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Summary Form for Electronic Document Submittal

Form F

Lead agencies may include 15 hardcopies of this document when submitting electronic copies of Environmental Impact Reports, Negative Declarations, Mitigated Negative Declarations, or Notices of Preparation to the State Clearinghouse (SCH). The SCH also accepts other summaries, such as EIR Executive Summaries prepared pursuant to CEQA Guidelines Section 15123. Please include one copy of the Notice of Completion Form (NOC) with your submission and attach the summary to each electronic copy of the document.

SCH #: 2018041010

Project Title: University of California (UC) Merced 2020 Long Range Development Plan (LRDP) Project

Lead Agency: University of California

Contact Name: Phil Woods

Email: pwoods3@ucmerced.edu Phone Number: (209) 349-2561

Project Location: Merced County *City* Merced *County*

Project Description (Proposed actions, location, and/or consequences).

The approximately 1,026-acre project site is the Merced campus of the University of California (UC). The campus is located in eastern Merced County, within the sphere of influence of the City of Merced, approximately 2 miles northeast of the city limits. The site is south southeast of Lake Yosemite Regional Park and east of Lake Road. State Route 99 provides regional access to the project site.

Each campus in the UC system is required to periodically examine its academic goals, and to support those goals, formulate a land use plan in a Long Range Development Plan (LRDP). An LRDP is defined by statute (Public Resources Code [PRC] 21080.09) as a "physical development and land use plan to meet the academic and institutional objectives for a particular campus or medical center of public higher education." The Regents approved the 2009 LRDP for the UC Merced campus as a guide for physical development to accommodate enrollment growth projected through 2030. The University has determined that an updated LRDP must be prepared to better reflect the revised campus site and changed conditions in the area. A Recirculated Draft Subsequent Environmental Impact Report (SEIR) has been prepared to evaluate the potentially significant environmental effects of the proposed UC Merced 2020 LRDP.

Identify the project's significant or potentially significant effects and briefly describe any proposed mitigation measures that would reduce or avoid that effect.

The following have been identified as significant or potentially significant impacts (mitigation measures are provided in the document attached):

Air Quality: LRDP Impact AQ-2, Cumulative Impact C-AQ-1
Biological Resources: LRDP Impact BIO-4, LRDP Impact BIO-9
Greenhouse Gas: LRDP Impact GHG-1, LRDP GHG-2, Cumulative Impact C-GHG-1
Hydrology and Water Quality: Cumulative Impact C-HYD-2
Noise: LRDP Impact NOI-3, LRDP Impact NOI-4
Public Services and Recreation: LRDP Impact PUB-6
Transportation: LRDP Impact TRANS-1, Cumulative Impact C-TRANS-1

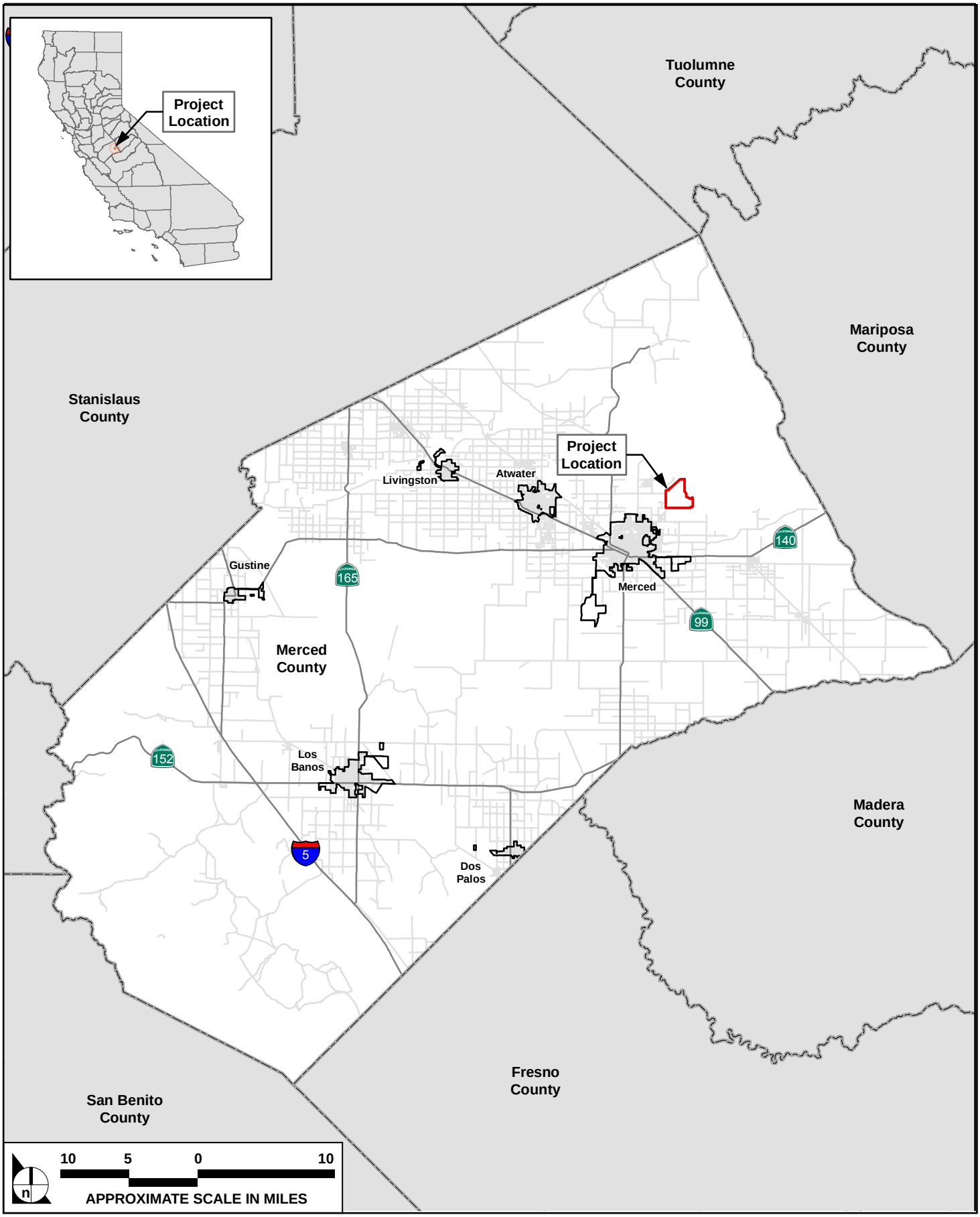
If applicable, describe any of the project's areas of controversy known to the Lead Agency, including issues raised by agencies and the public.

Topics of known concern or controversy include: Biological Resources, Hydrology and Water Quality, Population and Housing, Public Services and Recreation, and Transportation. Specific issues that were raised in scoping comments include the following:

- Impacts of campus demand on water supply
- Impact of the higher density, high-rise campus development under the 2020 LRDP on aesthetics, including light and glare
- Impacts on study area housing resources
- Impacts on public services, especially fire service provided by both the City and the County;
- Impacts on water and wastewater infrastructure from the growth of the campus under the 2020 LRDP;
- Impacts of increased campus-related traffic on the transportation system
- Consideration of mitigation measures put forth by Merced Irrigation District (MID) for potential effects on MID facilities on the campus
- Recommendation by the Native American Heritage Commission (NAHC) that UC Merced conduct consultation with California Native American Tribes that are traditionally and culturally affiliated with the geographic area of the Project
- Recommendation by the California Department of Toxic Substances (DTSC) to confirm the absence of prior releases of hazardous materials on development sites on the campus.

Provide a list of the responsible or trustee agencies for the project.

