would be consistent with the current guidance provided by CDFW related to nesting burrowing owls.

4. Surrounding Land Uses and Environmental Setting

The Housing 4 building, also called Half Dome student housing, is located at the southwest end of the campus within the Summits Student Housing area. Tenaya Hall and Cathedral Hall are also in the housing area, south of the Housing 4 building. To the north, across Ranchers Road, is undeveloped land. Valley Terraces student housing lies east of the Housing 4 site and to the west, across Emigrant Pass Road, is the Early Childcare Education Center. As the arrays would be on the roof of Housing 4, the project would have little interaction with the surrounding land uses.

The North Bowl parking lot and the campus corporation yard are located at the northeastern end of the campus and are both relatively removed from the developed portions of the campus. The lands immediately north, east, and south of these two facilities are undeveloped grasslands used for grazing. Le Grand canal lies immediately north of the two sites and the Facilities Services buildings are the closest structures to the sites.

5. Discretionary Approval Authority

As a public agency principally responsible for approving or carrying out the proposed Photovoltaics 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 adding the Photovoltaics project to the campus development under the 2009 LRDP, making the proposed changes to LRDP Mitigation Measure BIO-9b, and approving the proposed changes. Approval of the proposed Photovoltaics project and the change to the mitigation measure has been delegated to the Chancellor of the UC Merced, by The Board of Regents of the University of California (The Regents) and is expected to be considered by the Chancellor in April 2017.

6. Consistency with the 2009 LRDP

The following discussion describes the proposed Photovoltaics project's relationship to and consistency with the development projections, population projections, land use designations, and objectives contained in the 2009 LRDP and analyzes whether the impacts of the proposed project are within the envelope of impacts disclosed in the 2009 LRDP EIR.

6.1 LRDP Scope of Development

The proposed Photovoltaics project would be installed on a rooftop and on a paved parking lot and corporation yard. The project would not involve construction or expansion of campus facilities and therefore would not increase the total amount of building space on the campus such that it could exceed the amount of building space included in the 2009 LRDP. Therefore, the project is within the LRDP's scope of development.

6.2 LRDP Land Use Designation

The 2009 LRDP land use map designates the long-term land uses of the project sites as areas intended for student residences. The Housing 4 building is consistent with the land use designation. The area of the North Bowl parking lot was designated medium density residential in the 2009 LRDP. The land use designation for the area of the parking lot was amended in 2010 to allow the use of the area for a parking lot as an interim land use. The implementation of the proposed Photovoltaics project would not require any changes to the existing land use designations of the project sites. Furthermore, the installation of the PV systems at these sites would not conflict with the existing adjacent campus land uses.

6.3 LRDP Population Projections

In 2009-10, the student population of UC Merced was approximately 3,400. In 2016-2017 the student population grew to approximately 6,815 students. The LRDP projects that, through 2020-21, the on-campus population would increase to include approximately 11,094 students and 3,093 faculty and staff. Neither the Photovoltaics project nor the change to the LRDP mitigation measure would add any population to the campus and therefore would not conflict with the 2009 LRDP's campus population projections.

6.4 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. In addition, the LRDP aims to model environmental stewardship and to provide a high-quality campus setting. The LRDP's "Zero Net Energy Commitment" sets an aggressive goal of producing the same amount of renewable energy that is consumed on campus by 2020. The Photovoltaics project would support these LRDP goals and objectives by implementing an alternative energy system that would support UC Merced in its pursuit to diverge from fossil fuels and gain independence in its energy acquisition. The project maximizes the efficient utilization of space by placing PV panels on a rooftop, and on the paved surfaces of the corporation yard and a parking lot, where the panels would have no effect on the functions of the areas and would not disturb or remove habitat. Without inhibiting the utilization of the parking lots or the roof, the PV systems would modernize the campus while promoting the clean energy goals of the University.

