Draft Environmental Impact Report for the

Cal Poly Water Reclamation Facility Project

State Clearinghouse No. 2022090231

Prepared for:

California Polytechnic State University, San Luis Obispo

April 2023

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Prepared for:

California Polytechnic State University, San Luis Obispo
1 Grand Avenue, Building 70, Room 221
San Luis Obispo, CA 93407

Contact:

Marcus Jackson
Project Manager
805.756.6797
mjackson@calpoly.edu

Prepared by:

Ascent Environmental, Inc.
455 Capitol Mall, Suite 300
Sacramento, CA 95814

Contact:

Andrea Shephard, PhD
Project Manager
916.842.3179

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LIST OF ABBREVIATIONS

AAF	average annual flows
AB	Assembly Bill
ADWF	average dry weather flow
af	acre-feet
afy	acre-feet per year
APCD	Air Pollution Control District
Basin Plan	Water Quality Control Plan for the Central Coast Basin
BOD	biological oxygen demand
CAD	computer-aided design
Cal Poly	California Polytechnic State University, San Luis Obispo
CalEEMod	California Emissions Estimator Model
CalRecycle	California Department of Resources Recycling and Recovery
Caltrans	California Department of Transportation
Campus Master Plan	Cal Poly 2035 Master Plan
CCIC	Central Coast Information Center
CCR	California Code of Regulations
CDCR	California Department of Corrections and Rehabilitation
CDFW	California Department of Fish and Wildlife
CEQA	California Environmental Quality Act
CESA	California Endangered Species Act
City WRRF	City Water Resource Recovery Facility
City WTP	City Water Treatment Plant
City	City of San Luis Obispo
CIWMA	California Integrated Waste Management Act
CMC	California Men's Colony
CNDDB	California Natural Diversity Database
CO	carbon monoxide
County	County of San Luis Obispo
CRHR	California Register of Historical Resources
CSU	California State University
CWA	Clean Water Act
CWC	California Water Code
dB	decibels
DDW	Division of Drinking Water
Draft EIR	draft environmental impact report
DTSC	California Department of Toxic Substances Control
DWR	California Department of Water Resources
EPA	US Environmental Protection Agency

ESA	federal Endangered Species Act
EV	electric vehicle
FEMA	Federal Emergency Management Agency
FIRM	Flood Insurance Rate Map
gpd	gallons per day
GPS	Global Positioning System
GSA	Groundwater Sustainability Agency
GSP	Groundwater Sustainability Plan
INMP	Irrigation and Nutrient Management Plan
ITP	incidental take permit
kV	kilovolt
LED	light-emitting-diode
L_{eq}	equivalent continuous sound level
LF	linear feet
LID	low-impact development
L_{max}	maximum sound level
MBR	membrane bioreactor
MBTA	Migratory Bird Treaty Act
MCL	maximum contaminant level
mGal	million gallons
mgd	million gallons per day
MOU	memorandum of understanding
MRF	Materials Recovery Facility
MRZ	Mineral Resource Zone
MS4	municipal separate storm sewer system
$MTCO_2e$	metric tons of carbon dioxide equivalent per year
NAHC	Native American Heritage Commission
NCCP	natural community conservation plan
NFIP	National Flood Insurance Program
NMFS	National Marine Fisheries Service
NOP	notice of preparation
NPDES	National Pollutant Discharge Elimination System
NPPA	Native Plant Protection Act
NRHP	National Register of Historic Places
OCP	odor control plan
PG&E	Pacific Gas and Electric Company
PHDWF	peak hourly dry weather flow
Porter-Cologne Act	Porter-Cologne Water Quality Control Act of 1970
PRC	Public Resources Code
project	California Polytechnic State University, San Luis Obispo Water Reclamation Facility Project
PVC	polyvinyl chloride

PWWF	peak wet weather flow
RWQCB	Regional Water Quality Control Board
SAY	safe annual yield
SB	Senate Bill
SCADA	supervisory control and data acquisition
SGMA	Sustainable Groundwater Management Act
SIU	Significant Industrial User
SR	State Route
SWPPP	storm water pollution prevention plan
SWRCB	State Water Resources Control Board
TAC	toxic air contaminant
TDS	total dissolved solids
TISM	Transportation Impact Study Manual
TMDL	total maximum daily load
Trustees	California State University Board of Trustees
UPRR	Union Pacific Railroad
US 101	US Highway 101
USACE	US Army Corps of Engineers
USFWS	US Fish and Wildlife Service
UV	ultraviolet
VMT	vehicle miles traveled
WDR	waste discharge requirements
WWTP	wastewater treatment plant
WQO	water quality objective
WRF	Water Reclamation Facility
WRRF	Water Resource Recovery Facility
WTP	water treatment plant

EXECUTIVE SUMMARY

ES.1 INTRODUCTION

This Executive Summary is provided in accordance with California Environmental Quality Act (CEQA) Guidelines Section 15123. It contains an overview of the analysis of the proposed California Polytechnic State University, San Luis Obispo (Cal Poly) Water Reclamation Facility (WRF) Project (project). As stated in State CEQA Guidelines Section 15123(a), "[a]n EIR [environmental impact report] shall contain a brief summary of the proposed action and its consequences. The language of the summary should be as clear and simple as reasonably practical." State CEQA Guidelines Section 15123(b) states, "The summary shall identify: (1) Each significant effect with proposed mitigation measures and alternatives that would reduce or avoid that effect; (2) Areas of controversy known to the Lead Agency including issues raised by agencies and the public; and (3) Issues to be resolved including the choice among alternatives and whether or how to mitigate the significant effects." Accordingly, this summary includes a brief synopsis of the project and project alternatives, environmental impacts and mitigation, areas of known controversy, and issues to be resolved during environmental review. Table ES-1 (at the end of this executive summary) presents the summary of potential environmental impacts, their level of significance without mitigation measures, the mitigation measures, and their level of significance following the implementation of mitigation measures.

This Draft EIR is tiered from the Final EIR for the 2035 Master Plan for Cal Poly (hereafter referred to as "Campus Master Plan EIR"). The Campus Master Plan EIR broadly examined the significant environmental effects that could result from implementing the Campus Master Plan. Specifically, the Campus Master Plan is a comprehensive land use plan that guides physical development on campus to accommodate projected enrollment increases and expanded and new program initiatives. Potential effects of construction and operation of the WRF were examined in the Campus Master Plan EIR. This EIR analyzes a new location for the WRF and recycled water storage reservoir, as well as the alignments of the wastewater conveyance and recycled water distribution pipelines.

ES.2 SUMMARY DESCRIPTION OF THE PROJECT

ES.2.1 Project Location

Located in the County of San Luis Obispo, the Cal Poly campus covers approximately 3,385 acres abutting the City of San Luis Obispo (City) to the south and west, and open space, ranchland, and public land to the north and east. The Cal Poly Campus Master Plan area comprises 1,339 acres of these lands, which consist of the 855-acre main campus and an additional 484 acres consisting of rangeland and steep terrain to the north, northeast, and northwest of the main campus, called the San Luis Ranches. The main campus is composed of four distinct geographic subareas: the Academic Core, East Campus, North Campus, and West Campus. Cal Poly also owns another 3,043 acres of noncontiguous rangelands in San Luis Obispo County, called the Western Ranches.

ES.2.2 Background and Need for the Project

The Campus Master Plan is a long-range planning document that focuses on 1,339 acres of the Cal Poly campus and provides development direction for each of the four distinct subareas of the main campus identified above. The plan intensifies development in the Academic Core and phases new growth north of Brizzolara Creek. Enrollment goals include an increase from approximately 20,000 full-time-equivalent students (FTES) in 2015 to 25,000 FTES by 2035 at a growth rate of approximately 1 percent per year. The growth proposed in the Campus Master Plan will result in increased demand for water supply and wastewater treatment.

EXISTING CAMPUS WATER SUPPLY

Cal Poly's current annual water supply is 1,079 acre-feet (af), of which 959 af (89 percent) are sourced from Whale Rock Reservoir, which is located in Cayucos, approximately 15 miles northwest of the main campus, and the other 120 af (11 percent) are pumped from two groundwater wells located on campus.

Cal Poly contracts with the City to treat its potable water supply at the City WTP and manage delivery of Cal Poly's potable and nonpotable water supplied from Whale Rock Reservoir to meet campus demands throughout the year.

EXISTING AND PROJECTED CAMPUS WATER DEMAND

Much of the future growth planned under the Campus Master Plan will be sited on existing campus agricultural and athletic fields. The decrease in fields, which currently rely on nonpotable water, to make room for high-density classrooms, dorms, and nonstudent housing, which require potable water supply, as proposed in the Campus Master Plan, will increase net potable water demand.

Without the WRF, there would be inadequate water supply to meet both potable and nonpotable demands. Based on Cal Poly's existing agreements with the City for water treatment capacity (i.e., up to 0.9 million gallons per day [mgd] on average and 1.44 mgd on a peak day up to a total capacity of 1,000 afy), adequate treatment capacity would be available to meet Cal Poly's potable water demands (i.e., drinking water, building fixtures, and landscape irrigation) at buildout of the Campus Master Plan. Without recycled water supplied by the WRF, however, there would not be adequate supplies to meet nonpotable water demands (i.e., agricultural and athletic field irrigation).

EXISTING CAMPUS WASTEWATER COLLECTION AND TREATMENT

As of 2019, Cal Poly generates an annual average of 247,000 gallons per day (gpd) of wastewater, all of which is treated at the City's Water Resource Recovery Facility (City WRRF), located approximately 4 miles south of the main campus at 35 Prado Road in San Luis Obispo. Cal Poly's share of the City's permanent wastewater treatment capacity is 0.471 mgd average dry weather flow (ADWF), and its share of the City's collection system capacity is 1.2 mgd. The 0.471-mgd treatment capacity is based on average daily flow from the peak month.

PROJECTED CAMPUS WASTEWATER DEMAND

Projected campus growth will increase demand for wastewater treatment. Without the WRF, Cal Poly is projected to reach the existing contracted capacity of 0.471 mgd ADWF for wastewater treatment at the City WRRF before full buildout of the Campus Master Plan. Therefore, additional treatment capacity is needed.

ES.2.3 Project Objectives

Consistent with, and in furtherance of, the Campus Master Plan, the objectives of the WRF project are to:

- maximize use of Whale Rock Reservoir water supply allocation to meet potable water demand associated with Campus Master Plan buildout;
- provide reliable, scalable, high-quality recycled water to serve existing and planned on-campus agricultural irrigation and meet other nonpotable campus water demands;
- supply water in a manner that aligns with Cal Poly's climate action plan and promotes the use of recycled water in support of California State University's (CSU's) 2022 Sustainability Policy;
- maximize Cal Poly water supply resilience to drought conditions;
- provide additional wastewater treatment capacity to accommodate increased wastewater generation associated with Campus Master Plan buildout;

- provide wastewater treatment and recycled water storage facilities that minimize odor issues, minimize energy demand, and limit disturbance to natural lands;
- maximize cost-effectiveness of water supply, wastewater and recycled water services required to serve Campus Master Plan buildout; and
- provide students with additional hands-on learning environments and opportunities.

ES.2.4 Characteristics of the Project

The project involves construction of an on-campus WRF and a recycled water storage and distribution system to produce and deliver disinfected tertiary recycled water that meets the requirements of California Code of Regulations Title 22 for unrestricted reuse, including safe application to agricultural crops, pastures, and athletic fields on campus.

The proposed project would include the following components:

- WRF collection system,
- WRF,
- recycled water storage and distribution system, and
- utility improvements to support operation of proposed facilities.

The proposed WRF and recycled water storage reservoir, along with most of the recycled water distribution system improvements, would be sited in the West Campus subarea. A portion of the proposed force main and lower lift station would be sited in the Academic Core subarea. Portions of the proposed recycled water distribution system also would be sited in the North Campus subarea.

Under the adopted Campus Master Plan, the WRF was anticipated to be located just north of the Dairy Unit and west of the Rodeo Facilities, and a new recycled water storage reservoir was not identified. However, as part of design of the proposed project, the location of the WRF has been adjusted, and a new recycled water storage reservoir has been proposed. Other proposed features, including the collection system, lift stations, and recycled water distribution system, would be small or linear.

The nonpotable water demands of the campus that are currently met through a portion of the existing Whale Rock Reservoir water allocation would be transitioned over time to be met by nonpotable recycled water supplied by the on-campus WRF. The campus would then use Whale Rock Reservoir water freed up by operation of the WRF to meet the additional potable water needs of the campus under buildout of the Campus Master Plan. Cal Poly would continue to pump up to 120 afy of groundwater for agricultural irrigation purposes. Because Cal Poly would not increase agricultural operations as part of the Campus Master Plan, nonpotable water demands associated with agriculture are not anticipated to increase.

ES.3 ENVIRONMENTAL IMPACTS AND RECOMMENDED MITIGATION MEASURES

This EIR has been prepared pursuant to CEQA (Public Resources Code Section 21000 et seq.) and the State CEQA Guidelines (California Code of Regulations Section 15000 et seq.) to evaluate the physical environmental effects of the proposed project. The CSU Board of Trustees (Trustees) is the lead agency for the project. The Trustees have the principal responsibility for approving and carrying out the project and for ensuring that the requirements of CEQA have been met. After the Final EIR is prepared and the EIR public review process is complete, the Trustees are the party responsible for certifying that the EIR adequately evaluates the impacts of the project.

Table ES-1, presented at the end of this executive summary, provides a summary of the environmental impacts of the project. The table identifies the level of significance of the impact before mitigation, recommended mitigation measures, and the level of significance of the impact after implementation of the mitigation measures.

ES.3.1 Significant and Unavoidable Impacts and Cumulative Impacts

Section 21100(b)(2)(A) of the State CEQA Guidelines provides that an EIR shall include a detailed statement setting forth in a separate section "[a]ny significant effect on the environment that cannot be avoided if the project is implemented." As described in Chapter 3, "Environmental Impacts and Mitigation Measures," all the significant environmental impacts of the project could be mitigated to less than significant. Chapter 4, "Cumulative Impacts," discusses whether the project's incremental contribution to any cumulatively significant impacts would be "cumulatively considerable" and thus significant when viewed in connection with the effects of past projects, other current projects, and probable future projects. After implementation of the recommended mitigation measures, the project would not result in a considerable contribution to a significant cumulative impacts.

ES.4 ALTERNATIVES TO THE PROPOSED PROJECT

State CEQA Guidelines Section 15126.6 mandates that all EIRs include a comparative evaluation of the proposed project and alternatives to the project that are capable of attaining most of the project's basic objectives but that would avoid or substantially lessen any of the significant effects of the project. CEQA requires an evaluation of a "range of reasonable" alternatives, including the "no project" alternative. The following alternatives, briefly described here, are evaluated in this Draft EIR:

- Alternative 1: No Project Alternative. This alternative assumes no construction of the WRF, force main, reservoir, or pump stations. Where maintenance of nonpotable water distribution pipelines on campus has been deferred, these pipelines would be repaired or replaced in a manner similar to that described for the proposed project.
- Alternative 2: City Wastewater Treatment and Additional Whale Rock Reservoir Water Supply Alternative. Under this alternative, all existing and future wastewater flows from Cal Poly would be conveyed to the City for treatment, nonpotable water demand on campus would be reduced through removal of some agricultural uses, and potable and nonpotable water demands would be met through an increased water allocation from Whale Rock Reservoir.
- Alternative 3: City Wastewater Treatment and Recycled Water Delivery Alternative. Under this alternative, all existing and future wastewater flows from Cal Poly would be conveyed to the City for treatment, and potable water demand on campus would be met through the existing water allocation from Whale Rock Reservoir. Cal Poly would purchase recycled water from the City to meet its nonpotable water demands, and construct a new reservoir on campus to store the recycled water purchased from the City. This new reservoir would be located in the same place and be of the same dimensions and capacity as under the proposed project.

Table ES-2 (at the end of this executive summary) presents a comparison of the environmental impacts between the alternatives and the proposed project.

ES.5 AREAS OF CONTROVERSY AND ISSUES TO BE RESOLVED

A notice of preparation (NOP) was distributed for the project on September 14, 2022, to responsible agencies, interested parties, and organizations, as well as private organizations and individuals that may have an interest in the project. On September 27, 2022, during the 30-day review period of the NOP, a virtual public scoping meeting was held. The purpose of the NOP and the scoping meeting was to provide notification that an EIR was being prepared for the project and to solicit input on the scope and content of the environmental document. The NOP and responses to the NOP are included in Appendix A of this Draft EIR. Key concerns and issues that were expressed during the scoping process include:

- need for a comprehensive project description;
- consideration of a project alternative that involves amendment of the existing sewer agreement with the City and could include the City's treatment of Cal Poly–generated wastewater (increased capacity) and purchase of an equal amount of recycled water to offset nonpotable demand; and
- impacts on biological resources, including California red-legged frog, South-Central California Coast steelhead, monarch butterfly, western pond turtle, special-status plants, nesting birds, and waters of the State and United States.

All the substantive environmental issues raised in the NOP comment letters and at the scoping meeting have been addressed or otherwise considered during preparation of this Draft EIR.

Table ES-1 Summary of Impacts and Mitigation Measures

Impacts	Significance before Mitigation	Mitigation Measures	Significance after Mitigation
NI = No impact LTS = Less than significant PS = Potentially significant	S = Significant	SU = Significant and unavoidable	
Aesthetics			
Impact 3.2-1: Result in a Substantial Adverse Effect on a Scenic Vista or Substantially Degrade the Existing Visual Character or Quality of Public Views of the Site and Its Surroundings Construction of the WRF and recycled water storage reservoir and distribution system would be largely visually consistent and compatible with existing uses, facilities, and infrastructure in the surrounding area of the project site and would not be located in areas of high viewer sensitivity. A large proportion of proposed development would occur at or below the ground surface (including pipelines). In addition, although the lift stations, pump station, WRF, and berms associated with the recycled water storage reservoir would be erected aboveground and would be visible from elsewhere within the campus, they either would be screened from view with appropriate landscaping or would blend in with existing adjacent development. As a result, the project components would be minimally visible from other areas on campus and compatible with the existing visual quality and character of the surrounding area. Therefore, this impact would be less than significant.	LTS	No mitigation is required for this impact.	LTS
Impact 3.2-2: Damage Scenic Resources within a State Scenic Highway The project site is located east of SR 1, a designated state scenic highway. Project development would not occur along SR 1, and visibility of these features would be limited by varied topography, existing development, and vegetation. Of the project components, the proposed WRF would be the most visible but would resemble in visual character and scale existing agricultural structures located nearby. Consequently, project development would not damage scenic resources within a state scenic highway. Therefore, this impact would be less than significant.	LTS	No mitigation is required for this impact.	LTS
Impact 3.2-3: Create a New Source of Substantial Light or Glare Which Would Adversely Affect Day or Nighttime Views Implementation of the project would introduce new sources of light and glare associated with new buildings and facilities and would contribute to degradation of the visual character and quality of public views. Such lighting could contribute to indirect lighting/glare on adjacent land uses that could adversely affect daytime or nighttime views and result in additional skyglow. This impact would be significant.	S	**Mitigation Measure 3.2-3a: Use Nonreflective Materials on Building Surfaces (Campus Master Plan EIR Mitigation Measure 3.1-3a)** Cal Poly shall require the use of nonreflective exterior surfaces and nonreflective (mirrored) glass for all new or redeveloped structures. **Mitigation Measure 3.2-3b: Use Directional Lighting for Campus Development (Campus Master Plan EIR Mitigation Measure 3.1-3c)** Cal Poly shall require all new, permanent outdoor lighting fixtures to utilize directional lighting methods (e.g., shielding and/or cutoff-type light fixtures) to minimize glare and light spillover onto adjacent structures. In addition, light	LTS

Impacts	Significance before Mitigation	Mitigation Measures	Significance after Mitigation
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		placement and orientation shall also be considered such that light spillover is reduced at nearby land uses, to the extent feasible. Verification of inclusion in project design shall be provided at the time of design review.	
Archaeological, Historical, and Tribal Cultural Resources			
Impact 3.3-1: Cause a Substantial Adverse Change in the Significance of a Historical Resource No new historical resources were identified as a result of the survey efforts. Background research indicated that there is a segment of a historical resource within the project site: the Southern Pacific Railroad (P-40-041327). Project protective measures would avoid any impacts on this historical resource. This impact would be less than significant.	LTS	No mitigation is required for this impact.	LTS
Impact 3.3-2: Cause a Substantial Adverse Change in the Significance of a Unique Archaeological Resource Based on the records search and pedestrian survey, no unique archaeological resources are located within the project site. However, project-related ground-disturbing activities could result in the discovery of or damage to yet undiscovered archaeological resources as defined in State CEQA Guidelines Section 15064.5 or CEQA Section 21083.2(g). This impact would be potentially significant.	PS	**Mitigation Measure 3.3-2a: Identify and Protect Unknown Archaeological Resources *(Campus Master Plan EIR Mitigation Measure 3.4-2a)*** Cal Poly has determined the level of archaeological investigation that is appropriate for the project site and activity, as follows: ▶ Intensive: excavation below 18 inches and/or over a large area on any site that is within the zone of archaeological sensitivity, i.e., within 750 feet, along Brizzolara Creek or Stenner/Old Garden Creek (as shown in Figure 3.4-1 of the Campus Master Plan EIR) or that is adjacent to a recorded archaeological site. Therefore, Cal Poly shall implement the following steps to identify and protect archaeological resources that may be present in the project's area of effects: 1) Contractor crews shall be required to attend a training session before the start of ground-disturbing activities, regarding how to recognize archaeological sites and artifacts and what steps shall be taken to avoid impacts to those sites and artifacts. In addition, campus employees whose work routinely involves disturbing the soil shall be informed how to recognize evidence of potential archaeological sites and artifacts. Before disturbing the soil, contractors shall be notified that they are required to watch for potential archaeological sites and artifacts and to notify Cal Poly Facilities Management and Development if any are found. A	LTS

Impacts	Significance before Mitigation	Mitigation Measures	Significance after Mitigation
NI = No impact LTS = Less than significant PS = Potentially significant	S = Significant	SU = Significant and unavoidable	
		qualified archeologist and Tribal monitor would be present onsite during ground-disturbing activities to provide oversight to contractor crew and campus employees. In the event of a find, Cal Poly shall implement item (5), below. 2) The qualified archaeologist shall, in consultation with Cal Poly Facilities Management and Development, develop an archaeological monitoring plan to be implemented during the construction phase of the project. For construction activities that would be located within 750 feet of Brizzolara Creek, Stenner Creek, or Old Garden Creek, or it is recommended by the archaeologists, Cal Poly shall notify the appropriate Native American tribe and extend an invitation for monitoring. The frequency and duration of monitoring shall be adjusted in accordance with survey results, the nature of construction activities, and results during the monitoring period. A written report of the results of the monitoring shall be prepared and filed with the appropriate Information Center of the California Historical Resources Information System. In the event of a discovery, Cal Poly shall implement item (5), below. 3) Cal Poly shall retain a qualified archaeologist to conduct a subsurface investigation of the project site, to ascertain whether buried archaeological materials are present and, if so, the extent of the deposit relative to the project's area of effects. If an archaeological deposit is discovered, the archaeologist shall prepare a site record and a written report of the results of investigations and file with the appropriate Information Center of the California Historical Resources Information System. 4) If it is determined that a resource extends into the project's area of effects, the resource shall be evaluated by a qualified archaeologist, who shall determine whether it qualifies as a historical resource or a unique archaeological resource under the criteria of State CEQA Guidelines Section 15064.5. 5) If archaeological material within the project's area of effects is determined to qualify as an historical resource or a unique archaeological resource (as defined by CEQA), Cal Poly Facilities	

Impacts	Significance before Mitigation	Mitigation Measures	Significance after Mitigation
NI = No impact LTS = Less than significant PS = Potentially significant	S = Significant	SU = Significant and unavoidable	
		Management and Development shall consult with the qualified archaeologist to consider means of avoiding or reducing ground disturbance within the site boundaries, including minor modifications of building footprint, landscape modification, the placement of protective fill, the establishment of a preservation easement, or other means that shall permit avoidance or substantial preservation in place of the resource. If avoidance or substantial preservation in place is not possible, Cal Poly shall implement Mitigation Measure 3.3-2b. 6) If archaeological material is discovered during construction (whether or not an archaeologist is present), all soil disturbing work within 100 feet of the find shall cease. Cal Poly Facilities Management and Development shall contact a qualified archaeologist to provide and implement a plan for survey, subsurface investigation as needed to define the deposit, and assessment of the remainder of the site within the project area to determine whether the resource is significant and would be affected by the project. Cal Poly shall implement item (3) and (4), above. **Mitigation Measure 3.3-2b: Protect Known Unique Archaeological Resources** ***(Campus Master Plan EIR Mitigation Measure 3.4-2b)*** For an archaeological site that has been determined by a qualified archaeologist to qualify as a unique archaeological resource through the process set forth under Mitigation Measure 3.3-2a, and where it has been determined under Mitigation Measure 3.3-2a that avoidance or preservation in place is not feasible, a qualified archaeologist, in consultation with Cal Poly Facilities Management and Development, and Native American tribes as applicable, shall: 1) Prepare a research design and archaeological data recovery plan for the recovery that shall capture those categories of data for which the site is significant and implement the data recovery plan before or during development of the site.	

Impacts	Significance before Mitigation	Mitigation Measures	Significance after Mitigation
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		2) Perform appropriate technical analyses, prepare a full written report and file it with the appropriate information center, and provide for the permanent curation of recovered materials. 3) If, in the opinion of the qualified archaeologist and in light of the data available, the significance of the site is such that data recovery cannot capture the values that qualify the site for inclusion on the CRHR, Cal Poly Facilities Management and Development shall reconsider project plans in light of the high value of the resource, and implement more substantial modifications to the project that would allow the site to be preserved intact, such as project redesign, placement of fill, or project relocation or abandonment. If no such measures are feasible, Cal Poly shall implement Mitigation Measure 3.3-2c. **Mitigation Measure 3.3-2c: Document Unique Archaeological Resources *(Campus Master Plan EIR Mitigation Measure 3.4-2c)*** If a significant unique archaeological resource cannot be preserved intact, before the property is damaged or destroyed, Cal Poly Facilities Management and Development shall ensure that the resource is appropriately documented. For an archaeological site, a program of research-directed data recovery shall be conducted and reported, consistent with Mitigation Measure 3.3-2a.	
Impact 3.3-3: Disturb Human Remains Based on documentary research, no evidence suggests that any precontact or historic-era marked or unmarked human interments are present within or in the vicinity of the project site. However, ground-disturbing construction activities could uncover previously unknown human remains. Compliance with California Health and Safety Code Section 7050.5 and PRC Section 5097 would provide an opportunity to avoid or minimize the disturbance of human remains and to appropriately treat any remains that are discovered. Therefore, this impact would be less than significant.	LTS	No mitigation is required for this impact.	LTS
Impact 3.3-4: Cause a Substantial Adverse Change in the Significance of a Tribal Cultural Resource Tribal consultation under AB 52 has not resulted in the identification of tribal cultural resources on the project site. However, excavation activities associated with project construction may disturb or destroy previously undiscovered significant subsurface tribal cultural resources. This impact would be potentially significant.	PS	**Mitigation Measure 3.3-4a: Identify and Protect Unknown Archaeological Resources *(Campus Master Plan EIR Mitigation Measure 3.4-2a)*** Implement Mitigation Measure 3.3-2a. **Mitigation Measure 3.3-4b: Protect Known Unique Archaeological Resources *(Campus Master Plan EIR Mitigation Measure 3.4-2b)*** Implement Mitigation Measure 3.3-2b.	LTS

Impacts	Significance before Mitigation	Mitigation Measures	Significance after Mitigation
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		Mitigation Measure 3.3-4c: Document Unique Archaeological Resources *(Campus Master Plan EIR Mitigation Measure 3.4-2c)* Implement Mitigation Measure 3.3-2c. **Mitigation Measure 3.3-4d: Retain a Native American Monitor** Cal Poly shall retain a tribal monitor/consultant who is approved by the Salinan Tribe of Monterey and San Luis Obispo Counties, the Northern Chumash Tribal Council, and the yak titᵛu titᵛu yak tiɬhini (Northern Chumash Tribe) to monitor ground-disturbing activities, including tree removal, grading, boring, excavation, drilling, and trenching, during project construction that would occur within the Zone of Cultural Sensitivity identified in Figure 3.4-1 of the Cal Poly 2035 Master Plan Final Environmental Impact Report (EIR) and areas within 100 feet of known prehistoric sites. Cal Poly's designated contact person shall notify the tribal representative a minimum of 7 days before beginning ground-disturbing activities and the tribal representative shall confirm the tribal monitor at least 48 hours before ground-disturbing activities are scheduled to begin. If confirmation is not provided, ground-disturbing activities may proceed without the presence of a tribal monitor. The tribal monitor and archaeological monitor shall complete daily monitoring logs that describe each day's activities, including construction activities, locations, soil, and any cultural materials identified. The monitoring logs will be emailed to the Salinan Tribe of Monterey and San Luis Obispo Counties, Northern Chumash Tribal Council, yak titᵛu titᵛu yak tiɬhini (Northern Chumash Tribe), Cal Poly's archaeologist, and the designated Cal Poly contact person on a weekly basis. The onsite monitoring shall end when the site grading and excavation activities are completed or when the tribal representatives and monitor have indicated that the site has a low potential for affecting tribal cultural resources.	
Biological Resources			
Impact 3.4-1: Have a Substantial Adverse Effect, Either Directly or through Habitat Modifications, on Special-Status Plant Species Implementation of the project could result in conversion of undeveloped suitable habitats for several special-status plants. Removal of these undeveloped habitats could result in loss of special-status plants if they are present. Loss of special-status plants would be a significant impact.	S	**Mitigation Measure 3.4-1a: Conduct Special-Status Plant Surveys (Campus Master Plan EIR Mitigation *Measure 3.5-1a*)**	LTS

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		Prior to project implementation, Cal Poly shall have a qualified botanist (i.e., a professional biologist with expertise in native and naturalized plants found in California who is able to use appropriate field survey methods and protocols that satisfy documentation and assessment requirements) evaluate the potential for special-status plant habitat at the proposed project site~~s~~ containing undeveloped land cover types as shown in Figure 3.4-1, "Land Cover within the Project Site," of the WRF Project EIR. Should suitable habitat for any special status plant species be identified, the qualified botanist, at Cal Poly's direction, shall conduct protocol-level surveys during the blooming period(s) for the potentially occurring special-status plants that could be removed or disturbed by project activities. Protocol-level surveys shall be conducted in accordance with *Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Natural Communities* (CDFW 2018). Concurrent with the special-status plant survey, the botanist shall document and map any sensitive natural communities that are present. In addition, the botanist shall document invasive plants within the project site and provide a separate report with the location and extent of invasive plants within the project site to Cal Poly. If special-status plants are not found, the botanist shall document the findings in a letter report to Cal Poly and further mitigation shall not be required. **Mitigation Measure 3.4-1b: Conduct Special-Status Plant Avoidance (*Campus Master Plan EIR Mitigation Measure 3.5-1b*)** If special-status plant species are found on the project site during the protocol-level surveys required by Mitigation Measure 3.4-1a but are located outside of the permanent footprint of any proposed structures/site features and can be avoided, Cal Poly shall avoid and protect these species by establishing a no-disturbance buffer around the area occupied by special-status plants and marking the buffer boundary with high-visibility flagging, fencing, stakes, or clear, existing landscape demarcations (e.g., edge of a roadway); exceptions to this requirement are listed later in this measure. The no-disturbance buffers shall generally be a minimum of 40 feet from special-status plants, but the size and shape of the buffer zone may be adjusted if a qualified botanist determines that a smaller buffer is sufficient to avoid killing or damaging the plants or that a larger buffer is necessary to sufficiently protect plants from the proposed activity. The appropriate buffer size shall be determined based on plant phenology at the time of project initiation (e.g., whether the plants are in a dormant, vegetative, or flowering state), the individual species' vulnerability to the activity being	

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		conducted, and environmental conditions and terrain. Consideration of factors such as site hydrology, changes in light, edge effects, and potential introduction of invasive plants and noxious weeds may inform the determination of buffer width. If a no-disturbance buffer is reduced below 40 feet from a special-status plant, a qualified botanist shall provide a site- and/or activity-specific explanation with the biological technical justification for the buffer reduction, which shall be included in a memo to CDFW and Cal Poly. **Mitigation Measure 3.4-1c: Minimize and Compensate for Impacts to Special-Status Plants (*Campus Master Plan EIR Mitigation Measure 3.5-1c*)** If special-status plants are found during protocol-level rare plant surveys and cannot be avoided, Cal Poly shall consult with CDFW and USFWS, as appropriate depending on species status, to determine the appropriate action(s) to achieve no net loss of occupied habitat or individuals. Mitigation measures may include, but are not limited to, preserving and enhancing existing populations, creating off-site populations on mitigation sites through seed collection or transplantation at a 3:1 ratio, and restoring or creating suitable habitat in sufficient quantities which would collectively achieve no net loss of occupied habitat or individuals. Potential mitigation sites could include suitable transplant locations within or outside of the campus. Cal Poly shall develop and implement a site-specific mitigation strategy describing how unavoidable losses of special-status plants shall be compensated consistent with this mitigation measure and the no net loss standard. Success criteria for preserved and compensatory populations shall include: a) The extent of occupied area and plant density (number of plants per unit area) in compensatory populations shall be equal to or greater than the affected occupied habitat. b) Compensatory and preserved populations shall be self-producing. Populations shall be considered self-producing when: i) plants reestablish annually for a minimum of 5 years with no human intervention such as supplemental seeding; and ii) reestablished and preserved habitats contain an occupied area and flower density comparable to existing occupied habitat areas in similar habitat types in the project vicinity.	

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		If off-site mitigation includes dedication of conservation easements, purchase of mitigation credits, or other off-site conservation measures, the details of these measures shall be included in the project-specific mitigation plan, including information on responsible parties for long-term management, conservation easement holders, long-term management requirements, success criteria consistent with those listed above and other details, as appropriate to target the preservation of long-term viable populations. **Mitigation Measure 3.4-1d: Conduct Environmental Monitoring (*Campus Master Plan EIR Mitigation Measure 3.5-1d*)** Cal Poly shall retain an environmental monitor to ensure compliance with the EIR mitigation measures. The monitor shall be responsible for: (1) ensuring that procedures for verifying compliance with environmental mitigations are implemented; (2) establishing lines of communication and reporting methods; (3) conducting compliance reporting; (4) conducting construction crew training regarding environmentally sensitive areas and/or special-status species; (5) maintaining authority to stop work; and (6) outlining actions to be taken in the event of noncompliance. Monitoring shall be conducted full time during the initial vegetation removal (clear/grub activities), then periodically throughout project construction, or at a frequency and duration as directed by the affected natural resource agencies (e.g., USACE, USFWS, CDFW, and RWQCB). **Mitigation Measure 3.4-1e: Avoid Planting Invasive Plants (*Campus Master Plan EIR Mitigation Measure 3.5-3g*)** Project landscaping shall not utilize any species included on the most recent Cal-IPC Inventory. **Mitigation Measure 3.4-1f: Use Clean and Weed-Free Vehicles and Equipment (*Campus Master Plan EIR Mitigation Measure 3.5-3h*)** a) Cal Poly shall require of its contractor(s) that all vehicles and construction equipment arrive at project areas clean and weed free when operating within 100 feet of sensitive natural communities and habitat occupied by special-status plants, to avoid inadvertent transport of invasive species. Equipment shall be inspected by the on-site inspector or environmental monitor for mud and other signs that weed seeds or propagules could be present prior to use in project areas in or within 100 feet of sensitive natural communities and habitat occupied by special-status plants. If the equipment is not clean, the environmental	

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		inspector or monitor shall deny access to the work areas until the equipment is clean. b) Vehicles and equipment shall be cleaned using high-pressure water or air in designated weed-cleaning stations prior to operating within 100 feet of sensitive natural communities and habitat occupied by special-status plants. Cleaning stations shall be designated by a botanist or noxious weed specialist and located away from aquatic resources, riparian areas, and other sensitive natural communities. **Mitigation Measure 3.4-1g: Require Use of Certified Weed-Free Construction Materials (*Campus Master Plan EIR Mitigation Measure 3.5-3i*)** Only certified weed-free construction materials, such as sand, gravel, straw, or fill, shall be used throughout each project site. **Mitigation Measure 3.4-1h: Treat Invasive Plant Infestations (*Campus Master Plan EIR Mitigation Measure 3.5-3j*)** Before construction activities begin within 100 feet of habitat occupied by special-status plants or sensitive natural communities as determined by the protocol-level surveys required by Mitigation Measure 3.4-1a, Cal Poly shall treat invasive plant infestations in the construction area, and within 50 feet of the construction activity area. Any new invasive plant infestations discovered during construction shall be documented, reported to Cal Poly, and treated where needed. After construction is complete, Cal Poly or its contractors shall conduct postconstruction monitoring of all construction disturbance areas within 100 feet of habitat occupied by special-status plants or sensitive natural communities for new invasive plant invasions and expansion of existing weed populations and treat invasive plant infestations where needed. Postconstruction monitoring for invasive plant infestations shall be conducted annually for 3 years. **Mitigation Measure 3.4-1i: Implement Dust and Exhaust Emissions Reduction Measures (*Campus Master Plan EIR Mitigation Measure 3.3-2*)** Based on the San Luis Obispo County Air Pollution Control District (APCD) CEQA Handbook, Cal Poly shall ensure that construction contractors implement the following measures: <u>Standard Construction Emission Reduction Measures for All Projects</u> ▶ Staging and queuing areas or diesel idling associated with equipment used during construction of new buildings shall not be located within 1,000 feet of	

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		sensitive receptors. This distance can be adjusted if it can be demonstrated to Cal Poly by the construction contractor, with substantial evidence, that risk levels at nearby receptors would not exceed an estimated risk of 10 chances in a million. ▶ Off-road diesel equipment shall comply with the 5-minute idling restriction identified in Section 2449(d)(3) of the California Air Resources Board's (CARB's) In-Use Off-Road Diesel regulation. ▶ Signs shall be posted in the designated queuing areas and job sites to remind off-road equipment operators of the 5-minute idling limit. ▶ Reduce the amount of the disturbed area where possible. ▶ Use of water trucks or sprinkler systems in sufficient quantities to prevent airborne dust from leaving the site and from exceeding the APCD's limit of 20 percent opacity for greater than 3 minutes in any 60-minute period. Increasing watering frequency would be required whenever wind speeds exceed 15 miles per hour. Reclaimed (nonpotable) water should be used whenever possible. Please note that during drought conditions, water use may be a concern and the contractor or building shall consider the use of an APCD-approved dust suppressant where feasible to reduce the amount of water used for dust control. ▶ All dirt stockpile areas shall be sprayed daily as needed. ▶ Permanent dust control measures identified in the approved project revegetation and landscape plans shall be implemented as soon as possible following the completion of any soil disturbing activities. ▶ Exposed ground areas that are planned to be reworked at dates greater than one month after initial grading will be sown with fast germinating, noninvasive grass seed and watered until vegetation is established. ▶ All disturbed soil areas not subject to revegetation shall be stabilized using approved chemical soil binders, jute netting, or other methods approved in advance by APCD. ▶ All roadways, driveways, sidewalks, etc. to be paved shall be completed as soon as possible. In addition, building pads shall be laid as soon as possible after grading unless seeding or soil binders are used. ▶ Vehicle speed for all construction vehicles shall not exceed 15 mph on any unpaved surface at the construction site.	

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		▶ All trucks hauling dirt, sand, soil, or other loose materials shall be covered or should maintain at least two feet of freeboard (minimum vertical distance between top of load and top of trailer) in accordance with California Vehicle Code Section 23114. ▶ Install wheel washers where vehicles enter and exit unpaved roads onto streets or wash off trucks and equipment leaving the site. "Track-out" is defined as sand or soil that adheres to and/or agglomerates on the exterior surfaces of motor vehicles and/or equipment (including tires) that may then fall onto any highway or street as described in California Vehicle Code Section 23113 and California Water Code 13304. To prevent track-out, designate access points and require all employees, subcontractors, and others to use them. Install and operate a "track-out prevention device" where vehicles enter and exit unpaved roads onto paved streets. The track-out prevention device can be any device or combination of devices that are effective at preventing track-out, located at the point of intersection of an unpaved area and a paved road. Rumble strips or steel plate devices require periodic cleaning to be effective. If paved roadways accumulate tracked-out soils, the track-out prevention device may need to be modified. ▶ Sweep streets at the end of each day if visible soil material is carried onto adjacent paved roads. Water sweepers with reclaimed water should be used where feasible. ▶ All of these fugitive dust mitigation measures shall be included on grading and building plans. ▶ Maintain all construction equipment in proper tune according to manufacturer's specifications. ▶ Fuel all off-road and portable diesel-powered equipment with CARB-certified motor vehicle diesel fuel (nontaxed version suitable for use off-road). ▶ Electrify equipment when feasible. ▶ Substitute gasoline-powered in place of diesel-powered equipment, where feasible. ▶ All architectural coatings (e.g., paint) used in project buildings and parking areas will not exceed a volatile organic compound content of 50 grams per liter.	

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		▶ Use diesel construction equipment meeting CARB's Tier 2 certified engines or cleaner off-road heavy-duty diesel engines and comply with the State Off-Road Regulation. ▶ Use on-road heavy-duty trucks that meet the CARB's 2007 or cleaner certification standard for on-road heavy-duty diesel engines and comply with the State On-Road Regulation. ▶ Construction or trucking companies with fleets that that do not have engines in their fleet that meet the engine standards identified in the above two measures (e.g. captive or NOx exempt area fleets) may be eligible by proving alternative compliance. ▶ Use alternatively fueled construction equipment on-site where feasible, such as compressed natural gas, liquefied natural gas, propane, or biodiesel.	
Impact 3.4-2: Have a Substantial Adverse Effect on Special-Status Wildlife Operation of the WRF and application of recycled water to pastures with existing irrigation would not adversely affect special-status wildlife. The construction of project components would occur in suitable habitat for mountain lion and Crotch bumble bee but would not have a substantial adverse effect on those species because it would not result in permanent loss of habitat for these species or reduce the size of local populations. However, construction of the project would occur in suitable habitat and has the potential to result in loss of individuals and substantial adverse effects on several other special-status wildlife species, such as monarch butterfly, South-Central California Coast steelhead, California red-legged frog, western pond turtle, Coast Range newt, coast horned lizard, tricolored blackbird, grasshopper sparrow, burrowing owl, white-tailed kite, least Bell's vireo, loggerhead shrike, purple martin, pallid bat, Townsend's big-eared bat, western mastiff bat, American badger, Monterey dusky-footed woodrat, and ringtail, which would be a significant impact.	S	**Mitigation Measure 3.4-2a: Conduct Surveys for Areas with Significant Potential for Overwintering Monarch Butterfly Sites (*Campus Master Plan EIR Mitigation Measure 3.5-2a*)** a) Cal Poly shall retain a monarch butterfly habitat specialist to conduct surveys in riparian, live oak woodland, nonnative oak woodland, and eucalyptus grove habitat within 300 feet of the project site and identify areas with significant potential for overwintering monarch butterflies. The monarch butterfly habitat specialist shall provide Cal Poly with a report summarizing the result of the surveys, including a map of areas with significant potential for overwintering monarch butterflies. Cal Poly shall use the report to identify overwintering sites that are within 300 feet of the project site. If no project components are within 300 feet of identified habitat, no further mitigation is required. If project components are identified within 300 feet, then the following measure shall apply. b) Preconstruction surveys shall be conducted for potential overwintering monarch butterfly sites within 300 feet of any proposed 2035 Master Plan project construction areas. Surveys for overwintering aggregations of monarch butterflies shall be conducted over the winter season (November 1 to first week of March) before construction activities within 300 feet of the potential butterfly overwintering zone. A minimum of two surveys shall be conducted at least one month (30 days) apart within the monarch butterfly wintering season (November 1 to first week of March). Surveys shall follow survey methods specified by the Xerces Society for Invertebrate Conservation	LTS

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		(Xerces 2011). If no overwintering monarch butterflies are found, no further mitigation is required. If overwintering monarch butterflies are found, then the following additional measures shall be implemented. **Mitigation Measure 3.4-2b: Implement Avoidance of Overwintering Monarch Butterfly and Protection of Active Overwintering Monarch Butterfly Sites (*Campus Master Plan EIR Mitigation Measure 3.5-2b*)** Construction activities in and around butterfly overwintering sites identified pursuant to Mitigation Measure 3.4-2a shall start outside of the overwintering season (overwintering season is typically between November 1 and the first week of March), to the greatest extent feasible, to avoid potential impacts on monarch butterfly overwintering habitat. However, when it is not feasible to avoid the overwintering season and construction activities take place during this time, the following measures shall apply. If an active overwintering site is located, work activities shall be delayed within 300 feet of the site location until avoidance measures have been implemented. Appropriate avoidance measures shall include the following measures (which may be modified as a result of consultation with CDFW to provide equally effective measures): a) If the qualified wildlife biologist determines that construction activities would not affect an active overwintering site, activities shall proceed without restriction. b) If the wildlife biologist determines there is a potential to affect an active overwintering site, a no-disturbance buffer shall be established around the overwintering site to avoid disturbance or destruction. The extent of the no-disturbance buffers shall be determined by the qualified wildlife biologist familiar with monarch butterfly and in consultation with CDFW. Buffers shall be maintained until March 7 or until the qualified biologist determines that the monarch butterflies have left the wintering site. c) Throughout the year, Cal Poly shall avoid removing or trimming trees utilized by monarch butterflies or documented as active within the last 3 years pursuant to Mitigation Measure 3.4-2a, as well as trees adjacent to the documented active winter roost areas to prevent adverse indirect changes to the humidity, wind exposure, and temperature within the immediate vicinity of the roost site, unless Cal Poly consults with a monarch butterfly habitat specialist to identify appropriate variances to this measure. Any routine tree	

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		trimming shall be done between April and October to eliminate the risk of disturbance to overwintering monarch colonies during the core overwintering/clustering period and shall be conducted following the Management Guidelines for Monarch Butterfly Overwintering Habitat (Xerces 2017) and under the supervision of the monarch habitat specialist. This mitigation measure does not apply to removal or trimming of hazard trees or branches or management of the wintering site for the benefit of monarch butterfly. **Mitigation Measure 3.4-2c: Conduct Environmental Monitoring (*Campus Master Plan EIR Mitigation Measure 3.5-1d*)** If a no-disturbance buffer is established around an overwintering site, implement Mitigation Measure 3.4-1d. **Mitigation Measure 3.4-2d: Conduct Steelhead Impact Avoidance (*Campus Master Plan EIR Mitigation Measure.5-2j*)** Where work in Stenner Creek or Brizzolara Creek, their tributaries, or their riparian areas is required, all such work shall be conducted between June 15 and October 15 or as approved by a qualified biologist in coordination as required with USACE, NMFS, and CDFW. **Mitigation Measure 3.4-2e: Avoid and Protect Brizzolara and Stenner Creeks (*Campus Master Plan EIR Mitigation Measure 3.5-3a*)** For construction activities in the vicinity of Brizzolara and Stenner Creeks, a 50-foot buffer from the outer extent of the top-of-bank or outer extent of riparian vegetation, whichever is greater, shall be established unless a qualified biologist determines, based on site-specific conditions, that a larger or smaller buffer would be sufficient to avoid impacts on sensitive natural communities or riparian woodland. Development of new parking areas and buildings within this buffer shall be prohibited. **Mitigation Measure 3.4-2f: Implement Low-Impact Development Principles (*Campus Master Plan EIR Mitigation Measure 3.5-3b*)** Pursuant to 2035 Master Plan Principle OR 17, Cal Poly shall incorporate Low-Impact Development principles in the design of all projects within 100 feet of Brizzolara Creek, Stenner Creek, campus reservoirs, waterways and riparian areas unless a qualified biologist determines, based on site-specific conditions, that a larger or smaller buffer would be sufficient to avoid impacts on these resources.	