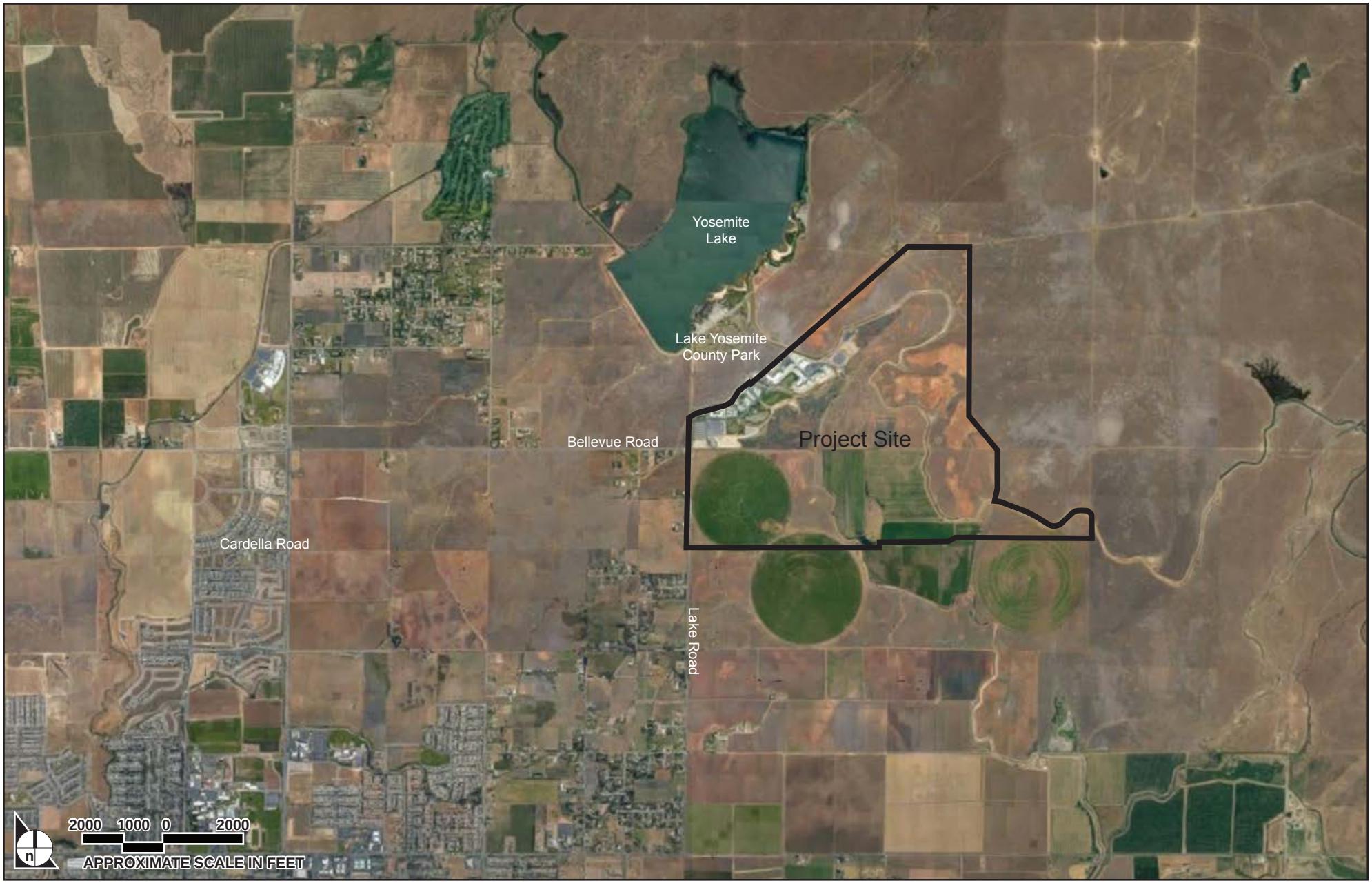
U.S. Army Corps of Engineers (USACE)
U.S. Fish and Wildlife Service (USFWS)
California Department of Fish and Wildlife (CDFW)
Central Valley Regional Water Quality Control Board (CVRWQCB)
San Joaquin Valley Air Pollution Control District (SJVAPCD)