6.5 Relationship to the 2009 EIS/EIR

PV systems were not specifically evaluated for this portion of the UCM campus in the 2009 EIS/EIR, although the installation of a PV system was evaluated in another portion of the campus as part of the 2020 Project development. However, as the analysis in this Addendum shows, the installation of the PV systems on the three proposed sites would not result in significant new environmental impacts.

IV. 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.

☐ Aesthetics	☐ Agricultural and Forestry Resources	☐ Air Quality
☐ Biological Resources	☐ Cultural Resources	☐ Geology/Soils
☐ Hazards & Hazardous Materials	☐ Hydrology/Water Quality	☐ Land Use/Planning
☐ Noise	☐ Population and Housing	☐ Public Services
☐ Recreation	☐ Transportation/Traffic	☐ Utilities/Service Systems
☐ Greenhouse Gas Emissions	☐ Minerals	

V. DETERMINATION

On the basis of the initial evaluation that follows:

☐ I find that the proposed 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 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 — April 13, 2017

Signature — Date

PHILLIP WOODS — UC MERCED

Printed Name — For

VI. EVALUATION OF ENVIRONMENTAL IMPACTS

Upon initial review of the Photovoltaics project's scope, it has been determined that environmental impacts related to Agriculture and Forestry Resources, Geology and Soils, Hazards and Hazardous Materials, Hydrology and Water Quality, Land Use and Planning, Minerals, Noise, Population and Housing, Public Services and Recreation, Traffic, and Utilities require no further analysis beyond that contained in Volumes 1 and 2 of the 2009 EIS/EIR, as the inclusion of solar arrays at the proposed three sites to the development on the campus would not change the analysis of and conclusions regarding impacts on these resources. This is because the proposed project would not add new buildings or more population to the campus, and would not involve the use of hazardous materials. The following analysis addresses the remaining environmental resource areas to determine whether any further environmental analysis is needed.

1. AESTHETICS

The Photovoltaics project would install and operate PV systems on the roof of the Housing 4 building and on trellises that would be constructed on the North Bowl parking lot and in the campus corporation yard. Housing 4 is a five story building and the system would be fixed to low custom racking that was installed on the rooftop as part of the original construction of the building, and the incremental change would be minimal. As the other buildings in the Summits housing area are only four stories tall, the PV panels would be difficult to see and would be too far removed to have a significant effect on the visual character of the area.

At the North Bowl parking lot and the campus corporation yard, the systems would be constructed on trellises approximately 9.5 and 13.5 feet high. This would allow for the vehicular shading without inhibiting the usage of the lot or the corporation yard. Although the panels would be elevated, the covered lot would not be substantially out of scale with the existing development in this portion of the campus which consists of low buildings including the corporation yard buildings and Facilities Services buildings. Due to the low profile design of the solar arrays and the campus setting in which it would be located, the proposed project would result in a less than significant impact.

Current views of the Sierra Nevada range would only be impacted in some locations, such as beneath the proposed panels or directly next to them at the parking lot.

However, this is not a significant impact as those utilizing the parking lots would only be there for a brief time and the views would still be available from other campus vantage points. Scenic vistas from Lake Yosemite Regional Park looking to the southeast include views of the existing campus. Those views would be altered as the North Bowl parking lot and corporation yard solar arrays would be visible from the regional park, and the panels on top of Housing 4 may also be visible from locations on the regional park. However, the PV panels would be placed on sites that are already developed with facilities and adjacent to existing development and would not be in an area where they could detract from the scenic quality of the vista. Furthermore, due to the distance between the viewers and these arrays (approximately 0.25 mile between the regional park and Housing 4 and approximately 0.50 mile between the regional park and the corporation yard and North Bowl parking lot) and the fact that they would be located adjacent to the developed campus, the change would not be considered adverse. The proposed project would result in a less than significant impact.

The proposed project would result in new sources of glare, however, for all systems the solar panels would be elevated above the average line of vision and largely directed upwards (although the systems on the North Bowl Parking Lot as well as on the Corporation Yard would be below the line of vision and visible from nearby campus buildings). Furthermore, the PV panels would be made with high quality PV glass (low-iron/high transmission glass) and treated with an anti-reflective (AR) coating that would prevent the modules from reflecting light and eliminate glare. Therefore, the impact from any glare produced by the panels would be less than significant. The project sites are already illuminated at night for security reasons and there would be no increase in lighting due to the proposed project. The proposed project would result in a less than significant impact.