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		Mitigation Measure 3.4-2g: Install Exclusion Fencing (*Campus Master Plan EIR Mitigation Measure 3.5-3c*) Prior to construction within 100 feet of Brizzolara Creek, Stenner Creek, campus reservoirs, and other campus waterways, all grading plans shall clearly show the outer limits of riparian vegetation or top-of-bank features and specify the location of project delineation fencing that excludes the riparian areas from disturbance. The project delineation fencing shall remain in place and functional throughout the duration of the project, and no work activities shall occur outside the delineated work area. **Mitigation Measure 3.4-2h: Map and Protect Waterways and Riparian Areas (*Campus Master Plan EIR Mitigation Measure 3.5-3d*)** Prior to construction, plans shall clearly show all staging areas, which shall be located a minimum of 100 feet outside of the Brizzolara Creek, Stenner Creek, campus reservoirs, and other campus waterways and riparian areas. The minimum buffer size may be reduced at the discretion of a qualified biologist if, based on local habitat conditions and project features, the buffer is sufficient to avoid construction-related disturbances to waterways and riparian areas. **Mitigation Measure 3.4-2i: Minimize Ground Disturbance in Sensitive Natural Community Areas (*Campus Master Plan EIR Mitigation Measure 3.5-3e*)** Cal Poly shall require that ground disturbance, vegetation removal, and tree removal is limited to that necessary for construction in sensitive natural communities and riparian areas. **Mitigation Measure 3.4-2j: Conduct Environmental Monitoring (*Campus Master Plan EIR Mitigation Measure 3.5-1d*)** For work in Stenner Creek or Brizzolara Creek, their tributaries, or their riparian areas, implement Mitigation Measure 3.4-1d. **Mitigation Measure 3.4-2k: Prepare Project-Specific California Red-Legged Frog Habitat Assessment (*Campus Master Plan EIR Mitigation Measure 3.5-2c*)** Cal Poly shall prepare a project-specific California red-legged frog habitat assessment. The assessment shall be prepared in coordination with, and shall be submitted for review by, USFWS. The assessment shall be prepared in accordance with the USFWS Revised Guidance on Site Assessments and Field Surveys for the California Red-Legged Frog (USFWS 2005), or the most recent applicable guidance. The assessment shall specifically evaluate reservoirs, ponds, and drainages and their upland areas that may be disturbed by the project.	

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		Mitigation Measure 3.4-2l: Conduct California Red-Legged Frog Consultation (*Campus Master Plan EIR Mitigation Measure 3.5-2d*) For project activities that would affect jurisdictional water features and California red-legged frog and/or California red-legged frog critical habitat as determined by implementing Mitigation Measure 3.4-2k, Cal Poly shall coordinate with USACE during the CWA Section 404 permitting process regarding consultation with USFWS about the potential for these activities to result in take of California red-legged frog and/or California red-legged frog critical habitat. If USACE, in consultation with USFWS, determines that the proposed project may affect or result in take of California red-legged frog, USFWS may issue a Biological Opinion with an incidental take statement for the project. Cal Poly shall comply with all measures included in the Biological Opinion, which may include compensatory mitigation for permanent and/or temporary loss of habitat, construction monitoring, salvaging of California red-legged frog, and installation of exclusion fencing between the project site and adjacent habitats. If USACE declines to take jurisdiction over the project, thus removing a federal nexus from the project, Cal Poly shall consult directly with USFWS pursuant to Section 10 of the ESA. If USFWS determines that the project may affect or result in take of California red-legged frog or result in detrimental modification of critical habitat, it may ask Cal Poly to prepare a habitat conservation plan and obtain an ITP. Cal Poly shall comply with all measures included in the ITP. **Mitigation Measure 3.4-2m: Avoid California Red-Legged Frog during the Wet Season (*Campus Master Plan EIR Mitigation Measure 3.5-2e*)** To avoid the potential for take of California red-legged frogs, the initial ground-disturbing activities associated with the project that would occur in California red-legged frog habitat, as determined from Mitigation Measure 3.4-2k shall be completed in the dry season (between April 15 and the first rain following October 15) and when habitat is dry. Regardless of the seasonal rain patterns, no ground-disturbing activities may occur on these sites between first fall rains and May 31 of any year without prior authorization or concurrence from USFWS and CDFW. **Mitigation Measure 3.4-2n: Conduct Preconstruction Surveys for California Red-Legged Frog (*Campus Master Plan EIR Mitigation Measure 3.5-2f*)** Prior to construction of project components that would occur in California red-legged frog habitat as determined from Mitigation Measure 3.4-2k, Cal Poly shall retain a qualified biologist with demonstrated experience surveying for California	

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		red-legged frog. The biologist shall conduct preconstruction surveys for California red-legged frog. The survey(s) must be conducted within 48 hours before the site disturbance and encompass the entire project disturbance area and a 100-foot buffer of the disturbance area(s). If California red-legged frog(s) are observed during the survey, the biologist shall immediately contact Cal Poly and inform them of the survey findings. Cal Poly shall delay the project activities that were planned to occur in the area until Cal Poly consults with USFWS and secures any necessary approvals, including a Biological Opinion or an ITP as may be applicable, to move forward with the project. In the absence of USFWS approval, the surveying biologist shall not capture, handle, or otherwise harass California red-legged frog. Cal Poly and its contractors shall comply with all measures within any Biological Opinion or ITP that is required for the project. **Mitigation Measure 3.4-2o: Avoid and Protect Brizzolara and Stenner Creeks (*Campus Master Plan EIR Mitigation Measure 3.5-3a*)** Implement Mitigation Measure 3.4-2e. **Mitigation Measure 3.4-2p: Install Exclusion Fencing (*Campus Master Plan EIR Mitigation Measure 3.5-3c*)** Implement Mitigation Measure 3.4-2g. **Mitigation Measure 3.4-2q: Map and Protect Waterways and Riparian Areas (*Campus Master Plan EIR Mitigation Measure 3.5-3d*)** Implement Mitigation Measure 3.4-2h. **Mitigation Measure 3.4-2r: Conduct Environmental Monitoring (*Campus Master Plan EIR Mitigation Measure 3.5-1d*)** For work that would occur in California red-legged frog habitat, implement Mitigation Measure 3.4-1d. **Mitigation Measure 3.4-2s: Conduct Western Pond Turtle, Coast Range Newt, and Coast Horned Lizard Surveys and Relocation (*Campus Master Plan EIR Mitigation Measure 3.5-2f*)** To minimize adverse effects on special-status reptiles and amphibians, other than California red-legged frog, Cal Poly shall implement the following measures: a) Prior to the construction of project components within pastures, nonnative annual grasslands, or riparian corridors, Cal Poly shall retain a qualified biologist to survey for coast horned lizard within 2 weeks of project activities.	

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		If no coast horned lizards, or their eggs or nests are observed, no further mitigation is required. b) Prior to the construction of project components that requires dewatering, dredging, or fill of an aquatic site (e.g., Swine Unit ponds), or ground-disturbing activities within inactive pasturelands or nonnative grassland with a southern sun exposure within 1,500 feet of any aquatic habitat, Cal Poly shall retain a qualified biologist to survey for western pond turtle and coast range newt within 2 weeks of project activities. If no western pond turtle, coast range newt, or their eggs or nests are observed, no further mitigation is required. If coast horned lizard, western pond turtle, coast range newt, their eggs or nests are found then the following shall be conducted: c) Cal Poly shall retain a qualified biologist to capture and relocate coast horned lizard, western pond turtle, and coast range newt adults and juveniles. Capture and relocation efforts must be conducted using visual survey and hand capture techniques. Any captured coast horned lizard, western pond turtles, and coast range newts must be relocated to nearby suitable habitat that shall not be affected by project activities. d) If coast horned lizard nests, newt egg masses and/or larvae, or western pond turtle nests are identified, construction shall be delayed until the eggs have hatched and individuals are capable of vacating the site or being relocated. Because of the delicate nature of newt egg masses/larvae and habitat requirements of western pond turtle and coast horned lizard nests, delaying construction is the only viable method to protect the resource. **Mitigation Measure 3.4-2t: Conduct Environmental Monitoring (*Campus Master Plan EIR Mitigation Measure 3.5-1d*)** Where construction of project components would occur within pastures, nonnative annual grasslands, or riparian corridors, including dewatering, dredging, or fill of an aquatic site (e.g., Swine Unit ponds), or ground-disturbing activities within inactive pasturelands or nonnative grassland with a southern sun exposure within 1,500 feet of any aquatic habitat, implement Mitigation Measure 3.4-1d. **Mitigation Measure 3.4-2u: Conduct Special-Status Bird and Other Bird Nest Avoidance (*Campus Master Plan EIR Mitigation Measure 3.5-2u*)** The following measures shall be implemented to avoid or minimize loss of active special-status bird nests including tricolored blackbird, grasshopper sparrow,	

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		burrowing owl, white-tailed kite, least Bell's vireo, loggerhead shrike, and purple martin: a) To minimize the potential for loss of special-status or other bird nests, vegetation removal activities within potentially suitable nesting habitat shall commence during the nonbreeding season (September 16–January 31), where feasible. b) If project construction activities, including ground-disturbing activities, vegetation trimming, or tree removal are scheduled to occur between February 1 and September 15, the following measures shall be implemented: i. For construction activities on or within 500 feet of agricultural land, pasture, nonnative annual grassland, eucalyptus grove, or riparian habitat as shown in Figure 3.5-1, "Land Cover," of the Campus Master Plan EIR (Cal Poly 2020) and ornamental/landscaping trees in developed habitat, Cal Poly shall retain a qualified biologist to conduct habitat assessment surveys for common nesting birds and raptors, tricolored blackbird, grasshopper sparrow, burrowing owl, white-tailed kite, least Bell's vireo, loggerhead shrike, and purple martin. If no suitable habitat is present within 500 feet of construction activities, no further action is required. ii. Where suitable habitat is present, surveys shall be conducted by biologists adhering to guidance offered in Least Bell's Vireo Survey Guidelines (USFWS 2001); CDFW Staff Report on Burrowing Owl Mitigation (CDFW 2012) and/or current industry standards. Cal Poly shall initiate consultation with USFWS and/or CDFW as required and shall mitigate for the loss of breeding and foraging habitat as determined by consultation. iii. Two weeks prior to construction, a preconstruction nesting bird survey shall be conducted within suitable habitat identified in Mitigation Measure 3.4-2u(b)(i). If nests are detected, a qualified biologist shall establish no-disturbance buffers around nests. Buffers shall be of sufficient width that breeding is not likely to be disrupted or adversely affected by construction. No-disturbance buffers around active nests shall be a minimum of 0.25 mile wide for white-tailed kite, 500 feet wide for other raptors, and 250 feet wide for other special-status birds, unless a qualified biologist determines based on site-specific conditions that a larger or smaller buffer would be sufficient to avoid impacts on nesting birds. Factors to be considered in determining buffer size shall include the presence of existing buffers provided by	

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		vegetation, topography, or existing buildings/structures; nest height; locations of foraging territory; and baseline levels of noise and human activity. Buffers shall be maintained until a qualified biologist has determined that young have fledged and are no longer reliant upon the nest or parental care for survival. Monitoring of the nest by a qualified biologist during and after construction activities shall be required if the activity has potential to adversely affect the nest. iv. For tricolored blackbird, the qualified biologist shall conduct preconstruction surveys within tules, cattails, Himalayan blackberry, and riparian scrub habitat areas. The surveys shall be conducted no more than 14 days before construction commences. If no active nests or tricolored blackbird colonies are found during focused surveys, no further action under this measure shall be required. If active nests are located during the preconstruction surveys, the biologist shall notify CDFW. If necessary, modifications to the project design to avoid removal of occupied habitat while still achieving project objectives shall be evaluated and implemented to the extent feasible. If avoidance is not feasible or conflicts with project objectives, construction shall be prohibited within a minimum of 100 feet of the outer edge of the nesting colony, unless a qualified biologist determines based on site-specific conditions that a larger or smaller buffer would be sufficient, to avoid disturbance until the nest colony is no longer active. **Mitigation Measure 3.4-2v: Conduct Environmental Monitoring (*Campus Master Plan EIR Mitigation Measure 3.5-1d*)** If no-disturbance buffers to avoid impacts to any nesting birds are established or tricolored blackbird colonies are located during focused surveys, implement Mitigation Measure 3.4-1d. **Mitigation Measure 3.4-2w: Implement Bat Preconstruction Surveys and Exclusion (*Campus Master Plan EIR Mitigation Measure 3.5-2w*)** Before commencing construction activities with the potential to affect bats, including land surveying with a GPS Total Station and removal of farm structures and trees with hollows or exfoliating bark suitable for bats, a qualified biologist shall conduct surveys for roosting bats 2 weeks prior to start of construction activities. GPS Total Stations used for land surveying emit high frequency noise outside of the human hearing frequency but within the hearing range of bats, which has resulted in colony abandonment. If evidence of bat use is observed,	

Impacts			Significance before Mitigation	Mitigation Measures	Significance after Mitigation
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				the species and number of bats using the roost shall be determined. Bat detectors may be used to supplement survey efforts. If no evidence of bat roosts is found, then no further study and no additional measures are required. If the roost site can be avoided, a 250-foot-wide no-disturbance buffer shall be implemented unless a qualified biologist determines, based on bat species and site-specific conditions, that a larger or smaller buffer would be adequate to avoid impacts on bat roosts. If roosts of pallid bat, Townsend's big-eared bat, western mastiff bat, big free-tailed bat, or other bat species are found, and the roost cannot be avoided, bats shall be excluded from the roosting site before the tree or structure is removed. Exclusion efforts shall be restricted during periods of sensitive activity (e.g., during hibernation or while females in maternity colonies are nursing young). Once it is confirmed that bats are not present in the original roost site, the tree or structure may be removed. A detailed program to identify exclusion methods and roost removal procedures shall be developed by a qualified biologist in consultation with CDFW before implementation. **Mitigation Measure 3.4-2x: Conduct Environmental Monitoring (*Campus Master Plan EIR Mitigation Measure 3.5-1d*)** If construction activities would occur where an active bat roost or maternity colony is found and a no-disturbance buffer has been established, implement Mitigation Measure 3.4-1d. **Mitigation Measure 3.4-2y: Conduct American Badger Surveys and Avoidance (*Campus Master Plan EIR Mitigation Measure 3.5-2s*)** For project activities within undeveloped grassland habitat and before ground-disturbing activities, a qualified biologist shall conduct a preconstruction survey for American badger dens. The American badger survey shall be conducted no more than 2 weeks prior to construction. If the survey results are negative (i.e., no active badger dens observed), no additional mitigation is required. If the results are positive (American badger dens are observed), the biologist shall contact Cal Poly within 24 hours and work in the area shall be delayed until Cal Poly's biologist has made one of the following determinations: a) If the biologist determines that dens may be active, the biologist shall install a game camera for 3 days and 3 nights to determine if the den is in use. If the biologist determines that the den is a maternity den, construction activities shall be delayed during the maternity season (February to August), or until the	

Impacts	Significance before Mitigation	Mitigation Measures	Significance after Mitigation
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		badgers leave the den on their own accord or the biologist determines that the den is no longer in use. If the game camera does not capture an individual entering/exiting the den, the den can be excavated as described below. If the camera captures badger use of the den outside the maternity season, the biologist shall install a one-way door in the den opening and continue use of the game camera. Once the camera captures the individual exiting the one-way door, the den can be excavated as described below. b) If the biologist determines that potential dens are inactive, the biologist shall excavate the dens with hand tools to prevent badgers from reusing them. **Mitigation Measure 3.4-2z: Conduct Environmental Monitoring (*Campus Master Plan EIR Mitigation Measure 3.5-1d*)** If active American badger dens are identified during preconstruction surveys, implement Mitigation Measure 3.4-1d. **Mitigation Measure 3.4-2aa: Conduct Monterey Dusky-Footed Woodrat Midden Surveys, Avoidance, or Relocation (*Campus Master Plan EIR Mitigation Measure 3.5-2q*)** Prior to project work in riparian corridors, California sagebrush scrub, coast live oak woodland, and nonnative woodland habitat, Cal Poly shall retain a qualified biologist to survey for Monterey dusky-footed woodrat middens and assist in the removal/relocation of woodrat middens no more than 2 weeks prior to start of ground disturbance activities. The biologist shall document the results of the survey(s) in a letter report to Cal Poly and CDFW that includes a map of observed middens. If dusky-footed woodrat middens are found on a particular project site and are located outside of the permanent footprint of any proposed structure/site features and can be avoided, Cal Poly shall establish and maintain a 40-foot protective buffer, unless a reduced buffer is warranted as determined by a qualified biologist in consultation with CDFW, ensuring that the buffer does not isolate the midden from available habitat. If middens can be avoided no further mitigation is required. If middens cannot be avoided, relocation shall be conducted in consultation with CDFW. Relocation of the middens shall occur after July 1 and before December 1 to avoid the maternity season. During implementation of site clearing activities and under supervision of the biologist, the equipment operators shall remove all vegetation and other potential woodrat shelter within the disturbance areas that surround the woodrat midden(s) to be removed. Upon completion of clearing the	

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		adjacent woodrat shelter, the operator shall gently nudge the intact woodrat midden with equipment or long handled tools. Due to the potential health hazards associated with removing woodrat middens, hand removal is not recommended. The operators shall place their equipment within the previously cleared area and not within the undisturbed woodrat shelter area. The objective is to alarm the woodrats so that they evacuate the midden and scatter away from the equipment and into the undisturbed vegetation. Once the woodrats have evacuated the midden(s), the operator shall gently pick up the midden structure and move it to the undisturbed adjacent vegetation. The objective of moving the structure is to provide the displaced woodrats with a stockpile of material to scavenge while they build a new midden; jeopardizing the integrity of the midden structure is not an adverse impact. **Mitigation Measure 3.4-2bb: Conduct Environmental Monitoring (*Campus Master Plan EIR Mitigation Measure 3.5-1d*)** During construction in or around active Monterey dusky-footed woodrat middens, implement Mitigation Measure 3.4-1d. **Mitigation Measure 3.4-2cc: Conduct Ringtail Den(s) Surveys, and Avoidance (*Campus Master Plan EIR Mitigation Measure 3.5-2o*)** If vegetation removal or construction activities within riparian habitat occur outside of the breeding and pupping season for ringtail (February 1 through June 15), no mitigation is necessary. If the ringtail breeding season cannot be avoided, Cal Poly shall retain a qualified biologist to conduct preconstruction surveys within 3 weeks prior to commencement of construction for potential natal or maternity den trees/rock crevices. If an active den is found, the qualified biologist, in consultation with CDFW, shall determine a construction-free buffer zone to be established around the den until the young have left the den. At a minimum, the buffer shall be 500 feet unless a reduced buffer is warranted as determined by a qualified biologist in consultation with CDFW. Because ringtails are known to move their offspring between dens, the biologist may maintain the den under surveillance with a trail camera in a way that does not affect the use of the den. If the biologist determines that ringtails have vacated the den during the surveillance period, then construction may begin within 7 days following this observation, but the den must remain under surveillance in the event that the mother has moved the litter back to the den. If the den is within a tree hollow, and the tree needs to be removed, the hollow section of the tree must be	

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		salvaged and secured to a nearby unaffected tree in order to maintain the number of dens in the area. **Mitigation Measure 3.4-2dd: Conduct Environmental Monitoring (*Campus Master Plan EIR Mitigation Measure 3.5-1d*)** During implementation of work in riparian corridors where ringtail occupied habitat has been identified, implement Mitigation Measure 3.4-1d.	
Impact 3.4-3: Have a Substantial Adverse Effect on Sensitive Natural Communities and Riparian Habitat The operation of the WRF and application of recycled water to areas that are currently subject to irrigation is not anticipated to have an adverse impact on sensitive natural communities or riparian habitat. However, construction of project components would occur within riparian habitat, and may occur within sensitive natural communities. The construction of these components may result in removal of sensitive natural community and riparian vegetation, which would be a significant impact.	S	**Mitigation Measure 3.4-3a: Avoid and Protect Brizzolara and Stenner Creeks (*Campus Master Plan EIR Mitigation Measure 3.5-3a*)** Implement Mitigation Measure 3.4-2e. **Mitigation Measure 3.4-3b: Implement Low-Impact Development Principles (*Campus Master Plan EIR Mitigation Measure 3.5-3b*)** Implement Mitigation Measure 3.4-2f. **Mitigation Measure 3.4-3c: Install Exclusion Fencing (*Campus Master Plan EIR Mitigation Measure 3.5-3c*)** Implement Mitigation Measure 3.4-2g. **Mitigation Measure 3.4-3d: Map and Protect Waterways and Riparian Areas (Campus Master Plan EIR Mitigation Measure 3.5-3d)** Implement Mitigation Measure 3.4-2h. **Mitigation Measure 3.4-3e: Minimize Ground Disturbance in Sensitive Natural Community Areas (*Campus Master Plan EIR Mitigation Measure 3.5-3e*)** Implement Mitigation Measure 3.4-2i. **Mitigation Measure 3.4-3f: Mitigate for the Loss of Sensitive Natural Communities (*Campus Master Plan EIR Mitigation Measure 3.5-3f*)** If loss of sensitive natural communities would not be otherwise mitigated by the proposed project (i.e., the sensitive natural community is recognized as sensitive, but not protected pursuant to other regulations or policies), then additional actions shall be implemented based on site- and project-specific impacts in order to ensure no net loss of habitat function or acreage. Such actions may include creating, restoring, and/or preserving in perpetuity in-kind communities at a sufficient ratio to achieve no net loss of habitat function or acreage. If habitat enhancement or creation takes place, Cal Poly shall develop and implement a monitoring and management plan to assess the effectiveness of the mitigation. If monitoring indicates that the actions have not adequately mitigated for the	LTS

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		project's impacts, Cal Poly shall implement further remedial actions, restoration, and other activities to reach a no net loss of habitat function or acreage. **Mitigation Measure 3.4-3g: Use Clean and Weed-Free Vehicles and Equipment (*Campus Master Plan EIR Mitigation Measure 3.5-3h*)** Implement Mitigation Measure 3.4-1f. **Mitigation Measure 3.4-3h: Require Use of Certified Weed-Free Construction Materials (*Campus Master Plan EIR Mitigation Measure 3.5-3i*)** Implement Mitigation Measure 3.4-1g. **Mitigation Measure 3.4-3i: Treat Invasive Plant Infestations (*Campus Master Plan EIR Mitigation Measure 3.5-3j*)** Implement Mitigation Measure 3.4-1h.	
Impact 3.4-4: Have a Substantial Adverse Effect on State or Federally Protected Wetlands or Other Waters Operation of the WRF and application of recycled water to areas that are currently subject to irrigation are not anticipated to have an adverse impact on state or federally protected wetlands. However, the project may be constructed within state or federally protected wetlands and other waters, which may result in loss of function and services within these waters. Therefore, this impact would be potentially significant.	PS	**Mitigation Measure 3.4-4: Design Projects to Avoid and Minimize Disturbances to Jurisdictional Waters; Conduct Delineation of Jurisdictional Waters and Obtain Authorization for Fill and Required Permits; and Compensate for Unavoidable Degradation or Loss of Jurisdictional Waters (Campus Master Plan EIR Mitigation Measure 3.5-4)** Cal Poly shall avoid, minimize, and compensate for potential degradation or loss of waters of the United States and waters of the state by implementing the following measure. Cal Poly shall design new facilities and improvements to existing facilities to avoid impacts on potential jurisdictional waters where feasible. If avoidance of these features is not feasible, or the jurisdictional status of any waterways that may be encroached upon is unknown, Cal Poly shall prepare a project-specific Jurisdictional Waters Delineation that identifies the project boundaries in relation to the jurisdictional boundaries of the site. For any unavoidable fill or alteration of a jurisdictional feature, Cal Poly shall coordinate with USACE to obtain a CWA Section 404 permit, CDFW to obtain a Streambed Alteration Agreement, and RWQCB to obtain a CWA Section 401 Certification. Cal Poly shall comply with all special conditions of the necessary permits. To support the permit applications, Cal Poly shall prepare a Habitat Mitigation and Monitoring Plan (HMMP) for inclusion in the permit applications. The HMMP shall propose a 2:1 replacement ratio for permanent impacts on jurisdictional areas and a 1:1 ratio for temporary impacts on the jurisdictional areas or higher mitigation ratios if required by the permitting agencies. Unless otherwise directed by the permitting	LTS

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		agencies, Cal Poly shall incorporate on-site, in-kind, permittee-responsible compensatory mitigation to ensure that the drainages' functions and values are retained or improved as part of the project. The HMMP shall identify the location(s) where the proposed compensatory mitigation shall be implemented and the type (e.g., creation, restoration, enhancement, preservation) of mitigation that shall be implemented. At a minimum, the HMMP shall include a 5-year maintenance and monitoring program that facilitates the successful completion of the mitigation efforts.	
Impact 3.4-5: Impede Wildlife Movement and the Use of Native Wildlife Nursery Sites The project site does not contain any documented native wildlife nursery sites, but it is located along a regional movement corridor and contains riparian corridors that likely support local wildlife movement. The operation of the WRF and application of recycled water to areas that are currently subject to irrigation is not anticipated to have an adverse impact on state or wildlife movement or native wildlife nursery sites. Construction of the project would not result in structures that would impede wildlife movement, or result in substantial removal of riparian corridor vegetation such that these areas no longer support wildlife movement; therefore, this impact is less than significant.	LTS	No mitigation is required for this impact.	LTS
Hydrology and Water Quality			
Impact 3.5-1: Violate Any Water Quality Standards or Waste Discharge Requirements or Otherwise Substantially Degrade Surface Water or Groundwater Quality during Operation During project operation, increased rates of surface water runoff associated with new impervious surfaces could promote increased erosion and sedimentation or other storm water contamination and adversely affect surface water and groundwater quality if not properly addressed. The project would comply with the Construction General Permit, the 2013 General Permit, SWPPPs, and associated BMPs. Further, the use of LID techniques, such as pervious surfaces, bioretention swales, wet wells, would control storm water flow and prevent contamination of surface water resources. In addition, operation of the WRF would occur in compliance with CCR Title 22 requirements for recycled water. Continued compliance with the 2013 General Permit, as well as compliance with CCR Title 22 requirements, would ensure that impacts related to water quality standards during project operations would be less than significant.	LTS	No mitigation is required for this impact.	LTS

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Impact 3.5-2: Substantially Alter the Existing Drainage Pattern of the Site or Area Such That Substantial Erosion, Siltation, Flooding, Polluted Runoff, or an Exceedance of the Capacity of Storm Drainage Systems Would Occur The proposed new storage reservoir would be greater in size compared to the existing Swine Unit wastewater ponds with substantial berms elevated above ground surface that would have the potential to substantially alter existing drainage patterns and require storm drainage modifications to prevent substantial runoff from the site during operation. Because the project has the potential to permanently alter drainage patterns resulting in substantial erosion and runoff, this impact would be potentially significant.	PS	**Mitigation Measure 3.5-2a: Prepare a Drainage Plan and Supportive Hydrologic Analysis (*Campus Master Plan EIR Mitigation Measure 3.9-3*)** Before the commencement of construction activities that will modify existing drainage and/or require the construction of new drainage infrastructure to collect and control storm water runoff, Cal Poly shall prepare a drainage plan and supportive hydrologic analysis demonstrating compliance with the following, or equally effective similar measures, to maximize groundwater recharge and maintain similar drainage patterns and flow rates: a) Off-site runoff shall not exceed existing flow rates during storm events. b) If required to maintain the current flow rate, appropriate methods/design features (e.g., detention/retention basins, infiltration systems, or bioswales) shall be installed to reduce local increases in runoff, particularly on frequent runoff events (up to 10-year frequency) and to maximize groundwater recharge. c) If proposed, drainage discharge points shall include erosion protection and be designed such that flow hydraulics exiting the site mimics the natural condition as much as possible. d) Drainage from impervious surfaces (e.g., roads, driveways, buildings) shall be directed to a common drainage basin. e) Where feasible, grading and earth contouring shall be done in a way to direct surface runoff towards the above-referenced drainage improvements (and/or closed depressions). **Mitigation Measure 3.5-2b: Implement Post-Development Storm Water Best Management Practices and Low-Impact Development (*Campus Master Plan EIR Mitigation Measure 3.9-4b*)** During the design review phase, Facilities Management and Development will verify that the storm water BMPs and LID technologies were evaluated and all appropriate BMPs are incorporated into the project. Additionally, consistent with MS4 requirements, Facilities Management and Development will also verify that post-development runoff from the project site will approximate pre-development runoff volumes. If post-development runoff does not approximate pre-development runoff, additional BMPs shall be required in order to ensure that storm drain system capacity is not exceeded and that the drainage pattern of the project site is not significantly altered in such a way that it would result in erosion, siltation, or flooding.	LTS

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Impact 3.5-3: Be Located within Flood Hazard, Tsunami, or Seiche Zones, and Risk Release of Pollutants Due to Project Inundation Portions of the project site are located within special flood hazard areas subject to inundation in a 100-year flood, specifically nonpotable/recycled water distribution lines and a small segment of proposed new force main. However, nonpotable/recycled water distribution lines and the proposed new force main would all be installed belowground and therefore would not be exposed to floodwaters in the event of a 100-year storm. In addition, all water that would be distributed through the nonpotable/recycled water distribution lines would be treated to required CCR Title 22 standards before being discharged from the WRF and storage reservoir. Lastly, a contingency plan would be developed to prevent inadequately treated wastewater from being delivered to the use areas and to comply with CCR Title 22 Section 60323(c). Thus, the project would not risk the release of pollutants as a result of project inundation in a flood hazard zone. However, the new reservoir would have the potential to result in flooding if the earthen berms were to fail, which could result in inundation of nearby agricultural facilities and the release of pollutants from these facilities. Therefore, project impacts related to release of pollutants due to project inundation would be potentially significant.	PS	**Mitigation Measure 3.5-3: Design and Construct Earthen Berms to Minimize Risk of Failure** To minimize the risk of berm failure and flooding, the earthen berms of the proposed recycled water reservoir shall be designed and constructed by qualified professional engineers consistent with best professional standards and in cooperation with Cal Poly and SWRCB, taking into consideration applicable Waste Discharge Requirements and consistent with the results of a geotechnical investigation. As determined necessary by SWRCB, Cal Poly shall retain a qualified engineer to conduct a geotechnical investigation of the reservoir site and prepare a report with design and siting recommendations. The investigation shall address, at a minimum, geology of the site and vicinity, as appropriate; subsurface conditions, based on exploratory pits, trenches and adits (horizontal borehole), drilling, coring, geophysical surveys; tests to determine seepage rates; and physical tests to measure in place the properties and behavior of foundation materials at the reservoir site. The investigations and recommendations therefrom shall be used to achieve the following performance criteria during construction and operation of the reservoir: ▶ The embankment, foundation, abutments, and reservoir rim shall be stable and able to withstand all loading conditions brought about by construction of the embankment, reservoir operation, and earthquakes. ▶ Seepage flow through the embankment, foundation, abutments, and reservoir rim shall be controlled to prevent excessive uplift pressures; piping (internal erosion); instability; sloughing; removal of material by solutioning; or erosion of material into cracks, joints, or cavities. The amount of water lost through seepage shall be controlled so that it does not interfere with planned project functions. ▶ The embankment shall be designed not to overtop or experience encroachment of freeboard during occurrence of the design storm event through the provision of sufficient height, spillway, or outlet works capacity. ▶ Freeboard must be sufficient to prevent overtopping by waves. ▶ Bank height should be sufficient to allow for settlement of the foundation and embankment, but not included as part of the freeboard. ▶ The embankment slopes shall be protected against rain erosion.	LTS

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		▶ The pond facility shall be lined, which would minimize leakage and protect slopes. ▶ A geotechnical engineer shall design the slopes of the pond facility with industry standard construction quality assurance to ensure slope stability. ▶ The pond liner shall receive industry standard operational monitoring for liner leakage throughout the life of the pond liner. Further, Cal Poly shall prepare and implement a Spill Prevention and Emergency Response Plan that shall be reviewed and approved by SWRCB prior to initiation of operations for the new reservoir.	
Utilities and Service Systems			
Impact 3.6-1: Cause Disruption to or Require Relocation of Existing Utility Infrastructure Implementing the project involves constructing and operating a new WRF and associated facilities. Approximately 9,100 linear feet of new nonpotable water distribution lines would be installed, and 21,000 linear feet of nonpotable water distribution lines would be repaired or replaced. In addition, two new lift stations and approximately 9,800 linear feet of new influent force mains would be installed to collect and convey wastewater from the campus collection system to the WRF. These facilities would be buried primarily in roadways and would include connections to existing pipelines in areas where other underground infrastructure, including potable water supply lines, wastewater transmission lines, and telecommunications lines, are currently located. Although pipelines would be designed and sited to avoid existing utility infrastructure and existing infrastructure would likely be avoided during construction, if the location of existing utilities are not marked in the field, accidental disruption of services to the campus and portions of the City could occur. This impact would be potentially significant.	PS	**Mitigation Measure 3.6-1: Locate and Avoid Underground Utilities in Areas Where Excavation Is Proposed, and Prepare a Response Plan to Be Implemented If Accidental Disruption Occurs** Cal Poly will implement the following measures before construction begins, to avoid and minimize potential damage to utilities that could result in disruption of services: ▶ Before the start of construction activities, verify through field surveys and the services of Underground Service Alert the locations of any utilities (e.g., high-pressure natural gas, fuel, storm water, sewer, water, electrical, or communication) that may be buried at the project site in the areas where excavation is proposed. Any buried utility lines will be clearly marked in the field. ▶ Inform all construction personnel of the location of utilities during safety briefings throughout the period when construction is occurring. The locations of utilities will be clearly identified on construction drawings and posted in the construction superintendent's trailer. ▶ Prepare a response plan that identifies chain-of-command rules for notification of authorities and appropriate actions and responsibilities regarding the safety of the public and workers. A component of the response plan will include worker education training in response to such situations. The plan will include telephone numbers for existing utility providers. This information also will be posted in the construction superintendent's trailer on the job site during construction.	LTS

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Impact 3.6-2: Require or Result in the Construction of New or Expanded Utility Infrastructure Implementation of the project would involve the construction and operation of a new WRF and associated facilities. The WRF, which would include a classroom and restrooms, would be connected to the campus potable water supply system and the WRF treatment facilities, which would serve the minor wastewater treatment and water supply demand of the proposed facility. Power to operate the WRF and upper and lower lift stations would be provided by connecting these facilities to the existing 12-kilovolt (kV) campus electrical grid. The WRF and both lift stations also would be connected to the campus telecommunications network. Further, the campus SCADA system would be expanded to include alarms and callouts for the WRF system and the new lift stations. No natural gas connection would be necessary because no on-site uses would require natural gas. Because adequate water and wastewater collection and treatment would be provided by the project, electrical and telecommunications services are available to serve the project, and the environmental effects of infrastructure proposed as part of the project are evaluated throughout this Draft EIR, project implementation would not require new or expanded utilities or service systems. Thus, this impact would be less than significant.	LTS	No mitigation is required for this impact.	LTS
Impact 3.6-3: Generate Solid Waste in Excess of State or Local Standards or in Excess of the Capacity of Local Infrastructure or Otherwise Impair the Attainment of Solid Waste Reduction Goals or Requirements Implementation of the proposed project would increase solid waste generation at Cal Poly, including the generation of construction debris and biosolids during WRF operation. However, adequate landfill capacity is available at local and regional landfills to accommodate additional solid waste generated by the project. Compliance with the Cal Poly Zero Waste Policy would continue to reduce landfill contributions, consistent with the CIWMA, AB 341, SB 1374, AB 1826, and SB 1383. Therefore, this impact would be less than significant.	LTS	No mitigation is required for this impact.	LTS

Table ES-2 Summary Environmental Impacts of the Alternatives Relative to the Proposed Project

Environmental Topic	Proposed Project	Alternative 1: No Project Alternative	Alternative 2: City Wastewater Treatment and Additional Whale Rock Reservoir Water Supply Alternative	Alternative 3: City Wastewater Treatment and Recycled Water Delivery Alternative
Aesthetics	Less than significant (with mitigation)	Less	Less	Less
Archaeological, Historical, and Tribal Cultural Resources	Less than significant (with mitigation)	Less	Less	Similar
Biological Resources	Less than significant (with mitigation)	Less	Less	Less
Hydrology and Water Quality	Less than significant (with mitigation)	Less	Less	Less
Utilities and Service Systems	Less than significant (with mitigation)	Less	Similar	Similar

Source: Compiled by Ascent Environmental in 2023.

1 INTRODUCTION

This draft environmental impact report (Draft EIR) evaluates the environmental impacts of the proposed California Polytechnic State University, San Luis Obispo (Cal Poly) Water Reclamation Facility (WRF) Project (project). It has been prepared by Cal Poly under the direction of the California State University (CSU) Board of Trustees (Trustees) in accordance with the requirements of the California Environmental Quality Act (CEQA) (Public Resources Code [PRC] Section 21000 et seq.) and the State CEQA Guidelines (14 California Code of Regulations [CCR] Section 15000 et seq.). This chapter of the Draft EIR provides information on:

- the project requiring environmental analysis (synopsis);
- the purpose and intended uses of this Draft EIR;
- tiering and incorporation by reference;
- the scope of this Draft EIR;
- agency roles and responsibilities;
- the EIR public review process;
- the organization of this Draft EIR; and
- the standard terminology used in this Draft EIR.

1.1 PROJECT REQUIRING ENVIRONMENTAL ANALYSIS

The project would involve construction of an on-campus WRF and recycled water storage and distribution system to produce and deliver disinfected tertiary recycled water meeting the requirements of Title 22 of the California Code of Regulations (CCR Title 22, Social Security, Division 4, Environmental Health, Chapter 3, Water Recycling Criteria) for unrestricted reuse, including safe application to agricultural crops, pastures, and athletic fields on campus. The project was identified as a near-term project in the Cal Poly 2035 Master Plan (Campus Master Plan) to meet the nonpotable water needs of the Cal Poly campus and free up an equivalent volume of the existing potable water supply from Whale Rock Reservoir to serve the projected potable water demand of the Cal Poly campus in the future (Cal Poly 2019).

The proposed project would include the following components, which are described in more detail in Chapter 2:

- a wastewater collection system, including two lift stations and force mains to transport untreated wastewater from the core of campus to the WRF;
- a WRF designed to treat up to 0.5 million gallons per day;
- a recycled water storage reservoir with 120 acre-feet of capacity, pump stations, and new and upgraded distribution pipelines; and
- utility improvements to support operation of the proposed facilities.

1.2 PURPOSE AND INTENDED USES OF THIS DRAFT EIR

Cal Poly is part of the CSU, a statutorily and legislatively created, constitutionally authorized entity of the State of California with the power to consider and provide authority for all land use decisions on property owned or controlled by the CSU that are in furtherance of the CSU's education purposes. As noted above, this Draft EIR has been prepared by Cal Poly under the Trustees' direction in accordance with the requirements of CEQA and the State CEQA Guidelines. The Trustees serve as the lead agency under CEQA for consideration of certification of this EIR and potential project approval; State CEQA Guidelines Section 15367 defines the lead agency as the agency with principal responsibility for carrying out and approving a project.

According to CEQA, preparation of an EIR is required whenever it can be fairly argued, based on substantial evidence, that implementing a proposed project may result in a significant environmental impact. An EIR is an informational document used to inform public agency decision makers and the general public of the significant environmental impacts of a project, identify possible ways to minimize the significant impacts, and describe reasonable alternatives to the project that could feasibly attain most of the basic objectives of the project while substantially lessening or avoiding any of the significant environmental impacts. Public agencies are required to consider the information presented in the EIR when determining whether to approve a project. This Draft EIR has been prepared to meet the requirements of Section 15126 of the State CEQA Guidelines. As described in CEQA Guidelines Section 15126, an EIR must consider all phases of a project when evaluating its impact on the physical environment and must discuss the following subjects:

- significant environmental effects of the project,
- significant environmental effects that cannot be avoided if the project is implemented,
- significant irreversible environmental changes that would be involved in the project if it is implemented,
- growth-inducing impacts of the project,
- mitigation measures proposed to minimize the significant effects, and
- alternatives to the proposed project.

This Draft EIR evaluates the entire project and is tiered from the Final Environmental Impact Report for the 2035 Master Plan (Cal Poly 2020) (hereafter referred to as "Campus Master Plan EIR"), as discussed in more detail below in Section 1.3, "Tiering and Incorporation by Reference." This Draft EIR also identifies alternatives to the WRF project that would reduce or avoid potential adverse environmental effects. Mitigation measures are identified in this EIR that, if adopted, would be implemented to reduce and minimize the physical environmental effects of implementing the project components, where feasible. If the project is approved and the EIR certified, implementation of mitigation measures will be monitored to ensure implementation as the WRF project moves forward in a manner consistent with the WRF project's Final EIR.

1.3 TIERING AND INCORPORATION BY REFERENCE

Section 15168 of the State CEQA Guidelines allows for the preparation of environmental documents using a multilevel approach whereby a broad-level EIR, termed a "program EIR," includes an analysis of general matters (e.g., the impacts of an entire plan, program, or policy), and subsequent project-level EIRs or negative declarations include analyses of the project-specific effects of projects within the program. It describes the process of tiering from a program EIR, in which CEQA documents that follow a program EIR incorporate by reference and rely on the general discussions, programwide analyses, and program-level mitigation measures from the broader EIR and focus on the site-specific impacts of the individual projects that implement the plan, program, or policy.

The Campus Master Plan EIR (State Clearinghouse No. 2016101003) broadly examined the significant environmental effects that could result from implementing the Campus Master Plan. Specifically, the Campus Master Plan is a comprehensive land use plan that guides physical development on campus to accommodate projected enrollment increases and expanded and new program initiatives. Potential effects of construction and operation of the WRF were examined in the Campus Master Plan EIR. This EIR, which is tiered from the Campus Master Plan EIR, analyzes a new location for the WRF and recycled water storage reservoir, as well as the alignments of the wastewater conveyance and recycled water distribution pipelines. Consistent with State CEQA Guidelines Section 15152 (tiering) and Section 15168, this EIR incorporates by reference general discussions and mitigation measures from the Campus Master Plan EIR as appropriate and focuses on the significant effects on the environment that were not sufficiently addressed in that EIR or that are peculiar to the project under consideration. Thus, the Campus Master Plan EIR is hereby incorporated by reference into this EIR. The Campus Master Plan and EIR are available for review at the following location:

California Polytechnic State University, San Luis Obispo
1 Grand Avenue, Building 70
San Luis Obispo, CA 93407

The documents may also be viewed online at https://afd.calpoly.edu/facilities/planning-capital-projects/ceqa/.

1.4 SCOPE OF THIS DRAFT EIR

This Draft EIR evaluates the potential direct and indirect environmental impacts of the project. It includes an evaluation of the following environmental issue areas, as well as other CEQA-mandated issues (e.g., cumulative impacts, growth-inducing impacts, significant and unavoidable impacts, alternatives):

- aesthetics;
- archaeological, historical, and tribal cultural resources;
- biological resources;
- hydrology and water quality; and
- utilities and service systems.

This Draft EIR concentrates on details of the WRF project that were not available during preparation of the Campus Master Plan EIR. The issue areas identified in Appendix G of the CEQA Guidelines that are not listed above were determined to be sufficiently addressed in the Campus Master Plan EIR, as summarized in Section 3.1.2, "Effects Found Not to Be Significant," of this Draft EIR. The determination of which impacts would be potentially significant and therefore evaluated in detail in this EIR was made for this project based on review of applicable planning documents, fieldwork, feedback from public and agency consultation, comments received on the notice of preparation (NOP) (see Appendix A of this Draft EIR), research, and analysis of relevant project data.

1.5 RESPONSIBLE AND TRUSTEE AGENCIES

Under CEQA, responsible agencies are state and local public agencies other than the lead agency that have the authority to carry out or approve a project, or that are required to approve a portion of the project, for which a lead agency is preparing or has prepared an EIR. Trustee agencies are state agencies with legal jurisdiction over natural resources affected by a project that are held in trust for the people of the state of California.

Chapter 2, "Project Description," identifies the agencies that may have responsibility for or jurisdiction over implementation of components of the project. The list is not intended to imply that specific permits or actions would be required; rather, it lists agencies that *may* have responsibility over project components and identifies the potential associated reasons. Chapter 3 of this EIR provides detailed analysis that explores further the potential need for responsible agency action. This EIR and any environmental analysis relying on this EIR are expected to be used to satisfy the CEQA requirements of the listed responsible and trustee agencies.

1.6 EIR PUBLIC REVIEW PROCESS

An NOP for the project was distributed on September 14, 2022, to responsible agencies, interested parties, and organizations, as well as private organizations and individuals that may have an interest in the project. On September 27, 2022, during the 30-day review period of the NOP, a virtual public scoping meeting was held. The purpose of the NOP and the scoping meeting was to provide notification that an EIR for the project was being prepared and to solicit input on the scope and content of the environmental document. As a result of the review of existing information and the scoping process, it was determined that each of the issue areas listed above in Section 1.4, "Scope of This Draft EIR," should be evaluated in this Draft EIR.

This Draft EIR is being circulated for public review and comment for a period of 45 days, beginning on April 17, 2023, and ending on May 31, 2023. During this period, comments on environmental issues from organizations, agencies, and the general public may be submitted to the lead agency.

Upon completion of the public review and comment period, a Final EIR will be prepared that will include comments on the Draft EIR received during the public review period, responses to those comments, and any necessary clarifications or revisions to the Draft EIR made in response to public comments. The Final EIR for the project will comprise both the Draft EIR and responses to comments documents.

Before approving the WRF project, the lead agency is required to certify that the EIR has been completed in compliance with CEQA, that the decision-making body reviewed and considered the information in the EIR, and that the EIR reflects the independent judgment of the lead agency.

1.7 DRAFT EIR ORGANIZATION

This Draft EIR is organized into chapters, as identified and briefly described below:

Executive Summary: This chapter introduces the WRF project; provides a summary of the environmental review process, effects found not to be significant, and key environmental issues; and lists significant impacts and mitigation measures to reduce significant impacts to a less than significant level, where feasible.

Chapter 1, "Introduction": This chapter provides a description of the project requiring environmental analysis; the purpose and intended uses of this Draft EIR; tiering and incorporation by reference; the scope of this Draft EIR; agency roles and responsibilities; the public review process; the organization of this Draft EIR; and the standard terminology used in this Draft EIR.

Chapter 2, "Project Description": This chapter describes the location, background, and goals and objectives for the project and describes the project components in detail.