SOURCE: UC Merced, 2019

FIGURE **3.0-1**

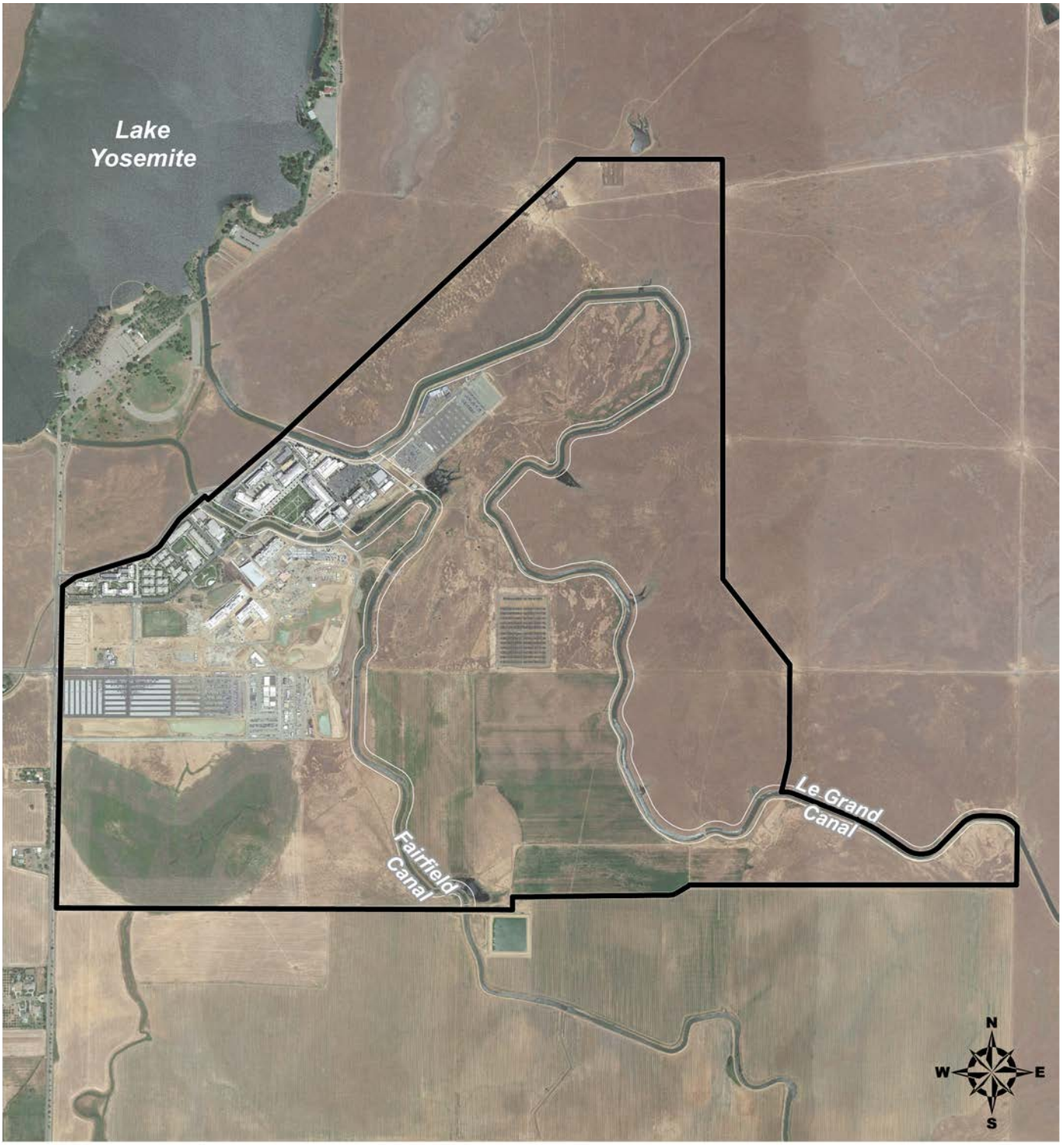
Regional Location



SOURCE: Google Maps, 2018

FIGURE **3.0-2**

Project Site and Vicinity

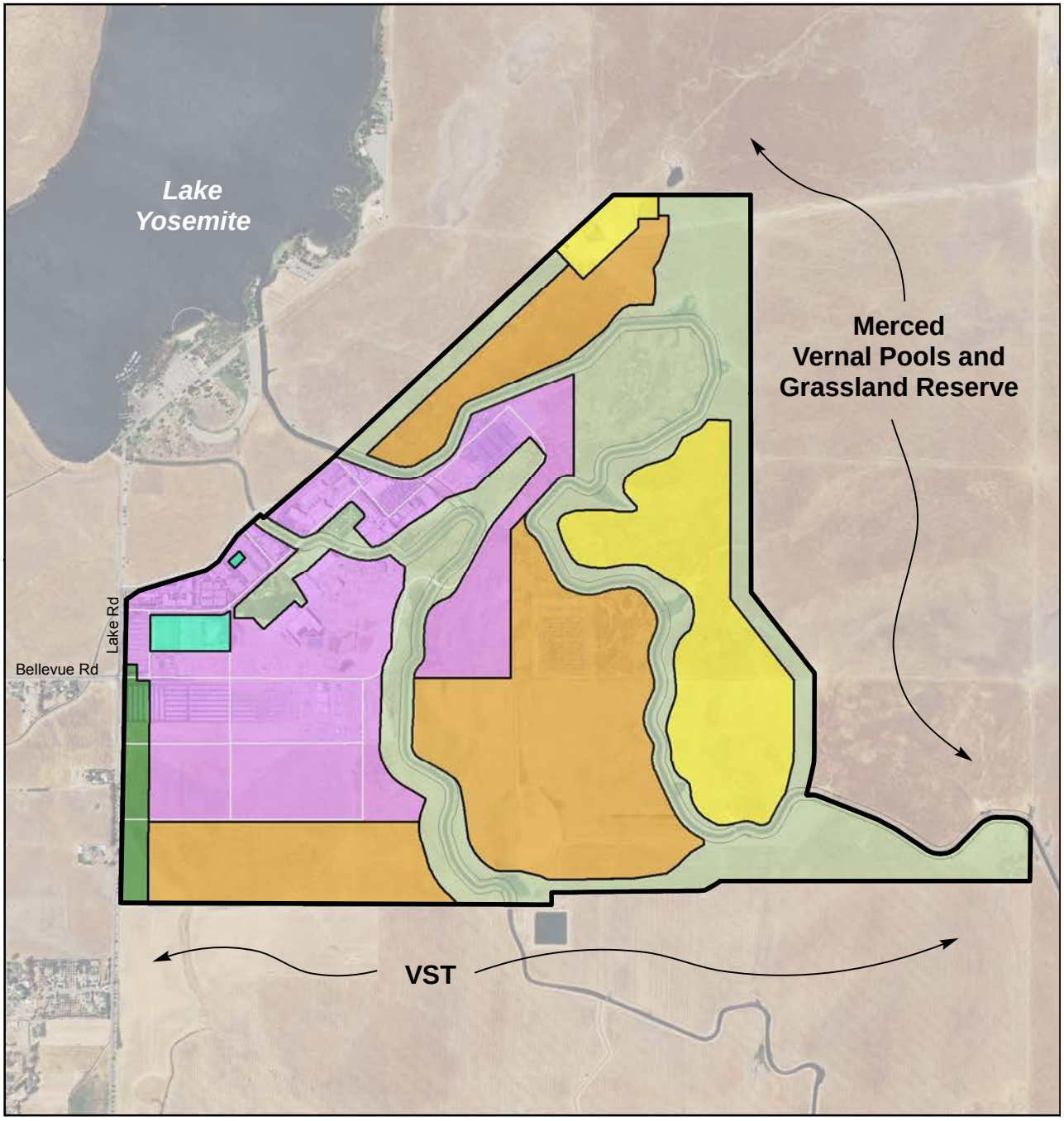


UC Merced Campus

SOURCE: University of California Merced, 2019

FIGURE **3.0-3**

Existing Conditions



Land Use

Campus Mixed Use (CMU)	274 ac
Campus Building Reserve & Support Land (CBRSL)	306 ac
Research Open Space (ROS)	135 ac
Active Open Space (AOS)	9 ac
Passive Open Space (POS)	283 ac
Campus Parkway Open Space (CPOS)	19 ac
Total Area	1,026 ac

SOURCE: UC Merced, 2019

FIGURE **3.0-5**

Proposed 2020 LRDP Land Use Designations

Table 2.0-2
Summary of LRDP Impacts and Mitigation Measures

Project Impacts	Significance Before Mitigation	Mitigation Measures	Significance After Mitigation
Air Quality			
LRDP Impact AQ-1: Campus development under the 2020 LRDP would not result in construction emissions that would result in a cumulatively considerable net increase of criteria pollutants for which the air basin is in non-attainment.	*Less than Significant*	**LRDP MM AQ-1a:** The construction contractors shall be required via contract specifications to use construction equipment rated by the U.S. EPA as meeting Tier 4 (model year 2008 or newer) emission limits for engines between 50 and 750 horsepower. **LRDP MM AQ-1b:** UC Merced shall include in all construction contracts the measures specified in SJVAPCD Regulation VIII (as it may be amended for application to all construction projects generally) to reduce fugitive dust impacts, including but not limited to the following: • All disturbed areas, including storage piles, which are not being actively utilized for construction purpose, shall be effectively stabilized of dust emissions using water, chemical stabilizer/ suppressant, or vegetative ground cover. • All on-site unpaved roads and off-site unpaved access roads shall be effectively stabilized of dust emissions using water or chemical stabilizer/ suppressant. • All land clearing, grubbing, scraping, excavation, land leveling, grading, cut and fill, and demolition activities shall be effectively controlled of fugitive dust emissions using application of water or by presoaking. • When materials are transported off-site, all material shall be covered, effectively wetted to limit visible dust emissions, or at least 6 inches of freeboard space from the top of the container shall be maintained. • All operations shall limit or expeditiously remove the accumulation of mud or dirt from adjacent public streets at least once every 24 hours when operations are occurring. (The use of dry rotary brushes is expressly prohibited except where preceded or accompanied by sufficient wetting to limit visible dust emissions. Use of blower devices is expressly forbidden.)	*N/A*

Table 2.0-2
Summary of LRDP Impacts and Mitigation Measures

Project Impacts	Significance Before Mitigation	Mitigation Measures	Significance After Mitigation
		• Following the addition of materials to, or the removal of materials from, the surface of outdoor storage piles, storage piles shall be effectively stabilized of fugitive dust emissions by using sufficient water or chemical stabilizer/ suppressant.	
LRDP Impact AQ-2: Campus development under the 2020 LRDP would result in operational emissions that would involve a cumulatively considerable net increase of criteria pollutants for which the air basin is in non-attainment.	*Significant*	**LRDP MM AQ-2a**: UC Merced shall implement the following measures to reduce emissions from vehicles: • Provide pedestrian-enhancing infrastructure to encourage pedestrian activity and discourage vehicle use. • Provide bicycle facilities to encourage bicycle use instead of driving, such as bicycle parking, bicycle lanes, bicycle lockers; and showers and changing facilities for employees. • Provide preferential carpool and vanpool parking for non-residential uses. • Provide transit-enhancing infrastructure to promote the use of public transportation, such as covered bus stops and information kiosks. • Provide facilities, such as electric car charging stations and a CNG refueling station, to encourage the use of alternative-fuel vehicles. • Improve traffic flows and congestion by timing of traffic signals at intersections adjacent to the campus to facilitate uninterrupted travel. • Work with campus transit provider to replace CatTracks buses with either electric buses or buses operated on alternative fuels. • Work with the City of Merced to establish park and ride lots and provide enhanced transit service between the park and ride lots and the campus. • Replace campus fleet vehicles with electric vehicles or vehicles that operate on alternative fuels. • Reduce the number of daily vehicle trips by providing more housing on campus.	*Significant and Unavoidable*