In summary, the proposed Photovoltaics project would not substantially alter the visual character or quality of the site and its surroundings, substantially affect the amount of light and glare generated, adversely affect scenic resource or scenic vistas as compared with what was already fully analyzed in the analysis found in Volume 1 of the 2009 EIS/EIR. The project would not change the nature or magnitude of potential impacts to aesthetic resources or the conclusions in Volume 1 of the 2009 EIS/EIR. No further analysis is required.

2. AIR QUALITY

The Photovoltaics project is a small construction project that would produce minimal construction-related emissions during installation of the PV systems. On-site emissions generated during construction principally would consist of exhaust emissions from the operation of heavy-duty equipment and fugitive dust from disturbed soil. A crane, used to bring the PV modules and associated materials to the roof of Housing 4, would be the only piece of heavy-duty equipment needed for the proposed project as the solar panels, and trellises at the North Bowl Parking area, would be set up using small equipment. Installation of the PV system over the parking spaces and on the roof would not result in a substantial increase in on-site construction activities and, in particular, would not necessitate substantial grading. Off-site emissions during the construction phase would be generated by worker commute trips and material delivery trips to and from the sites, and the limited trenching that would be conducted to place the conduits in the ground. Due to the size and nature of the proposed project, construction worker trips would be minimal. Therefore, construction emissions of the proposed project would not violate any air quality standards nor cause a considerable net increase in criteria pollutants. The impact from construction emissions would be less than significant.

Once installed, the solar panels result in little to no operation-related emissions, as there would be no combustion-related emissions from permanent mechanical equipment. The Photovoltaics project would not contribute to the annual emissions resulting from the operation of the UC Merced campus that are projected to exceed the SJVAPCD significance thresholds for ROG and NOX, since there would be little to no operational emissions once the proposed project is completed. Operational emissions of the proposed project would not violate any air quality standards nor cause a considerable net increase in criteria pollutants.

The parking lot and corporation yard would not be located near any sensitive receptors. The nearest sensitive receptors to Housing 4 would be located less than 50 feet to the south within Tenaya Hall and approximately 80 feet to the east within San Joaquin Hall. However, due to the nature of the proposed project, neither construction nor operation of the project would result in emissions of toxic air contaminants (TAC) or increased PM2.5 concentrations. Thus, nearby sensitive receptors would not be exposed to substantial pollutant concentrations upon project implementation and a less than significant impact would occur.

The construction and operation of the Photovoltaics project would result in minimal to no odors and the impact of the proposed project would be less than significant.

The proposed project does not include facilities that support growth beyond what was analyzed in the 2009 EIS/EIR. The Photovoltaics project is intended to reduce the dependency of the campus on non-renewable energy and provide energy to the existing and planned student and employee population. Therefore, the Photovoltaics project would not conflict with the applicable air quality management plan and would have a less than significant impact.

In summary, the proposed project would not substantially increase construction or operational emissions to a level that would violate an air quality standard, cause a considerable net increase in criteria pollutants, expose nearby sensitive receptors to substantial pollutant concentrations, create objectionable odors, or conflict with an applicable air quality plan as compared with what was already fully analyzed in the analysis found in Volume 1 of the 2009 EIS/EIR. The project would not change the nature or magnitude of potential impacts to air quality or the conclusions in Volume 1 of the 2009 EIS/EIR. No further analysis is required.

3. BIOLOGICAL RESOURCES

The Photovoltaics project would install PV systems on an existing parking lot, corporation yard, and housing. Construction activities to install PV systems to the parking lot and corporation yard would require some ground disturbing activities such as excavation to install the posts on which the panels would be mounted and trenching to place conduits for wiring. In addition, there is an unpaved previously graded area to the north east of the North Bowl parking lot that would be used for staging.