Chapter 3, "Environmental Impacts and Mitigation Measures": This chapter evaluates the expected environmental impacts that would occur as a result of project implementation, arranged into sections by subject area (e.g., aesthetics, biological resources). Within each subsection of Chapter 3, the regulatory background, existing conditions, analysis methodology, and thresholds of significance are described. The anticipated changes to the existing conditions after development of the project are then evaluated for each subject area. For any significant or potentially significant impact that would result from project implementation, mitigation measures are presented and the level of impact significance after mitigation is identified. Environmental impacts are numbered sequentially within each section (e.g., Impact 3.2-1, Impact 3.2-2, etc.). Any required mitigation measures are numbered to correspond to the impact numbering; therefore, the mitigation measure for Impact 3.2-2 would be Mitigation Measure 3.2-2.

Chapter 4, "Cumulative Impacts": This chapter provides information required by CEQA regarding cumulative impacts that would result from implementation of the project together with other related past, present, and probable future projects.

Chapter 5, "Alternatives": This chapter evaluates alternatives to the project, including alternatives considered but eliminated from further consideration, the No-Project Alternative, and alternative development options. This chapter also identifies the environmentally superior alternative from among the alternatives evaluated in detail.

Chapter 6, "Other CEQA Sections": This chapter evaluates growth-inducing impacts and the irreversible and irretrievable commitment of resources and discloses any significant and unavoidable adverse impacts.

Chapter 7, "References": This chapter identifies the documents and individuals used as sources for the analysis.

Chapter 8, "Report Preparers": This chapter identifies the preparers of this document.

1.8 STANDARD TERMINOLOGY

This Draft EIR uses the following standard terminology:

- "No impact" means no change from existing conditions (no mitigation is needed).
- "Less than significant impact" means no substantial adverse change in the physical environment (no mitigation is needed).
- "Potentially significant impact" means an impact that might cause a substantial adverse change in the environment (mitigation is recommended because potentially significant impacts are treated as significant).
- "Significant impact" means an impact that would cause a substantial adverse change in the physical environment (mitigation is recommended).
- "Significant and unavoidable impact" means an impact that would cause a substantial adverse change in the physical environment and that cannot be avoided, even with the implementation of all feasible mitigation.

2 PROJECT DESCRIPTION

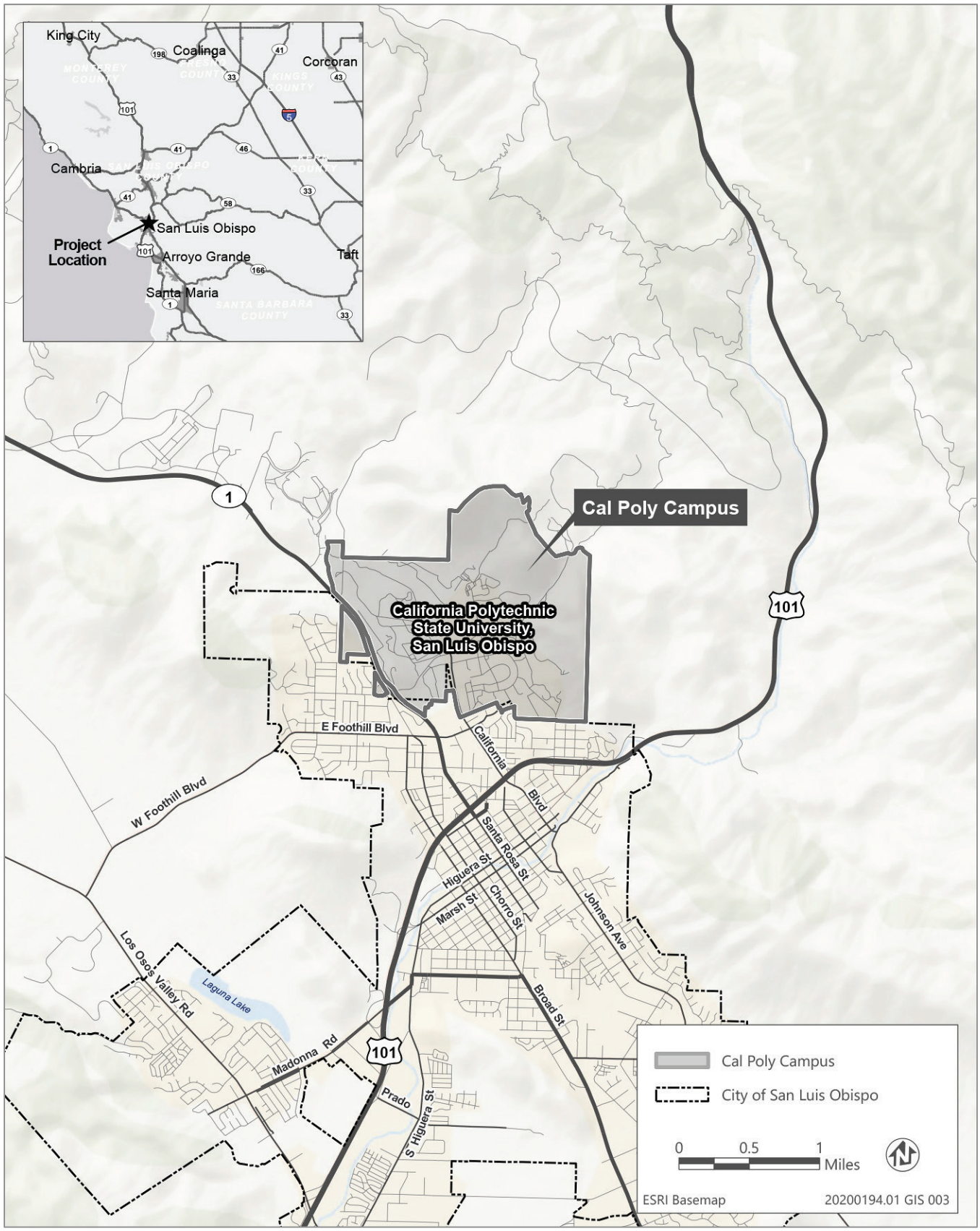
The proposed project involves constructing and operating an on-campus WRF and recycled water storage and distribution system to treat a portion of the campus's wastewater and deliver recycled water to campus agricultural and athletic fields for irrigation. The project was identified as a near-term project in the Campus Master Plan to meet the nonpotable water needs of the Cal Poly campus and free up an equivalent volume of the existing potable water supply from Whale Rock Reservoir to serve the projected potable water demand of the Cal Poly campus in the future (Cal Poly 2019a). This chapter presents a detailed description of the proposed WRF and associated recycled water storage and distribution system. It describes the project's setting, background and need, objectives, proposed components, operations and maintenance, and construction timeline and methods, as well as the permits and approvals that may be necessary for project implementation.

2.1 PROJECT SETTING

Located in the County of San Luis Obispo (County), the Cal Poly campus covers approximately 3,385 acres abutting the City of San Luis Obispo (City) to the south and west, and open space, ranchland, and public land to the north and east (Figure 2-1). The Cal Poly Campus Master Plan area comprises 1,339 acres of these lands, which consist of the 855-acre main campus and an additional 484 acres consisting of rangeland and steep terrain to the north, northeast, and northwest of the main campus (Figure 2-2) called the San Luis Ranches. Cal Poly also owns another 3,043 acres of noncontiguous rangelands in San Luis Obispo County called the Western Ranches.

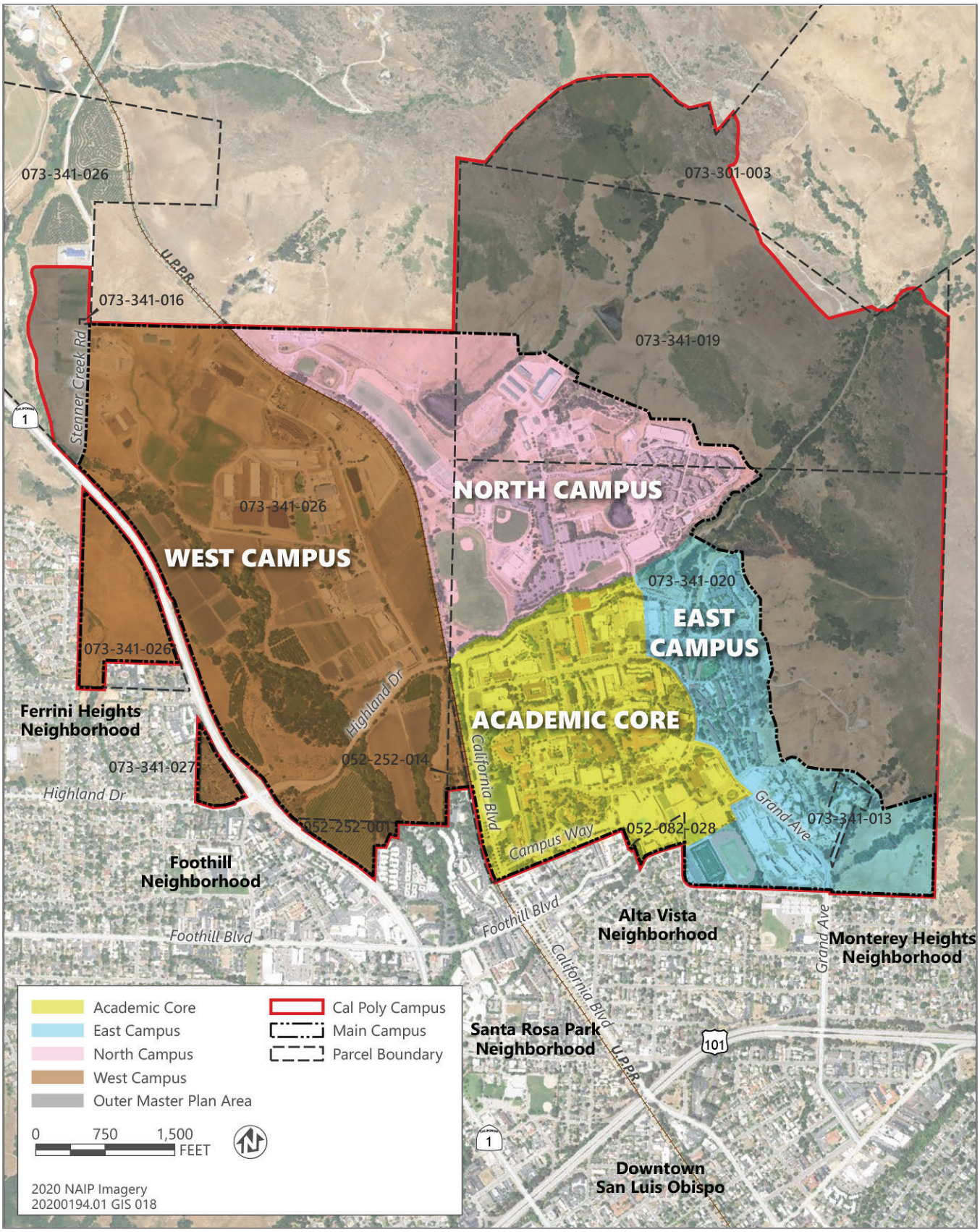
The main campus is composed of four distinct geographic subareas:

- Academic Core: The Academic Core, the most densely developed area of campus, is focused on academic land uses, with related service and support functions. The location of classes and labs, advising services, study areas, food outlets, sports venues, event spaces, and administrative offices, the Academic Core is the center of campus activity for students, faculty, and staff. The areas surrounding the Academic Core on three sides (West Campus, North Campus, and East Campus) include campus functions that are typically accessed less frequently and require more extensive land area than is available in the Academic Core. The Academic Core is roughly defined as the area bounded by Brizzolara Creek to the north, the southern edge of campus to the south, Grand Avenue and Perimeter Road to the east, and the Union Pacific Railroad (UPRR) tracks to the west.
- East Campus: The East Campus contains a concentration of student housing facilities, primarily along Grand Avenue at the base of the eastern hills. The newest housing development constructed on campus at the Grand Avenue entrance (a 1,475-bed facility) opened in September 2018 and enables all first-year students to live on campus in traditional dormitory-style housing. The East Campus also provides other student housing, operational facilities, food services, and athletic facilities and has strong pedestrian connections to the Academic Core.
- North Campus: The North Campus is located north of the Academic Core and Brizzolara Creek, which bisects the main campus, and consists of student housing, athletic fields, agricultural facilities (e.g., horse stables and associated structures), parking facilities, and open space (e.g., Leaning Pine Arboretum and the Drumm and Shepard Reservoirs).
- West Campus: The West Campus generally encompasses the area between the UPRR tracks and State Route (SR) 1, with a portion extending west of SR 1 to the Ferrini Heights neighborhood (Figure 2-2). West Campus is predominantly agricultural, with some of Cal Poly's richest agricultural soils along Stenner Creek and lower Brizzolara Creek. The West Campus also includes campus operational facilities, orchards and agricultural fields, agricultural support facilities, and open space.



Source: Data received from Cal Poly in 2019; adapted by Ascent Environmental in 2019.

Figure 2-1 Regional Vicinity



Source: Cal Poly 2019a; adapted by Ascent Environmental in 2022.

Figure 2-2 Cal Poly Campus Master Plan Area

As shown in Figure 2-2, vehicle access to campus is limited to three primary entrances: Grand Avenue with a direct connection to US Highway 101 (US 101) at the southeastern corner of campus, Highland Drive directly off SR 1 (Santa Rosa Street) on the west side of campus, and California Boulevard in the southwestern corner of the Academic Core. The campus also has secondary entrances at Stenner Creek Road off SR 1 from the northwest and at Crandall Way off Foothill Boulevard from the south. The UPRR right-of-way bifurcates the campus from Foothill Boulevard to Highland Drive and beyond to the north, limiting other access from the west.

The Alta Vista and Monterey Heights single-family residential neighborhoods in the City border the southern edge of campus, as shown in Figure 2-2. The Foothill and Ferrini Heights neighborhoods, which are largely single-family residential neighborhoods, are located west of campus, north of Foothill Boulevard. SR 1 (Santa Rosa Street) borders the western side of campus and is lined with commercial development at its intersection with Foothill Boulevard. Several multifamily housing complexes that accommodate primarily Cal Poly students and students attending Cuesta Community College (located approximately 6 miles northwest of the Cal Poly campus) are located near the southwestern corner of campus along Foothill Boulevard.

2.2 PROJECT BACKGROUND AND NEED

Cal Poly is one of 23 campuses in the CSU system. It consists of six colleges: Agriculture, Food, and Environmental Sciences; Architecture and Environmental Design; Engineering; Liberal Arts; Science and Mathematics; and the Orfalea College of Business. In keeping with the CSU state charter and California Education Code Section 66202.5, and in response to projections of continued increases in demand for higher education enrollment to meet California's future workforce needs, Cal Poly recently revised its Campus Master Plan to accommodate academic and supporting space needs to serve a projected enrollment of approximately 25,000 students (Cal Poly 2019a). Increased enrollment, new on-campus housing, and new academic and other buildings proposed in the Campus Master Plan would increase the campus's demand for water supply and wastewater treatment services.

2.2.1 Campus Master Plan

The Campus Master Plan is a long-range planning document that focuses on 1,339 acres of the Cal Poly campus and provides development direction for each of the four distinct subareas of the main campus, described above. The plan addresses academic program demand, physical and environmental constraints and opportunities, and capital and operating budget requirements to support a future student enrollment of an approximate 25,000 headcount (22,500 net full-time-equivalent students [FTES]) (Cal Poly 2019a).

The Campus Master Plan focuses on land use and circulation needs and includes development of new and replacement academic buildings; additional on-campus student housing; additional recreation, event, and entertainment spaces; and other support facilities to accommodate enrollment growth and emerging requirements for a supportive learning environment.

The plan intensifies development in the Academic Core and phases new growth north of Brizzolara Creek. At the same time, the plan is designed to protect the natural environmental features and prime agricultural lands that form the character of the campus. Figures 2-3a and 2-3b show the approved Campus Master Plan and illustrate the changes that would occur under the plan. Enrollment goals include an increase from approximately 20,000 FTES in 2015 to 25,000 FTES by 2035 at a growth rate of approximately 1 percent per year. The on-campus student housing goals include an increase from approximately 7,600 beds in 2021 to approximately 15,000 beds at buildout of the Campus Master Plan (Jackson, pers. comm., 2022). The on-campus housing will be built in stages, with new housing anticipated to come online approximately every 3–5 years through Campus Master Plan buildout.

The growth proposed in the Campus Master Plan will result in increased demand for water supply and wastewater treatment.

Source: Image prepared and provided by Cal Poly in 2019; adapted by Ascent Environmental in 2022.

Figure 2-3a Adopted Campus Master Plan Map Legend

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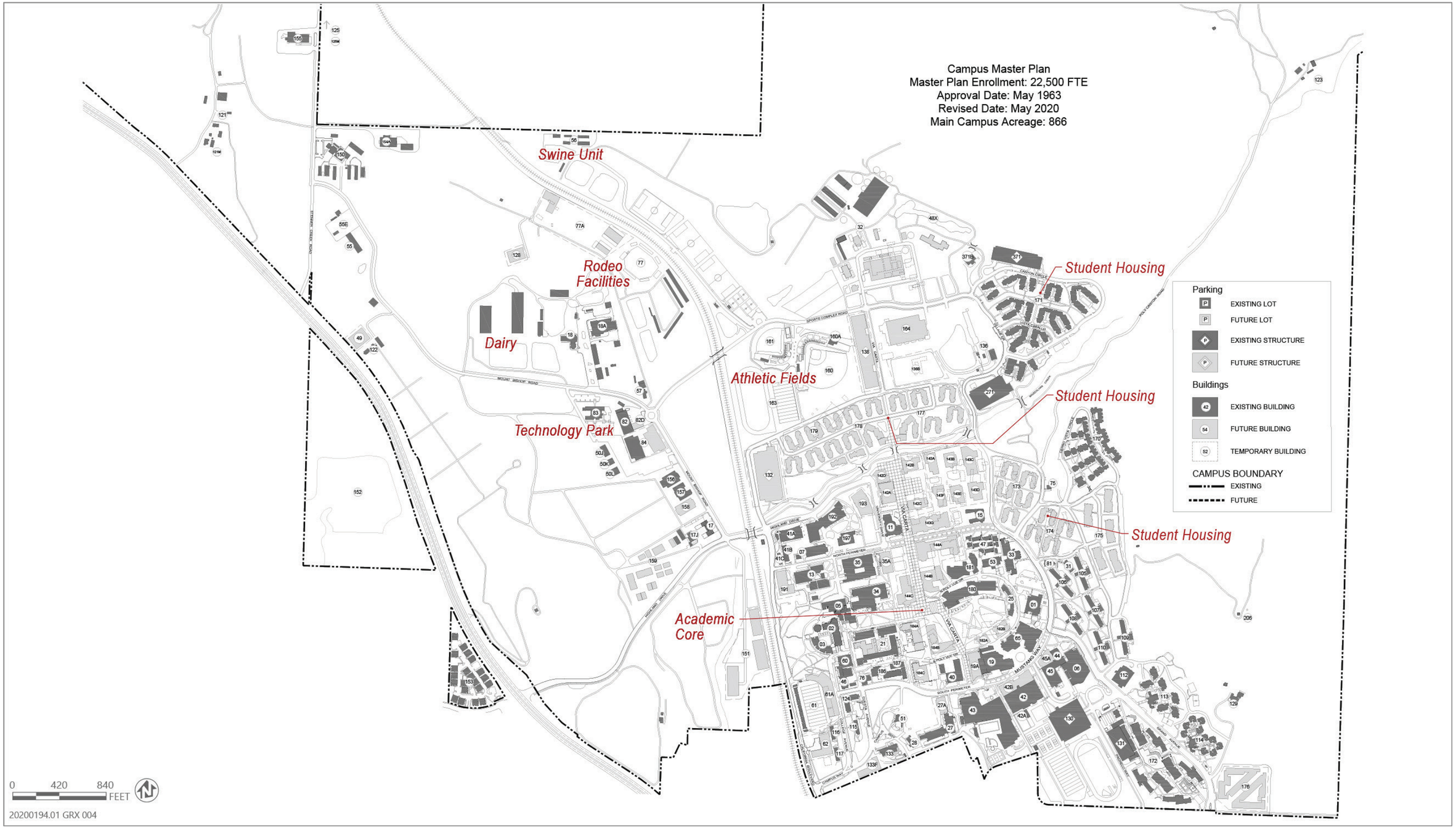


Source: Image prepared and provided by Cal Poly in 2019; adapted by Ascent Environmental in 2022.

Figure 2-3b Adopted Campus Master Plan Map

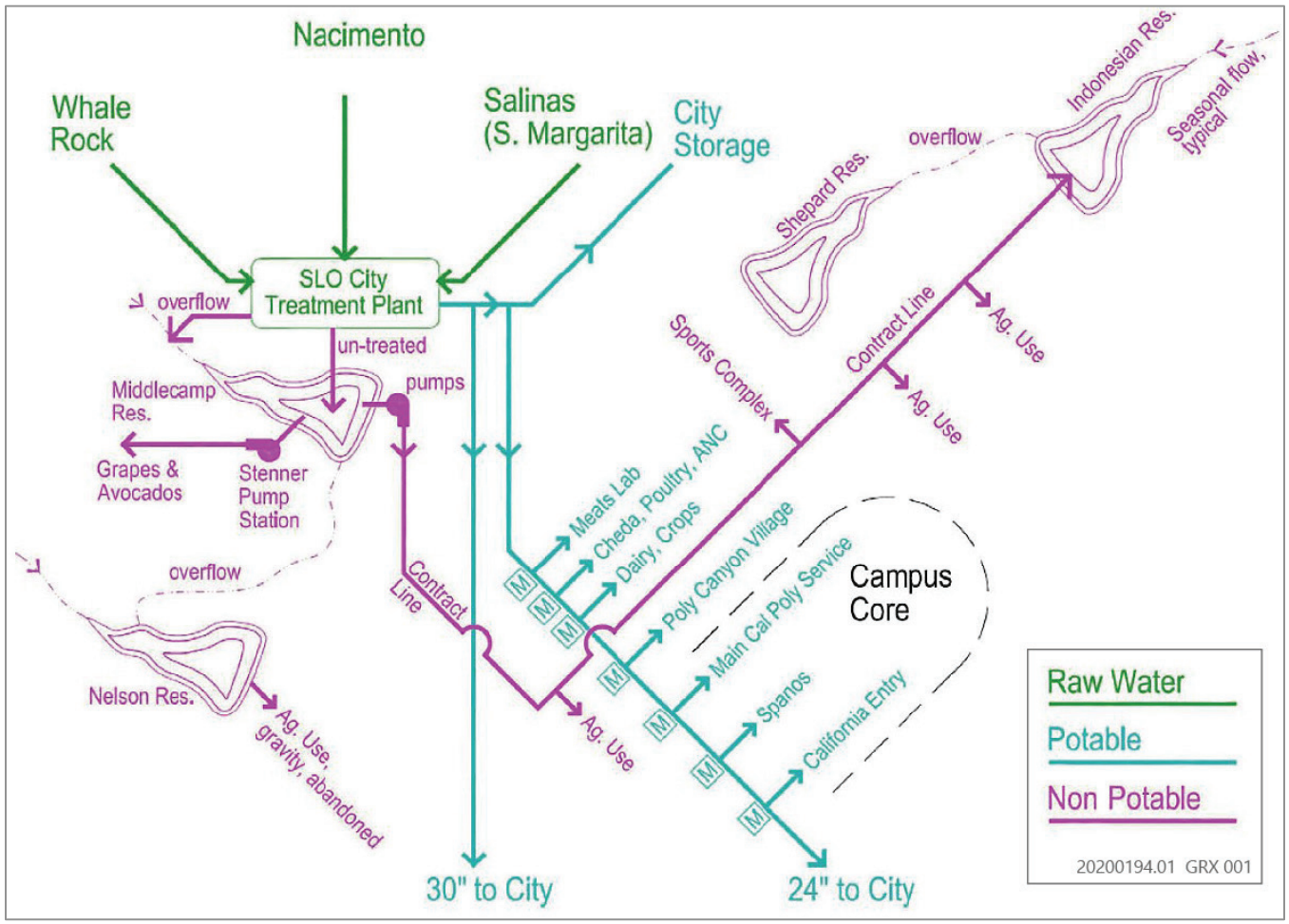
2.2.2 Existing Campus Water Supply

Cal Poly's current annual water supply is 1,079 acre-feet (af), of which 959 af (89 percent) are sourced from Whale Rock Reservoir, which is located in Cayucos, approximately 15 miles northwest of the main campus, and the other 120 af (11 percent) are pumped from groundwater wells located on campus (Figure 2-4). Table 2-1 summarizes the water supply sources for the Cal Poly campus. A schematic depiction of the water supply relationship between Cal Poly and the City is shown in Figure 2-4.

Table 2-1 Cal Poly Water Supplies

Resource	Source	Acre-Feet per Year
Raw surface water	Whale Rock Reservoir	959
Groundwater	On-campus wells	120

Source: Hartman Engineering 2019.



Source: Watearth 2019a; adapted by Ascent Environmental in 2021.

Figure 2-4 Water Supply Relationship between Cal Poly and the City of San Luis Obispo

Whale Rock Reservoir is a 38,967-af earthen-dammed reservoir that captures water from the 20.3-square-mile Old Creek watershed near Cayucos, approximately 15 miles northwest of the main campus. The reservoir was completed in 1961 by the California Department of Water Resources to provide water to the City; Cal Poly; and the California Men's Colony, a state prison under the jurisdiction of the California Department of Corrections and Rehabilitation. These three public entities form the Whale Rock Commission, which is responsible for operation and maintenance of Whale Rock Reservoir and associated pipelines and pump stations.

As of February 8, 2023, the reservoir's water storage was at approximately 89.71 percent of capacity (SLO 2023). In 2014, the Whale Rock Commission adopted a new bathymetric and volumetric analysis to accurately update the total reservoir storage volume and allocation to each partner agency. In 2017, Cal Poly partnered with the City and a consultant to determine the safe annual yield (SAY) for each of its users based on changing climatic conditions. Based on the share allocated to Cal Poly and using conservative climate change reductions to the inputs to the watershed, it was determined that Cal Poly has the right to a SAY of 959 af from the reservoir. Cal Poly and the other agencies of the Whale Rock Commission are allowed to bank water at the reservoir up to their allocated storage limit, which for Cal Poly is 13,136 af. In any given year, without exceeding its banked water volume, Cal Poly may take more or less water than its SAY of 959 af.

In addition to water supplied from Whale Rock Reservoir, the campus pumps groundwater from two on-campus wells. These wells produce approximately 120 af per year (afy) of nonpotable water, which is used to irrigate agricultural crops on the main campus. The remaining campus nonpotable water demand (380 afy) is met with untreated water supplied from Whale Rock Reservoir.

2.2.3 Existing Campus Water Treatment and Delivery

Cal Poly contracts with the City to treat its potable water supply at the City WTP and manage delivery of Cal Poly's potable and nonpotable water supplied from Whale Rock Reservoir to meet campus demands throughout the year. The City also conveys its potable water supply through two City-owned pipelines across the campus before supplying its users within City limits.

The City and Cal Poly have a long history of agreements for water treatment and delivery. In 1964, an agreement was executed for 2.3 million gallons per day (mgd) of water treatment, 31 percent of capacity in the 30-inch pipeline from the City WTP to the transfer pumps, 50 percent of the transfer pump station capacity, and 47 percent of capacity in the 24-inch pipeline from the transfer pump station to Cal Poly. The current service agreement for water and sewer rates was executed in 2021. Under the current agreement, Cal Poly's share of the City WTP capacity is a maximum of 1,000 afy at a daily volume not to exceed 893,000 gallons per day (gpd), and a peak day maximum flow rate not to exceed 1.44 mgd.

Currently, potable water is supplied to the campus core, and untreated (nonpotable) water is used to irrigate agricultural and athletic fields. Two pump stations managed by the City under Whale Rock Commission oversight are used to pump potable water from the City WTP to Cal Poly through the City's main water pipelines that pass through campus. Treated water from the City WTP has an incremental additional cost, and the City WTP is operated such that Cal Poly is able to manage its daily potable and nonpotable supplies, paying only for the treatment of water needed to meet potable water demand at a given time.

Cal Poly owns and maintains its on-campus water supply conveyance pipelines (potable and nonpotable), including those that accommodate fire flows to campus buildings and those that carry flows for distribution to agricultural and athletic fields (Watearth 2019a).

Figure 2-5 illustrates the nonpotable water supply system on campus. All nonpotable water for agricultural and athletic field use, for which demand totaled approximately 373 afy in 2019, but can be up to 500 afy depending on precipitation, is managed through a series of reservoirs on campus (Middlecamp, Nelson, Shepard, Indonesian, Smith, and Drumm Reservoirs) for water storage. The nonpotable system uses these reservoirs, along with small natural channels and pipes, to distribute water to the 600 acres of agricultural and athletic fields on the campus. The system of small on-campus earthen reservoirs is also positioned to collect stormwater runoff that is used to irrigate fields via the nonpotable system. Nonpotable water deliveries from the City WTP are directly discharged into Cal Poly's Middlecamp Reservoir, where water can be pumped for agricultural use or be discharged through a V-ditch to Cal Poly's Nelson Reservoir, where water again can be pumped for agricultural use. Alternatively, nonpotable supply from the City WTP can be delivered directly to the Cal Poly agricultural irrigation system. As described above, Cal Poly also has two groundwater wells on campus. These wells supply nonpotable water for irrigation of human food crops or citrus orchards grown on the main campus.

Source: Data received from Hartman Engineering in 2022.

Figure 2-5 Existing Cal Poly Nonpotable Water Supply System

2.2.4 Existing and Projected Campus Water Demand

Cal Poly has made significant water conservation upgrades to existing buildings on campus, which has reduced water demand over time. With additional planned water efficiency measures for existing buildings across campus and in landscape irrigation, Cal Poly expects to see additional water savings in the future (Watearth 2019a: 23). New buildings erected under the Campus Master Plan also will be water-efficient. However, much of the planned future growth will be sited on existing campus agricultural and athletic fields. The decrease in fields, which currently rely on nonpotable water, to make room for high-density classrooms, dorms, and nonstudent housing, which require potable water supply, as proposed in the Campus Master Plan, will increase net potable water demand.

Table 2-2 summarizes potable and nonpotable water supply and demand and the allocation of source water to these uses in 2019 and at projected buildout of the Campus Master Plan. It shows that without the WRF there would be inadequate water supply to meet both potable and nonpotable demands. Based on Cal Poly's existing agreements with the City for water treatment capacity (i.e., up to 0.9 mgd on average and 1.44 mgd on a peak day up to a total capacity of 1,000 afy), adequate treatment capacity would be available to meet Cal Poly's potable water demands (i.e., drinking water, building fixtures, and landscape irrigation) at buildout of the Campus Master Plan. Without recycled water supplied by the WRF, however, there would not be adequate supplies to meet nonpotable water demands (i.e., agricultural and athletic field irrigation).

Table 2-2 Comparison of 2019 and Campus Master Plan Buildout Water Supply and Demand with and without the WRF

	Average Day 2019 (afy)	Average Day 2019 (gpd)	Average Day Campus Master Plan Buildout (afy)	Average Day Campus Master Plan Buildout (gpd)
Water Supply				
Whale Rock Reservoir	959	856,140	959	856,140
On-campus groundwater wells	120	107,129	120	107,129
WRF recycled water	NA	NA	380	339,242
Water Demand				
Potable Water (total)	522	466,012	891	795,434
Whale Rock Reservoir	*522*	*466,012*	*891*	*795,434*
Nonpotable Water (total) [1]	373	332,993	500	446,371
Whale Rock Reservoir	*288*	*257,110*	*0*	*0*
On-campus groundwater wells	*85*	*75,883*	*120*	*107,129*
WRF recycled water	*NA*	*NA*	*380*	*339,242*
Net Total Water Supply without WRF (Total Supply – Total Demand)				
Potable	149	104,451	68	60,706
Nonpotable	35	0	-380	-339,242
Net Total Water Supply with WRF (Total Supply – Total Demand)				
Potable	NA	NA	68	60,706
Nonpotable	NA	NA	0	0
Adequate Potable and Nonpotable Water Supplies Available?				
Without WRF	Yes		No	
With WRF	NA		Yes	

Notes: afy = acre-feet per year; gpd = gallons per day; NA = not applicable; WRF = water reclamation facility.

[1] Nonpotable water demand fluctuates from year to year depending on precipitation. Actual demand in 2019 was 373 af (332,993 gpd), but maximum demand in any given year is estimated at 500 afy (446,371 gpd) and this is not projected to change at buildout of the Campus Master Plan.

Sources: Worth, pers. comm., 2023; adapted by Ascent Environmental in 2023.

2.2.5 Existing Campus Wastewater Collection and Treatment

As of 2019, Cal Poly generates an annual average of 247,000 gpd of wastewater, all of which is treated at the City's Water Resource Recovery Facility (City WRRF), located approximately 4 miles south of the main campus at 35 Prado Road in San Luis Obispo. The campus is divided into six sewersheds that discharge to a single collection point near Mustang Drive and Spanos Stadium (Figure 2-6). From there, the wastewater is discharged to the City's collection system and conveyed to the City WRRF for treatment.

Cal Poly's discharges of wastewater to the City's collection system are regulated under Significant Industrial User (SIU) Permit Number 259-S (effective January 1, 2021) issued by the City. An SIU is any user subject to categorical pretreatment standards under 40 Code of Federal Regulations (CFR) 403.6 and 40 CFR Chapter I, Subchapter N, or any industrial user that has the reasonable potential to adversely affect operation of a public-owned treatment work, such as the City WRRF, or to violate any pretreatment standard or requirement in accordance with 40 CFR 403.8(f)(6).

At the point of connection to the City's collection system is a flume used to continuously meter flow rates and calculate volumes at 15-minute intervals. On a monthly basis, a composite grab sample is taken to document wastewater quality. The flow volumes and water quality data are used by the City to monitor and bill Cal Poly monthly for sewer use and wastewater treatment in accordance with terms specified in the current service agreement for water and sewer rates, which was executed in 2021. Cal Poly's share of the City's permanent wastewater treatment capacity is 0.471 mgd average dry weather flow (ADWF), and its share of the City's collection system capacity is 1.2 mgd. The 0.471-mgd treatment capacity is based on average daily flow from the peak month.

2.2.6 Projected Campus Wastewater Demand

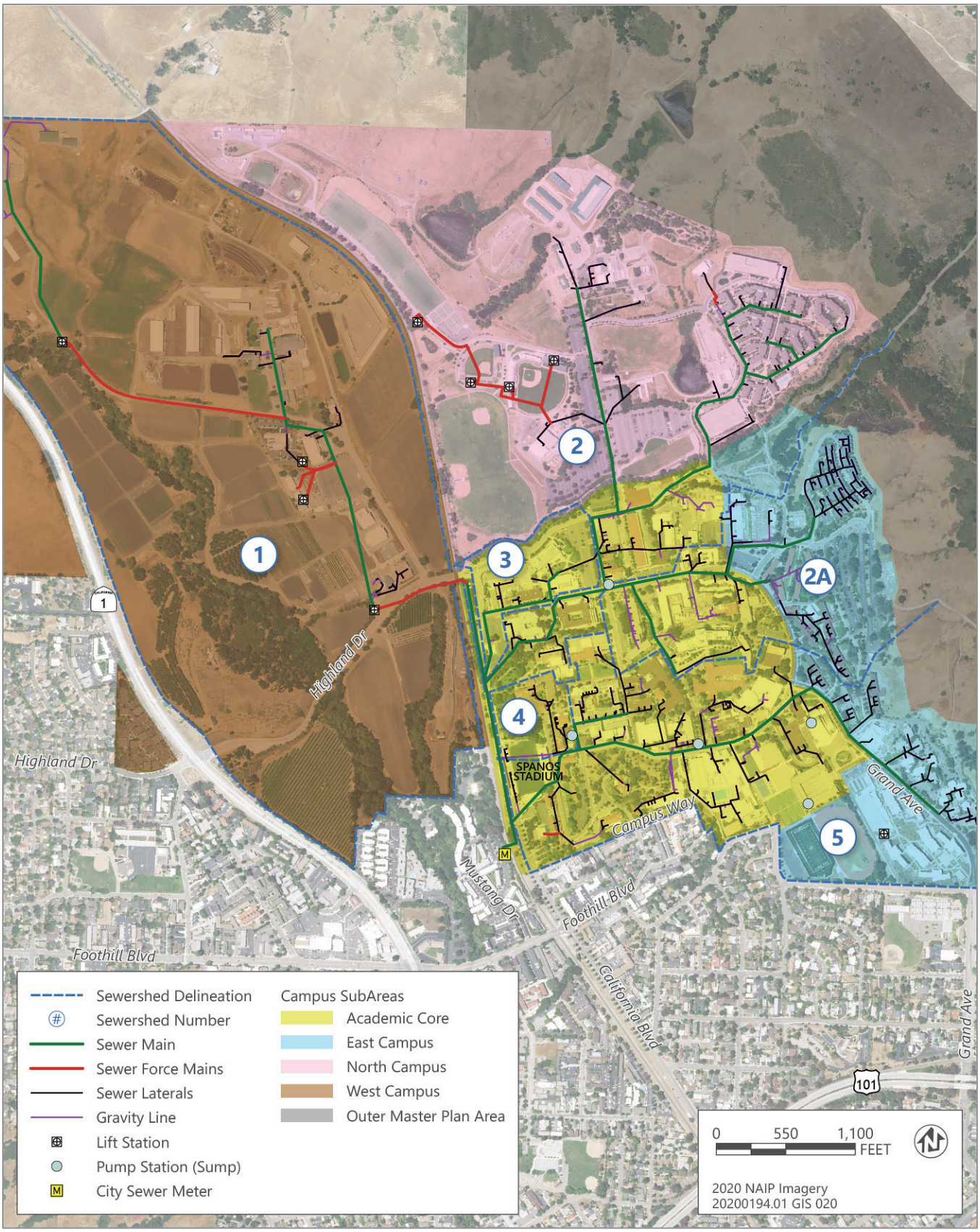
In addition to increasing the demand for potable water supply, projected campus growth will increase demand for wastewater treatment. Table 2-3 summarizes projected wastewater flows as evaluated in the Campus Master Plan EIR, and shows that without the WRF, Cal Poly is projected to reach the existing contracted capacity of 0.471 mgd ADWF for wastewater treatment at the City WRRF before full buildout of the Campus Master Plan. Since publication of the Campus Master Plan and EIR, campus planning efforts have been ongoing. It should be noted that the modeling results reported in Table 2-3 were based on a more aggressive housing development timeline than is currently projected. Because buildout of the Campus Master Plan is now anticipated to proceed more slowly than was analyzed in the Campus Master Plan EIR, wastewater flows are also anticipated to increase more slowly than shown in Table 2-3. The WRF is now proposed to come online in 2026 rather than in 2025, as evaluated in the Campus Master Plan EIR. Nevertheless, before full buildout of the Campus Master Plan, wastewater flows would still exceed Cal Poly's contracted capacity at the City WRRF without implementation of the WRF. Therefore, additional treatment capacity is needed.

Table 2-3 Modeled Wastewater Flows from Cal Poly to City WRRF

Wastewater Flow Type	Flow (gpd)				
	2015	2020	2025	2030	2035
No WRF					
ADWF	284,482	279,671	435,007	547,797	688,415
PDWF	739,653	727,144	1,131,019	1,424,272	1,789,880
PWWF	2,308,597	2,296,088	2,699,963	2,993,216	3,358,824
With WRF Operational in 2025					
ADWF	284,482	279,671	265,386	208,555	349,173
PDWF	739,653	727,144	961,398	1,085,030	1,450,638
PWWF	2,308,597	2,296,088	2,530,342	2,653,974	3,019,582

Notes: gpd = gallons per day; ADWF = average dry weather flow; PDWF = peak dry weather flow; PWWF = peak wet weather flow; WRRF = Water Resource Recovery Facility; WRF = water reclamation facility.

Sources: Watearth 2019b; Cal Poly 2019b; adapted by Ascent Environmental in 2022.



Source: Data received from Cannon in 2022, adapted by Ascent Environmental in 2022.

Figure 2-6 Existing Cal Poly Wastewater Collection System

Model results used to calculate peak wet weather flow (PWWF), peak dry weather flow, and ADWF indicate that even with operation of the WRF, PWWF from Cal Poly to the City's wastewater collection systems would continue to exceed the 1.2 mgd of collection capacity agreed to by the City and Cal Poly through 2035 (Watearth 2019b). Although the WRF is likely to have additional peak capacity to accommodate higher-than-average annual flows, it may not be adequate to reduce PWWF to 1.2 mgd. Improvements to Cal Poly's collection system to reduce inflow and infiltration that contribute to PWWF are ongoing. Cal Poly has a history of negotiating upgrades to the City's sewer interceptor when it reaches capacity to increase pipe size where necessary to accommodate Cal Poly flows. Although no such actions are proposed at this time, it is anticipated that similar actions could be taken in the future to reduce the potential for future wet months to exceed the 1.2-mgd conveyance capacity agreement between Cal Poly and the City.

Based on Cal Poly's SIU permit, the effluent limitations shown in Table 2-4 are in effect through December 31, 2023. Cal Poly is required to comply with uniform limits for chloride, sodium, total dissolved solids (TDS), and total suspended solids; Contributory Limit A for ammonia, biological oxygen demand (BOD), and copper; and Contributory Limit B for zinc. The City has indicated the current effluent limitations are subject to change over the long term based on upgrades to the City WRRF, including new loading capacity; improvements to its tertiary treatment system, which would reduce TDS; changes in demand for recycled water; and revisions to the discharge/receiving limits for San Luis Creek.

Table 2-4 Effluent Limitations Prescribed in Cal Poly SIU Permit

Constituent	Uniform Limit Daily Average (mg/L)	Contributory Limit A Daily Average (mg/L)	Contributory Limit B Daily Average (mg/L)	Sample Frequency	Sample Type
Ammonia	32	50	—	Monthly	Composite
Biochemical oxygen demand	226	400	250	Monthly	Composite
Chloride	1,523	—	—	Monthly	Composite
Sodium	1,200	—	—	Monthly	Composite
Total dissolved solids	2,215	—	—	Monthly	Composite
Total suspended solids	2,346	—	—	Monthly	Composite
Copper, total	0.14	0.20	—	Monthly	Composite
Zinc, total	0.17	1.00	0.50	Monthly	Composite

Notes: mg/L = milligrams per liter; SIU = Significant Industrial User.

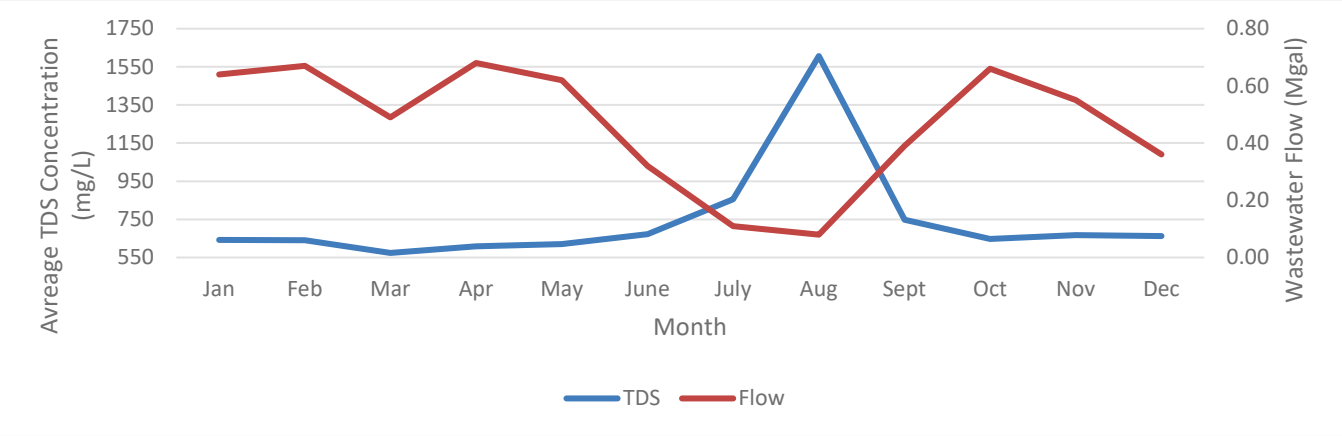
Source: SLO 2022.

Cal Poly is exceeding some of its current effluent limits, primarily because of ongoing water conservation efforts that reduce the volume of water being discharged to the sewer, which, in turn, raises the concentration of constituents, primarily ammonia and BOD. However, it is expected that constituent concentrations in wastewater generated on campus would decrease (become more dilute) as the ratio of students who live on campus to those living off campus increases with buildout of the Campus Master Plan. This is because on average, a person uses 4 times more water per day for showering than for toileting and the wastewater constituent concentrations in shower water are more dilute than in toilet water (ConSol 2010). This is supported by campus TDS modeling results for the period 2012 to 2019 presented in the two graphs in Figure 2-7. The top graph shows that during the months when there were more students on campus, TDS concentrations in the wastewater stream were lower. The bottom graph shows that during the modeled timeframe, as the ratio of enrolled students living on campus versus off campus increased, TDS concentrations in the wastewater generated on campus decreased.

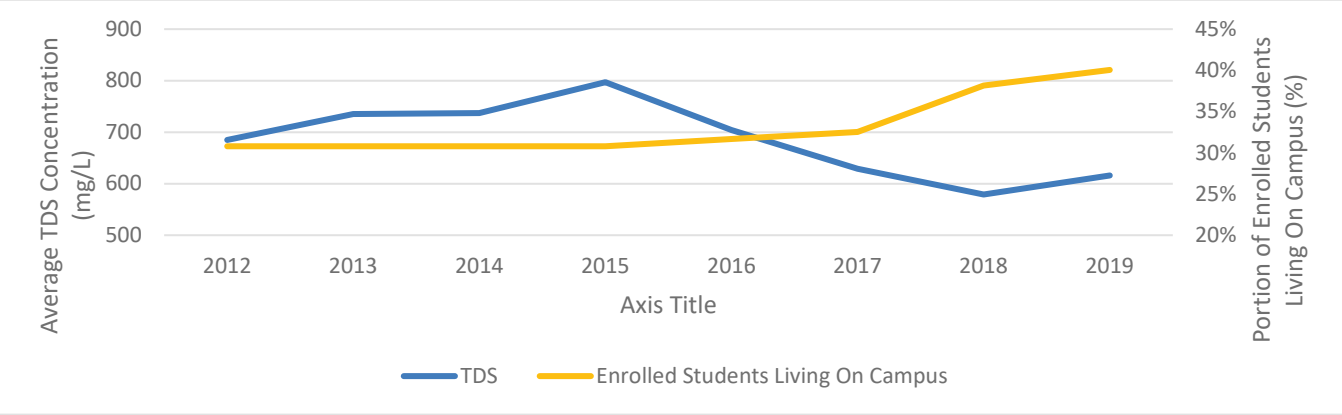
The pretreatment agreement with the City, dated January 6, 2009, provides the City with legal authority to enforce Title 13, Public Services, Section 13.08, Sewers, of the City Municipal Code:

- 13.08.080: Pretreatment Facilities. Users shall provide wastewater treatment as necessary to comply with this chapter and shall achieve compliance with all categorical pretreatment standards, local limits, and the prohibitions set out in Section 13.08.040 within the time limitations specified by EPA [US Environmental Protection Agency], the state, or the director, whichever is more stringent. Any facilities necessary for compliance shall be provided, operated, and maintained at the user's expense. Detailed plans describing such facilities and

operating procedures shall be submitted to the director for review and shall be acceptable to the director before such facilities are constructed. The review of such plans and operating procedures shall in no way relieve the user from the responsibility of modifying such facilities as necessary to produce a discharge acceptable to the city under the provisions of this chapter. All pretreatment facilities must comply with all other applicable laws. (Ord. 1598 Section 1 (part), 2014).