Table 2.0-2
Summary of LRDP Impacts and Mitigation Measures

Project Impacts	Significance Before Mitigation	Mitigation Measures	Significance After Mitigation
		LRDP MM AQ-2b: UC Merced shall implement the following measures to reduce emissions from area and energy sources, as feasible: • Utilize low-VOC cleaning supplies and low-VOC paints (100 grams/liter or less) in building maintenance. • Utilize electric equipment for landscape maintenance. • Plant low maintenance landscaping. • Implement a public information program for resident students to minimize the use of personal consumer products that result in ROG emissions, including information on alternate products. • Instead of natural gas water heaters, install solar water heating systems.	
LRDP Impact AQ-3: Implementation of the 2020 LRDP would not expose sensitive receptors to substantial pollutant concentrations of carbon monoxide.	*Less than Significant*	No mitigation is required.	*N/A*
LRDP Impact AQ-4: Implementation of the 2020 LRDP would not conflict with or obstruct implementation of the applicable air quality plan.	*Less than Significant*	No mitigation is required.	*N/A*
LRDP Impact AQ-5: Implementation of the 2020 LRDP would not result in odors adversely affecting a substantial number of people.	*Less than Significant*	No mitigation is required.	*N/A*
Cumulative Impact C-AQ-1: The construction and operation of the campus under the 2020 LRDP, in conjunction with other past, present, and reasonably foreseeable future development in the project area, could hinder air quality attainment and maintenance efforts for criteria pollutants.	*Significant*	**Cumulative MM C-AQ-1:** Implement LRDP MM AQ-2a and AQ-2b. No additional mitigation is available.	*Significant and Unavoidable*

Table 2.0-2
Summary of LRDP Impacts and Mitigation Measures

Project Impacts	Significance Before Mitigation	Mitigation Measures	Significance After Mitigation
Biological Resources			
LRDP Impact BIO-1: Implementation of the 2020 LRDP would not have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means.	*Less than Significant*	No mitigation is required.	*N/A*
LRDP Impact BIO-2: Implementation of the 2020 LRDP would not result in adverse impacts on special-status plant species.	*Less than Significant*	No mitigation is required.	*N/A*
LRDP Impact BIO-3: Implementation of the 2020 LRDP would not result in a substantial adverse impact on special-status invertebrate species due to the loss of vernal pool ecosystems or designated critical habitat for the species.	*Less than Significant*	No mitigation is required.	*N/A*
LRDP Impact BIO-4: Implementation of the 2020 LRDP would result in a potentially significant adverse impact on nesting and overwintering habitat for the Crotch bumble bee.	*Potentially Significant*	**LRDP MM BIO-4:** A qualified wildlife biologist shall conduct visual surveys of the development area during the flight season for the Crotch bumble bee (late February through late October). Between two and four evenly spaced surveys shall be conducted for the highest detection probability, including surveys in early spring (late March/early April) and early summer (late June/July). Surveys shall take place when temperatures are above 60°F, preferably on sunny days with low wind speeds (e.g., less than 8 miles per hour) and at least 2 hours after sunrise and 3 hours before sunset. On warm days (e.g., over 85°F), bumble bees will be more active in the mornings and evenings. Surveyors shall conduct transect surveys focusing on detection of foraging bumble bees and underground nests using visual aids such as butterfly binoculars. If no Crotch bumble bees or potential Crotch bumble bees are detected, no further mitigation is required. If Crotch bumble bees or potential Crotch bumble bees are observed within the development area, a plan to protect Crotch bumble bee nests and individuals shall be developed and implemented in consultation with	*Less than Significant*

Table 2.0-2
Summary of LRDP Impacts and Mitigation Measures

Project Impacts	Significance Before Mitigation	Mitigation Measures	Significance After Mitigation
		CDFW. The plan shall include, but not be limited to, the following measures: • Specifications for construction timing and sequencing requirements (e.g., avoidance of raking, mowing, tilling, or other ground disturbance until late March to protect overwintering queens); • Preconstruction surveys conducted within 30 days and consistent with any current available CDFW standards prior to the start of ground disturbing activities to identify active nests; • Establishment of appropriate no-disturbance buffers for nest sites and construction monitoring by a qualified biologist to ensure compliance; • Restrictions associated with construction practices, equipment, or materials that may harm bumble bees (e.g., avoidance of pesticides/herbicides, BMPs to minimize the spread of invasive plant species); • Provisions to avoid Crotch bumble bees or potential Crotch bumble bees if observed away from a nest during project activity (e.g., ceasing of project activities until the animal has left the work area on its own volition); and • Prescription of an appropriate restoration seed mix targeted for the Crotch bumble bee, including native plant species known to be visited by native bumble bee species and containing a mix of flowering plant species with continual floral availability through the entire active season of the Crotch bumble bee (March to October).	

Table 2.0-2
Summary of LRDP Impacts and Mitigation Measures

Project Impacts	Significance Before Mitigation	Mitigation Measures	Significance After Mitigation
LRDP Impact BIO-5: Implementation of the 2020 LRDP would not result in a substantial adverse impact on special-status amphibians (California tiger salamanders and western spadefoot) dependent on vernal pool ecosystems, annual grasslands, and stock ponds due to the loss of these habitats and would not result in mortality of individual amphibians during construction of campus facilities due to compliance with permits.	*Less than Significant*	No mitigation is required.	*N/A*
LRDP Impact BIO-6: Implementation of the 2020 LRDP would not result in a substantial adverse impact on western pond turtle from the loss or disturbance of ponds and seasonal freshwater marsh communities.	*Less than Significant*	No mitigation is required.	*N/A*
LRDP Impact BIO-7: Implementation of the 2020 LRDP would not result in a substantial adverse impact on Swainson's hawk from the loss of suitable foraging or nesting habitat.	*Less than Significant*	No mitigation is required.	*N/A*
LRDP Impact BIO-8: Implementation of the 2020 LRDP would not result in a substantial adverse impact on special-status avian species from the loss of foraging habitat.	*Less than Significant*	No mitigation is required.	*N/A*
LRDP Impact BIO-9: Implementation of the 2020 LRDP would result in potentially significant adverse impacts on special-status bird species and non-special-status migratory birds and raptors.	*Potentially Significant*	**LRDP MM BIO-9a:** Avoid and minimize impacts on native birds protected under the MBTA, including listed species, fully protected species, special-status species of concern, and raptors and passerines. (a) Limit ground disturbance activities to the non-breeding season and remove potential unoccupied breeding habitat during the non-breeding season if possible. If breeding season work is required, conduct take avoidance (tree, shrub, and ground) nest surveys to identify and avoid active nests. • If feasible, UC Merced shall conduct all project-related activities including (but not limited to) tree and shrub removal, other vegetation clearing, grading, or other ground disturbing activities during the non-breeding	*Less than Significant*

Table 2.0-2
Summary of LRDP Impacts and Mitigation Measures

Project Impacts	Significance Before Mitigation	Mitigation Measures	Significance After Mitigation
		season (typically between September 16 and February 14). • If activities are scheduled to occur during the breeding season (typically between February 15 through September 15), applicable CDFW and/or USFWS permit conditions in the permits issued to the University related to bird surveys must be followed. In addition, a UC Merced-approved qualified avian biologist, with knowledge of the species to be surveyed, shall conduct focused nesting surveys within 15 days prior to the start of project or ground-disturbing activities and within the appropriate habitat. The qualified avian biologist shall determine the exact survey duration and location (typically 500 feet around the work area) based on the work conditions and shall take into account existing applicable CDFW or USFWS permit conditions. • If an unoccupied nest (without birds or eggs) of a non-listed or fully protected species (as determined by the qualified avian biologist) is found, the nest shall be removed under the direction of the qualified avian biologist. • If an active nest is located, a qualified avian biologist shall establish an appropriate no-disturbance buffer around the nest making sure that any buffer width required by the University's permit obligations is followed. A 500-foot buffer is recommended for listed or fully protected nesting birds (or another buffer determined in consultation with CDFW and/or USFWS), a 250-foot buffer around raptors, and a 75-foot buffer around passerines. If work activities cause or contribute to a bird being flushed from a nest, the buffer width shall be adjusted to avoid and minimize impacts to nesting birds.	