As stated above, existing small sized landscaping trees on the North Bowl parking lot would be removed or trimmed for the installation of the PV system at that location but no mature trees would be removed. Therefore, no direct impact would occur to tree-nesting birds. Indirect impacts on nesting birds in more distant trees are considered unlikely due to the type of construction involved on the proposed project and the distance between the project sites and the nearest mature trees. Ground disturbing activities would however occur in areas where ground-nesting birds, including burrowing owls (*Athene cunicularia*) and common bird species such as kildeer, are known to occur. To avoid impacts to all nesting birds known to occur near the parking

lot and corporation yard area, including ground-nesting birds, the proposed project would implement **LRDP Mitigation Measures BIO-9a** and **BIO-9b**, which limit construction activities to the non-breading season, but if work during the nesting season is required, pre-construction surveys would be conducted and measures implemented to avoid disturbing active nests. Project impacts to burrowing owls that are known to occur east of the parking lot and corporation yard area would be reduced to a less than significant level with implementation of the revised **LRDP Mitigation Measure BIO-9b,** set forth above in **Section III** of this Addendum. Thus, the impact to nesting birds, including burrowing owls, from project implementation would be reduced to a less than significant level.

All of the UC Merced campus, including the North Bowl parking lot and the campus corporation yard, is within 1.3 miles of ponds and large vernal pools where California tiger salamander (CTS) is known to breed. Although CTS has not been observed on the campus, the species has the potential to disperse from the breeding locations and during the dry season estivate in burrows on the campus. In 2015, a CTS exclusion fence was installed by UC Merced to encompass the 2020 Project site and the North Bowl parking lot site in advance of the start of construction on both the 2020 Project and the North Bowl parking lot expansion in 2016. The CTS exclusion fence encompasses the North Bowl parking area and the corporation yard (**Figure 1**) and is designed to keep dispersing CTS from entering the construction areas. Thus, the limited ground disturbing activities associated with the proposed Photovoltaics project would result in a less than significant impact on CTS.

The proposed project would have no impacts on riparian habitat, sensitive natural communities, federally protected wetlands, or migratory fish or wildlife species. The dirt lot that would be used for staging has been previously graded and does not contain any resources such as vernal pools or swales. Nor would the project conflict with any local policies or ordinances. No other impacts would occur.

In summary, with the existing CTS fence and implementation of applicable **LRDP Mitigation Measures BIO-9a** and **BIO-9b**, the proposed project would not result in new or more severe impacts on special-status species relative to the impacts fully analyzed in Volume 1 of the 2009 EIS/EIR. The proposed project would have no other impacts to biological resources. Thus, the project would not change the nature or magnitude of potential impacts to biological resources or the conclusions in Volume 1 of the 2009 EIS/EIR. No further analysis is required.

4. CULTURAL RESOURCES

Ground disturbance during construction of the proposed project would be minimal and would occur in previously disturbed areas. However, there is still potential to inadvertently unearth and damage unknown archaeological resources during ground disturbing activities. However, **LRDP Mitigation Measure CUL-2** shall be implemented to ensure that any unknown archaeological resources encountered during construction activities would be properly handled. Adherence to **LRDP Mitigation Measure CUL-2** would reduce the impact to archaeological resources to a less than significant level.

Similarly, although ground disturbing activities would be minimal, there is still potential to inadvertently unearth and damage buried human remains that were not identified during previous surveys of the area. Implementation of **LRDP Mitigation Measure CUL-3** shall be required to ensure the impact to human remains is reduced to a less than significant level.

In summary, the proposed project's ground disturbing activities would not substantially impact archaeological resources or human remains or result in new or more severe impacts compared to those analyzed in Volume 1 of the 2009 EIS/EIR. The project would not change the nature or magnitude of potential impacts to cultural resources or the conclusions in Volume 1 of the 2009 EIS/EIR. No further analysis is required.

VII. SUPPORTING INFORMATION SOURCES

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

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

VIII. ADDENDUM PREPARERS

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