2012 - 2019 Average Monthly TDS Concentration vs Wastewater Flow



2012-2019 On-campus Living vs Average Annual TDS Concentration

Notes: TDS = total dissolved solids; avg = average; mg/L = milligrams per liter: Mgal = million gallons: % = percent.

Source: Data compiled by Hartman Engineering in 2022 based on Cal Poly wastewater flow rates and wastewater quality data from City of San Luis Obispo and percent of enrolled students living in on-campus dorms from Cal Poly.

Figure 2-7 Summary of Cal Poly TDS Concentrations in Relation to Wastewater Flow Rates and Percent of Flow from On-Campus Housing

2.3 PROJECT OBJECTIVES

Consistent with, and in furtherance of, the Campus Master Plan, the objectives of the WRF Project are to:

- maximize use of Whale Rock Reservoir water supply allocation to meet potable water demand associated with Campus Master Plan buildout;
- provide reliable, scalable, high-quality recycled water to serve existing and planned on-campus agricultural irrigation and meet other nonpotable campus water demands;
- supply water in a manner that aligns with Cal Poly's climate action plan and promotes the use of recycled water in support of CSU's 2022 Sustainability Policy;

- maximize Cal Poly water supply resilience to drought conditions;
- provide additional wastewater treatment capacity to accommodate increased wastewater generation associated with Campus Master Plan buildout;
- provide wastewater treatment and recycled water storage facilities that minimize odor issues, minimize energy demand, and limit disturbance to natural lands;
- maximize cost-effectiveness of water supply, wastewater, and recycled water services required to serve Campus Master Plan buildout; and
- provide students with additional hands-on learning environments and opportunities.

2.4 PROPOSED PROJECT COMPONENTS

The project would involve construction of an on-campus WRF and a recycled water storage and distribution system to produce and deliver disinfected tertiary recycled water that meets the requirements of CCR Title 22 for unrestricted reuse, including safe application to agricultural crops, pastures, and athletic fields on campus.

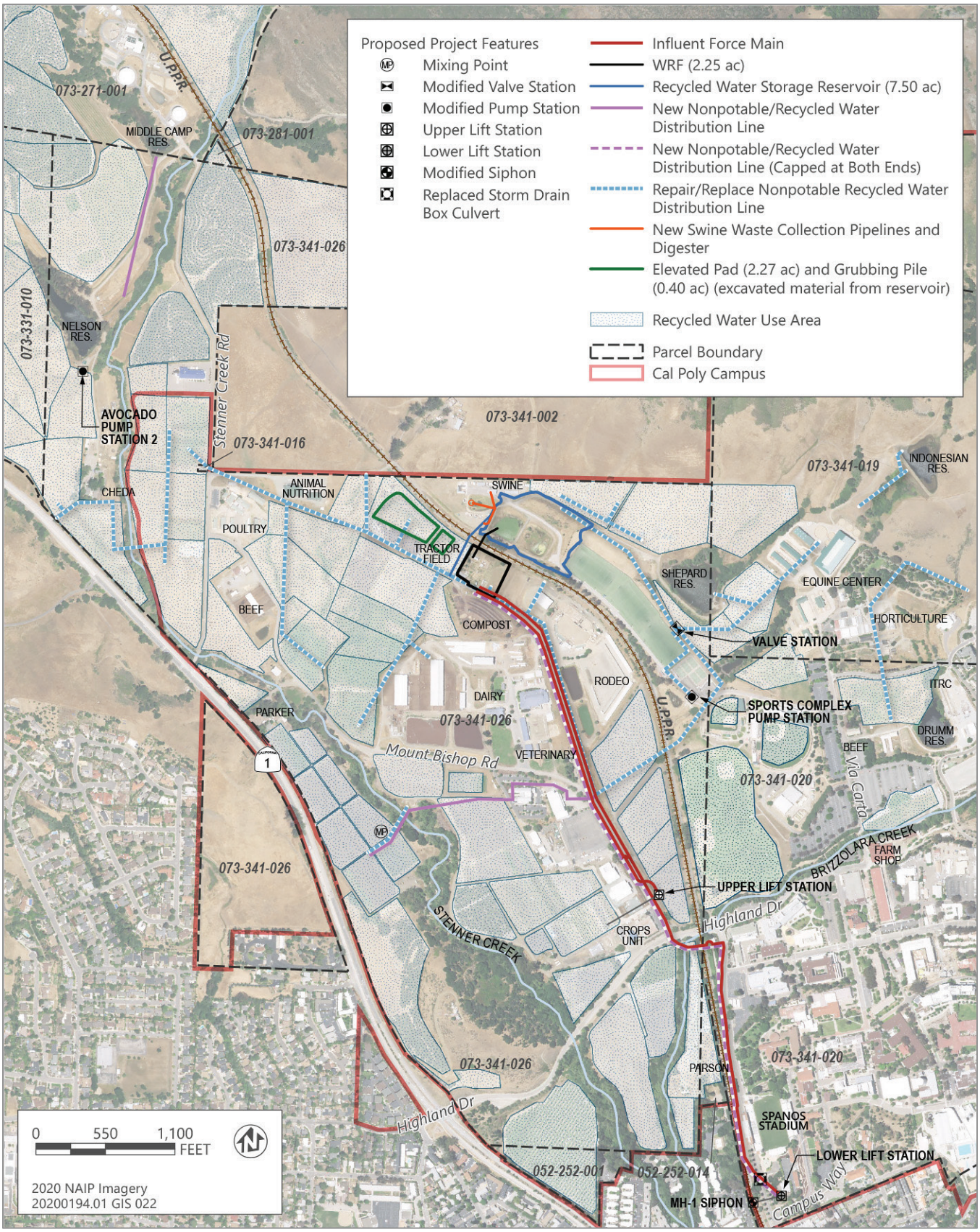
The proposed project would include the following components, which are depicted in Figure 2-8 and described in more detail below:

- WRF collection system,
- WRF,
- recycled water storage and distribution system, and
- utility improvements to support operation of proposed facilities.

The proposed WRF and recycled water storage reservoir, along with most of the recycled water distribution system improvements, would be sited in the West Campus subarea. A portion of the proposed force main and lower lift station, described in more detail in Section 2.4.1, below, would be sited in the Academic Core subarea. Portions of the proposed recycled water distribution system also would be sited in the North Campus subarea.

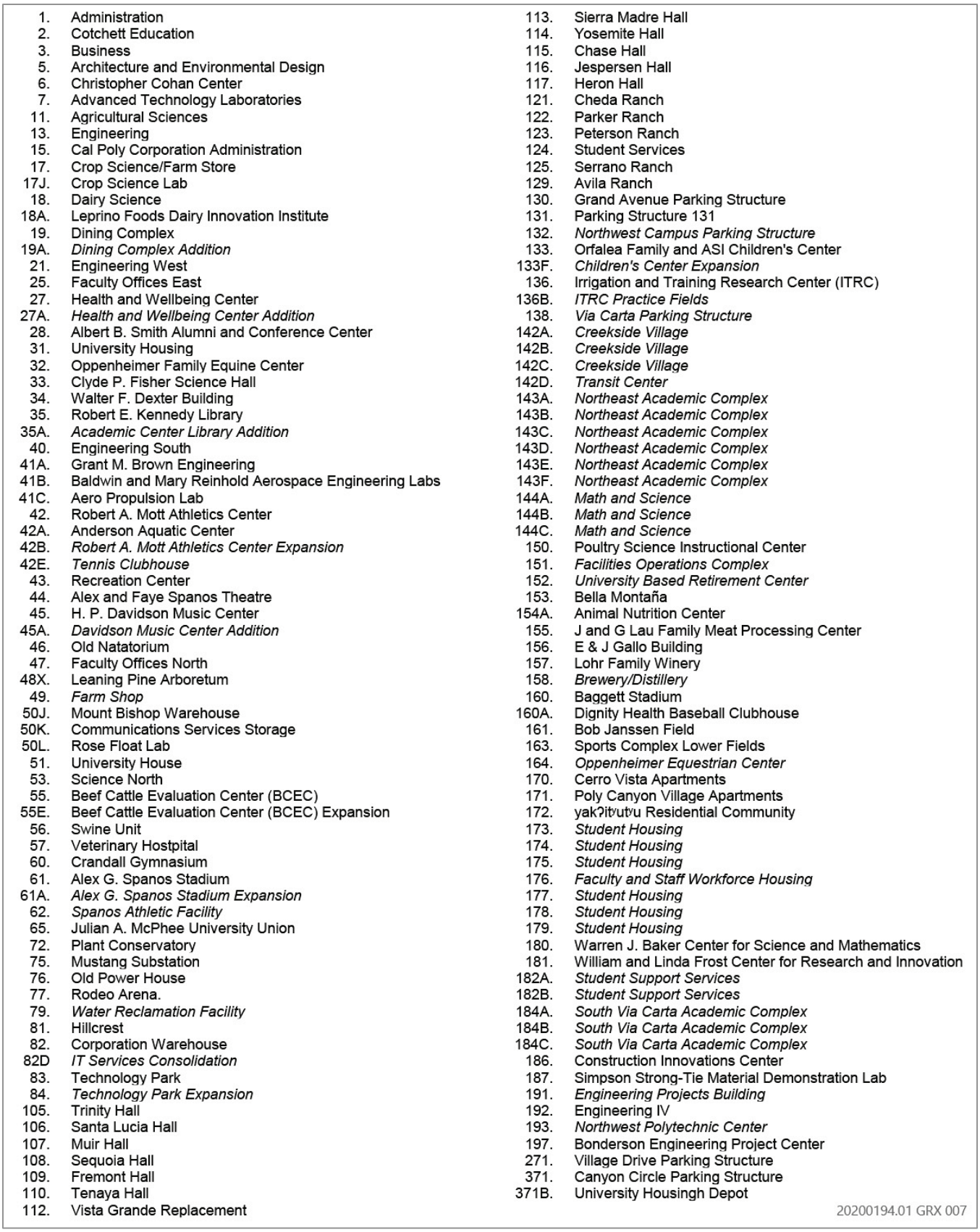
Under the adopted Campus Master Plan, the WRF was anticipated to be located just north of the Dairy Unit and west of the Rodeo Facilities and a new recycled water storage reservoir was not identified. However, as part of design of the proposed project, the location of the WRF has been adjusted and a new recycled water storage reservoir has been proposed. Therefore, as part of the project, Cal Poly's current Master Plan map would be amended, as shown in Figures 2-9a and 2-9b, to reflect the revised WRF location and new proposed recycled water reservoir (see #79 on Figure 2-9b). Other proposed features, including the collection system, lift stations, and recycled water distribution system would be small or linear and therefore not included on Figure 2-9.

The nonpotable water demands of the campus that are currently met through a portion of the existing Whale Rock Reservoir water allocation would be transitioned over time to be met by nonpotable recycled water supplied by the on-campus WRF. The campus would then use Whale Rock Reservoir water freed up by operation of the WRF to meet the additional potable water needs of the campus under buildout of the Campus Master Plan. Cal Poly would continue to pump up to 120 afy of groundwater for agricultural irrigation purposes (Watearth 2019a). Because Cal Poly would not increase agricultural operations as part of the Campus Master Plan, nonpotable water demands associated with agriculture are not anticipated to increase.



Source: Data received from Hartman Engineering in 2022.

Figure 2-8 Proposed Project Components



Source: Data provided by Cal Poly in 2022; adapted by Ascent Environmental in 2022.

Figure 2-9a Campus Master Plan Map Legend (Proposed)

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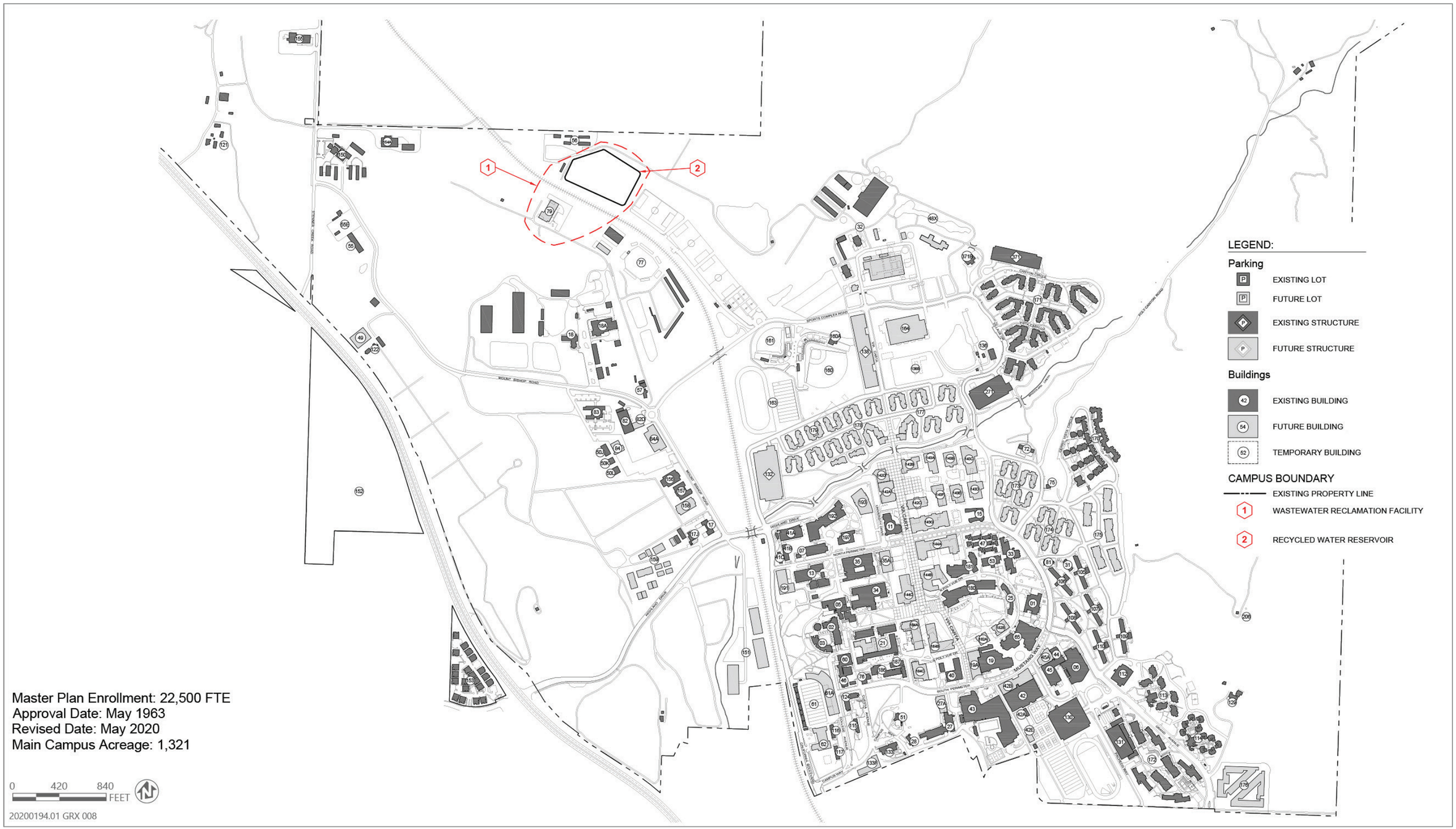

Source: Data provided by Cal Poly, in 2022; adapted by Ascent Environmental in 2022.

Figure 2-9b Campus Master Plan Map (Proposed)

2.4.1 WRF Collection System

The project would include new collection system components to convey wastewater generated on campus to the WRF. Specifically, the project would require two new lift stations and force mains to collect and convey wastewater from campus collection points to the WRF (Figure 2-8).

LIFT STATIONS

A lift station is a pumping station that moves wastewater from a lower elevation to a higher elevation. Pumps and other mechanical equipment associated with lift stations typically are installed belowground. However, some of the appurtenant equipment (e.g., electrical panels, emergency generators, odor control equipment) for the proposed project may be installed aboveground and housed in a small, one-story control building.

Lower Lift Station

The new "lower" lift station would be constructed near the entrance to campus on the site of an existing abandoned tennis court adjacent to the California Boulevard campus entrance in an area currently shielded from view by trees and existing landscaping (see Figure 2-8). It would occupy approximately 4,800 square feet (80 feet by 60 feet) and would consist of a rectangular concrete wet well (including a primary wet well and emergency storage wells), two submersible pumps, valving and piping, a hydraulic surge tank, and a separate control building. Most of the facility would be installed belowground at a maximum depth of approximately 30 feet and would be cast-in-place concrete. The aboveground control building would stand approximately 10 feet above grade and house electrical equipment, a motor control center, switchgear, controls for the submersible pump facilities, a standby dual-fuel (natural gas with propane backup) or diesel-powered generator, and odor control equipment to reduce noticeable or offensive odors.

The facility would be sized to handle average annual flows (AAF) of 0.296 mgd and a peak hourly dry weather flow (PHDWF) of 1.513 mgd, as well as peak hourly wet weather flows. This lift station would be connected to a new upper lift station (described below); the WRF; and the City collection facilities through a supervisory control and data acquisition (SCADA) system, including on-site control panel and hardwire network connection to the campus intranet. The SCADA system would provide data collection, system monitoring, alarm control, and the ability for remote viewing and operation of the lift station, as well as integration of controls with the WRF.

The lower lift station would use approximately 150,000 kilowatt-hours of power per year. Power would be provided by the existing 12-kilovolt (kV) campus electrical grid. Connecting the lift station to the electrical grid would require installing a new sectionalizing switch in the project vicinity and extending the 12-kV line approximately 1,000 linear feet (LF) underground from the north side of Spanos Stadium south around the eastern perimeter of the stadium to the lift station. Because the lift station would be considered essential infrastructure, it would also include a permanent backup power supply to maintain operation during a power outage. A dual-fuel (natural gas with propane backup) or diesel-powered backup generator would be installed at each lift station, consistent with other backup power systems on campus.

Other improvements that would be required to connect the lower lift station to the City collection system include replacing a nearby manhole and rebuilding the nearby M1-siphon to include a diversion weir that would facilitate diversion of peak flows to the City WRRF (see Figure 2-8). In addition, this lift station would require extension of a water supply line approximately 200 feet from Campus Way to provide nominal water supply for service and maintenance and connection to the campus network through hardwire cable for SCADA connectivity. Connection to the campus network would occur approximately 200 feet north of the lift station. The lift station would also require installation of a permanent paved driveway to provide truck and equipment access from California Boulevard for ongoing operations and maintenance activities.

Upper Lift Station

The new "upper" lift station would also be constructed as part of the project. This lift station would replace the existing crop science pump station and serve planned future North Campus housing in accordance with the Campus

Master Plan. It would be located near the south end of Mount Bishop Road, adjacent to an irrigated field on the east side of the road, and it would occupy an area similar in size to that described for the lower lift station, above. Like the lower lift station, the upper lift station would consist of a rectangular concrete wet well installed belowground to a maximum depth of approximately 30 feet and a separate aboveground control building that would stand approximately 10 feet above grade. This lift station would house equipment similar to that described for the lower lift station, and the facility would be connected to the lower lift station and the WRF through a SCADA system.

The upper lift station would be sized to handle 0.159 mgd AAF and 0.814 mgd PHDWF, as well as peak hourly wet weather flows, and its power use is estimated to be 60,000 kilowatt-hours per year. It would serve the crop science facilities initially and later also collect wastewater from student housing proposed to be constructed in the North Campus area east and west of Via Carta on the north side of Highland Road (see Figure 2-3b). Although the Campus Utility Master Plan indicates that wastewater from the North Campus student housing units would be conveyed to the lower lift station, this project proposes to modify the sewershed configuration shown in Figure 2-6 to collect wastewater from more of the student housing on campus, including the North Campus, and convey it to the new upper lift station. These sewer system modifications would occur at the same time new student housing is constructed. At buildout of the Campus Master Plan, approximately 60–65 percent of the wastewater processed at the WRF would be collected at this new upper lift station. However, in the near term, until sewer system modifications are implemented, the source of most of the wastewater collected at the upper lift station would be the crop science facilities.

As with the lower lift station, additional improvements to provide water supply, power, backup power, internet connectivity, and maintenance vehicle access would be required to operate the upper lift station.

FORCE MAINS

Each lift station is proposed to have an independent force main, or pressurized conveyance pipeline, designed to convey flows from the lift station directly to the WRF (see Figure 2-8). Approximately 6,300 LF of new 10-inch-diameter force main pipeline would be installed to convey wastewater flows collected at the lower lift station to the WRF, and approximately 3,500 LF of new 8-inch-diameter force main pipeline would be installed parallel to the lower lift station force main to convey flows from the upper lift station to the WRF (see Figure 2-8). The force mains would be located primarily within roadways, as shown in Figure 2-8, except for an approximately 250-foot-long segment of the lower lift station force main. Along California Boulevard, approximately 100 feet south of the intersection with Highland Drive, the force main from the lower lift station would turn east and cross under the UPRR rail line before turning north to cross Highland Drive and continue north along Mount Bishop Road. The following four rail line crossings are located within the force main alignments, and other campus utilities proposed under the Utility Master Plan may share these crossings:

- improved or new UPRR crossing from the lower lift station near Spanos Stadium (type: siphon),
- new UPRR crossing south of Highland Drive to replace the existing crossing under the railroad bridge over Highland Drive (type: gravity),
- new UPRR crossing north of Highland Drive to collect sewage north of Brizzolara Creek (type: gravity), and
- new UPRR crossing to accommodate the interconnecting pipeline between the WRF and the reservoir and the new recycled water distribution pipeline (type: pumped).

2.4.2 Water Reclamation Facility

The WRF is proposed to occupy approximately 2.3 acres in the location of the existing Cal Poly Student Experimental Farm (see Figure 2-8). The College of Agriculture, Food and Environmental Sciences manages the Student Experimental Farm and is assessing potential relocation sites elsewhere on campus to make room for the WRF. The WRF would be designed to treat up to 0.5 mgd PWWF and produce an average of 380 afy (339,242 gpd) of disinfected tertiary recycled water that meets the requirements specified in Title 22, Section 60301.230. Disinfected tertiary recycled water is suitable for the surface irrigation of food crops (including all edible root crops where the recycled water comes into contact with the edible portion of the crop), parks and playgrounds, schoolyards, and residential landscaping (Title 22, Section 60304[a]). The facility would include a paved access road and parking area to accommodate haul/delivery trucks, operators, and maintenance staff, and an approximately 16,000-square-foot building that would house some or all of the treatment process facilities, an electrical room, a mechanical room, a laboratory, a classroom, and restrooms.

The WRF would include primary, secondary, and tertiary treatment and disinfection processes. A generic process flow diagram of the anticipated treatment processes is shown in Figure 2-10. The primary treatment system would include headworks facilities that would facilitate separation of solids, fats, oils, and grease. The secondary treatment system would include anoxic and aeration basins to reduce the organic content and remove additional solids before tertiary treatment. The tertiary treatment system is anticipated to include a set of membrane bioreactor modules that would provide biological treatment (activated sludge) and tertiary filtration of the clarified effluent to reduce or remove dissolved organic material, suspended solids (turbidity), nutrients, and metals (Figure 2-11). The disinfection system would use ultraviolet (UV) light radiation to provide inactivation or removal of pathogens.

The WRF would also include a belowground vault or aboveground tank to provide equalization during high inflows to the WRF. The equalization vault or tank would include up to 500,000 gallons of capacity to also provide short-term storage, as specified in CCR Title 22 Section 60341(a), allowing retention of partially treated wastewater for at least a 24-hour period. All the equipment except the pump-back equipment would be either independent of the normal power supply or provided with a standby power source. In addition, the WRF would include a waste-activated sludge (biosolids) handling area to support the dewatering and off-haul of biosolids produced by the treatment processes. Biosolids would be disposed of at a permitted municipal solid waste landfill.

The WRF would be designed to meet water reclamation requirements and waste discharge requirements (WDRs) established by the Central Coast Regional Water Quality Control Board (RWQCB), and the required reliability features specified in CCR Title 22 Sections 60341–60355 would be implemented to ensure the safe production and distribution of recycled water for unrestricted reuse. All treatment processes would be covered or housed in the WRF building, and external influent and effluent equalization basins would include odor control technology.

2.4.3 Recycled Water Storage and Distribution System

Recycled water produced by the WRF would be stored in a new recycled water storage reservoir (see and then distributed to campus agricultural and athletic fields through new and existing distribution pipelines (Figure 2-12). The facility improvements required to provide recycled water storage and distribution are described below.

RECYCLED WATER STORAGE RESERVOIR

A new recycled water storage reservoir with a capacity of up to 120 af would be constructed north of the proposed WRF on land currently occupied by two swine wastewater ponds that serve the existing Swine Unit (see Figures 2-8 and 2-11). The reservoir would be lined in accordance with State Water Resources Control Board (State Water Board) requirements, would occupy approximately 7.5 acres, and would provide storage of recycled water for up to 5 months before distribution. The reservoir would be created by excavating the existing 8.5-million-gallon (approximately 31.3-af) swine wastewater ponds to a maximum depth of 50 feet and installing earthen berms to a maximum height of 20 feet aboveground, including at least 2 feet of freeboard.

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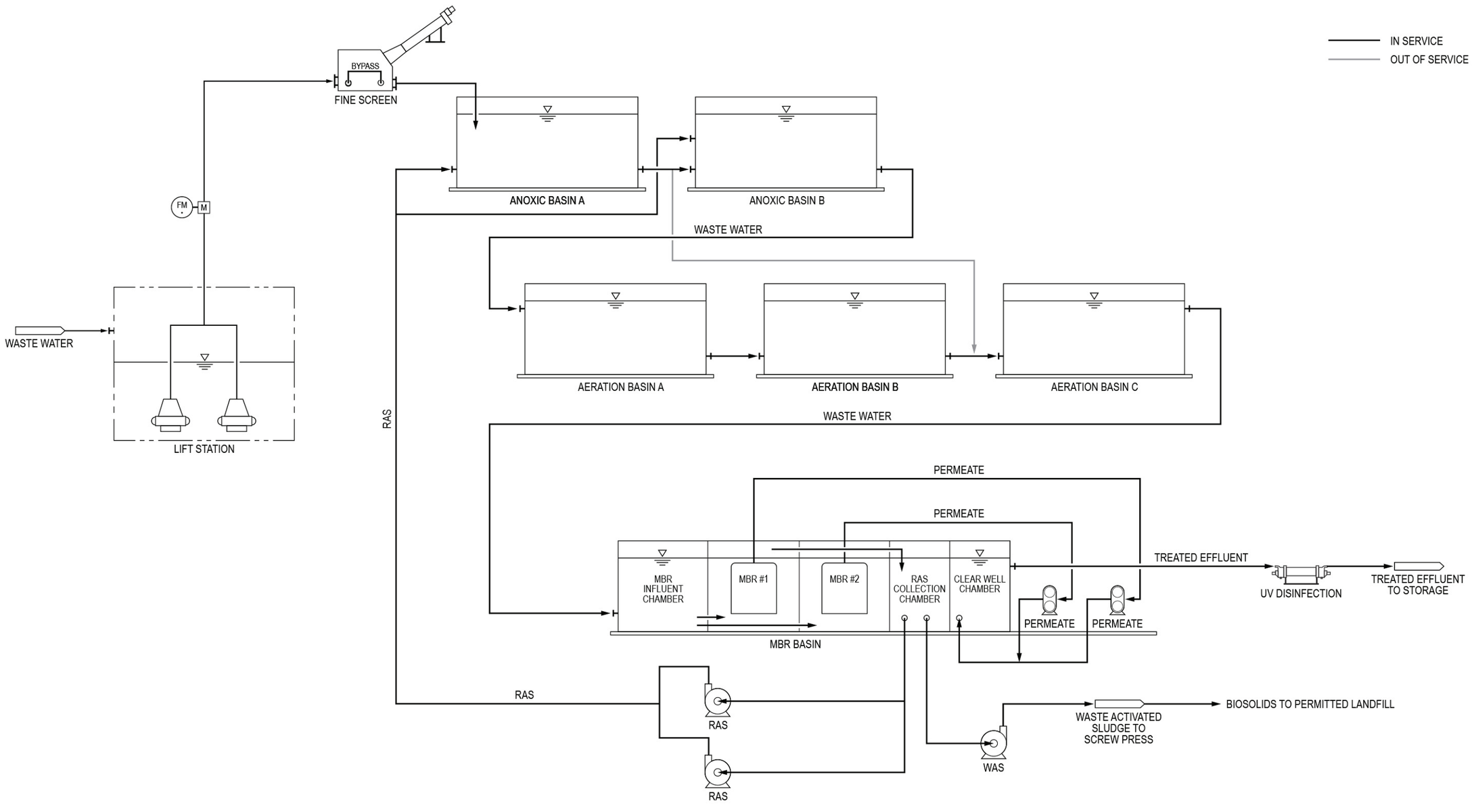
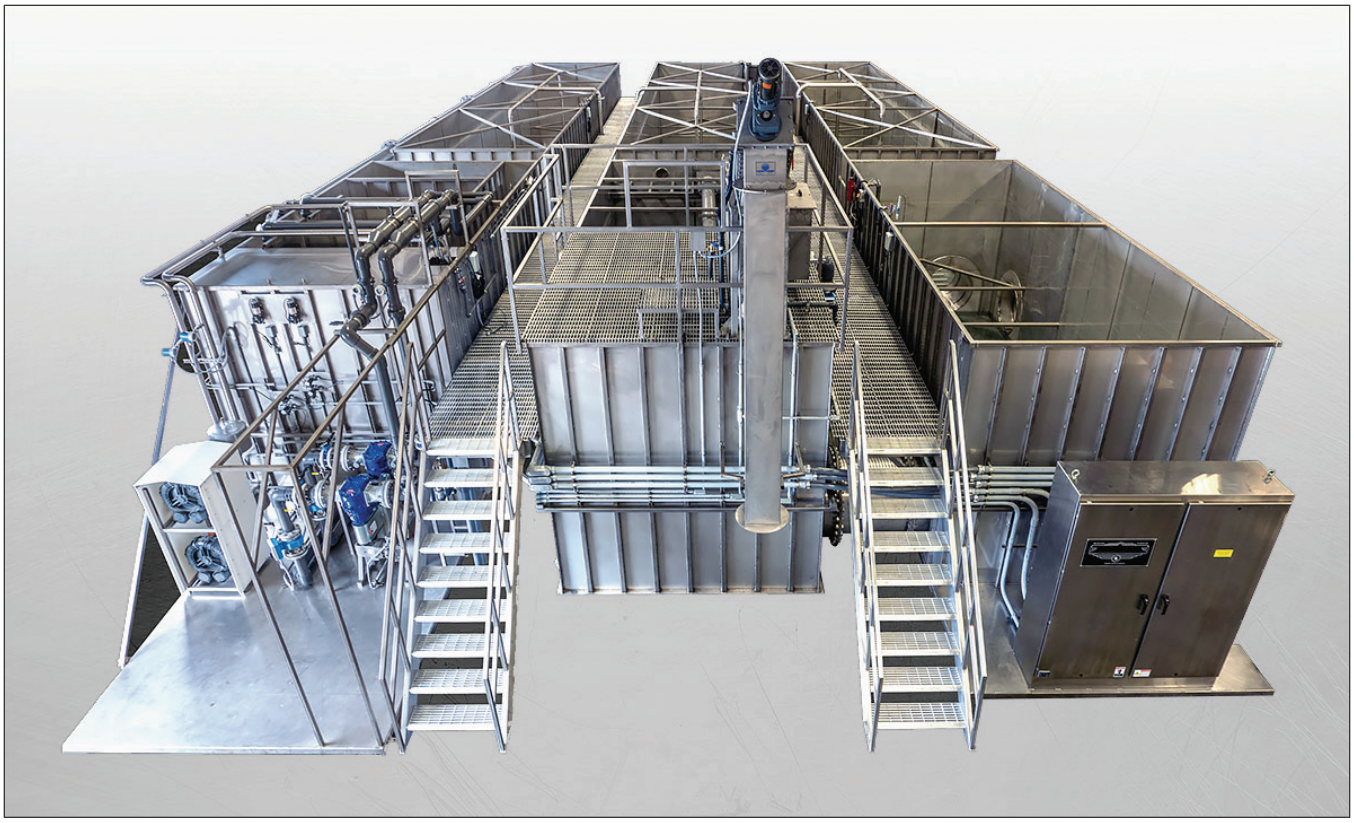


Source: Data provided by Cloacina, LLC in 2022; adapted by Ascent Environmental in 2022.

Figure 2-10 Generic Process Flow Diagram Based on the Anticipated WRF Treatment Process

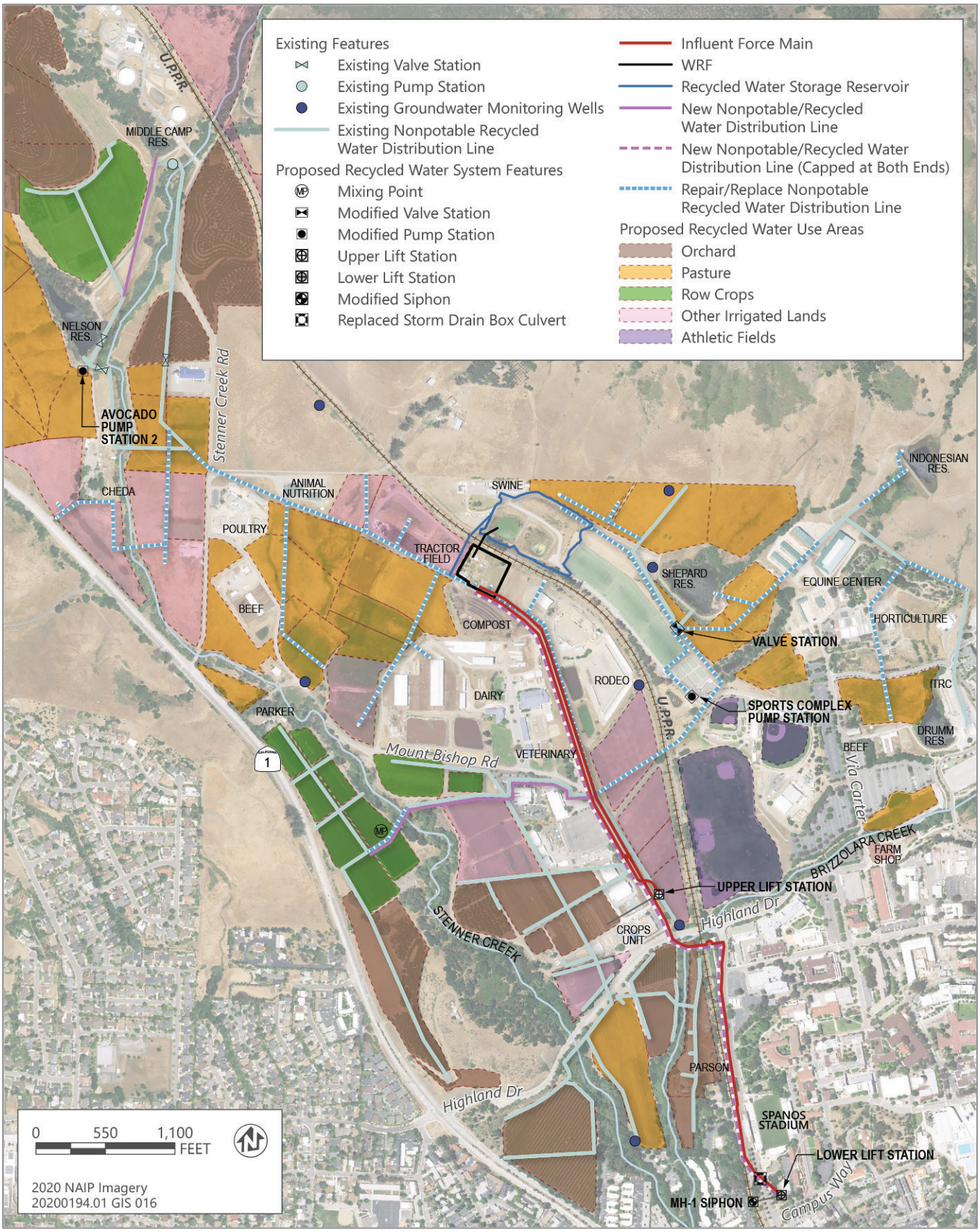


Source: Image provided by Cloacina, LLC, in 2022.

Figure 2-11 Typical Modular Membrane Bioreactor

UV-disinfected tertiary effluent from the WRF would be conveyed to the recycled water storage reservoir by a 6- to 10-inch effluent pipeline (polyvinyl chloride [PVC] or high-density polyethylene [HDPE]) that would extend from the UV reactor at the WRF, north under the UPRR rail line, and connect to an inlet structure on the south side of the reservoir. Sodium hypochlorite would be injected into the treated effluent before discharge into the effluent recycled water discharge pipeline to prevent pathogen regrowth in the reservoir and distribution system.

To accommodate the new reservoir, sludge from the existing earthen swine ponds would be removed and placed in a grubbing pile, and then additional material would be excavated and stockpiled in the tractor area west of the proposed WRF location for use as fill at the WRF site and for elevating the tractor pad (see Figure 2-8). A new open-air facultative lined pond or digester storage tank would be constructed at the Swine Unit to replace the swine wastewater ponds (see Figure 2-8). This new Swine Unit wastewater collection facility would be designed with a storage capacity of up to 400,000 gallons to accommodate stormwater inputs and provide up to 6 months of swine waste retention) before agronomic application to Cal Poly fields in accordance with existing Swine Unit operations. Pipelines would be installed to collect and convey waste from the Swine Unit to an inlet box and then to the facultative pond or digester tank (see Figure 2-8). From there, the liquid sludge would be land-applied at agronomic rates to existing spray fields, consistent with existing operations.



Source: Data received from Hartman Engineering in 2022.

Figure 2-12 Proposed Recycled Water Use Areas

RECYCLED WATER DISTRIBUTION SYSTEM

From the storage reservoir, recycled water would be pumped to the existing nonpotable water distribution system and conveyed to agricultural and athletic fields around campus (see Figure 2-12). A recycled water discharge pipeline would connect the reservoir to the existing nonpotable water distribution system. Some existing distribution pipelines would be replaced and new pipelines would be added. Other improvements to the system would include installing additional storage at an existing pump station (Avocado Pump Station 2) near Nelson Reservoir to boost line pressure to serve the fields north of the reservoir and upgrading or installing new valves to control recycled water delivery. These improvements are described in more detail below.

Recycled Water Discharge Pipeline

At the outlet of the recycled water storage reservoir, a floating pump would discharge recycled water into a new 15-inch pipeline that would be equipped with a valve and would route recycled water either to the south to mix with the campus nonpotable supply just south of the WRF or via an additional pipeline to the north to apply water onto an adjacent spray field.

Distribution Pipeline Improvements

The proposed recycled water distribution system, including new and existing nonpotable lines, would consist of approximately 55,000 LF of 6- to 10-inch PVC or HDPE pipeline (see Figure 2-12). The existing distribution system consists of approximately 51,000 LF of 6- to 10-inch PVC pipeline. Approximately 8,000 LF of new 10-inch pipeline and 1,100 LF of new 6-inch pipeline would be installed, and another approximately 21,000 LF of existing pipeline in poor condition would be rehabilitated or replaced to improve and increase the capacity of the system. All new recycled water pipelines would be placed at least 4 feet horizontally from and 1 foot below any potable water mains or supply lines to meet Title 22 Section 64572 requirements. These planned improvements would result in a more robust system and decrease the potential for equipment failures.

Other Distribution System Improvements

Booster Pump Storage at Avocado Pump Station 2

To achieve adequate line pressure to pump recycled water to the avocado orchards northwest of the campus core, improvements would be made to Avocado Pump Station 2, located adjacent to Nelson Reservoir (see Figure 2-12). Avocado Pump Station 2 currently has two 125-horsepower pumps that direct nonpotable water to campus and a 40-horsepower pump that directs nonpotable water to the vineyards and avocado orchards to the north. To boost pressure in the distribution line directing nonpotable water to the north, two new 15,000-gallon aboveground recycled water/nonpotable water storage tanks occupying approximately 500 square feet and a maximum of 20 feet in height above adjacent grade would be installed at the pump station site and connected to the nonpotable water distribution system and pump station.

Sports Complex Pump Station

The Sports Complex Pump Station, which currently receives water from Shepard Reservoir, would be modified to accept recycled water as its primary source (see Figure 2-12). Modifications would include installation of tee and isolation valves on the suction side of the existing booster pumps.

2.4.4 Utility Improvements to Support Operation of Proposed Facilities and Other Campus Needs

Operation of the upper and lower lift stations would require a source of power. Therefore, both lift stations would be connected to the existing 12-kV campus electrical grid. Power would be extended to the lower lift station location by routing a new power line through an underground duct bank from the other side of Spanos Stadium. Power would then be fed to the lift station from a new campus sectionalizing switch to be located nearby. The upper lift station would be connected to existing overhead electrical power lines located within approximately 1,000 feet of the lift station.

Each lift station also would be connected to the existing campus water supply system to provide water for service and maintenance. This improvement may require minor modifications to the water supply distribution lines.

In addition, each lift station would be connected to the campus telecommunications network using underground hardwire cable to support SCADA programmable logic controller connectivity. The lower lift station would connect to the campus network approximately 200 feet to the north, near the proposed football operations building. The upper lift station would connect to the telecommunications duct bank in Mount Bishop Road/Highland Drive, approximately 200 feet away.

In addition to these improvements to support operation of the proposed facilities, the project would also include replacement of an existing storm drain box culvert under California Boulevard at the same time the force main from the proposed lower lift station is constructed. The existing 4-feet by 4-feet box culvert extends approximately 100 linear feet under California Boulevard approximately 135 northeast of the proposed lower lift station site. This 100-foot section of box culvert and the associated headwall at the downstream end would be replaced with a 7-feet by 4-feet box culvert. This improvement is needed to provide additional storm drain capacity to convey flows associated with a 100-year storm event on campus. Because the box culvert intersects with the force main alignment, and both would require disruption to California Boulevard during construction, implementing this utility improvement when the force main is being constructed would be beneficial, limiting disruption of California Boulevard.

2.5 PROJECT OPERATIONS AND MAINTENANCE

2.5.1 Staffing

The WRF would be operated by qualified personnel who meet the requirements established pursuant to Chapter 9, commencing with Section 13625, of the Water Code. Based on the 0.5-mgd WRF capacity and the production of disinfected tertiary recycled water, the chief plant operator must hold either a Grade 3 Wastewater Treatment Certificate or T3 Water Treatment Certificate or higher. The proposed project would require the addition of up to three full-time-equivalent contract employees to operate and maintain the WRF (Hartman, pers. comm., 2022). Operation and maintenance of the recycled water distribution system would be performed by existing agricultural operations staff from the College of Agriculture, Food and Environmental Sciences .

2.5.2 WRF Operation

Operation of the WRF is proposed to begin in summer 2026. Total wastewater flows from campus, up to 0.5 mgd PWWF, would be pumped from the lower and upper lift stations to the WRF. Influent flows would be controlled by plant personnel at the WRF and automated controls based on SCADA communications with the lift stations. The WRF would be operated to produce an average of 380 afy of recycled water to meet agricultural and athletic field irrigation demands.

Various systems and procedures would be implemented at the WRF to comply with the design and reliability requirements specified in CCR Title 22, Sections 60335–60355. The reliability features would include:

- alarms to indicate problems with treatment process units,
- standby power for critical facilities,
- emergency diversion and disposal methods for recycled water not meeting minimum water quality requirements,
- redundant and standby equipment and instruments on each treatment process, and
- operational procedures to respond to alarms.

The campus SCADA system would be expanded to include alarms and callouts for the WRF system and the new lift stations.

Cal Poly would also continue to send wastewater to the City WRRF. Flows to the City WRRF would continue to comply with all applicable existing agreements for wastewater service between the City and the CSU Board of Trustees.

2.5.3 Recycled Water Storage and Distribution System Operation

Following treatment at the WRF, recycled water would be pumped to the recycled water storage reservoir, and water levels in the reservoir would be monitored by the SCADA system. Booster pumps stations that would be used to deliver recycled water to agricultural use areas and athletic fields would be tied into the WRF and recycled water storage reservoir through the SCADA system. Individual irrigation zones would include digital controllers connected to the central SCADA system and automatic valves for controlling water deliveries. Irrigation would be provided at agronomic rates determined based on rainfall data and evapotranspiration sensors and other input to prevent overirrigation and runoff.

Recycled water deliveries to use areas would occur primarily during the growing season (April through October) but also may occur at other times of the year as needed based on irrigation needs. During nonirrigation periods, recycled water would be retained in the storage reservoir, which would be designed for at least 5 months of retention time.

Cal Poly's recycled water would be used to irrigate athletic fields in the Campus Sports Complex and agricultural areas (see Figure 2-12). Pastures and athletic fields would be spray-irrigated; row crops (e.g., strawberries, grapes, vegetables) and orchards (e.g., avocado, olive, lemon) would be drip-irrigated. Table 2-5 provides a summary of the acreage of proposed irrigated land by current use type.

Table 2-5 Recycled Water Use Area Type and Acreage

Recycled Water Use Area Type	Acreage
Orchard	125
Pasture	205
Row crops	35
Athletic fields	20
Other irrigated lands	185
Total	**570**

Source: Data compiled by Ascent Environmental in 2022.

Recycled water would be applied at agronomic rates, and the irrigation sites would be operated to prevent overwatering, runoff, and ponding. No irrigation would be conducted within 50 feet of a domestic water supply well, and recycled water use areas would not be located near drinking water fountains, dwellings, designated outdoor eating areas, or food-handling facilities. Recycled water use notification signs would be posted, and recycled water plumbing would be identified by purple pipe or purple tape wrapped around aboveground equipment. Hose bibs would not be accessible to the general public.

The recycled water distribution system would be integrated into the existing separate Cal Poly nonpotable water supply system. As needed, recycled water would be supplemented by nonpotable water provided by campus reservoirs and groundwater wells.

2.5.4 Contingency Plan and Emergency Operations

Wastewater treatment plants are subject to interruptions in normal operating procedures as a result of short-period power outages, equipment breakdowns, vandalism, temporary hydraulic or organic overload, discharge of toxic or flammable materials to the sewer system, extreme weather conditions, and natural disasters. A contingency plan would be designed to prevent inadequately treated wastewater from being delivered to the use areas and to comply with CCR Title 22 Section 60323(c). The contingency plan would include the following information:

- a list of conditions that would require an immediate diversion to take place;

- a description of the diversion procedures;
- a description of the diversion area, including capacity, holding time, and return capabilities (if applicable);
- a plan for the disposal or treatment of any inadequately treated effluent;
- a description of fail-safe features in the event of a power failure;
- a description of procedures for notifying site operators if inadequately treated recycled water was delivered (including precautions to be implemented); and
- a description of procedures for notifying regulatory agencies of spills and unauthorized discharges.