Table 2.0-2
Summary of LRDP Impacts and Mitigation Measures

Project Impacts	Significance Before Mitigation	Mitigation Measures	Significance After Mitigation
		• A qualified avian biologist shall monitor the nest site regularly during work activities to ensure that the nest site is not disturbed, the buffer is maintained and the success or failure of the nest is documented. • If UC Merced elects to remove a nest tree, nest trees may only be removed after the qualified avian biologist has determined that the nests are unoccupied. • If an active nest is causing a safety hazard, CDFW shall be contacted to determine if the nest can be removed. (b) Minimize impacts to burrowing owl and compensate for habitat loss. CDFW (2012) recommends that take-avoidance (preconstruction) surveys be conducted to locate active burrowing owl burrows in the construction work area and within an approximately 500-foot buffer zone around the construction area. a qualified avian biologist shall conduct take avoidance surveys for active burrows according to the CDFW's Staff Report on Burrowing Owl Mitigation (2012 Staff Report). Surveys shall be conducted 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 than 30 days after the take avoidance survey, the area shall be resurveyed. If no burrowing owls are detected, no further mitigation is required. If active burrowing owls are detected, the following additional measures are required: • Project implementation shall seasonally and spatially avoid negative impacts and disturbances that could result in the take of burrowing owls, nest or eggs.	

Table 2.0-2
Summary of LRDP Impacts and Mitigation Measures

Project Impacts	Significance Before Mitigation	Mitigation Measures	Significance After Mitigation
		• If burrowing owls and their habitat can be protected in place 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. To use these minimization measures, a qualified avian biologist shall determine the exact measures following the guidance described in the 2012 Staff Report. • 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 CDFW 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 CDFW. Newly created burrows shall follow guidelines established by the CDFW. **LRDP MM BIO-9b**: New buildings and structures proposed under the 2020 LRDP shall incorporate bird-safe design practices (for example, American Bird Conservancy's *Bird-Friendly Building Design* [2015] or San Francisco Planning Department's *Standards for Bird-Safe Buildings* [2011]). The UC Merced Physical and Environmental Planning Department shall review the final designs of the buildings and structures to determine that appropriate bird safety designs have been effectively incorporated to reduce potential impacts to birds. The following design strategies shall be considered in the design of buildings and structures:	

Table 2.0-2
Summary of LRDP Impacts and Mitigation Measures

Project Impacts	Significance Before Mitigation	Mitigation Measures	Significance After Mitigation
		• Create building facades with "visual noise" via cladding or other design features that make it easier for birds to identify buildings and not mistake windows for open sky or trees. • Incorporate windows that are not clear or reflective into the building or structure designs. • Use windows that incorporate glass types such as UV-A or fritted glass and windows that incorporate UV-absorbing and UV-reflecting stripe. • Use grid patterns on windows in locations with the highest potential for bird-window collisions (e.g., windows at the anticipated height of adjacent vegetation at maturity). • Reduce the proportion of glass to other building materials in new construction. • Avoid placement of bird-friendly attractants (i.e. vegetated roofs, water features, tall trees) near glass whenever possible. • Install motion-sensitive lighting in any area visible from the exterior that automatically turn lights off during after-work hours.	
LRDP Impact BIO-10: Implementation of the 2020 LRDP would not result in substantial adverse impacts to San Joaquin kit fox due to the loss of suitable residence and dispersal habitat.	*Less than Significant*	No mitigation is required.	*N/A*
Cumulative Impact C-BIO-1: Development of the campus under the 2020 LRDP, in conjunction with other past, present, and reasonably foreseeable future development in the project area, would not result in the loss or adverse modification of vernal pool wetlands, clay slope wetlands, and other seasonal wetlands.	*Less than Significant*	No mitigation is required.	*N/A*

Table 2.0-2
Summary of LRDP Impacts and Mitigation Measures

Project Impacts	Significance Before Mitigation	Mitigation Measures	Significance After Mitigation
Cumulative Impact C-BIO-2: Development of the campus under the 2020 LRDP, in conjunction with other past, present, and reasonably foreseeable future development in the project area, would not result in the loss or adverse modification of important special-status plant and wildlife habitat, including adverse effects to special-status plant and wildlife species that occupy or could potentially occupy these habitats.	*Less than Significant*	No mitigation is required.	*N/A*
Greenhouse Gas Emissions			
LRDP Impact GHG-1: Implementation of the 2020 LRDP would generate greenhouse gas emissions, either directly or indirectly, that would have a significant impact on the environment.	*Significant*	**LRDP MM GHG-1a:** UC Merced shall set a goal to reduce or control the increase in its GHG emissions such that the total emissions do not exceed 3,300 $MTCO_2e$/ year by the end of the year 2030. UC Merced shall monitor GHG emissions each year, monitor upcoming projects for their potential to increase the campus' GHG emissions, and implement project-specific and campus-wide GHG reduction measures to reduce the campus' GHG emissions in accordance with the 3,300 $MTCO_2e$/year goal for 2030. In the event that adequate reduction is not achieved by these measures, UC Merced shall purchase renewable energy credits, or other verifiable GHG offsets to keep the net emissions at or below 3,300 $MTCO_2e$/year. **LRDP MM GHG-1b**: UC Merced shall implement LRDP Mitigation Measures AQ-2a and -2b. **LRDP MM GHG-1c:** UC Merced shall periodically review new technologies that can be implemented to further reduce the campus' GHG emissions.	*Less than Significant*
LRDP Impact GHG-2: Implementation of the 2020 LRDP would conflict with state law, UC Sustainable Practices Policy, or the UC Merced Climate Action Plan, adopted for the purpose of reducing the emissions of greenhouse gases.	*Significant*	**LRDP MM GHG-2:** Implement LRDP Mitigation Measures GHG-1a, 1b, and 1c.	*Less than Significant*

Table 2.0-2
Summary of LRDP Impacts and Mitigation Measures

Project Impacts	Significance Before Mitigation	Mitigation Measures	Significance After Mitigation
Cumulative Impact C-GHG-1: Implementation of the 2020 LRDP would result in a significant cumulative GHG impact.	*Significant*	**Cumulative MM C-GHG-1:** Implement LRDP Mitigation Measures GHG-1a, 1b, and 1c.	*Less than Significant*
Hydrology and Water Quality			
LRDP Impact HYD-1: Campus development under the 2020 LRDP would not substantially interfere with groundwater recharge nor substantially decrease groundwater supplies.	*Less than Significant*	No mitigation is required.	*N/A*
LRDP Impact HYD-2: Campus development under the 2020 LRDP would not substantially alter the existing drainage pattern of the campus site through alteration of a water course or through the addition of impervious surfaces such that it would result in substantial erosion or siltation on or off site, result in flooding on or off site, contribute runoff water that would exceed the capacity of existing or planned stormwater drainage systems, or impede or redirect flood flows.	*Less than Significant*	No mitigation is required.	*N/A*
Cumulative Impact C-HYD-1: Development of the campus under the 2020 LRDP, in conjunction with other past, present, and reasonably foreseeable future development in the project area, could cumulatively increase surface runoff but would not increase local and regional flooding.	*Less than Significant*	No mitigation is required.	*N/A*
Cumulative Impact C-HYD-2: Development of the campus under the 2020 LRDP, in conjunction with other past, present, and reasonably foreseeable future development in the project area, would not substantially interfere with groundwater recharge but would deplete groundwater supplies and contribute to the overdraft of the regional groundwater aquifer.	*Significant*	**Cumulative MM C-HYD-2:** UC Merced shall work with the regional water agencies, including the City of Merced and MID, to develop programs to expand conjunctive use capabilities, increase recharge, and reduce groundwater demand.	*Significant and Unavoidable*

Table 2.0-2
Summary of LRDP Impacts and Mitigation Measures

Project Impacts	Significance Before Mitigation	Mitigation Measures	Significance After Mitigation
Noise			
LRDP Impact NOI-1: Implementation of the 2020 LRDP would not substantially increase ambient traffic noise levels at existing off-site noise-sensitive uses.	*Less than Significant*	No mitigation is required.	*N/A*
LRDP Impact NOI-2: Daily operations on the campus under the 2020 LRDP would not expose existing off-site and future on-site noise-sensitive receptors to noise levels in excess of applicable standards.	*Less than Significant*	No mitigation is required.	*N/A*
LRDP Impact NOI-3: Construction activities associated with development under the 2020 LRDP could expose existing off-site and future on-site noise-sensitive receptors to elevated noise levels.	*Potentially Significant*	**LRDP MM NOI-3:** Prior to initiation of construction on a project that is within 500 feet of off-site residential receptors, UC Merced shall develop and implement a construction noise mitigation program for that project that includes but is not limited to the following: • Construction activities within 500 feet of any residences shall be restricted to the hours of 7:00 AM and 6:00 PM on weekdays and Saturdays with no construction on Sundays and holidays. • All noise-producing project equipment and vehicles using internal combustion engines shall be equipped where appropriate with exhaust mufflers and air-inlet silencers in good operating condition that meet or exceed original factory specifications. • Mobile or fixed "package" equipment (e.g., arc-welders, air compressors) shall be equipped with shrouds and noise control features that are readily available for that type of equipment. • All mobile or fixed noise-producing equipment used on the project that is regulated for noise output by local, state or federal agency shall comply with such regulation while engaged in project-related activities. • Electrically powered equipment shall be used instead of pneumatic or internal combustion powered equipment, where practicable.	*Less than Significant*

Table 2.0-2
Summary of LRDP Impacts and Mitigation Measures

Project Impacts	Significance Before Mitigation	Mitigation Measures	Significance After Mitigation
		• Material stockpiles, mobile equipment staging, construction vehicle parking, and maintenance areas shall be located as far as practicable from noise-sensitive land uses. • Stationary noise sources such as generators or pumps shall be located away from noise-sensitive land uses as feasible. • The use of noise-producing signals, including horns, whistles, alarms, and bells, shall be for safety warning purposes only. No project-related public address loudspeaker, two-way radio, or music systems shall be audible at any adjacent noise-sensitive receptor except for emergency use. • The erection of temporary noise barriers shall be considered where project activity is unavoidably close to noise-sensitive receptors. • The noisiest construction operations shall be scheduled to occur together to avoid continuing periods of the greatest annoyance, wherever possible. • Construction vehicle trips shall be routed as far as practical from existing residential uses. • The loudest campus construction activities, such as demolition, blasting, and pile driving, shall be scheduled during summer, Thanksgiving, winter, and spring breaks when fewer people would be disturbed by construction noise. • Whenever possible, academic, administrative, and residential areas that will be subject to construction noise shall be informed a week before the start of each construction project.	

Table 2.0-2
Summary of LRDP Impacts and Mitigation Measures

Project Impacts	Significance Before Mitigation	Mitigation Measures	Significance After Mitigation
LRDP Impact NOI-4: Pile driving activities during construction could expose nearby receptors to perceptible levels of ground-borne vibration.	*Potentially Significant*	**LRDP MM NOI-4a:** UC Merced shall avoid impact pile driving where possible in vibration-sensitive areas. Drilled piles or the use of vibratory pile driving will be used where geological conditions permit their use. For impact pile driving activities occurring within 50 feet of typical structures, limit groundborne vibration due to construction activities to 0.50 inch/second, ppv (limit of potential for damage to typical structures) in the vertical direction at sensitive receptors. Since in many cases the information available during the preliminary engineering phase would not be sufficient to define specific vibration mitigation measures, UC Merced shall describe and commit to a mitigation plan to minimize construction vibration damage using all feasible means available. **LRDP MM NOI-4b:** For construction adjacent to highly sensitive uses such as laboratories, UC Merced shall apply additional measures as feasible, including advance notice to occupants of sensitive facilities to ensure that precautions are taken in those facilities to protect ongoing activities from vibration effects.	*Less than Significant*
Cumulative Impact C-NOI-1: Development on the campus under the 2020 LRDP, in conjunction with other past, present, and reasonably foreseeable future development in the project area, would not generate a substantial permanent increase in noise levels at off-site locations.	*Less than Significant*	No mitigation is required.	*N/A*
Cumulative Impact C-NOI-2: Noise from construction and/or stationary sources on the campus, in conjunction with other past, present, and reasonably foreseeable future development in the project area, would not combine to substantially affect the same sensitive receptors.	*Less than Significant*	No mitigation is required.	*N/A*

Table 2.0-2
Summary of LRDP Impacts and Mitigation Measures

Project Impacts	Significance Before Mitigation	Mitigation Measures	Significance After Mitigation
Population and Housing			
LRDP Impact PH-1: Implementation of the 2020 LRDP would not result in substantial unplanned population growth and related demand for housing in the City of Merced and in surrounding communities.	*Less than Significant*	No mitigation is required.	*N/A*
Cumulative Impact C-PH-1: Development of the campus under the 2020 LRDP, in conjunction with other past, present, and reasonably foreseeable future development in the project area, would not substantially increase regional population.	*Less than Significant*	No mitigation is required.	*N/A*
Public Services and Recreation			
LRDP Impact PUB-1: Implementation of the 2020 LRDP would increase demand for law enforcement services and would require the construction of new facilities, but the impacts from construction would be less than significant with mitigation.	*Less than Significant*	No mitigation is required.	*N/A*
LRDP Impact PUB-2: Implementation of the 2020 LRDP would increase demand for fire protection services and could require an expansion of an existing fire station or the construction of a new facility, but the impacts from construction would be less than significant with mitigation.	*Less than Significant*	No mitigation is required.	*N/A*
LRDP Impact PUB-3: Implementation of the 2020 LRDP would increase enrollment in local public schools.	*Less than Significant*	No mitigation is required.	*N/A*
LRDP Impact PUB-4: Implementation of the 2020 LRDP would not substantially increase demand for public libraries.	*Less than Significant*	No mitigation is required.	*N/A*

Table 2.0-2
Summary of LRDP Impacts and Mitigation Measures

Project Impacts	Significance Before Mitigation	Mitigation Measures	Significance After Mitigation
LRDP Impact PUB-5: Implementation of the 2020 LRDP would result in an increased demand for parks and recreational facilities but would not require the construction of new recreational facilities off site.	*Less than Significant*	No mitigation is required.	*N/A*
LRDP Impact PUB-6: Implementation of the 2020 LRDP would increase the use of Lake Yosemite Regional Park which could accelerate physical deterioration of park facilities.	*Potentially Significant*	**LRDP MM PUB-6a:** UC Merced shall work with the County to avoid physical deterioration of existing facilities at Lake Yosemite Regional Park, and/or improve park facilities within the existing park site as necessitated by the increased uses associated with development of the campus. **LRDP MM PUB-6b:** UC Merced will pay its fair share of the cost of necessary improvements to the regional park. UC Merced's share of funding will be based on the percentage that on-campus residential population represents of the total population in eastern Merced County at the time that an improvement is implemented. **LRDP MM PUB-6c:** In recognition of the sensitive resources present on lands immediately adjacent to the regional park, all regional park improvement projects that are implemented by the County within 250 feet of the park's eastern boundary pursuant to **LRDP Mitigation Measures PUB-6a** and **PUB-6b** above, will implement mitigation measures to avoid and minimize indirect effects on biological resources.	*Less than Significant*
Cumulative Impact C-PUB-1: Campus development under the 2020 LRDP, in conjunction with other past, present, and reasonably foreseeable future development in the project area, would result in increased need for law enforcement services, the provision of which would not result in a significant cumulative environmental impact.	*Less than Significant*	No mitigation is required.	*N/A*