Although the influent equalization basin would provide short-term peak flow storage and emergency storage of untreated or partially treated wastewater during maintenance or temporary treatment system upset, in the unlikely event that WRF operations were interrupted for a longer period, Cal Poly would have the ability to redirect untreated wastewater from the lower lift station into the campus sewer system for treatment at the downstream City WRRF.

In the unlikely event that inadequately treated recycled water is delivered to the irrigation sites, Cal Poly would take the necessary steps to minimize the effects of such discharge, such as requiring staff to prevent contact with the water by limiting access to the affected site, posting signs regarding the discharge, and preventing runoff. Cal Poly would immediately notify the State Water Board, Division of Drinking Water (DDW) District Office, and the San Luis Obispo County Environmental Health Services by telephone.

For any spills or unauthorized discharges that could endanger health or the environment, Cal Poly would notify the RWQCB by telephone within 24 hours of becoming aware of the incident. The verbal communication would include the name/contact information of the caller, date/time/location/volume of the discharge, cause of the spill, cleanup actions undertaken, status of public notifications, and information on responding agencies. A written report would be provided within 5 days that describes the violation, period of noncompliance, actions planned to correct the violation, and proposed time schedule for the corrective actions.

2.5.5 Maintenance Program

A preventive maintenance program would be established for the WRF, lift stations, and other system components to ensure that all equipment is kept in reliable operating condition. The system would be designed with "N+1" redundancy to provide resilience and ensure treatment availability in the event of a system component failure. Components (N) would have at least one independent backup component (+1) available to support a failure of or required maintenance on a component. Operating records, including analyses specified in the reclamation criteria, records of operational problems, plant and equipment breakdowns, any diversions to emergency storage or disposal, and all corrective or preventive action taken, would be maintained at the WRF and would be provided to regulatory agencies as required. In addition, process or equipment failures that trigger any alarms, along with information regarding the time, cause of failure, and corrective actions, would be recorded and maintained as a separate file.

2.5.6 Monitoring and Reporting

Recycled water monitoring would be conducted to comply with requirements specified in the RWQCB's General Waste Discharge Requirements (Order No. R3-2020-0020), the State Water Board's General Water Reclamation Requirements (Order WQ 2016-0068-DDW), the RWQCB's notices of applicability for the general orders, minimum recycled water quality specified in CCR Title 22 for surface irrigation of food crops and landscape, and DDW's conditional acceptance of the Title 22 Engineering Report. The RWQCB's general order requirements for influent and effluent flow monitoring are presented in Table 2-6. The general order requirements for recycled water quality monitoring are presented in Table 2-7.

Table 2-6 General Order Influent and Effluent Flow Monitoring Requirements

Parameter	Unit	Sample Type	Reporting Frequency	Sample Type	Reporting Frequency
Daily flow	gpd	Metered	Daily	Metered/estimated	Daily
Maximum (peak) daily flow	gpd	Metered	Monthly	Metered/estimated	Monthly
Mean daily flow	gpd	Calculated	Monthly	Calculated	Monthly

Note: gpd = gallons per day.

Source: Central Coast RWQCB 2022.

Table 2-7 General Order Recycled Water Quality Monitoring Requirements

Constituent	Unit	Sample Type	Sampling Frequency
Bacteria (total coliform)	MPN/100 mL	Grab	Daily
Chlorine residual	mg/L	Continuous	Continuously
Turbidity	NTU	Continuous	Continuously
Total trihalomethanes	µg/L	Grab	Monthly
Haloacetic acids	µg/L	Grab	Monthly
Bromate	µg/L	Grab	Monthly
Chlorite	µg/L	Grab	Monthly
Other constituents or operational parameters identified in the Title 22 engineering report	As specified	As specified	As specified

Notes: µg/L = micrograms per liter; L = liters; mg/L = milligrams per liter; mL = milliliters; MPN = most probable number; NTU = Nephelometric Turbidity Unit.

Source: Central Coast RWQCB 2022.

Inspections and monitoring of the irrigation sites would be performed to ensure that recycled water is being used in accordance with regulations and guidelines to protect water quality and public health. A monitoring and inspection program for the use areas would be developed to track the following types of information:

- storage pond freeboard, odors, and berm condition;
- user;
- location;
- application acreage;
- application rate;
- application volume;
- soil saturation/ponding observations;
- nuisance odor/vector observations;
- offsite discharge observations; and
- notification sign confirmation.

Irrigation with recycled water would occur at agronomic rates to prevent runoff and impacts on groundwater quality. Groundwater monitoring wells located near the proposed WRF and irrigation sites are currently sampled and would continue to be sampled periodically to determine compliance with WDRs (Order No. R3-2003-035). The WDRs require Cal Poly to monitor standard parameters, such as salts, TDS, and nitrogen. The locations of groundwater monitoring wells are shown in Figure 2-12.

2.6 PROJECT CONSTRUCTION

2.6.1 Construction Schedule and Sequencing

Construction of the proposed project is anticipated to commence in fall 2024 and conclude in early 2026. The project would be completed in one phase with various project components constructed concurrently. For purposes of the analysis in this EIR, it is assumed that construction would occur according to the schedule identified in Table 2-8, which summarizes the construction activities associated with each project component and includes the proposed start date and duration for each component.

Construction activities would generally take place from Monday through Friday during daytime working hours (7:00 a.m. to 7:00 p.m.). Weekend and overtime construction work is not anticipated.

Table 2-8 Project Construction Sequence and Durations

Construction Phase	Estimated Start	Estimated Finish	Duration (Days)
Mobilization – trailer setup, potholing, survey, USA process	10/17/24	11/11/24	18
Force main, box culvert, and new distribution system piping installation	11/12/24	11/26/25	272
Lower lift station construction	11/12/24	5/20/25	135
Upper lift station construction	1/9/25	9/7/25	135
WRF reservoir site preparation	5/20/25	8/9/25	74
WRF site preparation	6/10/25	7/11/25	24
Swine Unit lagoon/digester site preparation	9/1/25	9/24/25	18
WRF exterior improvements	12/26/25	1/27/26	23
Prepackaged WWTP installation	9/1/25	11/12/25	53
Preengineered metal building and equalization tank construction	11/13/25	1/7/26	40
Existing distribution system upgrades	¾/25	11/10/25	180
Valve box improvements	3/11/25	8/18/25	126
Avocado Pump Station improvements	3/25/25	6/2/25	50
Substantial completion	11/10/25	11/10/25	1
Completion	12/9/25	12/9/25	1

Notes: USA = Underground Service Alert; WRF = water reclamation facility; WWTP = wastewater treatment plant.

Source: Jackson, pers. comm., 2022.

In total, approximately 54 acres of land would be disturbed during construction. Cut material generated during reservoir excavation would be used as fill at the WRF site, and the unused portion would be used to raise the existing tractor pad by approximately 4 feet (see Elevated Pad in Figure 2-8). No import of fill would be required for project construction.

2.6.2 Construction Equipment, Access and Staging Areas, and Import/Export

The estimated type and quantity of construction equipment and materials, number of haul trips, and volume of earthmoving required to construct the proposed project are summarized in Appendix B. Staging of equipment and materials during construction would occur at the proposed WRF site and in previously disturbed areas, existing public utility easements, and campus parking lots near project features. Access to the project site would occur from several locations. To access the lower lift station site, construction vehicles would exit US 101 at California Boulevard or exit SR 1 at Foothill Boulevard and then proceed to California Boulevard and the lower lift station site. To access the upper lift station site, construction vehicles would exit SR 1 onto Highland Drive and then proceed via Mount Bishop Road to and the upper lift station site. Construction vehicles accessing the WRF site also would exit SR 1 at Highland Drive and proceed to Mount Bishop Road before turning north at the veterinary hospital and proceeding along the existing roadway between the Dairy Unit and Rodeo Facilities to the WRF location. Access to the recycled water storage reservoir location would occur from the west via SR 1 to Highland Drive, proceeding along Via Carta to Sports Complex Road to the Swine Unit. Stenner Creek Road would also be used to access the Avocado Pump Station area.

Traffic entering and leaving the construction areas would be associated with the daily arrival and departure of construction workers, equipment deliveries, hauling of excavation spoil, concrete deliveries, and other construction-related activities.

Approximately 177 round-trip haul trips using 9-cubic-yard dump trucks and another 628 round-trip haul trips using 12-cubic-yard cement trucks would be required to import and export material (including pipe, cement, debris, and other materials) during construction. Imported materials would be delivered from up to 15 miles away from the project site, and debris would be moved to the stockpile located between 300 feet and 1.5 miles from earthwork activities. Materials that could not be stockpiled on-site would be transported approximately 9 miles off-site for disposal in a permitted landfill.

2.6.3 Construction Methods and Labor Force

This section summarizes the proposed construction methods and the number of workers anticipated on average for each major project activity and on peak construction days based on overlapping construction activities.

The construction workforce is anticipated to range from approximately eight to 36 workers per day, for a total of 278 working days and 35,500 total labor-hours for the project.

LIFT STATIONS

Construction of the lift stations would involve installation of piping and electrical equipment, excavation and structural foundation installation, pump house construction, pump and motor installation, and final site completion. The construction equipment needed for lift station installation generally would include pickup and utility trucks, an excavator, a backhoe, a sheep foot rolling compactor, a 100-ton lattice crane, a concrete truck, a concrete pump truck, and a water truck. Approximately four construction workers would be required daily for 22 months to construct each lift station. Excavated soils would be reused on-site to the extent feasible and otherwise disposed of off-site. Concrete would be required for construction of lift station foundations and pads.

WRF FACILITIES

Upon completion of site preparation for the WRF, a prepackaged wastewater treatment plant requiring five construction workers over 10 weeks would be installed followed by installation of a preengineered metal building and equalization tank requiring eight construction workers over 8 weeks. The prepackaged treatment unit would be constructed primarily of stainless steel. Building construction would begin with foundation setting, followed by

erection of the building envelope using a rough-terrain rubber tire crane with a 50-ton capacity. Upon completion of the building shell, the lighting, power devices, raceways, and power connections would be installed.

A total of approximately 8 months would be required to complete the metal building that would house the WRF classroom and other facilities. The construction sequence would involve excavation, foundation construction, building and tank erection, and then installation of lighting and other finishes. Typical construction activities would include earthwork, such as grading, excavation, trenching, backfilling, hauling, and compaction, and would include borrow and disposal of spoils and excess earth, installation of pipe connections, equipment installation, and startup of the WRF. Equipment needed to construct the WRF facility would include the following construction equipment: pickup trucks, a utility truck, an excavator, a dozer, a backhoe and sheep foot roller, a skid steer loader, a 110-ton lattice crane, a 50-ton rough terrain crane, a concrete pump truck, and a water truck. Site preparation would occur over a period of approximately 5 weeks and require eight construction workers.

RECYCLED WATER RESERVOIR AND SWINE UNIT MODIFICATIONS

The proposed new lined WRF reservoir would be constructed in the location of the existing Swine Unit wastewater storage system lagoons. The new Swine Unit wastewater collection facility would be either an aboveground tank or a inground pond, which would be designed with a storage capacity of up to 400,000 gallons to provide containment (up to 6 months) before agronomic application to Cal Poly fields in accordance with existing Swine Unit operations. In addition, pipes, valves, and a pump would be constructed to connect the new waste containment structure to the existing Swine Unit facilities. Construction of the recycled water lined reservoir and swine tank/lagoon would occur over a period of approximately 20 weeks.

Construction of the recycled water storage reservoir would begin by removing swine wastewater and applying it to agricultural fields at agronomic rates. The underlining soils at the bottom of the existing ponds would be removed and temporarily stored on-site and then applied to fields at agronomic rates. Mass excavation, organics stripping, rough grading, and fine grading would involve the use of pickup trucks, a utility truck, an excavator, a dozer, a backhoe and sheep foot roller, a skid steer, and a water truck. During mass excavation, an average of 2,500–3,000 cubic yards would be moved per working day. An estimated 101,000 cubic yards of dirt would be hauled off and either used as fill material to create the construction pad for the WRF or deposited in the designated stockpile areas. This mass excavation work would require approximately 4,400 haul trips. After completion of excavation and grading activities, a geosynthetic HDPE liner would be placed in the reservoir in accordance with State Water Board requirements for waste containment structures, followed by installation of exterior improvements, including concrete walkways, asphalt paving, and chain-link fencing.

FORCE MAINS AND RECYCLED WATER DISTRIBUTION PIPELINES

Construction of the proposed influent force mains, including the storm drain box culvert replacement in California Boulevard, would require approximately eight workers over a period of approximately 6 months. Pipelines would be installed within existing roadway rights-of-way to the extent feasible. Open-trench construction (also referred to as cut-and-cover or open trench with shoring) is the proposed method for installing most pipelines, manholes, air vents, and turnouts on the project site. Jack and bore techniques would also be used where necessary, such as under the UPRR rail line and roadway intersections where existing underground utility lines are congested. Jack and bore techniques may also be used to cross Stenner Creek, Brizzolara Creek, and other sensitive drainages when practical.

Trenching would involve pavement saw cutting, trench excavation, pipe laying, backfill, and resurfacing to return disturbed areas to their preproject condition. Construction corridors along roadways would be approximately 25 feet wide to accommodate trench excavation, sidecast and material laydown areas, and vehicle access. Trenches would be approximately 4–6 feet wide and up to 5 feet deep, depending on the pipe size, existing utility locations, and pipe bedding requirements. Where conditions would require deeper excavations, shoring would be used to provide trench stability in accordance with California Division of Occupational Safety and Health requirements. Trenches would be either backfilled at the end of each workday or temporarily closed by covering them with steel trench plates. Jack and bore methods would require temporary construction areas on each side of the crossing for installation shafts (pits), materials, and equipment.

These temporary construction areas would be approximately 50 feet by 100 feet in size. The construction equipment needed for pipeline installations generally would include backhoes, excavators, a skid steer loader, dump trucks, shoring equipment, a steam roller, and a plate compactor. Approximately 5,500 cubic yards of soil would be excavated during pipeline construction, and excavated materials would be sidecast within approved work areas and reused as appropriate for backfill. Excess material would be temporarily stockpiled and hauled off for disposal at Cold Canyon Landfill, located approximately 9 miles south of the project site, or to another approved disposal site (e.g., landfill).

Affected roadway segments may be closed temporarily during pipeline installation activities. Traffic controls to ensure the safe and orderly movement of traffic, pedestrians, and cyclists through and around construction zones would be implemented. These controls may include reduced speed limits, lane restrictions and flagger controls, placement of warning and channelizing devices (i.e., cones, barriers), and use of buffers or temporary detours. Traffic controls would be noticed at the location of any temporary traffic restrictions a week in advance of roadwork that impedes the flow of traffic (i.e., closes the road, closes a traffic lane, or closes the road shoulder).

Installation of dewatering wells may be required before the start of excavation depending on the soil type and groundwater level. Where excavation is taking place in open trenches with groundwater levels higher than the bottom of the trench, dewatering pumps would run continuously (24 hours per day) during construction. After the pipeline is installed and backfilled, dewatering pumps would be removed and relocated to the next segment of pipeline construction where dewatering is required. Water pumped from the excavation area would be properly disposed of in nearby stormwater drains or sewer manholes.

OTHER DISTRIBUTION SYSTEM IMPROVEMENTS

The project would involve minor modifications to the Avocado Pump Station 2 and Sport Complex Pump Station to increase storage capacity. Construction activities necessary for these improvements would be minor, involving installation of proper backflow preventers, labels, minor valving and piping modifications, and other Title 22 requirements. No earth-moving activities would be necessary.

2.7 REQUIRED PROJECT APPROVALS AND PERMITS

Table 2-9 lists responsible agencies and summarizes the anticipated permits and approvals that would be required for the project.

Table 2-9 Responsible Agencies and Anticipated Permits and Approvals for the Project

Agency	Permit/Approval
Lead Agency	
California State University, Board of Trustees	▶ EIR certification; amended Campus Master Plan approval; design review; project approval
Other Agencies	
California Department of Fish and Wildlife	▶ Section 1602 Streambed Alteration Agreement; California Endangered Species Act incidental take permit authorizations
California Division of State Architect	▶ Review for accessibility compliance
California Office of the State Fire Marshal	▶ Future facility fire safety review and approval
Central Coast Regional Water Quality Control Board	▶ General Waste Discharge Requirements for Discharges from Domestic Water Systems with Flows Greater than 100,000 Gallons per Day (Order No. R3-2020-0020); Water Reclamation Requirements for Recycled Water Use (SWRCB Order WQ 2016-0068-DDW); Statewide Waste Discharge Requirements, General Order for Sanitary Sewer Systems (Order WQ 2022-0103-DWQ); National Pollutant Discharge Elimination System (NPDES) General Permit for Stormwater Discharges Associated with Construction

Agency	Permit/Approval
	and Land Disturbance Activities (SWRCB Order 2022-057-DWQ); Clean Water Act Section 401 Water Quality Certification for impacts on waters of the United States
City of San Luis Obispo	▶ Modifications to existing water supply treatment and wastewater agreements; utility connection permits; utility easements
National Oceanic and Atmospheric Administration Fisheries	▶ Endangered Species Act (ESA) Section 7 consultation for authorization of incidental take of a listed species; consultation in compliance with the Magnuson-Stevens Fisheries Conservation Management Act Section 305(b) for effects on essential fish habitat
San Luis Obispo County Air Pollution Control District	▶ Authority to construct; Title V permit to operate; air quality management plan consistency determination
State Office of Historic Preservation	▶ National Historic Preservation Act Section 106 compliance; concurrence with effect determination
State Water Resources Control Board	▶ Approval under General Waste Discharge Requirements Order No. R3-2020-0020 for discharges from domestic wastewater systems with flows greater than 100,000 gallons per day and recycled water use consistent with the Uniform Statewide Recycling Criteria (CCR Title 22, Division 4, Chapter 3); CCR Title 22 Engineering Report approval; Water Reclamation Requirements for Recycled Water Use (SWRCB Order WQ 2016-0068-DDW); Statewide Waste Discharge Requirements, General Order for Sanitary Sewer System (Order WQ 2022-0103-DWQ; NPDES General Permit for Stormwater Discharges Associated with Construction and Land Disturbance Activities (SWRCB Order 2022-057-DWQ)
Union Pacific Railroad	▶ Crossing permit
US Army Corps of Engineers	▶ Clean Water Act Section 404 permit for discharge of fill to waters of the United States
US Fish and Wildlife Service	▶ ESA Section 7 consultation for authorization of incidental take of a listed species

Source: Compiled by Ascent Environmental in 2022.

3 ENVIRONMENTAL IMPACT ANALYSIS

3.1 APPROACH TO THE ENVIRONMENTAL ANALYSIS

This Draft EIR evaluates and discloses the environmental impacts associated with the WRF project, in accordance with CEQA (PRC Section 21000 et seq.) and the State CEQA Guidelines (14 CCR Section 15000 et seq.). It has been determined that buildout of the project would not significantly affect several environmental resource topics. Under the CEQA statute and the State CEQA Guidelines, a lead agency may limit an EIR's discussion of environmental effects when such effects are not considered potentially significant (CEQA Section 21002.1[e]; State CEQA Guidelines Sections 15128, 15143). Information used to determine which impacts would be potentially significant was derived from review of the proposed project, review of applicable planning documents and CEQA documentation, fieldwork, feedback from public and agency consultation, and comments received on the notice of preparation (NOP) (see Appendix A of this Draft EIR). Summary discussions of the project effects found not to be significant are presented in this chapter, under "Effects Found Not to Be Significant."

Sections 3.2 through 3.6 of this Draft EIR present a discussion of regulatory background, existing conditions, environmental impacts associated with construction and operation of the project, mitigation measures to reduce the level of impact, and residual level of significance (i.e., after application of mitigation, including impacts that would remain significant and unavoidable after application of all feasible mitigation measures). Issues evaluated in these sections consist of environmental topics identified for review in the NOP prepared for the project (see Appendix A of this Draft EIR). Chapter 4, "Cumulative Impacts," presents an analysis of the project's impacts considered together with other past, present, and probable future projects producing related impacts, as required by Section 15130 of the State CEQA Guidelines. Chapter 5, "Alternatives," presents a reasonable range of alternatives and evaluates the environmental effects of those alternatives relative to the proposed project, as required by Section 15126.6 of the State CEQA Guidelines. Chapter 6, "Other CEQA Sections," includes an analysis of the project's growth-inducing impacts, as required by CEQA Section 21100(b)(5) and Section 15126 of the CEQA Guidelines.

Sections 3.2 through 3.6 of this Draft EIR each include the following components:

Regulatory Setting: This subsection presents information on the laws, regulations, plans, and policies that relate to the issue area being discussed. Regulations originating from the federal, state, and local levels are each discussed as appropriate.

Environmental Setting: This subsection describes the existing environmental conditions on the project site and in the surrounding area as appropriate, in accordance with State CEQA Guidelines Section 15125. The discussions of the environmental setting focus on information relevant to the issue under evaluation. The extent of the environmental setting area evaluated (differs among resources, depending on the locations where impacts would be expected). For example, air quality impacts are assessed for the air basin (macroscale), as well as the site vicinity (microscale), whereas aesthetic impacts are assessed for the project site vicinity only.

Environmental Impacts and Mitigation Measures: This subsection presents thresholds of significance and discusses potentially significant effects of the project on the existing environment, including the environment beyond the project boundaries, in accordance with State CEQA Guidelines Section 15126.2. The methodology for impact analysis is described in each section, including technical studies upon which the analyses rely. The thresholds of significance are defined, and thresholds for which the project would have no impact are disclosed and dismissed from further evaluation. Project impacts are numbered sequentially in each subsection prefaced with the section number (e.g., Impact 3.2-1, Impact 3.2-2, Impact 3.2-3, etc.). Mitigation measures are numbered sequentially in each subsection based on the impact numbering (e.g., Mitigation Measure 3.2-1, Mitigation Measure 3.2-2, Mitigation Measure 3.2-3, etc.).

A summary impact statement precedes a more detailed discussion of the environmental impact. The discussion includes the analysis, rationale, and substantial evidence upon which conclusions are drawn. The determination of level of significance of the impact is defined in bold text. A "less than significant" impact is one that would not result in a substantial adverse change in the physical environment. A "potentially significant" impact or "significant" impact

is one that would result in a substantial adverse change in the physical environment; both are treated the same under CEQA in terms of procedural requirements and the need to identify feasible mitigation. Mitigation measures are identified, as feasible, to avoid, minimize, rectify, reduce, or compensate for significant or potentially significant impacts, in accordance with the State CEQA Guidelines Section 15126.4. Unless otherwise noted, the mitigation measures presented are recommended in the EIR for consideration by Cal Poly to adopt as conditions of approval.

Where an existing law, regulation, or permit specifies mandatory and prescriptive actions about how to fulfill the regulatory requirement as part of the project definition, leaving little discretion in its implementation, and would avoid an impact or maintain it at a less than significant level, the environmental protection afforded by the regulation is considered before determining impact significance. Where existing laws or regulations specify a mandatory permit process for future projects, performance standards without prescriptive actions to accomplish them, or other requirements that allow substantial discretion in how they are accomplished, or have a substantial compensatory component, the level of significance is determined before applying the influence of the regulatory requirements. In this circumstance, the impact would be potentially significant or significant, and the regulatory requirements would be included as a mitigation measure.

This subsection also describes whether mitigation measures would reduce project impacts to a less than significant level. Significant and unavoidable impacts are identified as appropriate in accordance with State CEQA Guidelines Section 15126.2(b). Significant and unavoidable impacts are also summarized in Chapter 6, "Other CEQA Sections."

References: The full references associated with the references cited throughout Sections 3.2 through 3.6 can be found in Chapter 7, "References," organized by section number.

3.1.1 California State University Autonomy

Cal Poly is part of the CSU, which is a statutorily and legislatively created, constitutionally authorized entity of the State of California that is not subject to local government planning and land use plans, policies, or regulations. Although there is no formal mechanism for joint planning or the exchange of ideas, Cal Poly may consider, for coordination purposes, aspects of local plans, policies, or regulations for the communities surrounding the campus when it is appropriate. The proposed project (WRF project) would be subject to state and federal agency plans and regulations described herein but would not be bound by local or regional land use plans and regulations, such as the City's General Plan or municipal code.

Cal Poly seeks to maintain an ongoing exchange of ideas and information and to pursue mutually acceptable solutions for issues that confront both the campus and its surrounding community. To foster this process, Cal Poly participates in, and communicates with, City, County, and community organizations and sponsors various meetings and briefings to keep local organizations, associations, and elected representatives apprised of ongoing planning efforts and consider community input.

3.1.2 Introduction to the Analysis

As required by the State CEQA Guidelines (Section 15126.2), this Draft EIR identifies and focuses on the significant direct and indirect environmental effects of the project. Short-term effects are generally those associated with construction, and long-term effects are generally those associated with operation of the project. This chapter addresses the regulatory and environmental setting, environmental impacts, and mitigation measures associated with the project in relation to the following resource topics:

- Section 3.2, "Aesthetics";
- Section 3.3, "Archaeological, Historical, and Tribal Cultural Resources";
- Section 3.4, "Biological Resources";
- Section 3.5, "Hydrology and Water Quality"; and
- Section 3.6, "Utilities and Service Systems."

3.1.3 Standard Terminology

This Draft EIR uses the following standard terminology:

"No impact" means no change from existing conditions (no mitigation is needed).

"Less than significant impact" means no substantial adverse change in the physical environment (no mitigation is needed).

"Potentially significant impact" means an impact that might cause a substantial adverse change in the environment (mitigation is recommended because potentially significant impacts are treated as significant).

"Significant impact" means an impact that would cause a substantial adverse change in the physical environment (mitigation is recommended).

"Significant and unavoidable impact" means an impact that would cause a substantial adverse change in the physical environment and that cannot be avoided, even with the implementation of all feasible mitigation.

"CSU" refers to the California State University system as a whole.

"Trustees" refers to the CSU Board of Trustees, the CEQA lead agency for this Draft EIR.

"Cal Poly" refers to California Polytechnic State University, San Luis Obispo.

"WRF project" or **"project"** refers to the proposed Water Reclamation Facility project. The proposed project and anticipated environmental effects of development that would occur under the project are evaluated in this EIR.

3.1.4 Effects Found Not to Be Significant

AGRICULTURAL AND FORESTRY RESOURCES

The Campus Master Plan EIR, in its discussions of Impact 3.2-1 (significant and unavoidable) and Impact 3.2-2 (less than significant), evaluated the direct and indirect impacts that could result from conversion of agricultural lands to other uses. The aboveground components of the proposed project, including the WRF building, reservoir footprint, and lift stations, would not be located in areas designated as Farmland (Cal Poly 2020: Figure 3.2-1). The proposed conveyance and distribution pipelines may overlap with areas designated as Farmland; however, the majority of the pipelines would be underground and would not change the use of the land. At some creek crossings, pipelines could be suspended above the ground surface for short distances to avoid impacts, and thus, also would not change the use of the land. Although the project would be located on land currently used as the Cal Poly Student Experimental Farm, this land is designated as "Other Land" by the California Department of Conservation (Cal Poly 2020: Figure 3.2-1), which is not defined as Farmland under CEQA. Because Farmland would not be converted to other uses under the proposed project, this impact would be less than significant, and Campus Master Plan EIR Mitigation Measure 3.2-1 would not apply. This topic is not discussed further in this EIR.

AIR QUALITY

Plan Consistency

The San Luis Obispo County Air Pollution Control District (APCD) developed its *2001 Clean Air Plan* to guide the region toward achieving attainment of the federal 8-hour ozone standard and the California 1-hour and 8-hour ozone standards. As discussed under Impact 3.3-1 of the Campus Master Plan EIR, new buildings planned for development would be consistent with CSU and Cal Poly policy, including the Campus Master Plan Guiding Principles, which require increased renewable energy, building efficiencies greater than required by building code, and development of on-site renewable energy sources, with goals to achieve zero net energy buildings, all of which would reduce project-generated emissions, consistent with the goals of the *2001 Clean Air Plan*. Because the proposed project is included in the Campus Master Plan, it would not conflict with the *2001 Clean Air Plan*.

Construction Emissions

Construction-related emissions of criteria air pollutants and ozone precursors associated with the Campus Master Plan, including the proposed project, were addressed under Impact 3.3-2 of the Campus Master Plan EIR. As discussed there, it is possible that the construction associated with individual developments included in the Campus Master Plan could exceed APCD project-level thresholds; therefore, the impact was determined to be significant.

As described in Impact 3.3-2, and consistent with APCD guidance, all projects, including the proposed WRF project, would be required to implement APCD's Standard Construction Emission Reduction Measures, which would reduce exhaust and fugitive dust emissions associated with construction activities. As further described in Impact 3.3-2, projects that do not exceed APCD's adopted screening levels, designed for the purpose of determining whether projects would have the potential to exceed adopted daily CEQA thresholds of significance, would not require further analysis or enhanced mitigation measures. Because the proposed project is considered industrial, the light industrial land use in Table 1-1, "Screening Criteria for Project Air Quality Analysis" from the 2017 APCD memorandum was chosen (SLOCAPCD 2017). The screening criterion established by APCD for this land use type is 172,000 square feet. Based on available project information, the proposed WRF would include maintenance and control buildings associated with the WRF, two lift stations, and paved surfaces, together totaling 25,600 square feet, which is well below the screening criterion of 172,000 square feet.

It should be noted that the California Emissions Estimator Model (CalEEMod), the model used to determine the screening levels in the 2017 APCD guidance, has been updated. However, the emissions factors in CalEEMod used to model construction-related equipment exhaust and fugitive dust have not been changed. Therefore, even though updates to CalEEMod have been made, use of the screening criterion is still appropriate, and as described above, the square footage associated with the project is well below the screening level. Further, the project would be required to comply with all standard construction emissions reduction measures, as outlined in Mitigation Measure 3.3-2 (as shown below) of the Campus Master Plan EIR, but because the project would not exceed the APCD's screening-level criteria, the project would not result in a significant impact.

Campus Master Plan EIR Mitigation Measure 3.3-2: Implement Dust and Exhaust Emissions Reduction Measures

Based on the APCD CEQA Handbook, Cal Poly shall ensure that construction contractors implement the following measures for all 2035 Master Plan development:

Standard Construction Emission Reduction Measures for All Projects

- Staging and queuing areas or diesel idling associated with equipment used during construction of new/renovated buildings on campus shall not be located within 1,000 feet of sensitive receptors. This distance can be adjusted if it can be demonstrated to Cal Poly by the construction contractor, with substantial evidence, that risk levels at nearby receptors would not exceed an estimated risk of 10 chances in a million.
- Off-road diesel equipment shall comply with the 5-minute idling restriction identified in Section 2449(d)(3) of CARB's In-Use Off-Road Diesel regulation.
- Signs shall be posted in the designated queuing areas and job sites to remind off-road equipment operators of the 5-minute idling limit.
- Reduce the amount of the disturbed area where possible.
- Use of water trucks or sprinkler systems in sufficient quantities to prevent airborne dust from leaving the site and from exceeding the APCD's limit of 20 percent opacity for greater than 3 minutes in any 60-minute period. Increasing watering frequency would be required whenever wind speeds exceed 15 miles per hour. Reclaimed (non-potable) water should be used whenever possible. Please note that during drought conditions, water use may be a concern and the contractor or building shall consider the use of an APCD-approved dust suppressant where feasible to reduce the amount of water used for dust control.
- All dirt stockpile areas shall be sprayed daily as needed.

- Permanent dust control measures identified in the approved project revegetation and landscape plans shall be implemented as soon as possible following the completion of any soil disturbing activities.
- Exposed ground areas that are planned to be reworked at dates greater than one month after initial grading will be sown with fast germinating, non-invasive grass seed and watered until vegetation is established.
- All disturbed soil areas not subject to revegetation shall be stabilized using approved chemical soil binders, jute netting, or other methods approved in advance by APCD.
- All roadways, driveways, sidewalks, etc. to be paved shall be completed as soon as possible. In addition, building pads shall be laid as soon as possible after grading unless seeding or soil binders are used.
- Vehicle speed for all construction vehicles shall not exceed 15 mph on any unpaved surface at the construction site.
- All trucks hauling dirt, sand, soil, or other loose materials shall be covered or should maintain at least two feet of freeboard (minimum vertical distance between top of load and top of trailer) in accordance with CVC Section 23114.
- Install wheel washers where vehicles enter and exit unpaved roads onto streets or wash off trucks and equipment leaving the site. "Track-Out" is defined as sand or soil that adheres to and/or agglomerates on the exterior surfaces of motor vehicles and/or equipment (including tires) that may then fall onto any highway or street as described in California Vehicle Code Section 23113 and California Water Code 13304. To prevent Track Out, designate access points and require all employees, subcontractors, and others to use them. Install and operate a "track-out prevention device" where vehicles enter and exit unpaved roads onto paved streets. The track-out prevention device can be any device or combination of devices that are effective at preventing track out, located at the point of intersection of an unpaved area and a paved road. Rumble strips or steel plate devices require periodic cleaning to be effective. If paved roadways accumulate tracked out soils, the track-out prevention device may need to be modified.
- Sweep streets at the end of each day if visible soil material is carried onto adjacent paved roads. Water sweepers with reclaimed water should be used where feasible.
- All of these fugitive dust mitigation measures shall be included on grading and building plans.
- Maintain all construction equipment in proper tune according to manufacturer's specifications.
- Fuel all off-road and portable diesel-powered equipment with CARB-certified motor vehicle diesel fuel (non-taxed version suitable for use off-road).
- Electrify equipment when feasible.
- Substitute gasoline-powered in place of diesel-powered equipment, where feasible.
- All architectural coatings (e.g., paint) used in project buildings and parking areas will not exceed a volatile organic compound content of 50 grams per liter.
- Use diesel construction equipment meeting CARB's Tier 2 certified engines or cleaner off-road heavy-duty diesel engines and comply with the State Off-Road Regulation.
- Use on-road heavy-duty trucks that meet the CARB's 2007 or cleaner certification standard for on-road heavy-duty diesel engines and comply with the State On-Road Regulation.
- Construction or trucking companies with fleets that that do not have engines in their fleet that meet the engine standards identified in the above two measures (e.g. captive or NOx exempt area fleets) may be eligible by proving alternative compliance.
- Use alternatively fueled construction equipment on-site where feasible, such as compressed natural gas (CNG), liquefied natural gas (LNG), propane or biodiesel.

For the reasons discussed above, no additional mitigation measures are required to reduce construction-related project emissions.

Operational Emissions

Operations-related emissions of criteria air pollutants and ozone precursors associated with the Campus Master Plan, including the proposed project, were addressed under Impact 3.3-3 of the Campus Master Plan EIR. As discussed there, it is possible that the operation of individual developments identified in the Campus Master Plan could exceed APCD project-level thresholds; therefore, the impact was determined to be significant. As explained in Impact 3.3-3 of the Campus Master Plan EIR, individual projects proposed under the Campus Master Plan shall be evaluated using APCD screening criteria. In 2017, the APCD published a memorandum to update its 2012 CEQA Air Quality Handbook, which contained screening criteria developed for the purpose of conducting preliminary CEQA air quality analyses to determine whether proposed land use development would be likely to result in operational emissions that exceed adopted thresholds of significance for criteria air pollutants and ozone precursors. The screening criteria were developed by conducting emissions modeling for various land use types (e.g., commercial, residential, industrial) to determine the project size that would exceed the thresholds. In accordance with APCD guidance and the programmatic analysis conducted in the Campus Master Plan EIR, these screening criteria were applied to the proposed project to determine whether the project, individually, would exceed adopted APCD thresholds of significance. Because the proposed project is considered industrial, the light industrial land use in Table 1-1, "Screening Criteria for Project Air Quality Analysis" from the 2017 APCD memorandum was chosen. The screening criterion established by APCD for this land use type is 172,000 square feet. Based on available project information, the proposed WRF would include maintenance and control buildings associated with the WRF, two lift stations, and paved surfaces, together totaling 25,600 square feet, which is well below the screening criterion of 172,000 square feet.

Sources of operational emissions would be limited to vehicle exhaust emissions from employee personal and maintenance vehicles (i.e., up to five full-time-equivalent employees), potential off-gassing emissions of reactive organic gases/volatile organic compounds from proposed treatment facilities, and the intermittent use of a dual-fuel (natural gas with propane backup) or diesel-powered backup generator. New buildings and water conveyance and treatment facilities would be powered with electricity; thus, no operational criteria air pollutants would occur from these facilities. New stationary source emissions would be evaluated by APCD during the permitting process (i.e., Title V Permit to Operate) and required to meet permit limits, as explained below in more detail. Thus, given that the proposed project would not exceed the APCD screening criterion and operational emissions would be minimal, implementing the project would not result in a significant impact, and no mitigation is required. This issue is not discussed further in this EIR.

Carbon Monoxide Emissions

Construction and operational carbon monoxide (CO) emissions associated with the Campus Master Plan, which includes the WRF as a near-term project, were addressed under Impact 3.3-4 of the Campus Master Plan EIR and determined to be less than significant. As discussed therein, construction-related CO emissions would be minimal, occurring over a wide area over time and therefore would not result in concentrations sufficient to cause a significant CO impact. Therefore, CO emissions associated with construction of the proposed project, which were accounted for in the Campus Master Plan EIR, would not result in concentrations sufficient to cause a significant CO impact.

Regarding CO emissions associated with operation of the Campus Master Plan, anticipated CO emissions for the entire buildout of the plan were modeled, described in Impact 3.3-4, and found to be below applicable APCD daily thresholds. CO emissions associated with operation of facilities in the Campus Master Plan, including the WRF project, would be associated solely with vehicular traffic. The WRF would require up to three full-time-equivalent employees to maintain and operate the facility, which would result in substantially fewer daily vehicle trips compared to the 7,495 daily trips anticipated for the entire Campus Master Plan. Therefore, CO emissions from operation of the WRF project and associated facilities would be minimal and would not result in concentrations sufficient to cause a significant CO impact.

Toxic Air Contaminant Emissions

Exposure to toxic air contaminant (TAC) emissions, asbestos, and lead during construction and operation of the Campus Master Plan was addressed under Impact 3.3-5 of the Campus Master Plan EIR and determined to be less

than significant. Regarding asbestos- and lead-containing materials, these substances can become entrained in the air during building demolition and remodeling activities, none of which are anticipated to occur under the proposed project. Because the project site is located within an area known to contain naturally occurring asbestos, all construction activities would be required to adhere to CARB's Asbestos Air Toxics Control Measures, consistent with the analysis conducted in the Campus Master Plan EIR. Therefore, this issue is not discussed further.

As discussed in Impact 3.3-5 of the Campus Master Plan EIR, construction-related TAC emissions for the Campus Master Plan would be minimal, occurring over a wide area over time. Therefore, the Campus Master Plan would not result in concentrations sufficient to cause health effects, and the impact was determined to be less than significant.

As shown in Figure 2-11, "Proposed Recycled Water Use Areas," of this Draft EIR, proposed project components (e.g., WRF building, pipeline alignments, recycled water storage reservoir, and improvements to Avocado Pump Station 2 and valve and other pump stations) are generally located within existing agricultural or recreational areas of campus, not located close to (i.e., within 1,000 feet of) any sensitive receptors. Construction of some features (i.e., force main, lower lift station) could occur within 1,000 feet of sensitive receptors, including residential uses near California Boulevard and the Collaborative Agent Design Research Center. However, construction activity would move in a linear fashion, not exposing any nearby receptor to TAC pollutants for substantial periods. For example, construction of the lower lift station is anticipated to last approximately 6 months. Further, as discussed above, construction activities would be required to comply with the APCD's Standard Construction Emission Reduction Measures, which include screening distance requirements for diesel-operated equipment and idling time requirements that would serve to limit TAC exposure at nearby receptors. Therefore, sensitive receptors near the project site would not be exposed to elevated TAC concentrations for extended periods, and construction emissions would be reduced by incorporating emissions reduction practices.

TAC sources associated with operation of the project could include combustion-related emissions associated with fuel-powered backup generators and off-gassing emissions associated with wastewater treatment facilities. New stationary sources would require an assessment of risk before installation and operation, in accordance with APCD requirements and the California Health and Safety Code. The requirements could include airborne toxic risk reduction measures, which may include (1) feedstock modification; (2) product reformulations; (3) production system modifications; (4) system enclosure, emissions control, capture, or conversion; and (5) operational standards and practices modification. Implementing these measures would ensure that risk levels would not exceed APCD thresholds of 10 chances in a million for health risk. Therefore, consistent with the findings in the Campus Master Plan EIR, operational TAC sources would not result in exposure to nearby sensitive receptors.

Because construction- and operations-related TAC impacts of the proposed project would be consistent with the findings in the Campus Master Plan EIR, this issue is not discussed further in this EIR.

Odors

Construction-related odor emissions associated with the Campus Master Plan, including the proposed project, were addressed under Impact 3.3-6 of the Campus Master Plan EIR and found to be less than significant. As discussed therein, minor odors from the use of heavy-duty diesel equipment and the laying of asphalt during project-related construction activities would be intermittent and temporary and would dissipate rapidly from the source with an increase in distance. Therefore, the short-term construction-related odor emissions associated with the proposed project are considered to be adequately addressed by the Campus Master Plan EIR. Implementing the proposed project would not result in substantial odor emissions during construction, consistent with the findings of the Campus Master Plan EIR.

Regarding operational odor emissions, Campus Master Plan EIR Impact 3.3-6 (significant and unavoidable) evaluated the potential for implementation of projects identified in the Campus Master Plan to generate objectionable odors and determined that this impact may be significant and unavoidable. Impact 3.3-6 of the Campus Master Plan EIR identified the proposed WRF as a use typically associated with objectionable odors and stated that because the WRF would be located less than 1 mile from existing and future receptors (i.e., students and staff on campus), it could result in emissions of new odors on campus that could affect a substantial number of people. Mitigation Measure 3.3-6 (as shown below) from the Campus Master Plan EIR would apply to the proposed project and would be implemented during project design and operations. It would include preparation of an odor control plan (OCP), which will include known feasible measures to minimize the potential for a substantial odor increase at receptors within 1 mile of the WRF

and will identify the facility's odor abatement system equipment, the system performance-monitoring protocols, and the procedures for investigating and correcting public complaints. All complaints received by facility management will be investigated and documented, and if verified, appropriate response action will be taken. The facility will provide a 24-hour hotline for public complaints, and the number will be posted at the facility entrance.

Campus Master Plan EIR Mitigation Measure 3.3-6: Prepare an Odor Control Plan

The following odor management conditions will be implemented by Cal Poly with respect to the WRF prior to its operation and would be consistent with the conditions of the site's Authority to Control or Permit to Operate issued by APCD:

- Cal Poly will prepare an Odor Control Plan (OCP), which will include known feasible measures to minimize the potential for a substantial odor increase at receptors within 1 mile of the WRF and will identify the facility's odor abatement system equipment, the system performance monitoring protocols, and the procedures for investigating and correcting public complaints. The APCD will ensure the OCP is consistent and not in conflict with the APCD requirements. All complaints received by facility management will be investigated and documented, and if verified, appropriate response action will be taken. The facility will provide a 24-hour hotline for public complaints, and the number will be posted at the facility entrance.

Implementing Mitigation Measure 3.3-6 of the Campus Master Plan EIR would reduce odor-related impacts of the project on sensitive receptors within 1 mile of the WRF. Furthermore, because the WRF would be sited in the immediate vicinity of other odor-generating uses (e.g. Swine Unit, Dairy Unit) and any odors associated with WRF operation with implementation of Campus Master Plan EIR Mitigation Measure 3.3-6 would be minimal compared to these odor sources, odor-related impacts of the proposed project would be less than significant. No additional mitigation measures would be required for the project.

ENERGY

Energy Use

Construction and operational energy demand for the Campus Master Plan was addressed under Impact 3.6-1 of the Campus Master Plan EIR and determined to be less than significant. As discussed therein, construction fuel use would be a one-time energy expenditure required during the construction duration and would be nonrecoverable. Construction-related energy use would be temporary and would not require additional capacity or increase peak or base period demands for electricity or other forms of energy.

The Campus Master Plan EIR estimated building-related energy use (i.e., natural gas, electricity) associated with all buildings, including those associated with the WRF, that would be constructed as part of the Campus Master Plan. As described in Impact 3.6-1, natural gas consumption per service population would decrease under buildout of the Campus Master Plan. Consistent with this anticipated trend, the WRF's essential facilities and primary power supply would be electricity, with only minimal fossil fuel requirements associated with backup generators. Thus, implementation and operation of the WRF would not result in increased use of nonrenewable energy and would be consistent with the analysis conducted for the Campus Master Plan.

Transportation-related fuel use associated with buildout of the Campus Master Plan was estimated in the Campus Master Plan EIR, and it was determined that because per-person vehicle miles traveled (VMT) would decrease as a result of design features of the Campus Master Plan, fuel consumption per service population also would decrease. The VMT estimates, and associated fuel use, were based on the anticipated future growth of the campus, using a service population metric that includes students and employees. Impact 3.6-1 determined that because VMT and transportation-related fuel use per service population would decrease over time, implementing the Campus Master Plan would not result in the wasteful or inefficient use of energy. Further, the projected employment generation of the proposed WRF, which was identified as a near-term project in the Campus Master Plan, was considered part of the overall projected employment of the Campus Master Plan. Therefore, project-related impacts associated with transportation-related fuel use are considered to be adequately addressed by the Campus Master Plan EIR.

Implementing the proposed project would not result in the wasteful or inefficient use of energy, which is consistent with the findings of the Campus Master Plan EIR.

Plan Consistency

Regarding the potential for the proposed project to conflict with or obstruct a state or local plan for renewable energy or energy efficiency, Impact 3.6-2 of the Campus Master Plan EIR determined that because new development would comply with Tier 2 of the California Green Building Standards Code, or other similar CSU standards, which would align with the Energy Action Plan and CSU Sustainability Policy, no conflict would occur. Operation of the WRF also would not conflict with adopted energy plans consistent with the findings of the Campus Master Plan EIR.

Because the Campus Master Plan EIR considered the WRF project and addressed the potential energy-related impacts of the Campus Master Plan, and construction- and operations-related energy impacts of the proposed project would be consistent with the findings of the Campus Master Plan EIR, this issue is not discussed further in this EIR.

GEOLOGY AND SOILS

Seismic Effects

The Campus Master Plan EIR identifies less than significant impacts associated with the risk of loss, injury, or death involving seismic ground shaking (Impact 3.7-1); the risk of loss, injury, or death involving ground failure, including liquefaction (Impact 3.7-2); and erosion or loss of topsoil during construction (Impact 3.7-4). As discussed in the Campus Master Plan EIR, all structures proposed to be constructed or redeveloped would be required to comply with the CSU Seismic Requirements and the latest California Building Code to ensure that all new and modified buildings would be capable of withstanding anticipated levels of ground shaking. In addition, through compliance with all required regulations, such as the State Water Resources Control Board General Permit for Discharges of Stormwater Associated with Construction Activity (Construction General Permit Order 2009-0009-DWQ), and a Storm Water Pollution Prevention Plan for projects that would result in more than 1 acre of ground disturbance, the impact related to substantial erosion or loss of topsoil during construction would be less than significant. Because the project is included as part of the Campus Master Plan and would involve the same types of construction activities and operations that were anticipated and described for the WRF in the Campus Master Plan EIR impact discussions, the risk of loss, injury, or death involving seismic ground shaking and ground failure and erosion or loss of topsoil during construction would be less than significant for the same reasons as discussed in the Campus Master Plan EIR. Therefore, these topics are not discussed further in this EIR.