Table 2.0-2
Summary of LRDP Impacts and Mitigation Measures

Project Impacts	Significance Before Mitigation	Mitigation Measures	Significance After Mitigation
Cumulative Impact C- PUB-2: Development of the campus under the 2020 LRDP, in conjunction with other past, present, and reasonably foreseeable future development in the project area, would generate an increased demand for fire protection services, the provision of which would not result in a significant cumulative environmental impact.	*Less than Significant*	No mitigation is required.	*N/A*
Cumulative Impact C-PUB-3: Development of the campus under the 2020 LRDP, in conjunction with other past, present, and reasonably foreseeable future development in the project area, would generate an increased demand for elementary and secondary school facilities, the provision of which would not result in a significant cumulative impact.	*Less than Significant*	No mitigation is required.	*N/A*
Cumulative Impact C-PUB-4: Development of the campus under the 2020 LRDP, in conjunction with other past, present, and reasonably foreseeable future development in the project area, would result in increased demand for library services, the provision of which would not result in a significant cumulative impact.	*Less than Significant*	No mitigation is required.	*N/A*
Cumulative Impact C-PUB-5: Development of the campus under the 2020 LRDP, in conjunction with other past, present, and reasonably foreseeable future development in the project area, would not result in a cumulative impact related to neighborhood and community parks, but would result in a cumulative impact associated with the deterioration of the Lake Yosemite Regional Park facilities from increased use. The proposed project's contribution would not be cumulatively considerable.	*Less than Significant*	No mitigation is required.	*N/A*

Table 2.0-2
Summary of LRDP Impacts and Mitigation Measures

Project Impacts	Significance Before Mitigation	Mitigation Measures	Significance After Mitigation
Transportation			
LRDP Impact TRANS-1: Implementation of the 2020 LRDP would significantly affect study area intersections during peak commute hours under 2030 plus project conditions.	*Significant*	**LRDP MM TRANS-1: Campus Traffic Mitigation Program (CTMP).** The Campus Traffic Mitigation Program is a program to monitor trip generation, reduce peak-hour trips, and participate in roadway improvements to mitigate impacts at off-campus intersections, and adjacent roadway segments in the case of Lake Road, determined to be affected by the development of the campus under the 2020 LRDP. CEQA provides that an agency can mitigate its contribution to local and regional environmental impacts by contributing its proportional share of funding to mitigation measures designed to alleviate the identified impact (*CEQA Guidelines* §15130(a)(3)). The CTMP will consist of the following elements/ measures: **Measure TRANS-1a: Travel Demand Management.** To reduce on- and off-campus vehicle trips and resulting impacts, the University will continue to implement and expand a range of Transportation Demand Management (TDM) strategies. TDM strategies will include measures to encourage transit and shuttle use and alternative transportation modes including bicycle transportation, implement parking polices that reduce demand, and implement other mechanisms that reduce vehicle trips to and from the campus. The University shall monitor the performance of campus TDM strategies through annual surveys. **Measure TRANS-1b: Transit Enhancement.** To enhance transit systems serving the campus, the University will work cooperatively with the City of Merced, County of Merced, CatTracks, The Bus, StaRT, YARTS, and other local agencies to coordinate service routes with existing and proposed shuttle and transit programs.	*Significant and Unavoidable*

Table 2.0-2
Summary of LRDP Impacts and Mitigation Measures

Project Impacts	Significance Before Mitigation	Mitigation Measures	Significance After Mitigation
		Measure TRANS-1c: Sustainability and Monitoring. The University will review individual projects proposed under the 2020 LRDP for consistency with UC Sustainable Practices Policy and UC Merced TDM strategies set forth in the 2020 LRDP to ensure that bicycle and pedestrian improvements, alternative fuel infrastructure, transit stops, and other project features that promote alternative transportation are incorporated in the project. **Measure TRANS-1d: Campus Traffic Impact Monitoring.** The University will monitor trip generation resulting from the campus development under the 2020 LRDP to track the actual trip generation relative to the projections in this SEIR. The University will conduct traffic cordon counts of the campus with each 2,000-person increase in student population, measured by three-term average headcount enrollment increases with 2019 – 2020 as the base academic year. If this monitoring determines that traffic attributable to the campus contributes to a significant traffic impact at any of the intersections listed in **Table 4.8-9,** the University will implement measures to reduce vehicle trips contributing to the impact or provide its proportional share of funding for improvements at the impacted intersections presented in **Table 4.8-9**. **Measure TRANS-1e: Proportional Share Determination.** At the time a significant impact is identified pursuant to the monitoring under Measure TRANS-1d, the University's actual percent contribution to the total traffic volume at pertinent intersections and roadway segments will be calculated and used as the basis for determining the University's mitigation obligation, or proportional share of funding for the traffic improvements listed in the table.	

Table 2.0-2
Summary of LRDP Impacts and Mitigation Measures

Project Impacts	Significance Before Mitigation	Mitigation Measures	Significance After Mitigation
		Measure TRANS-1f: Mitigation Payments. The amount of the University's mitigation funding will be based on the University's proportional share of the affected jurisdiction's actual cost of the relevant traffic improvement(s) at the time of final bid/contract documents. The amount will be calculated by applying the University's proportional share determined in Measure TRANS-1e to the total cost of the improvement. Funding will be internally committed by the University at the time the traffic impact is triggered pursuant to the results of monitoring under Measure TRANS-1d. Payments will be made to the appropriate jurisdiction at the time a Notice to Proceed with the construction of the improvements is issued. If improvements are constructed before the impact is triggered, the University will pay its proportional share at the time that the impact is triggered, based on the University's monitoring under Measure TRANS-1d. Mitigation payments will be made only after the University has been provided the opportunity to review the scope and budget of the improvement project. As Intersection #3, Lake/Bellevue Road intersection, directly serves the campus, the University will be responsible for the entire cost of improvements at this intersection.	
LRDP Impact TRANS-2: Implementation of the 2020 LRDP would not significantly impact study area freeway segments under 2030 plus project conditions.	*Less than Significant*	No mitigation is required.	*N/A*
LRDP Impact TRANS-3: Implementation of the 2020 LRDP would not significantly impact transit facilities.	*Less than Significant*	No mitigation is required.	*N/A*
LRDP Impact TRANS-4: Implementation of the 2020 LRDP would not significantly impact pedestrian and bicycle facilities.	*Less than Significant*	No mitigation is required.	*N/A*
LRDP Impact TRANS-5: The campus road network system would be adequately sized and designed to facilitate emergency access vehicles.	*Less than Significant*	No mitigation is required.	*N/A*