Slope and Soil Stability

The Campus Master Plan EIR identifies significant impacts related to development and redevelopment projects that are located on lands prone to landslides (Impact 3.7-3), located on unstable geologic units (Impact 3.7-5), and located on expansive soils (Impact 3.7-6). The project site is located on lands that are considered to have high and low potential for landslide risk, as shown in Figure 3.7-4 of the Campus Master Plan EIR, and soils considered to have high shrink-swell potential (Figure 3.7-2 of the Campus Master Plan EIR). However, Campus Master Plan EIR Mitigation Measure 3.7-3 (as shown below) would apply to the project and would be implemented during design and development of the project. This would include geotechnical investigations, the recommendations of which would require implementation of stabilization recommendations that would reduce the impact from potential erosion to less than significant.

Campus Master Plan EIR Mitigation Measure 3.7-3: Perform Site-Specific Geotechnical Investigations

For any areas within the campus where development is proposed in an area designated as having a high potential for landslide hazards, have substantial erosion potential, or be located on a geologic unit that is unstable or within an area known to have expansive soils, a site-specific geotechnical investigation shall be performed. Based on the findings of the geotechnical investigation for each future development or redevelopment projects under the Campus Master Plan, any appropriate stabilization and site design recommendations, or low impact development features determined necessary to support proposed

development shall be incorporated in the project design and implemented as part of project construction. Examples of stabilization and erosion control recommendations may include, but are not limited to:

- installation of earthen buttress(es);
- excavation of landslide mass/material;
- slope stabilization through excavation into benches and/or keyways and other methods;
- deep soil mixing;
- installation of retaining walls;
- use of tie-back anchors, micropiles, or shear pins; or
- a combination of any of these methods.

Before final plan approval, Cal Poly shall incorporate into the project design and implement all recommendations identified in the site-specific geotechnical investigation, including all recommendations included in the final geotechnical report prepared for the project. All recommendations shall be shown on final plans and/or included as project specifications.

No additional mitigation measures are required for the project, and no new or substantially more severe impacts related to landslides and geologic hazards would occur as a result of project implementation. This issue is not discussed further in this EIR.

Paleontological Resources

The Campus Master Plan EIR identifies potentially significant impacts related to paleontological resources. Although the Master Plan Area is underlain by Franciscan Complex (KJf) and Young Surficial Deposits (Q_{ya}) deposits, which are not known to host paleontological resources, discoveries of yet unknown paleontological resources during ground-disturbing activities during development of projects included in the Campus Master Plan could still occur. However, Mitigation Measure 3.7-7 (as shown below), which would require retaining a qualified paleontologist to evaluate the discovery and the implementation of appropriate treatment if a paleontological resource is found during ground-disturbing activities, would apply to the project and would reduce this impact to less than significant.

Campus Master Plan EIR Mitigation Measure 3.7-7: Treatment of Paleontological Resources

If any paleontological resources are encountered during ground-disturbing activities, the construction contractor shall ensure that activities in the immediate area of the find are halted and Cal Poly informed. Cal Poly shall retain a qualified paleontologist to evaluate the discovery and recommend appropriate treatment options pursuant to guidelines developed by the Society of Vertebrate Paleontology, including development and implementation of a paleontological resource impact mitigation program for treatment of the resource, if applicable.

No additional mitigation measures are required for the project, and no new or substantially more severe impacts related to discovery of paleontological resources would occur as a result of project implementation. This issue is not discussed further in this EIR.

GREENHOUSE GAS EMISSIONS

Construction and operational greenhouse gas (GHG) emissions associated with the Campus Master Plan, including the proposed project, were estimated and addressed under Impact 3.8-1 of the Campus Master Plan EIR and determined to be less than significant with mitigation incorporated. As discussed therein, combined annual operational and amortized construction emissions were estimated and evaluated against a plan-level emissions reduction target that was established for the entire campus. Mitigation Measure 3.8-1 of the Campus Master Plan EIR, including requirements for energy-efficient building design, cool roofs, solar photovoltaics, water-efficient fixtures, Energy Star appliances, electric vehicle (EV) parking, electric outlets on building exteriors, waste diversion targets, and high-efficient lighting, would not apply to the proposed project because providing rooftop solar on small maintenance/control buildings (i.e., 4,800

square feet) would not provide adequate solar generation to meet the needs of the WRF, a site-specific exception allowed by this measure; measures dealing with building electricity, appliance, and water efficiency are intended for residential and academic buildings, not industrial; the EV parking measure sets a campuswide performance standard of having 5 percent of the spaces designated as EV spaces, but this applies to new parking structures, which are not included in the project; cool roofs apply to nonindustrial uses; and waste diversion measures are being and will continue to be implemented campuswide, not on an individual building basis.

In addition, Campus Master Plan EIR Mitigation Measure 3.8-2 requires Cal Poly to purchase GHG offsets, before occupation of any building constructed as part of the Campus Master Plan, to achieve additional GHG reductions above what can be achieved by implementing Campus Master Plan EIR Mitigation Measure 3.8-1, to meet the performance standard identified in the Campus Master Plan for GHG emissions. Mitigation Measure 3.8-2 would apply to the project and is shown below.

> **Campus Master Plan EIR Mitigation Measure 3.8-2: Purchase GHG Offsets**
>
> Annual project-generated GHG emissions would exceed the established threshold by 6,376 $MTCO_2e$/year after incorporation of Mitigation Measure 3.8-1. Additional GHG emissions reductions could be achieved from the development of a local (i.e., campus) offset program or direct investments in existing local programs such as financing installation of regional electric vehicle–charging stations or investing in local urban forests.
>
> Where development or investments in local programs are not feasible or available, Cal Poly may choose to mitigate additional GHG emissions through the purchase of carbon credits available through any one of the following verifiable entities/registries: CARB, Climate Action Reserve, California Air Pollution Control Officers Association, the APCD, or any other equivalent or verifiable registry. Such offsets, either established by Cal Poly or purchased, will meet the requirements of CEQA Guidelines Section 15126.4(C)(3), and meet the following criteria:
>
> - **Real**—They represent reductions actually achieved (not based on maximum permit levels).
> - **Additional/surplus**—They are not already planned or required by regulation or policy (i.e., not double counted).
> - **Quantifiable**—They are readily accounted for through process information and other reliable data.
> - **Enforceable**—They are acquired through legally binding commitments/agreements.
> - **Validated**—They are verified through the accurate means by a reliable third party.
> - **Permanent**—They will remain as GHG reductions in perpetuity.
>
> Carbon offset credits must be purchased prior to occupancy of individual structures developed under the Master Plan up to 159,400 $MTCO_2e$ of credits (i.e., 25 years multiplied by 6,376 $MTCO_2e$) for the entire campus. The amount to be purchased for each development under the Master Plan can either be calculated based on the percentage share of the development as it relates to overall development under the Master Plan or based on updated modeling at the time the development is considered for approval. The price per MT of CO_2e varies depending on the availability of credits on the market, the number of credits purchased at one time, and the type and location of carbon offset being purchased. Current pricing estimates range from $0.85 to $8.5 per $MTCO_2e$.

As required by Campus Master Plan EIR Mitigation Measure 3.8-2, the project would be required to offset GHG emissions based on its share of development in comparison to the entire Campus Master Plan. As described in Section 3.8, "Greenhouse Gas Emissions," of the Campus Master Plan EIR, a GHG emissions target was established based on the anticipated service population for Cal Poly at campus buildout under the Campus Master Plan (i.e., 27,411). Considering the proposed project would result in five full-time employees, the project would be required, per Campus Master Plan EIR Mitigation Measure 3.8-2, to offset 0.018 percent of the Campus Master Plan's entire GHG offset requirement (i.e., 159,400 metric tons of carbon dioxide equivalent per year [$MTCO_2e$]), equivalent to 2,907 $MTCO_2e$.

Further, as discussed in the air quality analysis for this project, APCD has adopted screening-level criteria that can be used to determine whether a project is likely to exceed an adopted APCD threshold. These screening levels also include criteria, based on project land use type and size, that can be used to evaluate GHG emissions. In accordance

with APCD guidance and the programmatic analysis conducted in the Campus Master Plan EIR, these screening criteria were applied to the proposed project to determine whether this project, individually, would exceed adopted APCD thresholds of significance and to provide some context to the potential level of GHG emissions associated with it. Because the proposed project is considered industrial, the light industrial land use in Table 1-1, "Screening Criteria for Project Air Quality Analysis," from the 2017 APCD memorandum was chosen. The screening criterion established by APCD for this land use type is 92,000 square feet. Based on available project information, the proposed WRF and associated facilities would include maintenance and control buildings totaling 25,600 square feet, which is well below the screening criterion of 92,000 square feet. It should be noted that the GHG threshold of 1,150 $MTCO_2e$ per year for which this screening criterion was developed is no longer applicable to projects that would be developed after 2020. Further, the threshold of 1,150 $MTCO_2e$ per year was developed for nonindustrial land use development projects. Because the project is an industrial land use, the threshold of 10,000 $MTCO_2e$ per year that APCD still applies to industrial sources would be more appropriate. Considering that project emissions would be well below the screening level, which is based on the threshold of 1,150 $MTCO_2e$ per year, the project also would not exceed the more appropriate threshold of 10,000 $MTCO_2e$ per year. No additional mitigation measures are required for the project, and no new or substantially more severe GHG impacts would occur as a result of project implementation.

HAZARDS AND HAZARDOUS MATERIALS

The State Water Resources Control Board GeoTracker website does not identify any active hazards related to underground storage tanks or other types of contamination within the project site or surrounding area (SWRCB 2022). Further, the California Department of Toxic Substances Control's (DTSC's) EnviroStor website also does not identify any hazards related to any cleanup sites within the project site (DTSC 2022). For these reasons, the project site is not included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 (Cortese List) (CalEPA 2022). Transportation of hazardous materials on area roadways is regulated by the California Highway Patrol and California Department of Transportation, and use of these materials is regulated by DTSC, as outlined in CCR Title 22. Cal Poly would be required to use, store, and transport hazardous materials in compliance with local, state, and federal regulations during facility construction and operation. Any disposal of hazardous materials would occur in a manner consistent with applicable regulations and at an appropriate off-site disposal facility. Therefore, adverse impacts related to the handling of potentially hazardous materials as a result of the project are not anticipated.

No schools other than Cal Poly are located within one-quarter mile of the project site. Furthermore, operation of the proposed on-site uses (student residences and associated amenities), as noted above, would not involve the handling of hazardous or acutely hazardous materials, substances, or waste. Therefore, no potentially hazardous emissions or other hazards to the school would occur.

Implementation of the project would not involve modifying existing emergency response or evacuation routes. Potential impacts associated with road hazards and inadequate emergency access as a result of implementation of the Campus Master Plan are addressed on page 3.13-12 of the Campus Master Plan EIR. The Campus Master Plan acknowledges that projects constructed and operated as part of the Campus Master Plan may require temporary road closures, but through compliance with applicable design and safety standards, including the 2022 California Fire Code, it was determined that implementation of the Campus Master Plan, including construction and operation of near-term projects like the proposed WRF, would not increase hazards because of a design feature or incompatible use, nor would they result in inadequate emergency access. Therefore, no impacts related to impairment or interference of an adopted emergency response or evacuation plan would occur.

A portion of the project site, near Avocado Pump Station 2 and the adjacent pipelines, would be located in a State Responsibility Area designated as a Moderate Fire Hazard Severity Zone. The remainder of the project site overlaps with a Local Responsibility Area. However, no lands that would be affected by the project are classified as a High or Very High Fire Hazard Severity Zone (CAL FIRE 2022). The project would involve developing the WRF and associated lift stations and pipelines within the campus. The project would not expose people or structures to increased risks related to wildland fires. Therefore, no impacts related to risk, loss, or injury involving wildfires would occur.

As demonstrated above, no potentially significant impacts (either through regulatory compliance or otherwise) would occur with respect to hazards or hazardous materials.

LAND USE AND PLANNING

The project is located in the Campus Master Plan Area and is identified as a near-term project in the Campus Master Plan; thus, it would not conflict with the Campus Master Plan. The project involves development of the WRF and associated features. It would not include removal of housing or otherwise divide an existing community. Therefore, the project would have no impact related to land use and planning, and these issues are not discussed further in this EIR.

MINERAL RESOURCES

The California Department of Conservation, Division of Mines and Geology, has developed guidelines for the classification and designation of mineral lands. These guidelines contain information on what are known as Mineral Resource Zones (MRZs), which together make up a system of classifying lands based on their economic importance. The entire Master Plan Area is designated as MRZ-3: areas containing mineral deposits for which the significance cannot be determined from available data (DOC 1989). As a result, project implementation would not result in the loss of any known mineral resources, and no impact would occur. This issue is not discussed further in this EIR.

NOISE AND VIBRATION

Construction Noise

Impact 3.10-1 of the Campus Master Plan EIR evaluates potential construction noise impacts associated with construction activities that may occur with implementation of the Campus Master Plan, including the proposed WRF and associated infrastructure. Impacts were determined to be significant and unavoidable, but mitigation (Mitigation Measure 3.10-1) was adopted that required the implementation of feasible noise reduction during construction, in addition to coordination with and notification of affected receptors.

As detailed in Chapter 2, "Project Description," construction would occur Monday through Friday between the hours of 7:00 a.m. and 7:00 p.m. Construction is not anticipated during noise-sensitive hours (i.e., weekends and nighttime). Project construction would result in temporary increases in noise-generating construction activities. Noise generated during construction of buildings and associated structures, such as pipeline installation, is typically associated with operation of on- and off-road vehicles and equipment, including heavy trucks, excavators, earth movers, and building equipment.

Construction equipment in use at a given time would vary depending on the phase of construction and specific activities underway. Typical noise levels generated by various types of construction equipment likely to be used are identified in Table 3.1-1.

Table 3.1-1 Typical Construction Equipment Noise Levels

Equipment	Noise Level (dBA at 50 feet) L_{max}	Noise Level (dBA at 50 feet) L_{eq}
Backhoes	78	74
Bulldozers	82	78
Compressors	78	74
Cranes	81	73
Concrete pump truck	81	74
Drill rigs	79	72
Dump trucks	77	73
Excavator	81	77
Generator	81	78

Equipment	Noise Level (dBA at 50 feet) L_{max}	Noise Level (dBA at 50 feet) L_{eq}
Grader	85	81
Front end loaders	79	75
Pneumatic tools	85	82
Pumps	81	78
Rollers	80	73
Scrapers	84	80
Tractor	84	80

Notes: dBA = A-weighted decibels.

Based on measured instantaneous noise levels (L_{max}), average equipment use rates, and calculated average-hourly (L_{eq}) noise levels derived from the Federal Highway Administration Road Construction Noise Model.

Source: FHWA 2006.

Short-term construction noise levels near the project site would fluctuate depending on the type of equipment used, the number of pieces of equipment used, and the duration of use. The effects of construction noise largely depend on the type of construction activities being performed; noise levels generated by those activities; distances to noise-sensitive receptors; the relative locations of noise-attenuating features, such as vegetation and existing structures; and existing ambient noise levels.

Typically, the site preparation/grading phase of construction generates the most noise because the heaviest and loudest equipment (e.g., graders, excavators, dozers) is used for these activities. To evaluate potential construction noise impacts from the buildout of the Campus Master Plan, which identified the WRF project as a short-term project, construction noise levels were modeled conservatively, assuming that up to six pieces of equipment would be operating simultaneously along the boundary of the construction site nearest to the surrounding noise-sensitive receptors. Based on modeling conducted, construction-related noise levels could be approximately 88 decibels (dB) equivalent continuous sound level (L_{eq}) and 92 dB maximum sound level (L_{max}) at 50 feet from a construction site. For detailed modeling and inputs see Appendix F of the Campus Master Plan EIR.

Implementation of the project could result in an exceedance of the City's daytime construction-noise level standard (i.e., 75 dB L_{max}), as established in the City of San Luis Obispo Municipal Code, if sensitive receptors are located within 350 feet of construction equipment. There are no sensitive receptors within 350 feet of where the WRF would be located. Thus, WRF construction would not result in a substantial temporary increase in construction noise.

Installation of the pipeline would likely not involve using equipment as intensive as what was modeled for typical development under the Campus Master Plan. This work is linear; therefore, elevated noise levels would occur only temporarily in the location where construction occurs before moving along the roadway.

Modeling for the pipeline installation assumed simultaneous operation of three pieces of heavy equipment (i.e., an excavator, a dump truck, and backhoe). Based on reference noise levels and accounting for typical usage factors of individual pieces of equipment, pipeline construction-related activities could generate a combined noise level of approximately 83 dB L_{eq} and 88 dB L_{max} at 50 feet. Construction noise would attenuate to the City of San Luis Obispo daytime noise standard of 75 dB L_{max} at a distance of 230 feet. Detailed inputs and parameters for the estimated construction noise exposure levels are provided in Appendix C.

The Church of Jesus Christ of Latter-Day Saints is located just west of California Boulevard toward the southern end of the proposed influent force main, approximately 150 feet from where construction would take place. As discussed, construction would occur on weekdays between the hours of 7:00 a.m. and 3:30 p.m. which does not coincide with typical times of worship. The Grant M. Brown Engineering Building is located approximately 50 feet east of the location on California Boulevard where construction of the influent force main would occur. Thus, pipeline installation may disrupt educational facility operations during class times or study hours. However, Mitigation Measure 3.10-1 (as shown below) from the Campus Master Plan EIR would apply to the project and be implemented during construction.

This would include proper maintenance of equipment, notification of nearby occupants/residents, the use of temporary noise barriers, and location of stationary equipment away from sensitive receptors within 350 feet.

Campus Master Plan EIR Mitigation Measure 3.10-1: Implement Construction-Noise Reduction Measures

For all construction activities related to new/renovated structures, Cal Poly shall implement or incorporate the following noise reduction measures into construction specifications for contractor(s) implementation during project construction:

- All construction equipment shall be properly maintained and equipped with noise-reduction intake and exhaust mufflers and engine shrouds, in accordance with manufacturer recommendations. Equipment engine shrouds shall be closed during equipment operation.
- All construction equipment and equipment staging areas shall be located as far as possible from nearby noise-sensitive land uses, and/or located to the extent feasible such that existing or constructed noise attenuating features (e.g., temporary noise wall or blankets) block line-of-site between affected noise-sensitive land uses and construction staging areas.
- Individual operations and techniques shall be replaced with quieter procedures (e.g., using welding instead of riveting, mixing concrete off-site instead of on-site, using electric powered equipment instead of pneumatic or internal combustion powered equipment) where feasible and consistent with building codes and other applicable laws and regulations.
- Stationary noise sources such as generators or pumps shall be located as far away from noise-sensitive uses as feasible.
- No less than 1 week prior to the start of construction activities at a particular location, notification shall be provided to nearby off-campus, noise-sensitive land uses (e.g., residential uses) that are located within 350 feet of the construction site (i.e., based on the construction noise modeling, distance at which noise-sensitive receptors would experience noise levels exceeding acceptable daytime construction-noise levels).
- When construction would occur within 350 feet of on-campus housing or other on-campus or off-campus noise-sensitive uses and may result in temporary noise levels in excess of 75 L_{max} at the exterior of the adjacent noise-sensitive structure, temporary noise barriers (e.g., noise-insulating blankets or temporary plywood structures) shall be erected, if deemed to be feasible and effective, between the noise source and sensitive receptor such that construction-related noise levels are reduced to 75 L_{max} or less at the receptor.
- Loud construction activity (e.g., jackhammering, concrete sawing, asphalt removal, and large-scale grading operations) within 350 feet of adjacent primary school facilities, shall not occur during state standardized testing time periods for the surrounding school districts.
- When construction requires material hauling, a haul route plan shall be prepared for construction of each facility and/or improvement for review and approval by the Cal Poly that designates haul routes as far as feasible from sensitive receptors.
- The contractor shall designate a disturbance coordinator and post that person's telephone number conspicuously around the construction site and provide to nearby residences. The disturbance coordinator shall receive all public complaints and be responsible for determining the cause of the complaint and implementing any feasible measures to alleviate the problem.
- Construction activities (excluding activities that would result in a safety concern to the public or construction workers) shall be limited to between the hours of 7:00 a.m. and 7:00 p.m., Monday through Saturday, where feasible. For any construction activity that must extend beyond the daytime hours of 7:00 a.m. and 7:00 p.m. Monday through Saturday, occur on Sunday, or legal holidays and occurs within 2,000 feet of a residential building, Cal Poly shall ensure that the City of San Luis Obispo exterior noise level standard of 60 dBA L_{max} for temporary construction noise is not exceeded at any residence. Typical residential structures with windows closed achieve a 25-30 dBA exterior-to-interior noise reduction

(Caltrans 2002). Thus, using the lower end of this range, an exterior noise level of 60 dBA L_{max} would result in interior noise levels of about 35 dBA L_{max}, which would not result in a substantially increased risk for sleep disturbance. If exterior noise levels of 60 dBA L_{max} are infeasible due to type of construction activity and proximity to residential structure, ensuring interior noise levels do not exceed 45 dBA L_{eq}, consistent with City standards, would ensure residents are not disturbed. To achieve this performance standard, one or more of the following or equivalent measures shall be considered and implemented where appropriate:

- Use of noise-reducing enclosures and techniques around stationary noise-generating equipment (e.g., concrete mixers, generators, compressors).
- Installation of temporary noise curtains installed as close as possible to the boundary of the construction site within the direct line of sight path of the nearby sensitive receptor(s) and consist of durable, flexible composite material featuring a noise barrier layer bounded to sound-absorptive material on one side.
- Retain a qualified noise specialist to develop a noise monitoring plan and conduct noise monitoring to ensure that noise reduction measures are achieved the necessary reductions such that levels at the receiving land uses do not exceed exterior noise levels of 60 dBA L_{max} for construction activity occurring during these noise-sensitive hours.

The project would not involve nighttime construction; therefore, the last bulleted item (and the associated subbulleted items) of Campus Master Plan EIR Mitigation Measure 3.10-1 would not be applicable to the project. No additional mitigation measures are required for the project, and no new or substantially more severe noise impacts would occur as a result of project implementation.

Operational Noise

Campus Master Plan EIR Impact 3.10-2 (less than significant) and Impact 3.10-3 (significant and unavoidable) evaluated potential long-term operational noise associated with implementation of the Campus Master Plan and determined that implementation of the Campus Master Plan would result in long-term operational noise levels that may be significant and unavoidable because sensitive receptors would be potentially exposed to noise from parking structures and expansion of the Spanos Stadium. Operational noise associated with roadway noise was determined to be less than significant.

Operational activity associated with the project would be limited to operations and maintenance of the WRF and recycled water storage and distribution system. These maintenance activities would be conducted using a minimal number of vehicles consistent with vehicle types currently using the existing roadways (e.g., passenger vehicles and light-duty trucks). In addition, the Campus Master Plan EIR has already analyzed the effects of operational noise resulting from the buildout of the Campus Master Plan, which includes the WRF as a near-term project. Thus, any increase in noise associated with pumps primarily operating at the WRF and the proposed lift stations would be minimal and has been accounted for within the Campus Master Plan EIR. Furthermore, there are no sensitive receptors close to the project site. Therefore, the project would not result in the generation of a substantial permanent increase in ambient noise levels associated with operational noise sources (i.e., traffic or stationary) in the vicinity of the project and thus would not expose sensitive receptors to excessive long-term operational noise.

Vibration

Short- and long-term vibration impacts associated with implementation of the Campus Master Plan EIR are discussed on page 3.10-19 and Impact 3.10-4 (page 3.10-26) of the Campus Master Plan EIR. Generally, vibration impacts associated with implementation of projects under the Campus Master Plan were determined to be less than significant except where pile driving (during construction) may be required. In such instances, pile driving, blasting, or other substantial vibration-inducing construction equipment or techniques could generate vibration levels in excess of acceptable human response thresholds and thresholds above which damage to older structures may occur. Mitigation measures providing for project-specific evaluations and development/implementation of vibration control plans were adopted as part of the Campus Master Plan.

With respect to the project, construction would not include vibration-intensive activities, such as blasting or pile driving. This is based on the geology of the project area, which would not require blasting activities for construction, and the scale and intensity of the proposed uses and facilities (e.g., WRF, recycled water storage and distribution system, utility improvements) are not likely to necessitate the construction of multistory structures that require pile-driving activities. Thus, project construction would not result in any major sources of vibration. The adopted mitigation measures (Mitigation Measures 3.10-4a and 3.10-4b) of the Campus Master Plan EIR are not applicable to the project.

In addition, implementation of the project would not introduce any major sources of long-term or permanent ground vibration, and no major stationary sources of groundborne vibration were identified in the project area that would result in the long-term exposure of proposed on-site land uses to unacceptable levels of ground vibration. Thus, long-term or permanent ground vibration levels in exceedance of the significance thresholds are not anticipated as a result of the project's implementation.

POPULATION AND HOUSING

The project involves development of the WRF and associated features. It would not include development of housing or the removal of housing or otherwise cause displacement of people or housing. Because the project would have no impact on population or housing, these issues are not discussed further in this EIR. Growth-inducing impacts of the project are addressed in Chapter 6 of this EIR, "Other CEQA Sections."

PUBLIC SERVICES AND RECREATION

Campus Master Plan EIR Impacts 3.12-1, 3.12-2, 3.12-3, 3.12-4, and 3.12-5 identify less than significant impacts related to the provision of new or physically altered governmental facilities or the need for new or physically altered governmental or recreational facilities. Because the project is included as a near-term project within the Campus Master Plan, and its development would be consistent with these impact conclusions, these issues are not discussed further in this EIR.

TRANSPORTATION

Vehicle Miles Traveled

Impact 3.13-1 of the Campus Master Plan EIR found that implementation of the Campus Master Plan would increase VMT generated by Cal Poly but that with implementation of a campuswide transportation demand management plan (see Mitigation Measure 3.13-1), the average VMT per service population generated by Cal Poly would not exceed appropriate thresholds (i.e., 15 percent below countywide VMT per service population). Therefore, the VMT impacts associated with implementation of the Campus Master Plan, including the proposed WRF, were determined to be less than significant with mitigation.

With respect to the project, demolition activities would generate vehicle trips on adjacent roadways, such as hauling of materials and labor commute trips. The number of construction workers is anticipated to range from approximately eight to 36 workers per day. Construction activities would be temporary and intermittent in nature and thus would not result in long-term increases in vehicular trips. In addition, the VMT of construction workers is not newly generated; instead, it is redistributed throughout the regional roadway network based on the different work sites to which workers travel each day. Therefore, construction workers would not generate new trips each day; they would only redistribute them. Further, even if the trips generated during construction were considered to be new trips, the highest number of construction worker trips is estimated to be 72 per day (assuming each worker drives alone to and from the project site). Therefore, the number of daily construction trips generated would be fewer than 110 trips per day. This total would be within the screening threshold established in the CSU Transportation Impact Study Manual (TISM), which is consistent with the Governor's Office of Planning and Research's screening criteria for small projects.

With respect to operation and as detailed in Chapter 2, "Project Description," the project would require the staffing of only up to five full-time employees to operate and maintain the WRF and the recycled water distribution system. Thus, the project would meet the CSU TISM screening criteria for projects generating fewer than 110 new daily trips

and would be presumed to result in a less than significant VMT impact. Further, the projected employment generation of the proposed WRF, which was identified as a near-term project in the Campus Master Plan, would be considered part of the overall projected employment of the Campus Master Plan. Therefore, the potential VMT impacts of the project are considered to be adequately addressed by the Campus Master Plan EIR. Implementing the project would not result in a substantial increase in operational VMT and would be consistent with the findings of the Campus Master Plan EIR. This issue is not discussed further in this EIR.

Plan Consistency

As disclosed in Campus Master Plan EIR Impact 3.13-2 (less than significant with mitigation), Impact 3.13-3 (less than significant with mitigation), and Impact 3.13-4 (less than significant with mitigation), implementation of the Campus Master Plan would increase automobile, transit, bicycle, and pedestrian trips to, from, and within the Cal Poly campus, which would increase the competition for physical space between the modes to meet both operational and safety objectives related to alternative transportation. This could increase the risk of collisions. Cal Poly is monitoring collisions and implementing improvements in accordance with Mitigation Measures 3.13-2, 3.13-3, and 3.13-4 to reduce potential significant impacts associated with transit service and facilities, pedestrian facilities, and bicycle facilities to a less than significant level by supporting transit, walking, and biking and minimizing conflicts between travel modes.

As detailed in Chapter 2, "Project Description," the project involves the construction of a collection system, WRF, recycled water storage and distribution system, and utility improvements. The WRF would have an approximately 16,000-square-foot building that would house some or all of the treatment process facilities, an electrical room, a mechanical room, a laboratory, a classroom, and restrooms. Project construction would occur between fall 2024 and early 2026. The project would not damage or remove any existing bicycle, pedestrian, or transit facilities. Any areas disturbed during construction would be returned to their original or better condition by replacing all asphalt, landscaping, or earthen areas. Site cleanup and surface restoration would be performed promptly following pipeline installation activities. In addition, the project would not increase bicycle facility use or transit ridership, because the only operational activity associated with the project involves facility operations and maintenance, which would employ up to five people and not generate a substantial number of trips. Furthermore, the Campus Master Plan identified the project as a near-term project; thus, the Campus Master Plan EIR has analyzed buildout of the project and accounted for such impacts.

The Campus Master Plan includes an enhanced pedestrian and bicycle circulation system with new and improved pedestrian and bicycle paths throughout the campus, new roadways with bicycle facilities, and additional bicycle parking located near major activity centers. For these reasons, the project would not conflict or be inconsistent with a plan, ordinance, or policy addressing the circulation system. The potential impacts of the project are consistent with the analysis of the Campus Master Plan EIR, and no new or substantially more severe impacts would occur.

Hazards and Emergency Access

Potential impacts associated with road hazards and inadequate emergency access as a result of implementation of the Campus Master Plan are addressed on page 3.13-12 of the Campus Master Plan EIR. The Campus Master Plan acknowledges that projects constructed and operated as part of the plan may require temporary road closures, but through compliance with applicable design and safety standards, including the 2022 California Fire Code, it was determined that implementation of the Campus Master Plan, including construction and operation of near-term projects like the proposed WRF, would not increase hazards related to a design feature or incompatible use, nor would it result in inadequate emergency access.

With respect to the project, construction traffic entering and leaving the construction site/area would include the daily arrival and departure of construction workers, equipment deliveries, hauling of excavation spoil, concrete deliveries, and other construction-related traffic. Haul trips and equipment deliveries often use large trucks, which may temporarily cause hazards on roadways in the vicinity of the project site during delivery and removal. In addition, if project-related haul trips and the operation of heavy vehicles were to occur along roadways with constrained rights-of-way, implementation of the project could potentially result in an increase in roadway hazards related to incompatible uses. Construction also may require temporary closures of the public right-of-way during pipeline installation activities. Pipelines would be installed within roadway rights-of-way, and temporary construction areas would be approximately 50 feet by 100 feet in size. Consistent with 2022 California Fire Code requirements, traffic

controls would be implemented to maintain emergency access and allow for the safe and controlled movement and safety of pedestrians, bicyclists, and vehicles. Any areas that would be disturbed during construction would be returned to preproject conditions by replacing all asphalt, landscaping, or earthen areas. No modifications of existing roadway widths or alignments would occur, and the project would not damage, reduce, or remove any existing bicycle, pedestrian, or transit facilities. As a result, the potential impacts of the project would be consistent with the analysis of the Campus Master Plan EIR, and no new or substantially more severe impacts would occur.

WILDFIRE

A portion of the project site, near Avocado Pump Station 2 and the adjacent pipelines, would be located in a State Responsibility Area designated as a Moderate Fire Hazard Severity Zone. The remainder of the project site overlaps with a Local Responsibility Area. No lands that would be affected by the project are classified as a Very High Fire Hazard Severity Zone (CAL FIRE 2022). The project includes development of a wastewater treatment facility, associated lift stations and pipelines, and expansion of an existing reservoir. The types of uses located in areas designated as a State Responsibility Area (i.e., booster storage tanks at Avocado Pump Station 2 and underground pipelines) would not create new ignition sources that would exacerbate wildfire risks. In addition, access to Avocado Pump Station 2 and the recycled water distribution pipelines would be limited to trained operations staff. No new infrastructure that could exacerbate fire risk, such as roads, fuel breaks, emergency water sources, power lines, or other utilities, are required in these areas as part of the project. Therefore, there would be no impacts related to risk, loss, or injury involving wildfires within a State Responsibility Area or Very High Fire Hazard Zone.

Please see the discussion above under "Hazards and Hazardous Materials," regarding effects on an existing emergency response or evacuation route.

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3.2 AESTHETICS

This section provides a description of existing visual conditions, meaning the physical features that make up the visible landscape, near the project site, and an assessment of changes to those conditions that would occur with project implementation. The effects of the project on the visual environment are generally defined in terms of the project's physical characteristics and potential visibility, the extent to which the project's presence would change the perceived visual character and quality of the environment, and the expected level of sensitivity that the viewing public may have where the project would alter existing views. This analysis evaluates project effects on scenic vistas, scenic resources within a state scenic highway view corridor, and daytime and nighttime levels of light and glare.

No comments regarding aesthetics were received in response to the Notice of Preparation.

3.2.1 Regulatory Setting

FEDERAL

No federal plans, policies, regulations, or laws related to aesthetics, light, or glare are applicable to the project.

STATE

California Scenic Highway Program

California's Scenic Highway Program was created by the California Legislature in 1963 and is managed by the California Department of Transportation (Caltrans). The goal of this program is to preserve and protect scenic highway corridors from changes that would affect the aesthetic value of the land adjacent to highways. A highway may be designated "scenic" depending on how much of the natural landscape travelers can see, the scenic quality of the landscape, and the extent to which development intrudes on travelers' enjoyment of the view (Caltrans 2022a).

Cal Poly 2035 Master Plan

As adopted in 2020, Cal Poly's Campus Master Plan includes several Guiding Principles that also serve as overarching standards relevant to development under the Campus Master Plan. They are organized by topic heading in the Master Plan as General Principle (GP), Academic Mission and Learn by Doing, Design Character (DC), Implementation Program, Other Recommendation, Sustainability and Environmental Stewardship, Transportation and Circulation, or Residential Community and University Life. The following principles were identified as relevant to aesthetics and visual resources:

GP 07 Land uses should be suitable to their locations considering the environmental features of the proposed sites.

GP 08 The siting of new land uses and buildings should always be considered within the context of the greater campus; functional connections among related activities should be considered, including the nature of activities, "adjacencies" and paths of travel.

GP 09 The siting and design of campus buildings and other features should reflect and enhance visual and physical connections to the surrounding natural environment and outdoor spaces on-campus, and should maintain, enhance or create aesthetically pleasing views and vistas.

GP 10 Campus buildings should incorporate the best design elements regarding massing, human scale, materials, articulation, architectural interest, sustainability and connections with surrounding buildings and spaces; design should reflect authenticity and attention to details in materials, historical context and architectural style.

GP 16 Cal Poly should consider potential impacts—including but not limited to traffic, parking, noise and glare—on surrounding areas, especially nearby single-family residential neighborhoods, in its land use planning, building and site design, and operations.

DC 01 The siting and design of campus facilities should incorporate a full 360-degree approach, where all sides of the facility contribute to a cohesive and aesthetically pleasing experience.

DC 05 The design of campus facilities should maintain and incorporate a pedestrian sense of scale.

LOCAL

Cal Poly is part of the CSU, which is a statutorily and legislatively created, constitutionally authorized state entity. As explained in the "California State University Autonomy" section in Section 3.1, "Approach to the Environmental Analysis," of this EIR, the CSU is not subject to local government planning and land use plans, policies, or regulations. Nevertheless, in the exercise of its discretion, Cal Poly does reference, describe, and address local plans, policies, and regulations where appropriate and for informational purposes. This evaluation is also intended to be used by local agencies for determining, as part of their permit processes, the project's consistency with local plans, policies, and regulations.

San Luis Obispo County General Plan

The County of San Luis Obispo (County) General Plan Conservation and Open Space Element provides goals and policies to protect the county's visual resources, including open areas, scenic corridors, and the built environment. The general plan designates Sensitive Resource Areas where specific scenic protection policies apply (see Figure VR-1 of the Conservation and Open Space Element) (San Luis Obispo County 2010). The project site is directly north of urban areas and is not identified as a Sensitive Resource Area; however, areas southwest and north of the project site are rural and designated as Sensitive Resource Areas where scenic protection policies apply. No candidate scenic corridors, listed in Table VR-2 of the County General Plan, were identified on the project site. The following policies apply to visual resources in the County:

- Policy VR 1.1: Adopt Scenic Protection Standards. Protect scenic views and landscapes, especially visual Sensitive Resource Areas (SRAs) from incompatible development and land uses.
- Policy VR 2.1: Develop in a Manner Compatible with Historical and Visual Resources. Through the review of proposed development, encourage designs that are compatible with the natural landscape and with recognized historical character, and discourage designs that are clearly out of place within rural areas.
- Policy VR 2.2: Site Development and Landscaping Sensitively. Through the review of proposed development, encourage designs that emphasize native vegetation and conform grading to existing natural forms. Encourage abundant native and/or drought-tolerant landscaping that screens buildings and parking lots and blends development with the natural landscape. Consider fire safety in the selection and placement of plant material, consistent with Biological Resources Policy BR 2.7 regarding fire suppression and sensitive plants and habitats.
- Policy VR 6.1: Urban Design. Ensure that new multi-family residential, mixed-use, and commercial or other non-residential development in the urban and village areas is consistent with local character, identity, and sense of place.
- Policy VR 7.1: Nighttime Light Pollution. Protect the clarity and visibility of the night sky within communities and rural areas, by ensuring that exterior lighting, including streetlight projects, is designed to minimize nighttime light pollution.

City of San Luis Obispo General Plan

The City of San Luis Obispo General Plan Conservation and Open Space Element (City of San Luis Obispo 2014) includes the following policies related to views and scenic resources:

- Policy 9.1.1: Preserve Natural and Agricultural Landscapes. The City will implement the following policies and will encourage other agencies with jurisdiction to do likewise:

    A. Natural and agricultural landscapes that the City has not designated for urban use shall be maintained in their current patterns of use.

B. Any development that is permitted in natural or agricultural landscapes shall be visually subordinate to and compatible with the landscape features. Development includes, but is not limited to buildings, signs (including billboard signs), roads, utility and telecommunication lines and structures. Such development shall:

   1. Avoid visually prominent locations such as ridgelines, and slopes exceeding 20 percent.

   2. Avoid unnecessary grading, vegetation removal, and site lighting.

   3. Incorporate building forms, architectural materials, and landscaping, that respect the setting, including the historical pattern of development in similar settings, and avoid stark contrasts with its setting.

   4. Preserve scenic or unique landforms, significant trees in terms of size, age, species or rarity, and rock outcroppings.

C. The City's non-emergency repair, maintenance, and small construction projects in highly visible locations, such as hillsides and downtown creeks, where scenic resources could be affected, shall be subject to at least "minor or incidental" architectural review.

- **Policy 9.1.3: Utilities and Signs.** In and near public streets, plazas, and parks, features that clutter, degrade, intrude on, or obstruct views should be avoided. Necessary features, such as utility and communication equipment, and traffic equipment City limits form a well-defined urban edge, with open space beyond and signs should be designed and placed so as to not impinge upon or degrade scenic views of the Morros or surrounding hillsides, or farmland, consistent with the primary objective of safety. New billboard signs shall not be allowed, and existing billboard signs shall be removed as soon as practicable, as provided in the Sign Regulations.
- **Policy 9.1.5: View Protection in New Development.** The City will include in all environmental review and carefully consider effects of new development, streets and road construction on views and visual quality by applying the Community Design Guidelines, height restrictions, hillside standards, Historical Preservation Program Guidelines and the California Environmental Quality Act and Guidelines.
- **Policy 9.1.6: Night-Sky Preservation.** City will adopt a "night sky" ordinance to preserve nighttime views, prevent light pollution, and to protect public safety by establishing street and public area lighting standards.
- **Policy 9.2.1: Views to and from Public Places, including Scenic Roadways.** The City will preserve and improve views of important scenic resources from public places, and encourage other agencies with jurisdiction to do so. Public places include parks, plazas, the grounds of civic buildings, streets and roads, and publicly accessible open space. In particular, the route segments shown in Figure 11 [of the General Plan Conservation and Open Space Element] are designated as scenic roadways.

  A. Development projects shall not wall off scenic roadways and block views.

  B. Utilities, traffic signals, and public and private signs and lights shall not intrude on or clutter views, consistent with safety needs.

  C. Where important vistas of distant landscape features occur along streets, street trees shall be clustered to facilitate viewing of the distant features.

  D. Development projects, including signs, in the viewshed of a scenic roadway shall be considered "sensitive" and require architectural review.

- **Policy 9.2.3: Outdoor Lighting.** Outdoor lighting shall avoid: operating at unnecessary locations, levels, and times; spillage to areas not needing or wanting illumination; glare (intense line-of-site contrast); and frequencies (colors) that interfere with astronomical viewing.

City of San Luis Obispo Municipal Code

Section 17.70.090: Hillside Development Standards

The purpose of this section is to protect and preserve scenic hillside areas and natural features such as the volcanic Morros, ridge lines, plant communities, rock outcroppings and steep slope areas that function as landscape backdrops

for the community; to avoid encroachment into sensitive habitats or unique resources as defined in the Conservation and Open Space Element; to protect the health, safety and welfare of community residents by directing development away from areas with hazards such as landslides, wildland fires, flooding and erosion; and to protect the city's scenic setting. This section includes requirements for general site planning, site access, retaining walls, downhill building walls, mechanical equipment, and fencing. Plans submitted for hillside development shall be reviewed for consistency with the city's community design guidelines, this section, and general development standards of the zoning regulations.

Section 17.70.100: Lighting and Night Sky Preservation

These outdoor lighting regulations are intended to encourage lighting practices and systems that will: permit reasonable uses of outdoor lighting for nighttime safety, utility, security, and enjoyment while preserving the ambience of night; curtail and reverse any degradation of the nighttime visual environment and the night sky; minimize glare and obtrusive light by limiting outdoor lighting that is misdirected, excessive, or unnecessary; help protect the natural environment from the damaging effects of night lighting; and meet the minimum requirements of the California Code of Regulations for Outdoor Lighting and Signs (Title 24, Chapter 6).

Outdoor lighting shall be designed, installed, and maintained to prevent nighttime sky light pollution, preserve and enhance visibility of stars, and use energy efficiently by lighting only those areas or objects necessary for safety and security.

3.2.2 Environmental Setting

REGIONAL SETTING

Cal Poly's land holdings in San Luis Obispo County include more than 6,000 acres. These lands primarily consist of open rangeland, farmland, and open space. Most of Cal Poly's academic, administrative, and support facilities are located on the main campus. The main campus and project site are located along the northern edge of the City, at the base of the western foothills of the Santa Lucia Range and at the eastern end of the highly scenic Chorro Valley. The Chorro Valley, defined by the Santa Lucia Mountains and the Cuesta Ridge to the northeast and the Morros or Nine Sisters (a series of distinct mountain peaks rising up from the valley) to the southwest, runs northwest to Morro Bay and the Pacific Ocean. The Morros are recognized by the County as highly scenic visual resources that should be protected (San Luis Obispo County 2010). The topography of the area is generally defined by low hills and ridges with intermittent volcanic and metavolcanic peaks (referred to as morros). The proposed WRF would be situated in the northwestern portion of campus, which is located adjacent to the City of San Luis Obispo, an urbanized area with predominantly residential and commercial uses surrounding a downtown core approximately 1 mile south of campus. Land uses within the City vary in visual character and height, although most of the buildings in the City are between one and three stories in height with some taller buildings, especially in the downtown core.

VISUAL CHARACTER OF THE PROJECT SITE AND SURROUNDINGS

The project site is a component in a larger landscape that also encompasses off-campus single-family residential and industrial land uses, agricultural fields and low rolling hills, and the SR 1 corridor. The proposed WRF site and reservoir would be located in the northwestern portion of campus, which consists largely of open space containing grasslands and riparian vegetation, agricultural fields, and scattered industrial development. The reservoir would be located where two existing swine ponds are located and bordered by a compacted gravel road. The WRF would be located on an undeveloped site currently used as a garden by Cal Poly students (the Cal Poly Student Experimental Farm). The lower lift station would be located in the southwest corner of the Academic Core on the south side of Spanos Stadium. The upper lift station would be located on the southwest edge of West Campus in a fallow field bordered on the east by the Union Pacific Railroad tracks and the south and west by Mount Bishop Road and Highland Drive. The existing Avocado Pump Station 2 is located northwest of the main campus and is situated between low rolling hills, directly south of Nelson Reservoir.

The project vicinity has a low-density urban/suburban and agricultural character, given the presence of scattered low-rise development and wide expanses of agricultural fields and rolling hills. Land uses surrounding the proposed WRF and

reservoir include agricultural uses to the north, south, and west and the sports complex and fields to the east. Land uses surrounding the lower lift station consist of ornamental trees and landscaping on the south and west sides of the site; Spanos Stadium to the north; and residential, institutional, and commercial uses farther to the east, south, and west. The upper lift station location consists of agricultural and institutional characteristics and is shielded to the west by ornamental trees. The Avocado Pump Station 2 location consists entirely of rural characteristics, including dense stands of trees. Proposed pipelines would be located below grade in predominantly agricultural and developed areas throughout campus.

Representative Photographs and Viewpoints

Five vantages or viewpoints in proximity to the location of project components were chosen to show views most appropriate for the analysis of impacts because of the potential for visible aboveground improvements and changes at the sites. The visual character and quality of the views from the five viewpoints are described below. Figure 3.2-1 illustrates the viewpoints from which the photographs of the project component sites were taken, and Figure 3.2-2 shows those views.

Viewpoint 1: Hillside Southwest of Nelson Reservoir Looking Northeast toward Avocado Pump Station 2 Site

Viewpoint 1 is from the hillside approximately 200 feet southwest of Nelson Reservoir, looking northeast toward the Avocado Pump Station 2 site (Figure 3.2-1). Land uses surrounding Avocado Pump Station 2 include agricultural uses to the north, east, and south and undeveloped hills to the west. The buildings located to the south are part of Cheda Ranch, which is owned by Cal Poly and managed by students and staff of the College of Agriculture. The existing view from Viewpoint 1 is shown in Figure 3.2-2a. The visual character of the landscape as seen from Viewpoint 1 is that of a reservoir in a rolling hillside setting. The foreground consists of ruderal grasses; the midground consists of the 1.7-acre body of water, Nelson Reservoir, surrounded by mature trees, a small, enclosed structure, a single-lane gravel road, utility poles and lines, and raised train tracks; and the background consists of a low mountainous expanse. The dominant hues are neutral and muted, including the faded gray gravel of the roadway and various green and brown shades of vegetation. Views of the site are largely obstructed by intervening topography and vegetation.

Viewpoint 2: Riparian Grassland Northeast of Eastern Swine Wastewater Pond Looking Southeast toward Recycled Water Storage Reservoir Site

Viewpoint 2 is from the riparian grassland immediately northeast of the easternmost swine wastewater pond (Figure 3.2-1). The site is primarily undeveloped and is currently occupied by two swine wastewater ponds. The recycled water storage reservoir would be located on the site of these two swine wastewater ponds within the North Campus subarea directly northeast of the Union Pacific Railroad tracks. The site is part of a larger viewshed that also encompasses City and County agricultural and industrial land uses, the SR 1 corridor, and the Cal Poly campus. The area surrounding the reservoir has a low-density agricultural and industrial character, given the presence of scattered low-rise development and farmland. Land uses surrounding the site include agricultural uses to the north and west, the Campus Sports Complex and field to the east, and industrial and commercial uses to the south. The existing view from Viewpoint 2 is shown in Figure 3.2-2a. The visual character from Viewpoint 2 is that of a pond and grasslands within rolling hillsides. The foreground consists of ruderal grasses; the midground consists of a small body of water, fencing, and utility poles and lines; and the background consists of mature trees, the roof of a large agricultural structure, and a low mountainous expanse. The dominant hues, including various green and brown shades of vegetation, are neutral and muted. Views of the recycled water storage reservoir site are largely obstructed by intervening vegetation.

Source: Data received from Hartman Engineering in 2022 and downloaded from the City of San Luis Obispo in 2022.

Figure 3.2-1 Proposed Project Viewpoints

Source: Photograph taken by Ascent Environmental in 2022.

Viewpoint 1: Hillside Southwest of Nelson Reservoir Looking Northeast toward Avocado Pump Station 2.

Source: Photograph taken by Ascent Environmental in 2022.

Viewpoint 2: Riparian Grassland Northeast of Eastern Swine Wastewater Pond Looking Southeast toward Recycled Water Storage Reservoir Site.

Figure 3.2-2a Representative Photographs

Viewpoint 3: Student Experimental Farm Looking Northeast toward WRF Site

Viewpoint 3 is from the Student Experimental Farm, where a variety of native and nonnative flora has been planted, and much of the area is covered by wood chips and indigenous grasses. The existing view from Viewpoint 3 is shown in Figure 3.2-2b. The site is part of a larger viewshed that also encompasses agricultural and industrial land uses, the SR 1 corridor, and the Cal Poly campus. The WRF would be located within the Student Experimental Farm site. The area surrounding the WRF site has a low-density agricultural and industrial character, given the presence of scattered low-rise development and farmland. The visual character from Viewpoint 3 is that of a small, mature garden. The foreground consists of ornamental shrubs and fruit trees; the midground consists of mature trees and train tracks; and the background consists of a roof of a large agricultural structure and a wide, low, mountainous expanse. The dominant hues, including various green and brown shades of vegetation, are neutral and muted. Views of the WRF site are largely obstructed by intervening topography and vegetation.

Viewpoint 4: Agricultural Area East of Cal Poly's Lower Sports Field Looking East toward Upper Lift Station Site

Viewpoint 4 is from the tilled agricultural area directly east of Cal Poly's lower sports field, along Mount Bishop Road near Highland Drive. The existing view from Viewpoint 4 is shown in Figure 3.2-2b. The upper lift station site is located within this tilled agricultural area in the southeastern portion of the West Campus subarea. Land uses surrounding the upper lift station site include classrooms to the west, Highland Drive to the south, and fallow fields to the north and east. The area surrounding the upper lift station location has low-density agricultural, commercial, and industrial characteristics. The upper lift station would be located on existing undeveloped fallow ground. The visual character from Viewpoint 4 is that of tilled soil and mature ornamental trees. The foreground consists of exposed soil and a mature tree, the midground consists of ornamental trees and train tracks, and the background consists light poles and a mountainous expanse. The dominant hues, including various green and brown shades of vegetation, are neutral and muted. Views of the site are largely unobstructed.

Viewpoint 5: Developed Area outside Cal Poly's Collaborative Agent Design Research Center Looking Northeast toward Lower Lift Station Site

Viewpoint 5 is from the heavily developed area outside of Cal Poly's Collaborative Agent Design (CAD) Research Center along California Boulevard near Campus Way. The existing view from Viewpoint 5 is shown in Figure 3.2-2b. The lower lift station site is located in the southwestern corner of the Academic Core subarea at the location of an old tennis court adjacent to the CAD Research Center, at the corner of Campus Way and California Boulevard. Land uses surrounding the lower lift station site represent residential, institutional, and commercial characteristics and include Campus Way and student housing to the south, classrooms to the north and east, and California Boulevard to the west. The visual character from Viewpoint 5 is that of uncultivated ground, mature ornamental trees, and asphalt. The foreground consists of fallow ground, the midground consists of mature trees, and the background consists of shrubbery and chain-link fencing. The dominant hues, including various green and brown shades of vegetation and soil, are neutral muted. Views of the site are largely obstructed by intervening vegetation and development.

SCENIC RESOURCES

The designation of scenic roads and highways is intended to promote and enhance the natural scenic beauty occurring along portions of county and state highways. The rural areas of the County have many scenic attributes that contribute to the pleasure of driving through them, including the volcanic Morros between San Luis Obispo and Morro Bay, agricultural features, ocean views, mountain landscapes, and unique geologic features (San Luis Obispo County 2015: 5-8). SR 1, located directly west of the campus, is both a designated state scenic highway and an all-American road in the National Scenic Byway system (Caltrans 2022b). Each of these designations indicates a high degree of scenic quality within the highway's view corridor. US 101 is identified by Caltrans as an eligible state scenic highway – not officially designated. In addition, the County has designated US 101 as a scenic corridor and has adopted Highway Corridor Design Standards to address development along the highway (San Luis Obispo County 2010: 9.3, 9.14). The City has also identified portions of both SR 1 and US 101 in the northern portion of the City as scenic roadways. The City also has designated California Boulevard, which borders the proposed lower lift station, and Foothill Boulevard as scenic roadways (City of San Luis Obispo 2014: 6-62).

Source: Photograph taken by Ascent Environmental in 2022.

Viewpoint 3: Student Experimental Farm Looking Northeast toward WRF Site.

Source: Photograph taken by Ascent Environmental in 2022.

Viewpoint 4: Agricultural Area East of Cal Poly's Lower Sports Field Looking East toward Upper Lift Station Site.

Figure 3.2-2b Representative Photographs

Source: Photograph taken by Cal Poly in 2022

Viewpoint 5: Developed Area outside Cal Poly's Collaborative Agent Design Research Center Looking Northeast toward Lower Lift Station Site.

Figure 3.2-2c. Representative Photographs

LIGHT AND GLARE CONDITIONS

Night lighting includes streetlights, interior and exterior building lights, and automobile headlights. Glare is caused by light reflections from pavement; vehicles; and building materials, such as reflective glass and polished surfaces. During daylight hours, the amount of glare depends on the intensity and direction of sunlight. Dominant sources of night lighting can cause a skyglow effect that can be visible from long-distance viewpoints and can reduce night sky visibility of stars (commonly referred to as dark sky concerns).

Natural and artificial light reflect off various surfaces and can create localized occurrences of daytime and nighttime glare. Buildings and structures made with glass, metal, and polished exterior roofing materials exist throughout the main campus.

Natural and artificial light reflects off various surfaces, including building materials, vehicles, and pavement, and can create localized occurrences of daytime and nighttime glare. Buildings and other structures made with glass, metal, and polished exterior roofing materials are located throughout the main campus and present highly reflective surfaces. During daylight hours, the amount of glare depends on the intensity and direction of sunlight. Night lighting that can lead to occurrences of glare includes streetlights, interior and exterior building lights, and automobile headlights. In addition, dominant sources of night lighting can cause a skyglow effect that can be visible from long-distance viewpoints and can reduce nighttime visibility of stars (commonly referred to as dark sky concerns).

WRF and Reservoir

The vicinity of the proposed WRF and reservoir consists primarily of agricultural and open space areas that require little or no nighttime lighting and that have minimal sources of glare. However, the area surrounding the project site contains outdoor security lighting in several nearby locations that is visible from other parts of campus at night. The northwestern portion of the project site is undeveloped and does not contain light sources. Light sources in the vicinity

of the project site include lights from vehicles on SR 1 and from adjacent industrial uses (e.g., lights from the upper sports complex and Cal Poly rodeo to the east, the Cal Poly dairy unit to the south, the Poultry Science Instructional Center to the west, and the Swine Unit to the north). The most prominent sources of night lighting are field light standards used for illumination of recreation and athletic facilities. However, these light sources are not strong enough to illuminate the project site. The project site does not contain any facilities that generate noticeable sources of glare. The area surrounding the project site consists generally of rural and agricultural land uses, which generate modest skyglow associated primarily with nighttime security lighting. Because this part of the campus is not directly adjacent to residential neighborhoods, existing nighttime lighting does not extend or spill over to nearby neighborhoods

Lift Stations and Supporting Wastewater and Recycled Water Pipelines

In the vicinity of the proposed lift stations, existing sources of nighttime lighting include streetlights along roadways; lights in parking lots, along walkways, and on the exteriors of buildings; and interior lights in buildings. Avocado Pump Station 2 is located in the northwest area of campus in a rural setting and is isolated from any existing light sources. Locations of the proposed pipelines, including the influent force main and nonpotable/recycled water distribution lines, are illustrated in Figure 2-8. As shown in the figure, all proposed pipelines would traverse elements of campus.

3.2.3 Environmental Impacts and Mitigation Measures

METHODOLOGY

This section analyzes aesthetic impacts (those related to visual character, light, and glare) that would occur as a result of the proposed construction and operation of an on-campus WRF and recycled water storage and distribution system. The visual resource analysis is based on field surveys, existing planning documents, and focused review of the extent of land use and density change associated with the project. The analysis focuses on whether implementing the project would result in alteration of the visual characteristics of the area and/or view to such an extent that the scale or degree of alteration would appear as a substantial obvious and disharmonious modification of the overall visual character of the surrounding area. It is assumed that construction and operation of the project would comply with applicable CSU, Cal Poly, and other state policies, regulations, and procedures pertaining to development within the campus.

The following information, in combination with the thresholds below, was used to determine whether implementing the project would create adverse visual effects:

- visual features or resources that make up and define the visual character of the viewsheds (the physiographic areas composed of land, water, biotic, and cultural elements that may be viewed and mapped from one or more viewpoints and that have inherent scenic qualities and/or aesthetic values as determined by those who view them),
- quality of the identified visual resources relative to overall regional visual character, and
- major viewer groups and viewer exposure.

THRESHOLDS OF SIGNIFICANCE

An impact on aesthetics, light, and glare would be significant if implementation of the project would:

- have a substantial adverse effect on a scenic vista;
- damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway;
- in nonurbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings (public views are those that are experienced from publicly accessible vantage points) and from an urbanized area, conflict with applicable zoning and other regulations governing scenic quality; or
- create a new source of substantial light or glare which would adversely affect day or nighttime views in the area.

ISSUES NOT DISCUSSED FURTHER

All issues applicable to aesthetics listed under the significance thresholds above are addressed in this section.

ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

Because the project would affect only a portion of the Campus Master Plan area and the WRF project details and construction techniques have been further refined since adoption of the Campus Master Plan EIR, the mitigation measures identified herein were developed to apply specifically to the WRF project as it is currently proposed. However, these mitigation measures are substantially similar to those in the Campus Master Plan EIR. For reference, the mitigation measure number of the applicable Campus Master Plan EIR mitigation measure is included in parentheses after the project mitigation measure title.

The project would not conflict with any City or County General Plan policies or regulations identified in Section 3.2.1 related to aesthetics. Even if the project would potentially conflict with City or County General Plan policies, the impact would not be considered significant, because the CSU is not subject to local policies and regulations.

Impact 3.2-1: Result in a Substantial Adverse Effect on a Scenic Vista or Substantially Degrade the Existing Visual Character or Quality of Public Views of the Site and Its Surroundings

Construction of the WRF and recycled water storage reservoir and distribution system would be largely visually consistent and compatible with existing uses, facilities, and infrastructure in the surrounding area of the project site and would not be located in areas of high viewer sensitivity. A large proportion of proposed development would occur at or below the ground surface (including pipelines). In addition, although the lift stations, pump station, WRF, and berms associated with the recycled water storage reservoir would be erected aboveground and would be visible from elsewhere within the campus, they either would be screened from view with appropriate landscaping or would blend in with existing adjacent development. As a result, the project components would be minimally visible from other areas on campus and compatible with the existing visual quality and character of the surrounding area. Therefore, this impact would be **less than significant**.

Construction

Construction activities would occur for a period of approximately 22 months. During this time, construction activities for the WRF and recycled water storage reservoir could be visible to travelers along Mount Bishop Road and Sports Complex Road. In addition, construction of wastewater collection infrastructure, including lift stations and associated piping, would be visible from local roadways along which project components may be located. These roadways include Mount Bishop Road, California Boulevard, Campus Way, and Highland Drive. Avocado Pump Station 2 is located within the Cheda Ranch area of campus, a relatively remote and undeveloped rural part of the campus and is not visible to the public.

During the construction period, various types of construction equipment (e.g., backhoes, excavator, forklifts, graders, and pavers) would be present on-site. The equipment in use would vary depending on the location and component being constructed. The initial phases of construction of the WRF and reservoir would include site grading and excavation, utility trenching, and building foundation pouring. However, construction activities would become more perceptible as the construction period advances. During the building construction phase, construction activities would occur above ground level and impede some long-distance views. However, undulating land and existing vegetation should be tall enough to screen views of construction equipment and activities or prevent their impedance of long-distance views. In addition, the construction of the pipelines and lift stations would be minimally visible to motorists, pedestrians, and cyclists traveling along local roadways in the immediate vicinity of the construction activity.

Construction activities would be visible temporarily and would not permanently degrade existing visual characteristics. Therefore, project construction would not diminish the natural rural condition of long-distance views in the area, including views along SR 1 and US 101. This would not constitute a substantial adverse effect on scenic vistas. This impact would be **less than significant**.

Operation

The project would introduce a new WRF and recycled water storage reservoir, two new lift stations, and involve pipeline improvements. The proposed one-story WRF structure would be approximately 16,000 square feet in size and would house the treatment process facilities, an electrical room, a mechanical room, a laboratory, a classroom, and restrooms. Visually, it would resemble the agricultural facilities located nearby. The recycled water reservoir would be encompassed by earthen berms with a maximum height of 20 feet above grade. Both the proposed WRF and the reservoir would be visible from Sports Complex Road but otherwise, because of the intervening topography, buildings, and landscaping, would not be visible from most vantage points farther away. The proposed lift stations would include small aboveground control structures, but they would not exceed 10 feet in height, which would be equivalent to or lower than nearby existing development. Improvements at the existing Avocado Pump Station 2 would involve installation of two new 15,000-gallon aboveground recycled water/nonpotable water storage tanks up to 20 feet in height occupying approximately 500 square feet adjacent to the existing one-story building at the site. The collection infrastructure would be located below ground surface and would not be visible. Because of their small massing and limited stature, none of the project components would be considered prominent features in the local landscape. As a result, they would not represent a substantial adverse change from the current natural condition of long-distance views of and through the area. These proposed developments would be similar to existing uses and would be designed comparable to buildings located in the surrounding area. Therefore, operation of the project would not result in a substantial adverse effect on a scenic vista and would not substantially alter the visual quality and character of the site. This impact would be **less than significant**.

Mitigation Measures

No mitigation is required for this impact.

Impact 3.2-2: Damage Scenic Resources within a State Scenic Highway

The project site is located east of SR 1, a designated state scenic highway. Project development would not occur along SR 1, and visibility of these features would be limited by varied topography, existing development, and vegetation. Of the project components, the proposed WRF would be the most visible but would resemble in visual character and scale existing agricultural structures located nearby. Consequently, project development would not damage scenic resources within a state scenic highway. Therefore, this impact would be **less than significant**.

The proposed WRF and recycled water storage reservoir would be located approximately 0.5 mile east of SR 1, the nearest officially designated state scenic highway, and approximately 1.6 miles northwest of US 101, the nearest eligible state scenic highway – not officially designated. The upper lift station and lower lift station would be located approximately 0.5 mile and 0.3 mile east of SR 1, respectively. Avocado Pump Station 2 is located approximately 0.25 mile northeast of SR 1 and 2.25 miles northwest of US 101, and it is entirely hidden from SR 1 by the intervening hillside. Although installation of the WRF, recycled water storage reservoir, and lift stations would result in permanent aboveground features, the varied topography and existing development and vegetation between SR 1 and proposed aboveground project features would shield these features entirely from view. In addition, the aboveground project features would not be visible to motorists traveling along US 101. As a result, the project would not adversely affect scenic resources, including views from Viewpoints 1–5, described in the "Environmental Setting" section. Furthermore, these features would appear similar to existing uses and would be designed to preserve views of the surrounding area. Therefore, project development would not damage scenic resources within a state scenic highway, and this impact would be **less than significant**.

Mitigation Measures

No mitigation is required for this impact.

Impact 3.2-3: Create a New Source of Substantial Light or Glare Which Would Adversely Affect Day or Nighttime Views

Implementation of the project would introduce new sources of light and glare associated with new buildings and facilities and would contribute to degradation of the visual character and quality of public views. Such lighting could contribute to indirect lighting/glare on adjacent land uses that could adversely affect daytime or nighttime views and result in additional skyglow. This impact would be **significant**.

All construction activities would occur during the day and as a result would not require additional temporary lighting during construction.

The WRF and recycled water storage reservoir location consists primarily of agricultural uses and has limited sources of light and glare. New development in this area would increase the number of campus facilities and create new sources of light and glare. The WRF would be located within a low-lying area of the West Campus. The WRF and recycled water storage reservoir would require minimal security lighting during the nighttime hours, including for any nighttime operation and maintenance activities. Because of their location and height following completion of development, these facilities would not be considered substantial sources of light or glare. However, because of the relatively low level of nighttime lighting currently present in the vicinity of these facilities, viewers may be sensitive to any increases in campus-generated light. The two new lift stations, which would include belowground and aboveground components, and the Avocado Pump Station 2 improvements would require installation of permanent lighting to support nighttime operations and maintenance activities. The lower lift station site is located adjacent to existing development and roadways where nighttime lighting already exists. The upper lift station site is located adjacent to an existing roadway and across the street from development that also has existing nighttime lighting. The existing Avocado Pump Station 2 is located in a relatively remote and rural part of the campus and out of view from existing development.

Because of their locations and the minimal exterior lighting that would be used following construction, the proposed lift stations and the pump station improvements would not be substantial sources of light or glare. Nonetheless, because of the potential sensitivity (including from on-campus locations) to additional lighting at the site of the proposed WRF and recycled water storage reservoir, this impact would be **significant**.

Mitigation Measures

The following adopted mitigation measures from the Campus Master Plan EIR would be applicable to the project:

Mitigation Measure 3.2-3a: Use Nonreflective Materials on Building Surfaces (Campus Master Plan EIR Mitigation Measure 3.1-3a)

Cal Poly shall require the use of nonreflective exterior surfaces and nonreflective (mirrored) glass for all new or redeveloped structures.

Mitigation Measure 3.2-3b: Use Directional Lighting for Campus Development (Campus Master Plan EIR Mitigation Measure 3.1-3c)

Cal Poly shall require all new, permanent outdoor lighting fixtures to utilize directional lighting methods (e.g., shielding and/or cutoff-type light fixtures) to minimize glare and light spillover onto adjacent structures. In addition, light placement and orientation shall also be considered such that light spillover is reduced at nearby land uses, to the extent feasible. Verification of inclusion in project design shall be provided at the time of design review.

Significance after Mitigation

Implementation of Mitigation Measures 3.2-3a and 3.2-3b would require the use of nonreflective surfaces and directional lighting with shielded and cutoff-type light fixtures that would minimize light spillage and skyglow. As noted above, the potential for glare impacts with implementation of the project would be minimal because of the location of the project and intervening topography and the location of most of the project components belowground. Therefore, with mitigation, the light and glare effects of the project would be minimized, and this impact would be reduced to **less than significant**.

3.3 ARCHAEOLOGICAL, HISTORICAL, AND TRIBAL CULTURAL RESOURCES

This section analyzes and evaluates the potential impacts of the project on known and unknown cultural resources. Cultural resources include districts, sites, buildings, structures, or objects generally older than 50 years and considered to be important to a culture, subculture, or community for scientific, traditional, religious, or other reasons. They include precontact resources, historic-era resources, and "tribal cultural resources" (the latter as defined by Assembly Bill (AB) 52, Statutes of 2014, in CEQA Section 21074).

Archaeological resources are locations where human activity has measurably altered the earth or left deposits of precontact or historic-era physical remains (e.g., stone tools, bottles, former roads, house foundations). Historical (or built-environment) resources include standing buildings (e.g., houses, barns, outbuildings, cabins) and intact structures (e.g., dams, bridges, roads, districts), or landscapes. A cultural landscape is defined as a geographic area (including both cultural and natural resources and the wildlife therein) associated with a historic event, activity, or person or exhibiting other cultural or aesthetic values. Tribal cultural resources are sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a tribe.

One comment letter regarding cultural resources was received in response to the Notice of Preparation (see Appendix A). The Native American Heritage Commission (NAHC) requested AB 52 and Senate Bill (SB) 18 compliance information. AB 52 compliance is described below; however, SB 18 does not apply to the project, because a general plan amendment, which is the trigger for SB 18 compliance, is not associated with the project.

3.3.1 Regulatory Setting

FEDERAL

National Register of Historic Places

The National Register of Historic Places (NRHP) is the nation's master inventory of known historic properties. It is administered by the National Park Service and includes listings of buildings, structures, sites, objects, and districts that possess historic, architectural, engineering, archaeological, or cultural significance at the national, state, or local level.

The formal criteria (36 CFR 60.4) for determining NRHP eligibility are as follows, and all must be met for a property to be determined eligible:

1. The property is at least 50 years old (however, properties under 50 years of age that are of exceptional importance or are contributors to a district can also be included in the NRHP).
2. It retains integrity of location, design, setting, materials, workmanship, feeling, and associations.
3. It possesses at least one of the following characteristics:

   Criterion A Is associated with events that have made a significant contribution to the broad patterns of history (events).

   Criterion B Is associated with the lives of persons significant in the past (persons).

   Criterion C Embodies the distinctive characteristics of a type, period, or method of construction, or represents the work of a master, or possesses high artistic values, or represents a significant, distinguishable entity whose components may lack individual distinction (architecture).

   Criterion D Has yielded, or may be likely to yield, information important in prehistory or history (information potential).

For a property to retain and convey historic integrity, it must possess most of the seven aspects of integrity: location, design, setting, materials, workmanship, feeling, and association. Location is the place where the historic property was constructed or the place where a historic event occurred. Integrity of location refers to whether the property has been moved since its construction. Design is the combination of elements that create the form, plan, space, structure, and style of a property. Setting is the physical environment of a historic property that illustrates the character of the place. Materials are the physical elements that were combined or deposited during a particular period and in a particular pattern or configuration to form a historic property. Workmanship is the physical evidence of the crafts of a particular culture or people during any given period in history or prehistory. Feeling is a property's expression of the aesthetic or historic sense of a particular period. This is an intangible quality evoked by physical features that reflect a sense of a past time and place. Association is the direct link between the important historic event or person and a historic property. Continuation of historic use and occupation help maintain integrity of association.

Listing in the NRHP does not entail specific protection or assistance for a property, but it does guarantee consideration in planning for federal or federally assisted projects, eligibility for federal tax benefits, and qualification for federal historic preservation assistance. In addition, project effects on properties listed in the NRHP must be evaluated under CEQA.

The *National Register Bulletin* series was developed to assist evaluators in the application of NRHP criteria. For example, *National Register Bulletin* #36 provides guidance in the evaluation of archaeological site significance. If a property cannot be placed within a particular theme or time period, and thereby lacks "focus," it will be unlikely to possess characteristics that would make it eligible for listing in the NRHP. Evaluation standards for linear features (such as roads, trails, fence lines, railroads, ditches, and flumes) are considered in terms of four related criteria that account for specific elements that define engineering and construction methods of linear features: (1) size and length, (2) presence of distinctive engineering features and associated properties, (3) structural integrity, and (4) setting. The highest probability for NRHP eligibility exists in the intact, longer segments, where multiple criteria coincide.

STATE

California Register of Historical Resources

All properties in California that are listed in or formally determined eligible for listing in the NRHP are also listed in the California Register of Historical Resources (CRHR). The CRHR is a listing of State of California resources that are significant in the context of California's history. It is a statewide program with a scope and with criteria for inclusion similar to those used for the NRHP. In addition, properties designated under municipal or county ordinances are also eligible for listing in the CRHR.

A historical resource must be significant at the local, state, or national level under one or more of the criteria defined in CCR Title 15, Chapter 11.5, Section 4850 to be included in the CRHR. The CRHR criteria are tied to CEQA because any resource that meets the criteria below is considered a significant historical resource under CEQA. As noted above, all resources listed in or formally determined eligible for listing in the NRHP are automatically listed in the CRHR.

The CRHR uses four evaluation criteria:

Criterion 1. Is associated with events that have made a significant contribution to the broad patterns of local or regional history, or the cultural heritage of California or the United States.

Criterion 2. Is associated with the lives of persons important to local, California, or national history.

Criterion 3. Embodies the distinctive characteristics of a type, period, region, or method of construction; represents the work of a master; or possesses high artistic values.

Criterion 4. Has yielded, or has the potential to yield, information important to the prehistory or history of the local area, California or the nation.

Similar to the NRHP, a historical resource must meet one of the above criteria and retain integrity to be listed in the CRHR. The CRHR uses the same seven aspects of integrity used by the NRHP.

California Environmental Quality Act

CEQA requires public agencies to consider the effects of their actions on "historical resources," "unique archaeological resources," and "tribal cultural resources." Pursuant to CEQA Section 21084.1, a "project that may cause a substantial adverse change in the significance of an historical resource is a project that may have a significant effect on the environment." Section 21083.2 requires agencies to determine whether projects would have effects on unique archaeological resources. CEQA Section 21084.2 establishes that "[a] project with an effect that may cause a substantial adverse change in the significance of a tribal cultural resource is a project that may have a significant effect on the environment."

Historical Resources

"Historical resource" is a term with a defined statutory meaning (CEQA Section 21084.1; State CEQA Guidelines Section 15064.5[a] and [b]). Under State CEQA Guidelines Section 15064.5(a), historical resources are defined as follows:

1) A resource listed in, or determined to be eligible by the State Historical Resources Commission for listing in, the CRHR (PRC Section 5024.1) is considered to be a historical resource.

2) A resource included in a local register of historical resources, as defined in PRC Section 5020.1(k) or identified as significant in a historical resource survey meeting the requirements of PRC Section 5024.1(g), will be presumed to be historically or culturally significant. Public agencies must treat any such resource as significant unless the preponderance of evidence demonstrates that it is not historically or culturally significant.

3) Any object, building, structure, site, area, place, record, or manuscript that a lead agency determines to be historically significant or significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, military, or cultural annals of California may be considered to be a historical resource, provided the lead agency's determination is supported by substantial evidence in light of the whole record. Generally, a resource will be considered by the lead agency to be historically significant if the resource meets the criteria for listing in the CRHR (PRC Section 5024.1).

4) The fact that a resource is not listed in or determined to be eligible for listing in the CRHR, not included in a local register of historical resources (pursuant to PRC Section 5020.1[k]), or identified in a historical resources survey (meeting the criteria in PRC Section 5024.1[g]) does not preclude a lead agency from determining that the resource may be a historical resource as defined in PRC Sections 5020.1(j) or 5024.1.

Unique Archaeological Resources

CEQA also requires lead agencies to consider whether projects would affect unique archaeological resources. CEQA Section 21083.2(g) states that "unique archaeological resource" means an archaeological artifact, object, or site about which it can be clearly demonstrated that, without merely adding to the current body of knowledge, there is a high probability that it meets one or more of the following criteria:

1. Contains information needed to answer important scientific research questions and there is a demonstrable public interest in that information.
2. Has a special and particular quality such as being the oldest of its type or the best available example of its type.
3. Is directly associated with a scientifically recognized important prehistoric or historic event or person.

Tribal Cultural Resources

CEQA also requires lead agencies to consider whether projects would affect tribal cultural resources. CEQA Section 21074 states:

a) "Tribal cultural resources" are either of the following:

   1) Sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a California Native American tribe that are either of the following:

      A) Included or determined to be eligible for inclusion in the California Register of Historical Resources.

      B) Included in a local register of historical resources as defined in subdivision (k) of Section 5020.1.

2) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Section 5024.1. In applying the criteria set forth in subdivision (c) of Section 5024.1 for the purposes of this paragraph, the lead agency shall consider the significance of the resource to a California Native American tribe.

b) A cultural landscape that meets the criteria of subdivision (a) is a tribal cultural resource to the extent that the landscape is geographically defined in terms of the size and scope of the landscape.

c) A historical resource described in Section 21084.1, a unique archaeological resource as defined in subdivision (g) of Section 21083.2, or a "nonunique archaeological resource" as defined in subdivision (h) of Section 21083.2 may also be a tribal cultural resource if it conforms with the criteria of subdivision (a).

CEQA Section 21083.2

Treatment options under CEQA Section 21083.2(b) to mitigate impacts on archaeological resources include activities that preserve such resources in place in an undisturbed state. CEQA Section 21083.2 states:

(a) As part of the determination made pursuant to Section 21080.1, the lead agency shall determine whether the project may have a significant effect on archaeological resources. If the lead agency determines that the project may have a significant effect on unique archaeological resources, the environmental impact report shall address the issue of those resources. An environmental impact report, if otherwise necessary, shall not address the issue of nonunique archaeological resources. A negative declaration shall be issued with respect to a project if, but for the issue of nonunique archaeological resources, the negative declaration would be otherwise issued.

(b) If it can be demonstrated that a project will cause damage to a unique archaeological resource, the lead agency may require reasonable efforts to be made to permit any or all of these resources to be preserved in place or left in an undisturbed state. Examples of that treatment, in no order of preference, may include, but are not limited to, any of the following:

(1) Planning construction to avoid archaeological sites.

(2) Deeding archaeological sites into permanent conservation easements.

(3) Capping or covering archaeological sites with a layer of soil before building on the sites.

(4) Planning parks, greenspace, or other open space to incorporate archaeological sites.

(c) To the extent that unique archaeological resources are not preserved in place or not left in an undisturbed state, mitigation measures shall be required as provided in this subdivision.

(d) Excavation as mitigation shall be restricted to those parts of the unique archaeological resource that would be damaged or destroyed by the project.

(e) In no event shall the amount paid by a project applicant for mitigation measures required pursuant to subdivision (c) exceed the following amounts:

(1) An amount equal to one-half of 1 percent of the projected cost of the project for mitigation measures undertaken within the site boundaries of a commercial or industrial project.

(2) An amount equal to three-fourths of 1 percent of the projected cost of the project for mitigation measures undertaken within the site boundaries of a housing project consisting of a single unit.

(3) If a housing project consists of more than a single unit, an amount equal to three-fourths of 1 percent of the projected cost of the project for mitigation measures undertaken within the site boundaries of the project for the first unit plus the sum of the following:

(A) Two hundred dollars ($200) per unit for any of the next 99 units.
(B) One hundred fifty dollars ($150) per unit for any of the next 400 units.
(C) One hundred dollars ($100) per unit in excess of 500 units.

(f) Unless special or unusual circumstances warrant an exception, the field excavation phase of an approved mitigation plan shall be completed within 90 days after final approval necessary to implement the physical development of the project or, if a phased project, in connection with the phased portion to which the specific mitigation measures are applicable. However, the project applicant may extend that period if he or she so elects. Nothing in this section shall nullify protections for Indian cemeteries under any other provision of law.

CEQA Section 21080.3

AB 52, signed by the California governor in September 2014, established a new class of resources under CEQA: "tribal cultural resources," defined in CEQA Section 21074. Pursuant to CEQA Sections 21080.3.1, 21080.3.2, and 21082.3, lead agencies undertaking CEQA review must, upon written request of a California Native American tribe, begin consultation before the release of an EIR, negative declaration, or mitigated negative declaration. CEQA Section 21080.3.2 states:

> Within 14 days of determining that a project application is complete, or to undertake a project, the lead agency must provide formal notification, in writing, to the tribes that have requested notification of proposed projects in the lead agency's jurisdiction. If it wishes to engage in consultation on the project, the tribe must respond to the lead agency within 30 days of receipt of the formal notification. The lead agency must begin the consultation process with the tribes that have requested consultation within 30 days of receiving the request for consultation. Consultation concludes when either: 1) the parties agree to measures to mitigate or avoid a significant effect, if a significant effect exists, on a tribal cultural resource, or 2) a party, acting in good faith and after reasonable effort, concludes that mutual agreement cannot be reached.

Health and Safety Code Section 7050.5

Section 7050.5(b) of the California Health and Safety Code specifies protocol when human remains are discovered. The code states:

> In the event of discovery or recognition of any human remains in any location other than a dedicated cemetery, there shall be no further excavation or disturbance of the site or any nearby area reasonably suspected to overlie adjacent remains until the coroner of the county in which the human remains are discovered has determined, in accordance with Chapter 10 (commencing with Section 27460) of Part 3 of Division 2 of Title 3 of the Government Code, that the remains are not subject to the provisions of Section 27492 of the Government Code or any other related provisions of law concerning investigation of the circumstances, manner and cause of death, and the recommendations concerning treatment and disposition of the human remains have been made to the person responsible for the excavation, or to his or her authorized representative, in the manner provided in Section 5097.98 of the Public Resources Code.

California Native American Historical, Cultural, and Sacred Sites Act

The California Native American Historical, Cultural, and Sacred Sites Act applies to both state and private lands. The act requires that upon discovery of human remains, construction or excavation activity cease and that the county coroner be notified. If the remains are of a Native American, the coroner must notify the NAHC. The NAHC then notifies those persons most likely to be descended from the Native American whose remains were discovered. The act stipulates the procedures the descendants may follow for treating or disposing of the remains and associated grave goods. The descendants may, with the permission of private landowners, inspect the site and recommend to the owner or the person responsible for the excavation means for treating or disposing of the remains and associated grave goods. The descendants must complete their inspection and make recommendations within 24 hours of their notification by the NAHC. The recommendation may include scientific removal and nondestructive analysis.

Public Resources Code Section 5097

PRC Section 5097 specifies the procedures to be followed in the event of the unexpected discovery of human remains on nonfederal land. The disposition of a Native American burial falls within the jurisdiction of the NAHC. Section 5097.5 of the code states:

> No person shall knowingly and willfully excavate upon, or remove, destroy, injure, or deface any historic or prehistoric ruins, burial grounds, archaeological or vertebrate paleontological site, including fossilized footprints, inscriptions made by human agency, or any other archaeological, paleontological or historical feature, situated on public lands, except with the express permission of the public agency having jurisdiction over such lands. Violation of this section is a misdemeanor.

LOCAL

Cal Poly is part of the CSU, which is a statutorily and legislatively created, constitutionally authorized state entity. As explained in the "California State University Autonomy" section in Section 3.1, "Approach to the Environmental Analysis," of this EIR, the CSU is not subject to local government planning and land use plans, policies, or regulations. Nevertheless, in the exercise of its discretion, Cal Poly does reference, describe, and address local plans, policies, and regulations where appropriate and for informational purposes. This evaluation is also intended to be used by local agencies for determining, as part of their permit processes, the project's consistency with local plans, policies, and regulations.

San Luis Obispo County General Plan

The San Luis Obispo County General Plan Cultural Resources Element contains the following policies, which are relevant to the project (San Luis Obispo County 2010):

- **Policy CR 4.1: Non-Development Activities.** Discourage or avoid non-development activities that could damage or destroy Native American and archaeological sites, including off-road vehicle use on or adjacent to known sites. Prohibit unauthorized collection of artifacts.
- **Policy CR 4.2: Protection of Native American Cultural Sites.** Ensure protection of archaeological sites that are culturally significant to Native Americans, even if they have lost their scientific or archaeological integrity through previous disturbance. Protect sites that have religious or spiritual value, even if no artifacts are present. Protect sites that contain artifacts, which may have intrinsic value, even though their archaeological context has been disturbed.
- **Policy CR 4.3: Cultural Resources and Open Space.** The County supports the concept of cultural landscapes and the protection and preservation of archaeological or historical resources as open space or parkland on public or private lands.
- **Policy CR 4.4: Development Activities and Archaeological Sites.** Protect archaeological and culturally sensitive sites from the effects of development by avoiding disturbance where feasible. Avoid archaeological resources as the primary method of protection.
- **Policy CR 4.6: Resources-Based Sensitivity.** Protect archaeological resources near streams, springs and water sources, rock outcrops, and significant ridgetops, as these are often indicators of the presence of cultural resources.

City of San Luis Obispo General Plan

The City of San Luis Obispo General Plan Conservation and Open Space Element contains the following policies that are relevant to the project (City of San Luis Obispo 2014):

- **Policy 3.3.1: Historic Preservation.** Significant historic and architectural resources should be identified, preserved, and rehabilitated.
- **Policy 3.3.3: Historical Documentation.** Buildings and other cultural features that are not historically significant, but which have historical or architectural value should be preserved or relocated where feasible. Where preservation or relocation is not feasible, the resources shall be documented and the information retained in a secure but publicly accessible location. An acknowledgement of the resources should be incorporated within the site through historic signage and the reuse or display of historic material and artifacts.

- Policy 3.5.1: Archaeological Resource Protection. The City shall provide for the protection of both known and potential archaeological resources. To avoid significant damage to important archaeological sites, all available measures, including purchase of the property in fee or easement, shall be explored at the time of a development proposal. Where such measures are not feasible and development would adversely affect identified archaeological or paleontological resources, mitigation shall be required pursuant to the Archaeological Resource Preservation Program Guidelines.
- Policy 3.5.2: Native American Sites. All Native American cultural and archaeological sites shall be protected as open space wherever possible.
- Policy 3.5.3: Non-Development Activities. Activities other than development which could damage or destroy archaeological sites, including off-road vehicle use on or adjacent to known sites, or unauthorized collection of artifacts, shall be prohibited.
- Policy 3.5.4: Archaeological Sensitive Areas. Development within an archaeologically sensitive area shall require a preliminary site survey by a qualified archaeologist knowledgeable in Native American cultures, prior to a determination of the potential environmental impacts of the project.
- Policy 3.5.5: Archaeological Resources Present. Where a preliminary site survey finds substantial archaeological resources, before permitting construction, the City shall require a mitigation plan to protect the resources. Possible mitigation measures include: presence of a qualified professional during initial grading or trenching; project redesign; covering with a layer of fill; excavation removal and curation in an appropriate facility under the direction of a qualified professional.
- Policy 3.5.6: Qualified Archaeologist Present. Where substantial archaeological resources are discovered during construction or grading activities, all such activities in the immediate area of the find shall cease until a qualified archaeologist knowledgeable in Native American cultures can determine the significance of the resource and recommend alternative mitigation measures.
- Policy 3.5.7: Native American Participation. Native American participation shall be included in the City's Guidelines for resource assessment and impact mitigation. Native American representatives should be present during archaeological excavation and during construction in an area likely to contain cultural resources. The Native American community shall be consulted as knowledge of cultural resources expands and as the City considered updates or significant changes to its General Plan.

3.3.2 Environmental Setting

This section is based on the technical report prepared for the project, *Cultural Resources Inventory and Project Effects Assessment for the Cal Poly Water Reclamation Facility Project, San Luis Obispo County, California* (NIC 2022).

REGIONAL PREHISTORY

The project site is located on the Central Coast, which is defined as the area extending from the northern edge of Southern California Bight up to the southern area of San Francisco Bay. The prehistoric cultural sequence for the Central Coast archaeological region has six periods, with dates calibrated (cal) to convert raw radiocarbon years to calendrical dates: Paleo-Indian (ca. 11,000–8000 cal before common era [B.C.E.]), Millingstone/Early Archaic (8000–3500 cal B.C.E.), Early (3500–600 cal B.C.E.), Middle (600 cal B.C.E. to cal C.E. 1000), Middle-Late Transition (cal C.E. 1000–1250), and Late (cal C.E. 1250 to historic contact).

Paleo-Indian Period (ca. 11,000–8000 cal B.C.E.)

Occupation of California's Central Coast region is estimated to have occurred as early as the terminal Pleistocene/early Holocene, or about 10,000 years ago, when sea levels were some 15–20 meters lower than today. Although there is evidence of occupation of the area during the early Holocene, only a few documented archaeological sites in the Central Coast region can be assigned to a period prior to about 6,000 years ago.

Some of the earliest evidence of human occupation in California has been uncovered in the Santa Barbara Channel region. The earliest accepted dates (approximately 11,000 cal B.C.E.) are from the Arlington Springs site and Daisy Cave on Santa Rosa and San Miguel Islands, respectively. On the mainland, the oldest known cultural deposits in coastal sites from this period indicate the economy was a diverse mixture of hunting and gathering, with a major emphasis on aquatic resources in many coastal areas, and on Pleistocene lakeshores in eastern California. Only a few isolated Clovis-like or Folsom-like fluted projectile points, diagnostic of the Paleo-Indian Period, have been found in southern California. These include one from the Santa Barbara Channel coastal area and two from inland San Luis Obispo County, one from Nipomo and one from near Santa Margarita.

Millingstone/Early Archaic Period (8000–3500 cal B.C.E.)

The Millingstone Period is characterized by an ecological adaptation to collecting, as suggested by the appearance and abundance of well-made milling implements (e.g., handstones, milling slabs). Millingstones occur in large numbers for the first time in the region's archaeological record during this period and are even more numerous near the end of this period. The Millingstone Period is also defined by large, simple core and flake tools and large side-notched projectile points. As testified by their toolkits and shell middens in coastal sites, people during this period practiced a mixed food procurement strategy, exploiting shellfish, fish, birds, and mammals. Subsistence patterns varied somewhat as groups became better adapted to their regional or local environments.

Millingstone Period sites are common in both coastal and inland settings in central and southern coastal California, dating as early as 8,500 years ago. Along central coast areas, Millingstone Period sites are common on terraces and knolls, typically set back from the current coastline. The larger sites usually contain extensive midden deposits, possible subterranean house pits, and cemeteries. Most of these sites probably reflect intermittent use over many years of local cultural habitation and resource exploitation. Typical Millingstone Period tools are not common on contemporaneous Channel Island sites, possibly reflecting an alternate, insular resource exploitation.

Early Period (3500–600 cal B.C.E.)

There is an extensive series of shoreline midden deposits in the Central Coast region from the Early Period, signifying an increase in occupation of the open coast. Sites dating to this period are characterized by lithic artifact assemblages that include Central Coast Stemmed Series and side-notched projectile points. The material culture recovered from Early Period sites in this region provides evidence for continued exploitation of inland plant and coastal marine resources. Artifacts include milling slabs and handstones plus mortars and pestles, which were used for processing a variety of plant resources. Bipointed bone gorge hooks were used for fishing. Assemblages also include a suite of *Olivella* beads, bone tools, and pendants made from talc schist, plus abalone square beads at some sites. Shell beads and obsidian are hallmarks of the trade and exchange networks that flourished on the central and southern California coasts. The archaeological record indicates there was a substantial increase in the abundance of obsidian at Early Period sites in the Monterey Bay and San Luis Obispo areas.

Middle Period (600 cal B.C.E. to cal C.E. 1000)

There was a pronounced trend toward greater adaptation to regional or local resources during the Middle Period. The remains of fish, land mammals, and sea mammals, for example, are increasingly abundant and diverse in sites along the coast. Related chipped stone tools suitable for hunting are more abundant and diversified, and shell fishhooks became part of the toolkit during this period. Larger knives, a variety of flake scrapers, and drill-like implements are common during this period. Projectile points include large side-notched, stemmed, and lanceolate or leaf-shaped forms. Bone tools, including awls, are more numerous than in the preceding period, and the use of asphaltum adhesive became common.

A seasonal round settlement pattern was still followed, but large, permanently occupied settlements, particularly in coastal areas, appear to have been the norm by the end of the Middle Period, with fairly common residential shell midden sites. A dietary focus on marine resources is consistent with the location of shoreline sites.

Middle-Late Transition Period (cal C.E. 1000–1250)

The Middle-Late Transition Period is marked by relative instability and change, with major changes in diet, settlement patterns, and interregional exchange. The relatively ubiquitous Middle Period residential shell midden sites found in this region were abandoned by the end of the Middle-Late Transition Period, so most Middle-Late Transition and Late Period sites were first occupied during those periods. Dry conditions during the Medieval Climatic Anomaly may be related to the abandonment of the coastal shell mound villages as primary residential locations. Settlement strategies were apparently reorganized and focused on a dispersed pattern, with the establishment of both coastal and interior habitation areas, coinciding with the exploitation of seasonally available resources.

Late Period (cal C.E. 1250 to Historic Contact)

Late Period sites are characterized by small, finely worked projectile points, such as Cottonwood and Desert Side-notched, associated with bow and arrow technology and by temporally diagnostic shell beads. Common material culture items also include bifacial bead drills, bedrock mortars in the inland valleys, hopper mortars, cupped *Olivella* shell beads, circular fishhooks, and steatite disk beads. The drills and bead-making debris suggest bead manufacture was widespread, albeit at a reduced level compared to the preceding periods. The end of the Late Period is recognized by the close of the 18th century, when the Spanish mission system had its greatest effect on native Californian populations.

ETHNOGRAPHY

The project site is in the traditional lands inhabited by both the Northern Chumash and Salinan tribes (Grant 1978a, cited in Natural Investigations Company 2022; Greenwood 1978, cited in Natural Investigations Company 2022; Hester 1978; King 1984, cited in Natural Investigations Company 2022; Kroeber 1925, cited in Natural Investigations Company 2022 and Dunton, pers. comm., 2023).

The Northern Chumash, who resided on the land that stretched along the coast between Ragged Point and Pismo Beach and some 15–20 miles inland to the Coast Ranges (generally along the Santa Lucia and San Rafael Ranges), encompassing much of present-day San Luis Obispo County. Contemporary descendants of the indigenous people of San Luis Obispo County identify themselves as the "People of the Full Moon," *yak titᵛu titᵛu yak tiłhini*, and Northern Chumash Tribe. "*Ti*łhini, or "The Place of the Full Moon," is the tribe's cultural capital, a center that draws the people together for gathering, trading, and cultural celebrations; it is located in modern-day San Luis Obispo.

The name "Chumash" is derived from a Native American word for the people living on Santa Cruz Island, and it is applied to the entire group of societies occupying the island and the coastal and near-coastal regions between San Luis Obispo and northwestern Los Angeles County. The Chumash spoke six closely related Chumashan languages, which are divided into three branches: Northern Chumash (consisting only of Obispeño), Central Chumash (Purisimeño, Ineseño, Barbareño, and Ventureño), and Island Chumash (Golla 2007:80-81, cited in Natural Investigations Company 2022).