Table 2.0-2
Summary of LRDP Impacts and Mitigation Measures

Project Impacts	Significance Before Mitigation	Mitigation Measures	Significance After Mitigation
Cumulative Impact C-TRANS-1: Implementation of the 2020 LRDP would significantly impact study area intersections during peak commute hours under 2035 plus project conditions.	*Significant*	**Cumulative MM C-TRANS-1:** The University will implement LRDP MM TRANS-1 to reduce vehicle trips, monitor traffic growth, and make fair share contributions to address the project's contribution to cumulative impacts under 2035 conditions. Certain improvements in Table 4.8-12 are the same as, or similar to, improvements identified in Table 4.8-9 for the 2030 with LRDP Project scenario; therefore, as and when fair share is calculated for these intersection improvements, the calculation shall take into account the redundant improvements. As Intersections #3, #18 and #19 would directly serve the campus, the University will be responsible for the entire cost of improvements at these three intersections.	*Significant and Unavoidable*
Cumulative Impact C-TRANS-2: Implementation of the 2020 LRDP would not significantly affect study area freeway segments under 2035 plus project conditions.	*Less than Significant*	No mitigation is required.	*N/A*
Tribal Cultural Resources			
LRDP Impact TCR-1: The proposed project would not cause a substantial adverse change in the significance of a Tribal Cultural Resource as defined in Section 21074.	*Less than Significant*	No mitigation is required.	*N/A*
Cumulative Impact C-TCR-1: Implementation of the proposed 2020 LRDP would not result in a significant cumulative impact on Tribal Cultural Resources.	*Less than Significant*	No mitigation is required.	*N/A*
Utilities and Service Systems			
LRDP Impact UTL-1: Implementation of the 2020 LRDP would generate demand for potable water for which sufficient water supplies would be available in normal, dry, and multiple dry years.	*Less than Significant*	No mitigation is required.	*N/A*

Table 2.0-2
Summary of LRDP Impacts and Mitigation Measures

Project Impacts	Significance Before Mitigation	Mitigation Measures	Significance After Mitigation
LRDP Impact UTL-2: Implementation of the 2020 LRDP could require the construction of new water supply and conveyance facilities; these facilities would not result in significant impacts on the environment.	*Less than Significant*	No mitigation is required.	*N/A*
LRDP Impact UTL-3: Implementation of the 2020 LRDP would not require construction or expansion of new wastewater conveyance or treatment facilities; nor would the proposed project result in a determination by the wastewater treatment provider that it has inadequate capacity to serve the project's projected demand in addition to existing commitments.	*Less than Significant*	No mitigation is required.	*N/A*
LRDP Impact UTL-4: Implementation of the 2020 LRDP would not generate solid waste that is in excess of State or local standards, or in excess of local infrastructure, or otherwise impair attainment of solid waste reduction goals.	*Less than Significant*	No mitigation is required.	*N/A*
LRDP Impact UTL-5: Implementation of the 2020 LRDP would require on- and off-site improvements to electric transmission lines and natural gas pipelines.	*Less than Significant*	No mitigation is required.	*N/A*
Cumulative Impact C-UTL-1: Development of the campus under the 2020 LRDP, in conjunction with other past, present, and reasonably foreseeable future development in the project area, would not result in a substantial increase in demand for water that would not be served by existing supplies.	*Less than Significant*	No mitigation is required.	*N/A*
Cumulative Impact C-UTL-2: Development of the campus under the 2020 LRDP, in conjunction with other past, present, and reasonably foreseeable future development in the project area, would not result in a significant cumulative impact on wastewater collection and treatment facilities.	*Less than Significant*	No mitigation is required.	*N/A*

Table 2.0-2
Summary of LRDP Impacts and Mitigation Measures

Project Impacts	Significance Before Mitigation	Mitigation Measures	Significance After Mitigation
Cumulative Impact C-UTL-3: Development of the campus under the 2020 LRDP, in conjunction with other past, present, and reasonably foreseeable future development in the project area, would not result in a significant cumulative impact on the regional landfill capacity.	*Less than Significant*	No mitigation is required.	*N/A*
Cumulative Impact C-UTL-4: Development of the campus under the 2020 LRDP, in conjunction with other past, present, and reasonably foreseeable future development in the project area, would not result in a significant cumulative impact related to electrical and natural gas facilities.	*Less than Significant*	No mitigation is required.	*N/A*
Energy			
LRDP Impact EN-1: Construction and operation of campus development under the 2020 LRDP would increase the use of energy resources on the campus but would not result in wasteful, inefficient or unnecessary consumption of energy resources nor would the increased energy use conflict with a state or local plan for renewable energy or energy efficiency.	*Less than Significant*	No mitigation is required.	*N/A*
Cumulative Impact EN-1: Implementation of the 2020 LRDP would not contribute substantially to a cumulative impact on energy resources.	*Less than Significant*	No mitigation is required.	*N/A*

Table 2.0-3
Summary Comparison of Project Alternatives

Project Impact	Proposed Project (Before and After Mitigation)	Alternative 1: No Project	Alternative 2: Reduced Development	Alternative 3: Distributed Employment Location
LRDP Impact AQ-2: Campus development under the 2020 LRDP would result in operational emissions that would involve a cumulatively considerable net increase of criteria pollutants for which the air basin is in non-attainment.	*S/SU*	Similar; *S/SU*	Reduced; *S/SU*	Similar; *S/SU*
Cumulative Impact C-AQ-1: The construction and operation of the campus under the 2020 LRDP, in conjunction with other past, present, and reasonably foreseeable future development in the project area, could hinder air quality attainment and maintenance efforts for criteria pollutants.	*S/SU*	Similar; *S/SU*	Reduced; *S/SU*	Similar; *S/SU*
LRDP Impact BIO-4: Implementation of the 2020 LRDP would result in a potentially significant adverse impact on nesting and overwintering habitat for the Crotch bumble bee.	*PS/LTS*	Greater; *PS/LTS*	Reduced; *PS/LTS*	Similar; *PS/LTS*
LRDP Impact BIO-9: Implementation of the 2020 LRDP would result in potentially significant adverse impacts on special-status bird species and non-special-status migratory birds and raptors.	*PS/LTS*	Greater; *PS/LTS*	Reduced; *PS/LTS*	Similar; *PS/LTS*
Cumulative Impact C-HYD-2: Development of the campus under the 2020 LRDP, in conjunction with other past, present, and reasonably foreseeable future development in the project area, would not substantially interfere with groundwater recharge but would deplete groundwater supplies and contribute to an overdraft of the regional groundwater aquifer.	*S/SU*	Similar; *S/SU*	Reduced; *S/SU*	Similar; *S/SU*

Table 2.0-3
Summary Comparison of Project Alternatives

Project Impact	Proposed Project (Before and After Mitigation)	Alternative 1: No Project	Alternative 2: Reduced Development	Alternative 3: Distributed Employment Location
LRDP Impact NOI-3: Construction activities associated with development under the 2020 LRDP could expose existing off-site and future on-site noise-sensitive receptors to elevated noise levels.	*PS/LTS*	Similar; *PS/LTS*	Reduced; *PS/LTS*	Similar; *PS/LTS*
LRDP Impact NOI-4: Pile driving activities during construction could expose nearby receptors to perceptible levels of groundborne vibration.	*PS/LTS*	Similar; *PS/LTS*	Reduced; *PS/LTS*	Similar; *PS/LTS*
LRDP Impact PUB-6: Implementation of the 2020 LRDP would increase the use of Lake Yosemite Regional Park which could accelerate physical deterioration of park facilities.	*PS/LTS*	Similar; *PS/LTS*	Reduced; *PS/LTS*	Similar; *PS/LTS*
LRDP Impact TRANS-1: Implementation of the 2020 LRDP would significantly affect study area intersections during peak commute hours under 2030 plus project conditions.	*S/SU*	Similar; *S/SU*	Reduced; *S/SU*	Similar; *S/SU*
Cumulative Impact C-TRANS-1: Implementation of the 2020 LRDP would significantly impact study area intersections during peak commute hours under 2035 plus project conditions.	*S/SU*	Similar; *S/SU*	Reduced; *S/SU*	Similar; *S/SU*

SU = Significant and unavoidable
S = Significant impact
PS = Potentially significant impact
LTS = Less than significant impact
Similar = Impact similar to proposed project
Reduced = Impact less than proposed project
Greater = Impact greater than proposed project