The first contact the Chumash had with European explorers occurred in 1542 (Grant 1978b:518-519). Over 200 years later, the Spaniards and Franciscan order established the first of five missions in Chumash territory in 1772 at Mission San Luis Obispo de Tolosa in Obispeño lands along San Luis Obispo Creek. The early accounts describe settlement along the Santa Barbara Channel coast as heavily populated. Estimates of total Chumash population for the initial contact period vary from 8,000–10,000 (Kroeber 1925:551, cited in Natural Investigations Company 2022) to 18,000–22,000 (Cook and Heizer 1965:21, cited in Natural Investigations Company 2022).

Permanent Chumash villages included hemispherical dwellings covered by grass or tule mats and arranged in close groups. Chumash societies, including the Obispeño, were stratified, with a headman or chief and upper, middle, and lower classes (Greenwood 1978:523, cited in Natural Investigations Company 2022; McCall and Perry 1986:40, cited in Natural Investigations Company 2022). The chief's house was often the largest because of his larger household and hospitality duties. The villages also contained storehouses, one or more subterranean sweat lodges, and a semicircular dance ground and associated sacred ceremonial enclosure, with a nearby game field surrounded by low walls (McCall and Perry 1986:18-19, cited in Natural Investigations Company 2022). Each Chumash village had a formal

cemetery, generally separate from the village proper. Ethnographic records indicate that cemeteries were marked by tall painted poles and frequently had an entrance area where ceremonies were performed. Stone, wood, or bone markers identified burial sites in the cemetery. Occasionally, individual burials were marked by painted boards; the markings indicated the occupation or clan of the deceased (Gamble et al. 2001:191; Greenwood 1978:523, cited in Natural Investigations Company 2022). Northern Chumash material culture included items often found with burials, such as whistles made from bird or coyote bone, quartz crystals, charmstones, and incised stone tablets (Greenwood 1978:522-523, cited in Natural Investigations Company 2022). Rock art sites are also found in their territory, away from the coast and from villages.

Northern Chumash lands were characterized by narrow coastal terraces with a rocky outer shore swept by wind and fog. The area had an abundance of coldwater and warmwater marine and riverine resources. The Northern Chumash consumed a variety of wild plant foods, sea and land mammals, fish, birds, and mollusks. Traps, poles, nets, and hook and line were used to capture the abundant resources that were concentrated in tidal pools and shallow waters (Greenwood 1978:521-522, cited in Natural Investigations Company 2022). Some records refer to balsa canoe use; because of the local conditions north of Point Conception, the seagoing plank canoe (*tomol*) constructed by Barbareño Chumash, who lived along the Santa Barbara Channel, was not used by the Northern Chumash (Glassow et al. 2007:208, cited in Natural Investigations Company 2022; Grant 1978b:514; Greenwood 1978:521-522, cited in Natural Investigations Company 2022). Similar to other Chumash groups, the Obispeño used a variety of baskets and milling implements to collect and process the foodstuffs. They also used bows and arrows, traps, snares, and throwing sticks to capture terrestrial animals and birds.

Island and mainland Chumash villages were linked to each other and to neighboring groups by a well-developed regional exchange system (Grant 1978b:517, cited in Natural Investigations Company 2022; Greenwood 1978:522-523, cited in Natural Investigations Company 2022). Shell bead money, which was mass-produced by the Northern Channel Islands Chumash from the inner callus of purple *Olivella biplicata* shell, facilitated this exchange system (Glassow 1996, cited in Natural Investigations Company 2022; Glassow et al. 2007:207, cited in Natural Investigations Company 2022). Chumash traded basketry, steatite, bone tools, toolstone and milling implements, plus a variety of foodstuffs such as fish and acorns, for obsidian, pigments, salt, animal skins, and pine nuts, among other items, from neighboring groups. This widespread exchange system included the Tataviam (Allikilik) of the Santa Clarita area, the Gabrielino (Tongva) in the Los Angeles Basin to the south, the Yokuts to the northeast in the San Joaquin Valley, and the Kitanemuk of the western Mojave Desert to the east. Trade with the Salinan to the north appears to have been rather limited because intergroup relations were more hostile (Hester 1978:500). Scholars have argued that the introduction of the monetary system facilitated the further development of ascribed social status and wealth in some Chumash groups. At the time of historic contact, the Chumash and the neighboring Tongva had "the most complex political and economic organization in California, and, for that matter in all of western North America" (Glassow et al. 2007:210, cited in Natural Investigations Company 2022).

The Chumash population was decimated by the effects of disease, missionization, and Euro-American settlement. In 1928, according to records maintained by the US Bureau of Indian Affairs, only four indigenous people who traced their descent to Mission San Luis Obispo remained (Natural Investigations Company 2022). After secularization of the missions in 1834 during the Mexican Period, and continuing into the American Period, the traditional lifeways for surviving Chumash gave way to laborer jobs on ranches and farms.

The Santa Ynez Reservation was established in 1901 and is the only Chumash reservation for the native people who once occupied the region along the coast from San Luis Obispo to Malibu Canyon and inland to the western edge of the San Joaquin Valley. The reservation is located in the Santa Ynez Valley in inland Santa Barbara County near Mission Santa Inés (or Ynez), which was founded in 1804 near present-day Solvang. The Santa Ynez Band of Chumash Indians of the Santa Ynez Reservation is the only federally recognized Chumash tribe.

The semi-sedentary Salinan occupied a rugged, mountainous area on the south-central California coast (Kroeber 1925, cited in Dunton, pers. comm., 2023; Hester 1978). Heavily wooded hills and mountains of the South Coast Ranges dominated the interior, with sheer cliffs and rocky beaches along the Pacific coast. The Salinan territory includes Monterey and San Luis Obispo counties. In general, their lands included the area between the coast and approximately

50 miles inland, from near what is now known as the City of Salinas in the Salinas River Valley in the north and southward to the Santa Maria River, including San Luis Obispo and Morro Bay.

The Salinan language generally has been regarded as part of Hokan linguistic stock (Hester 1978:500; Shipley 1978:86), but more recent linguistic analysis indicates Salinan has no close relatives and no demonstrated connections to other languages (Mithun 2001:482). Mason (1918, cited in Dunton, pers. comm., 2023) recorded two Salinan dialects, northern (Antoniaño) and southern (Migueleño) divisions associated with the people administered by the Spanish from Mission San Antonio de Padua and Mission San Miguel, established in l771 and 1797, respectively. The Migueleño dialect was noted by J.P. Harrington (1912, cited in Dunton, pers. comm., 2023) as spoken as far south as Arroyo Grande and as far north as the coast of San Carpoforo. Neophytes at the Mission San Antonio included Salinan living along the coast, referred to as "Playanos" and believed to have a third distinct dialect (Harrington 1932: Reel 087, cited in Dunton, pers. comm., 2023).

Salinan villages were recorded near the missions and along internal drainages, with some habitation areas along the coast (Hester 1978:501). There are multiple accounts noted by various researchers (Henshaw 1880-1884, cited in Dunton, pers. comm., 2023; Harrington 1915, cited in Dunton, pers. comm., 2023; Mason 1918, cited in Dunton, pers. comm., 2023; Merriam 1934, cited in Dunton, pers. comm., 2023) that recount elders describing the Salinan's relationship with Morro Bay (El Morro) and Morro Rock.

Their subsistence economy was one of hunting and gathering. The surrounding environment was varied and rich, and they exploited the mountains, foothills, valleys, and coast. As with most native Californians, acorns were a staple food, supplemented by wild oats, sage seeds, berries, mescal, and wild fruits. Additional resources exploited by coastal and interior groups included large and small mammals such as deer, bear, and rabbits, as well as fish. The full extent of their villages is unknown, but Hester (1978:501) locates 21 from earlier records.

Salinan houses were domed, up to ten feet square, framed with poles and covered with tule or rye grass (Hester 1978:501). Other structures included birthing huts, dance houses, and semisubterranean sweathouses, among additional communal structures. Acorns were stored in willow-twig granaries. The Antoniaño group practiced cremation of their most distinguished individuals. Among the Migueleño, the deceased were wrapped in skins and their possessions burned.

A variety of tools and implements, some of which are inferred from the archaeological record in the area, were employed by Salinan groups (Hester 1978:501). These included bows and arrows, traps, nets, blinds, throwing stocks and slings, spears, harpoons, and hooks. Bone and shell tools included bone awls and C-shaped shell fishhooks. Foods were processed using stone mortars and pestles, metates, basket mortars, bedrock mortars, stone bowls, and wooden mortars. The Salinan also made a wide variety of baskets. Cooking baskets, as well as earth ovens, were used in food preparation.

Salinans would have taken full advantage of the plant and animal resources available in the river valley, foothills, and mountains within their territory. They also had a stretch of coastline from which to gather shellfish, fish, and marine mammals.

Ornaments included items made of steatite, serpentine, and abalone shell. Clothing included basket hats, rabbitskin or otterskin cloaks, and tule aprons. The Salinan also used beads made from mussel and abalone shell for currency and had musical instruments, such as cocoon rattles, wooden flutes, and bone whistles.

Some of Salinan material culture was obtained through an important trade network, established with neighboring groups (Hester 1978:500-501). In exchange for saltgrass salt, obsidian, seeds, lake fish, and possibly tanned animal skins, Salinan groups traded shell and shell beads with the Yokuts to the east. Shell ornaments, wooden dishes, and steatite vessels were obtained from the Chumash to the south, but apparently the Salinan did not trade with a rival trade group, the Costonoan to the north.

Like other indigenous Californians living near the coastal missions, Salinan population decreased rapidly after the arrival of the Spanish. A relatively small population to begin with, the Salinan were decimated by diseases introduced by the missions and later settlers. By 1831, their number was fewer than 700, and their population continued to decrease even more rapidly after secularization of the missions (Hester 1978:503). By the turn of the twentieth century, only three

families survived within their traditional territory. The California Indian Roll of 1928 registered only 36 Salinans, and research five years later could only locate one Antoniaño family, comprised of four elderly siblings (Hester 1978:503). These people and their descendants married into neighboring Native American groups and lost their identity as Salinan for several decades. To date, the Salinan Nation, directed by Tribal Council, has not received federal recognition, and there is no tribal land.

HISTORIC SETTING

Postcontact history for the project region is divided into three general periods: the Spanish Mission Period (1769–1822), Mexican Rancho Period (1822–1848), and American Period (post-1848). The history of Cal Poly is also included (1901 to present).

Spanish Mission Period (1769-1822)

Postcontact history in the project region began with brief visits by early Spanish explorers in the 16th century. However, the beginning of Spanish settlement in California did not occur until 1769 with establishment of the San Diego Presidio and the first (Mission San Diego de Alcalá) of 21 missions established from 1769 to 1823 that paralleled the California coastline. The fifth and 16th Franciscan missions established by the Spanish in Alta California were located in present-day San Luis Obispo County. Mission San Luis Obispo de Tolosa was founded in 1772 along San Luis Obispo Creek, approximately 1 mile south of the Cal Poly campus.

Mexican Rancho Period (1822-1848)

The Mexican Rancho Period follows the end of the Mexican Revolution against the Spanish crown (1810–1821) and is marked by the acquisition of land grants from the Mexican government across California. With secularization of the missions, approximately 500,000 acres of former mission lands were granted to Mexican citizens in San Luis Obispo County. The large ranchos became important economic and social centers during this period. The landowners largely focused on the cattle industry and devoted large tracts to grazing. Cattle hides became a primary southern California export, providing a commodity to trade for goods from the east and other areas in the United States and Mexico. More than 30 land grants were awarded in San Luis Obispo County during the Mexican Rancho Period. Three of the ranchos awarded during this period, granted between 1841 and 1845, included portions of today's Cal Poly campus: Rancho San Luisito (4,389 acres in 1841), Rancho Potrero de San Luis Obispo (3,506 acres in 1842), and Rancho El Chorro (3,167 acres in 1845).

The 3,506-acre Rancho Potrero de San Luis Obispo was awarded by then-Mexican Governor Juan Alvarado to María Concepcíon "Chona" Boronda. María was the daughter of the prominent Borando family of Monterey County. On the west, Rancho Potrero (Spanish for "pasture") was bordered by Rancho El Chorro and Chorro Creek. On the southeast, the boundary roughly followed Arroyo del Potrero. The stream was later named Brizzolara Creek after a prominent, late-1800s local merchant, Bartolo Brizzolara, although the name is misspelled as "Brizziolari" on USGS maps produced from 1897 to the present.

American Period (Post-1848)

The American Period was initiated in 1848 with the signing of the Treaty of Guadalupe Hidalgo, which ended the Mexican–American War (1846–1848). Even though California became a territory of the United States, the full impact of "Americanization" would not occur until the discovery of gold in 1848. California became the 31st state, in 1850, largely as a result of the Gold Rush.

San Luis Obispo County was one of the 27 original counties of California, formed in 1850 at the time of statehood. The City of San Luis Obispo, which is the site of the Mission San Luis Obispo de Tolosa, was organized in 1856 and has always been the county seat. The City was incorporated in 1876, the same year the town became the commercial center of the region with the arrival of the narrow-gauge Pacific Coast Railway and the development of shipping ports connected to the railroad. By 1894, the Southern Pacific Railroad reached the City from the north, and in 1901, the Southern Pacific line from San Francisco to Los Angeles was completed. These railroad lines facilitated travel and shipment of goods to the south and opened the Central Coast to further settlement and investment.

Rancho Potrero de San Luis Obispo was subdivided in the early 1900s. Portions of the rancho are represented by Cal Poly's Serrano, Peterson, and Cheda Ranches, which have retained their pastoral land use. The Serrano Ranch was sold and subdivided in 1919, and in 1950, Cal Poly purchased the 544-acre ranch from Walter Wells, who had purchased it in 1944. To the south, a portion of the original rancho bordering Brizzolara Creek was eventually owned, in 1936, by Millard and Silvia Peterson, who continued to graze cattle on the land. Cal Poly purchased the 650-acre Peterson Ranch in 1950. To the west near Stenner Creek, the 466-acre Cheda Ranch had been developed for dairying by John Cheda, who purchased the land between 1907 and 1912. Cal Poly acquired the ranch in 1950 and continues to use some of the acreage for livestock, including sheep, and crops.

California Polytechnic State University (1901 to Present)

On March 8, 1901, California Governor Henry T. Gage signed the bill establishing the California Polytechnic School. With its "learn-by-doing" philosophy, the coeducational vocational school offered training in animal husbandry and other agricultural courses, mechanics, engineering, business methods, domestic science, and other courses to fit the students for nonprofessional occupations. It was founded on 281 acres at the north end of the City, with major additions beginning in 1918 and continuing into the 1980s. Among these was the acquisition of substantial portions of Rancho Potrero de San Luis Obispo in the 1950s. Cal Poly currently occupies approximately 6,500 acres in San Luis Obispo County and 3,200 acres in Santa Cruz County. The main campus, composed of 1,321 acres adjacent to the City of San Luis Obispo, includes most of Cal Poly's academic, administrative, and support facilities.

The State Board of Education granted 3-year technical college status to Cal Poly in 1937, and in 1940, collegiate status was conferred. Campus courses expanded after World War II, and by 1960, 4,497 students were enrolled at the San Luis Obispo campus. In 1960, Cal Poly was included in the new California State Colleges system, as part of the Statewide Education Master Plan passed under the Donahoe Higher Education Act. With an increase in students, the campus core continued to expand during the 1960s, with additional buildings constructed around the core in the 1970s and into the 2000s. Today, the North Campus, East Campus, and West Campus surround the comparatively densely developed Academic Core. The north-south-trending Southern Pacific Railroad (now Union Pacific) right-of-way separates the West Campus from the Academic Core and North Campus on the east. Trending southwest, Brizzolara Creek separates the North Campus from Cal Poly's Academic Core. The East Campus is east of the Academic Core. The West Campus, located between the railroad tracks and SR 1, is predominantly agricultural with rich agricultural soils along Stenner Creek and lower Brizzolara Creek. To the northeast, the Indonesian Reservoir is on Peterson Ranch. Cal Poly's records indicate that the Shepard and Indonesian Reservoirs were constructed in 1947 and 1956/1957, respectively. Cheda Ranch, most of the West Campus, and portions of the North Campus include the Campus Farm and its row crops; orchards; vineyards; pastures; animal units; veterinary clinic; feed mill; meat processing facility; and related reservoir, irrigation, and animal wastewater treatment systems. Two reservoirs, Nelson and Middlecamp, were created by Cal Poly in Cheda Ranch in 1950 and 1965, respectively, and a solar array was installed along the western edge of the ranch in 2018.

RECORDS SEARCHES, SURVEYS, AND CONSULTATION

On July 25, 2019, a records search of the project site and lands within a 0.5-mile radius was conducted at the Central Coast Information Center (CCIC), at the Santa Barbara Museum of Natural History. The archival search of the archaeological and historical records, national and state databases, and historic maps by the CCIC included:

- the NRHP and CRHR,
- the California Inventory of Historic Resources (1976),
- California State Historic Landmarks (1966 and updates),
- California Points of Historical Interest (1992 and updates), and
- the Historic Property Data File and Archaeological Determinations of Eligibility for San Luis Obispo County (updated April 2012).

The results of the records search review revealed that 10 previous studies of cultural resources have been conducted within the project site and that an additional 68 cultural resources studies have been completed for lands within a 0.5-mile radius. All studies were completed between 1977 and 2011 and overlapped portions of the project's linear pipeline alignments.

Archival research and the records search at the CCIC revealed that one archaeological site (bedrock milling site) has been previously recorded within the project site (P-40-000490/CA-SLO-490) and that the Southern Pacific Railroad (P-40-041327) traverses a portion of the project site. In addition, a total of 42 previously recorded sites were identified within the 0.5-mile radius: 19 prehistoric sites, 21 historic sites, one site with both components, and one modern site.

A pedestrian survey of the project site was conducted in two phases by Natural Investigations Company, in March 2021 and September 2022. All portions of the project site were surveyed intensively using transects spaced at intervals no greater than 15 meters apart. No survey was conducted on a 1.81-acre private property in an urbanized portion of the project site. During the pedestrian survey, all visible ground surface in the project site was carefully examined for cultural material (e.g., flaked stone tools, tool-making debris, stone milling tools, or fire-affected rock), soil discoloration that might indicate the presence of a cultural midden, soil depressions and features indicative of the former presence of structures or buildings (e.g., postholes, foundations), or historic-era debris (e.g., metal, glass, ceramics). Where present, bedrock outcrops were carefully inspected for the presence of milling surfaces and rock art. Ground disturbances (e.g., animal burrows, embankments, graveled or dirt roads) were visually inspected.

Two historic-era archaeological sites were identified as a result of the survey effort (NIC-2021-Cal-Poly-04 and NIC-2021-Cal-Poly-05). In addition, six built environment features were identified as a result of the survey effort (NIC-2021-Cal-Poly-01, NIC-2021-Cal-Poly-03, NIC-2021-Cal-Poly-08, NIC-2021-Cal-Poly-09, NIC-2021-Cal-Poly-14, and NIC-2021-Cal-Poly-15). No new precontact archaeological sites were observed during the survey.

NRHP and CRHR criteria were used to evaluate the significance of the historic features and archaeological sites. The NRHP criteria for eligibility are codified in 36 CFR Part 60 and explained in guidelines published by the Keeper of the NRHP. The NRHP and CRHR are discussed in more detail above in Section 3.3.1, "Regulatory Setting." Eligibility for listing on the NRHP and the CRHR rests on twin factors of significance and integrity. A resource must have both significance and integrity to be considered eligible. Loss of integrity, if sufficiently great, will become more important than the historical significance a resource may possess and render it ineligible. Likewise, a resource can have complete integrity, but if it lacks significance, it must also be considered ineligible.

Archaeological Sites

NIC-2021-Cal-Poly-04

This historic-era site, an abandoned concrete cistern, was used to store rainwater and is a common water storage structure. The condition of the abandoned cistern is poor. No artifacts or other cultural features were found in association with the cistern. This site does not appear to meet any of the eligibility criteria for inclusion on the NRHP/CRHR. It does not meet Criterion A/1 or B/2 because it is not associated with significant events or historically significant individuals, particularly in the context of the history of agriculture in San Luis Obispo County or the Central Coast region, in the history of California or the nation. Furthermore, this site is not eligible for the NRHP/CRHR under Criterion C/3 or D/4 because it does not exhibit any unique characteristics of construction or design and recording the structure has exhausted its ability to yield any information important in history.

NIC-2021-Cal-Poly-05

This historic-era site is an abandoned road alignment on the east side of SR 1 west of Stenner Creek. Two disconnected segments were visible on the slope above the four-lane divided highway. The alignment appears to have been used as an internal Cheda Ranch service road that paralleled SR 1 and connected the eastern and western extents of the 466-acre ranch, which was purchased by Cal Poly in 1950. The alignment is visible along the hillside on aerial images from 1957. No artifacts or other cultural features were observed in association with the road segments. This site does not meet Criterion A/1 or B/2 because it is not associated with significant events or historically significant individuals, particularly in the context of the history of agriculture in San Luis Obispo County or the Central Coast region, or the history of California or the nation. The road segments are not eligible for NRHP/CRHR under

Criterion C/3 or D/4 because they do not exhibit any unique characteristics of construction or design and recording the road segments has exhausted their ability to yield any information important in history.

P-40-000490/CA-SLO-490

This precontact site consists of 11 confirmed bedrock mortars. It was not evaluated for the NRHP/CRHP when it was initially recorded in 1969. The resource would be avoided by design of the project and would not be physically altered or indirectly affected by it. Consequently, the building was not evaluated for inclusion on the NRHP or CRHR as part of current cultural resources investigations.

Built Environment

NIC-2021-Cal-Poly-01

NIC-2021-Cal-Poly-01 encompasses six reservoirs and associated ditches in the San Luis Obispo Creek watershed. Together, the reservoirs and ditches comprise the Cal Poly Agriculture Reservoir and Water Conveyance System. Four of the six reservoirs are located on the project site: Indonesian, Middlecamp, Nelson, and Shepard. The two outside the project site are the Drumm and Smith Reservoirs. The site does not appear to be eligible for listing in the NRHP or the CRHR because it is not associated with events that have made a significant contribution to history (Criterion A/1), does not have any direct associations with any individuals significant to history (Criterion B/2), is without noteworthy architectural qualities (Criterion C/3), and is not likely to yield any additional important information about our history (Criterion D/4).

NIC-2021-Cal-Poly-03

This built environment feature, known as the Cheda Ranch Building #121, was constructed between 1907 and 1921 and is representative of the Bungalow style. The Cheda Ranch building does not appear to meet any of the eligibility criteria for inclusion on the NRHP/CRHR. This feature does not meet Criterion A/1 or B/2 because it is not associated with significant events or historically significant individuals, particularly in the context of the history of agriculture in San Luis Obispo County or the Central Coast region, or the history of California or the nation. The building is not eligible for the NRHP/CRHR under Criterion C/3 or D/4 because it does not exhibit any unique characteristics of construction or design and recording the building has exhausted its ability to yield any information important in history.

NIC-2021-Cal-Poly-08

This built environment feature is a mixed asphalt, dirt, and gravel access road that exits off SR 1 west of Stenner Creek. The 15-foot-wide, 0.64-mile-long road leads to Cal Poly's Cheda Ranch Complex, including Nelson and Middlecamp Reservoirs. The road presently terminates at its northern junction with Stenner Creek Road, adjacent to Middlecamp Reservoir and the City's water treatment plant. The road is in constant use, is relatively well maintained, and is in good condition. No features or materials were found in association with the road. The Cheda Ranch access road does not appear to meet any of the eligibility criteria for inclusion on the NRHP/CRHR. The road does not meet Criterion A/1 or B/2 because it is not associated with significant events or historically significant individuals, particularly in the context of the history of ranching and agriculture in San Luis Obispo County or the Central Coast region, or the history of California or the nation. The road is not eligible for the NRHP/CRHR under Criterion C/3 or D/4 because it does not exhibit any unique characteristics of construction or design and recording the road segments has exhausted their ability to yield any information important in history.

NIC-2021-Cal-Poly-09

This built environment feature, a building known as Crop Science Building #17, is located on the corner of Mount Bishop Road and West Creek Road, just north of Highland Drive. It is a single-story, U-shaped industrial building with corrugated vertical gray metal siding and a corrugated metal roof. Windows include six-pane double-hung style and two- to four-pane casement style, all with gold trim on the east face/main entry and white window trim elsewhere. The north and south sides of the building are each approximately 100 feet long by 40 feet wide, and the east side is approximately 60 feet long by 40 feet wide. The building would be avoided by design of the project and would not be physically altered or indirectly affected by it. Consequently, the building was not evaluated for inclusion on the NRHP or CRHR as part of current cultural resources investigations.

NIC-2021-Cal-Poly-14

This built environment feature is a concrete culvert with a metal pipe insert built circa 1939. The culvert trends east/west and measures 16 feet wide and 56 inches tall, with a 48-inch-diameter pipe. The culvert continues under the roadbed into private property where there is a small enclave of single-story houses. The concrete culvert is a common type of structure and does not appear to meet any of the eligibility criteria for inclusion on the NRHP/CRHR. This feature does not meet Criterion A/1 or B/2 because it is not associated with significant events or historically significant individuals, particularly in the context of the history of ranching and agriculture in San Luis Obispo County or the Central Coast region, or the history of California or the nation. The culvert is not eligible for the NRHP/CRHR under Criterion C/3 or D/4 because it does exhibit any unique characteristics of construction or design characteristics and recording the feature has exhausted its ability to yield any information important in history.

NIC-2021-Cal-Poly-15

This built environment feature, a building known as Veterinary Hospital Building #57, is located at the intersection of Mount Bishop Road and an unnamed campus road, north of a large parking lot and warehouse. It is a ranch-style, single-story, concrete masonry brick, asphalt roof building constructed circa the mid-1950s. The main building is approximately 71 feet long and 35 feet wide, with a covered entry on the south face and an attached covered carport on both the east and the west faces. The south face has two shed-size extensions on either side of an original entry door. Metal railings attached to part of the south side enclose a small area suitable for livestock. The building would be avoided by design of the project and would not be physically altered or indirectly affected by it. Consequently, the building was not evaluated for inclusion on the NRHP or CRHR as part of the current cultural resource investigations.

P-40-041327

This historic-era site consists of a 10.5-mile segment of the San Francisco to Los Angeles route of the Southern Pacific Railroad. When it was previously recorded in 1999, the 10.5-mile segment included 17 features and was recommended eligible for the NRHP as a potential contributor to a larger historic district. Therefore, it is assumed that the segment within the project site is also eligible for the NRHP. Any resource eligible for the NRHP is automatically eligible for the CRHR. Consequently, the section of site P-40-041327 on the project site was not evaluated as part of current cultural resources investigations for the NRHP/CRHR. Based on previous investigations related to the site, it is assumed to be eligible for the NRHP/CRHR. Consequently, this resource is a historic property and a historical resource. However, the project would be designed to avoid the site.

Tribal Cultural Resources

Sacred Lands File Search

NAHC was contacted to request a search of its Sacred Lands file, and positive results were returned on March 18, 2021.

Native American Consultation

As previously stated in Section 3.3.1, "Regulatory Setting," AB 52 applies to those projects for which a lead agency issues a notice of preparation of an EIR or notice of intent to adopt a negative declaration or mitigated negative declaration on or after July 1, 2015. Formal request letters for tribal consultation pursuant to CEQA Section 21080.3.1, subds. (b), (d), and (e}, for the project were sent on August 22, 2022, to 10 tribal entities that had requested notification of proposed projects in the lead agency's jurisdiction (Table 3.3-1). Of the 10 letters sent, six responses were received.

The response from the tribal representative of the Northern Chumash Tribe, the yak titᵛu titᵛu yak tiłhini (ytt), received on September 22, 2022, stated that the Tribe wished to engage in formal consultation on the project. The request for formal consultation stated that the project site appears to be in proximity to a cultural site and that more information is needed. The Tribe also requested copies of any archaeological reports for areas within one-half mile of the project site.

The response from the tribal representative of the Santa Ynez Band of Chumash Indians, received on September 27, 2022, stated that the Tribe is deferring to the ytt (Northern Chumash Tribe), for consultation and requested that the Santa Ynez Band be kept informed.

The response from the tribal representative of the Salinan Tribe of Monterey and San Luis Obispo Counties, received on August 26, 2022, also requested formal consultation. The response stated that known and unknown cultural resources may be affected by ground-disturbing activities; all known cultural resources need to be avoided; and all ground-disturbing activities need to be monitored by a cultural resource specialist from the tribe. The response from the tribal representative of the Northern Chumash Tribal Council received on September 22, 2022, stated that the representative would like to participate in consultation and planning and requested more information.

Cal Poly convened meetings with the representatives of the Salinan Tribe of Monterey and San Luis Obispo Counties, the ytt (Northern Chumash Tribe), and the Northern Chumash Tribal Council in October and December, 2022, and the cultural resources report prepared for the WRF was sent to each of these tribes, as well as the Santa Ynez Band of Chumash Indians on December 1, 2022. Based on the meetings with the representatives of the three Tribes that requested formal consultation, mitigation measures were developed and letters were issued to the tribal representatives concluding tribal consultation on April 12, 2023.

Table 3.3-1 AB 52 Consultation

Native American Tribe and Contact	Date of Initial Notification	Follow-Up Outreach
Barbareno/Ventureno Band of Mission Indians Julie Tumamait-Stenslie	August 22, 2022	Email sent on September 22, 2022
Chumash Council of Bakersfield Julio Quair	August 22, 2022	Email sent on September 22, 2022; email bounced back as undeliverable
Coastal Band of the Chumash Nation Mia Lopez	August 22, 2022	Email sent on September 22, 2022
Coastal Band of the Chumash Nation Gabe Frausto	August 22, 2022	Email sent on September 22, 2022
Northern Chumash Tribal Council Violet Walker	August 22, 2022	Email sent on September 22, 2022; email response received same day; technical report sent on December 1, 2022; meeting convened on December 23, 2022; letter concluding tribal consultation sent on April 12, 2023
Salinan Tribe of Monterey and San Luis Obispo Counties Patti Dunton	August 22, 2022	Email response received August 26, 2023; meeting convened on October 27, 2022; technical report sent on December 1, 2022; letter concluding tribal consultation sent on April 12, 2023
San Luis Obispo County Chumash Council No contact identified	August 22, 2022	No email sent; no email address has been found online to use for follow-up
Santa Ynez Band of Chumash Indians Kenneth Kahn	August 22, 2022	Email sent on September 22, 2022; technical report sent on December 1, 2022
Tule River Indian Tribe Neil Peyron	August 22, 2022	Email sent on September 22, 2022
yak titᵛu titᵛu yak tiłhini (ytt) (Northern Chumash Tribe) Mona Tucker	August 22, 2022	Email sent on September 22, 2022; email response received same day; technical report sent on December 1, 2022; meeting convened on December 13, 2022; letter concluding tribal consultation sent on April 12, 2023

Source: Data compiled by Ascent Environmental in 2022.

3.3.3 Impacts and Mitigation Measures

METHODOLOGY

The impact analysis for archaeological, historical, and tribal cultural resources is based on the findings and recommendations of the *Cultural Resources Inventory and Project Effects Assessment for the Cal Poly Water Reclamation Facility Project, San Luis Obispo, County, California* (NIC 2022). The analysis is also informed by the provisions and requirements of federal, state, and local laws and regulations that apply to cultural resources.

CEQA Section 21083.2(g) defines a "unique archaeological resource" as an archaeological artifact, object, or site about which it can be clearly demonstrated that, without merely adding to the current body of knowledge, there is a high probability that it meets one or more of the following CRHR-related criteria: (1) that it contains information needed to answer important scientific research questions and there is a demonstrable public interest in that information; (2) that it has a special and particular quality, such as being the oldest of its type or the best available example of its type; or (3) that it is directly associated with a scientifically recognized important prehistoric or historic event or person. An impact on a resource that is not unique is not a significant environmental impact under CEQA (State CEQA Guidelines Section 15064.5[c][4]). If an archaeological resource qualifies as a resource under CRHR criteria, then the resource is treated as a unique archaeological resource for the purposes of CEQA.

For the purposes of the impact discussion, "historical resource" is used to describe built-environment historic-era resources. Archaeological resources (both prehistoric and historic-era), which may qualify as "historical resources" pursuant to CEQA, are analyzed separately from built-environment historical resources.

CEQA Section 21074 defines "tribal cultural resources" as "sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a California Native American tribe" that are listed or determined eligible for listing in the CRHR, listed in a local register of historical resources, or otherwise determined by the lead agency to be a tribal cultural resource.

THRESHOLDS OF SIGNIFICANCE

Based on Appendix G of the State CEQA Guidelines, the project would result in a significant impact on archaeological, historical, or tribal cultural resources if it would:

- cause a substantial adverse change in the significance of a historical resource pursuant to Section 15064.5 of the State CEQA Guidelines;
- cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5 of the State CEQA Guidelines;
- substantially disturb human remains, including those interred outside of formal cemeteries; or
- cause a substantial adverse change in the significance of a tribal cultural resource, defined in CEQA Section 21074 as either a site, feature, place, or cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:
- Listed or eligible for listing in the CRHR or in a local register of historical resources as defined in PRC Section 5020.1(k), or
- A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of PRC Section 5024.1. In applying the criteria set forth in subdivision (c) of PRC Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.

Section 15064.5 of the State CEQA Guidelines defines "substantial adverse change" as physical demolition, destruction, relocation, or alteration of the resource or its immediate surroundings.

ISSUES NOT DISCUSSED FURTHER

All potential archaeological, historical, and tribal cultural resources issues identified in the significance criteria above are evaluated below.

ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

The mitigation measures identified in the following discussion are substantially similar to those in the Campus Master Plan EIR. However, because the project would affect only a portion of the Campus Master Plan area, and project details and construction techniques have been further refined, which would necessitate minor revisions to Campus Master Plan EIR mitigation measures, and in some cases, incorporation of additional mitigation measures, for clarity, the mitigation measures identified herein were developed to apply specifically to the WRF project as it is currently proposed. Where a mitigation measure was developed based largely on a Campus Master Plan EIR mitigation measure, the Campus Master Plan EIR mitigation measure number is identified in parenthesis after the title of the project-specific mitigation measure.

The project would not conflict with any City or County General Plan policies or regulations identified in Section 3.3.1 related to archaeological, historical, or tribal cultural resources. Even if the project would potentially conflict with City or County General Plan policies, the impact would not be considered significant, because the CSU is not subject to local policies and regulations.

Impact 3.3-1: Cause a Substantial Adverse Change in the Significance of a Historical Resource

No new historical resources were identified as a result of the survey efforts. Background research indicated that there is a segment of a historical resource within the project site: the Southern Pacific Railroad (P-40-041327). Project protective measures would avoid any impacts on this historical resource. This impact would be **less than significant**.

The pedestrian survey identified six new built environment features within the project site: NIC-2021-Cal-Poly-01, NIC-2021-Cal-Poly-03, NIC-2021-Cal-Poly-08, NIC-2021-Cal-Poly-09, NIC-2021-Cal-Poly-14, and NIC-2021-Cal-Poly-15. As described previously, five of these features have been evaluated for the NRHP and CRHR and were recommended not eligible. The sixth feature, NIC-2021-Cal-Poly-15, the Veterinary Hospital Building #57, was not evaluated for NRHP or CRHR eligibility. The building is at the junction of Mount Bishop Road and the unnamed road leading to the WRF site, and therefore, is adjacent to the 8-inch force main pipeline alignment. However, the building would be avoided through design of the project and therefore would not be physically altered or indirectly affected by it.

Background research revealed a segment of the Southern Pacific Railroad (P-40-041327) within the project site. The railroad has been recommended eligible for NRHP/CRHR as a contributing element of a proposed historic district consisting of the historic San Francisco to Los Angeles Route of the Southern Pacific Railroad and is therefore a resource under CEQA. Protective measures for this historical resource have been incorporated into the design of the project. The project proposes to install force mains under the rail line at four locations (one near Spanos Stadium, one between the WRF and the recycled water reservoir, and two near Highland Drive), and an effluent pipeline would be placed below the line north of the WRF. Jack and bore techniques would be used for pipeline installation to ensure that the railroad is not affected by construction of the project. Similarly, the upper lift station would be placed approximately 215 feet west of the railroad and the lower lift station would be placed 232 feet to the east to avoid any effects on the railroad. Inclusion of these construction and design features would protect site P-40-041327 and avoid any effects on it or any of the characteristics that make it eligible for the NRHP/CRHR as contributing elements of the San Francisco to Los Angeles Route Historic District (NIC 2022).

For these reasons, the project would have a **less than significant** impact on historical resources.

Mitigation Measures

No mitigation is required for this impact.

Impact 3.3-2: Cause a Substantial Adverse Change in the Significance of a Unique Archaeological Resource

Based on the records search and pedestrian survey, no unique archaeological resources are located within the project site. However, project-related ground-disturbing activities could result in the discovery of or damage to yet undiscovered archaeological resources as defined in State CEQA Guidelines Section 15064.5 or CEQA Section 21083.2(g). This impact would be **potentially significant**.

The CCIC records search revealed one precontact period archaeological site (P-40-000490/CA-SLO-490). The site would be avoided through design of the project and would not be physically altered or indirectly affected by it. Consequently, the site was not evaluated for inclusion on the NRHP or CRHR as part of cultural resources investigations conducted for the proposed project.

Two historic-era archaeological sites were identified as a result of the survey effort: NIC-2021-Cal-Poly-04 and NIC-2021-Cal-Poly-05). NIC-2021-Cal-Poly-04 is an abandoned concrete cistern, and NIC-2021-Cal-Poly-05 is an abandoned road alignment. Both historic-era sites were evaluated and recommended not eligible for listing in the CRHR or NRHP (see "Records Searches, Surveys, and Consultation" section above). They also do not meet the criteria of a unique archaeological resource under CEQA Section 21083.2(g) (NIC 2022). As a result, they are not considered significant for the purposes of CEQA.

Nonetheless, project construction could encounter previously undiscovered or unrecorded archaeological sites and materials during preconstruction- or construction-related ground-disturbing activities. These activities could damage or destroy previously undiscovered unique archaeological resources. This impact would be **potentially significant**.

Mitigation Measures

The following mitigation measures would be applicable to the project.

Mitigation Measure 3.3-2a: Identify and Protect Unknown Archaeological Resources *(Campus Master Plan EIR Mitigation Measure 3.4-2a)*

Cal Poly has determined the level of archaeological investigation that is appropriate for the project site and activity, as follows:

- Intensive: excavation below 18 inches and/or over a large area on any site that is within the zone of archaeological sensitivity, i.e., within 750 feet, along Brizzolara Creek or Stenner/Old Garden Creek (as shown in Figure 3.4-1 of the Campus Master Plan EIR) or that is adjacent to a recorded archaeological site.

Therefore, Cal Poly shall implement the following steps to identify and protect archaeological resources that may be present in the project's area of effects:

1) Contractor crews shall be required to attend a training session before the start of ground-disturbing activities, regarding how to recognize archaeological sites and artifacts and what steps shall be taken to avoid impacts to those sites and artifacts. In addition, campus employees whose work routinely involves disturbing the soil shall be informed how to recognize evidence of potential archaeological sites and artifacts. Before disturbing the soil, contractors shall be notified that they are required to watch for potential archaeological sites and artifacts and to notify Cal Poly Facilities Management and Development if any are found. A qualified archeologist and Tribal monitor would be present onsite during ground-disturbing activities to provide oversight to contractor crew and campus employees. In the event of a find, Cal Poly shall implement item (5), below.
2) The qualified archaeologist shall, in consultation with Cal Poly Facilities Management and Development, develop an archaeological monitoring plan to be implemented during the construction phase of the project. For construction activities that would be located within 750 feet of Brizzolara Creek, Stenner Creek, or Old Garden Creek, or it is recommended by the archaeologists, Cal Poly shall notify the appropriate Native American tribe and extend an invitation for monitoring. The frequency and duration of monitoring shall be adjusted in accordance with survey results, the nature of construction activities, and results during the monitoring period. A

written report of the results of the monitoring shall be prepared and filed with the appropriate Information Center of the California Historical Resources Information System. In the event of a discovery, Cal Poly shall implement item (5), below.

3) Cal Poly shall retain a qualified archaeologist to conduct a subsurface investigation of the project site, to ascertain whether buried archaeological materials are present and, if so, the extent of the deposit relative to the project's area of effects. If an archaeological deposit is discovered, the archaeologist shall prepare a site record and a written report of the results of investigations and file with the appropriate Information Center of the California Historical Resources Information System.

4) If it is determined that a resource extends into the project's area of effects, the resource shall be evaluated by a qualified archaeologist, who shall determine whether it qualifies as a historical resource or a unique archaeological resource under the criteria of State CEQA Guidelines Section 15064.5.

5) If archaeological material within the project's area of effects is determined to qualify as an historical resource or a unique archaeological resource (as defined by CEQA), Cal Poly Facilities Management and Development shall consult with the qualified archaeologist to consider means of avoiding or reducing ground disturbance within the site boundaries, including minor modifications of building footprint, landscape modification, the placement of protective fill, the establishment of a preservation easement, or other means that shall permit avoidance or substantial preservation in place of the resource. If avoidance or substantial preservation in place is not possible, Cal Poly shall implement Mitigation Measure 3.3-2b.

6) If archaeological material is discovered during construction (whether or not an archaeologist is present), all soil disturbing work within 100 feet of the find shall cease. Cal Poly Facilities Management and Development shall contact a qualified archaeologist to provide and implement a plan for survey, subsurface investigation as needed to define the deposit, and assessment of the remainder of the site within the project area to determine whether the resource is significant and would be affected by the project. Cal Poly shall implement item (3) and (4), above.

Mitigation Measure 3.3-2b: Protect Known Unique Archaeological Resources (Campus Master Plan EIR Mitigation Measure 3.4-2b)

For an archaeological site that has been determined by a qualified archaeologist to qualify as a unique archaeological resource through the process set forth under Mitigation Measure 3.3-2a, and where it has been determined under Mitigation Measure 3.3-2a that avoidance or preservation in place is not feasible, a qualified archaeologist, in consultation with Cal Poly Facilities Management and Development, and Native American tribes as applicable, shall:

1) Prepare a research design and archaeological data recovery plan for the recovery that shall capture those categories of data for which the site is significant and implement the data recovery plan before or during development of the site.

2) Perform appropriate technical analyses, prepare a full written report and file it with the appropriate information center, and provide for the permanent curation of recovered materials.

3) If, in the opinion of the qualified archaeologist and in light of the data available, the significance of the site is such that data recovery cannot capture the values that qualify the site for inclusion on the CRHR, Cal Poly Facilities Management and Development shall reconsider project plans in light of the high value of the resource, and implement more substantial modifications to the project that would allow the site to be preserved intact, such as project redesign, placement of fill, or project relocation or abandonment. If no such measures are feasible, Cal Poly shall implement Mitigation Measure 3.3-2c.

Mitigation Measure 3.3-2c: Document Unique Archaeological Resources (Campus Master Plan EIR Mitigation Measure 3.4-2c)

If a significant unique archaeological resource cannot be preserved intact, before the property is damaged or destroyed, Cal Poly Facilities Management and Development shall ensure that the resource is appropriately

documented. For an archaeological site, a program of research-directed data recovery shall be conducted and reported, consistent with Mitigation Measure 3.3-2a.

Significance after Mitigation

Implementation of Mitigation Measures 3.3-2a, 3.3-2b, and 3.3-2c would reduce impacts associated with archaeological resources to a **less than significant** level because they would require the performance of professionally accepted and legally compliant procedures for the discovery and protection of previously undocumented significant archaeological resources.

Impact 3.3-3: Disturb Human Remains

Based on documentary research, no evidence suggests that any precontact or historic-era marked or unmarked human interments are present within or in the vicinity of the project site. However, ground-disturbing construction activities could uncover previously unknown human remains. Compliance with California Health and Safety Code Section 7050.5 and PRC Section 5097 would provide an opportunity to avoid or minimize the disturbance of human remains and to appropriately treat any remains that are discovered. Therefore, this impact would be **less than significant**.

Archival and background research found no documentary evidence to suggest that any marked or unmarked human interments are present within or in the immediate vicinity of the project site. However, the location of grave sites and Native American remains can occur outside of identified cemeteries or burial sites. Therefore, there is a possibility that unmarked, previously unknown Native American or other graves could be present within the project site and could be uncovered by project-related construction activities.

California law recognizes the need to protect Native American human burials, skeletal remains, and items associated with Native American burials from vandalism and inadvertent destruction. The procedures for the treatment of Native American human remains are contained in California Health and Safety Code Section 7050.5 and PRC Section 5097.

These statutes require that if human remains are discovered, potentially damaging ground-disturbing activities in the area of the remains shall be halted immediately and that the appropriate County coroner shall be notified immediately. If the remains are determined by the coroner to be Native American, NAHC shall be notified within 24 hours, and NAHC guidelines shall be adhered to in the treatment and disposition of the remains. Following the coroner's findings, the NAHC-designated Most Likely Descendant and the landowner shall determine the ultimate treatment and disposition of the remains and take appropriate steps to ensure that additional human interments, if present, are not disturbed. The responsibilities for acting on notification of a discovery of Native American human remains are identified in PRC Section 5097.94.

Compliance with California Health and Safety Code Section 7050.5 and PRC Section 5097 would provide an opportunity to avoid or minimize the disturbance of human remains and to appropriately treat any remains that are discovered. Therefore, this impact would be **less than significant**.

Mitigation Measures

No mitigation is required for this impact.

Impact 3.3-4: Cause a Substantial Adverse Change in the Significance of a Tribal Cultural Resource

Tribal consultation under AB 52 has not resulted in the identification of tribal cultural resources on the project site. However, excavation activities associated with project construction may disturb or destroy previously undiscovered significant subsurface tribal cultural resources. This impact would be **potentially significant**.

The search of the NAHC Sacred Land Files returned a positive result; however, no tribal cultural resources were identified as a result of the AB 52 consultation, pursuant to CEQA Section 21074. However, the Salinan Tribe of Monterey and San Luis Obispo Counties has formally requested to have a tribal representative monitor ground-disturbing activities because of the presence of known and unknown cultural resources in the project area. In addition, the ytt (Northern Chumash Tribe, stated that a cultural site is within the project site and requested

additional information. The Northern Chumash Tribal Council requested consultation and inclusion in project planning. They also requested more information about the project.

Ground-disturbing activities during project construction could uncover and damage or destroy previously unknown tribal cultural resources. This impact would be **potentially significant**.

Mitigation Measures

The following mitigation measures would be applicable to the project.

Mitigation Measure 3.3-4a: Identify and Protect Unknown Archaeological Resources *(Campus Master Plan EIR Mitigation Measure 3.4-2a)*

Implement Mitigation Measure 3.3-2a.

Mitigation Measure 3.3-4b: Protect Known Unique Archaeological Resources *(Campus Master Plan EIR Mitigation Measure 3.4-2b)*

Implement Mitigation Measure 3.3-2b.

Mitigation Measure 3.3-4c: Document Unique Archaeological Resources *(Campus Master Plan EIR Mitigation Measure 3.4-2c)*

Implement Mitigation Measure 3.3-2c.

Mitigation Measure 3.3-4d: Retain a Native American Monitor

Cal Poly shall retain a tribal monitor/consultant who is approved by the Salinan Tribe of Monterey and San Luis Obispo Counties, the Northern Chumash Tribal Council, and the yak titᵛu titᵛu yak tiłhini (Northern Chumash Tribe) to monitor ground-disturbing activities, including tree removal, grading, boring, excavation, drilling, and trenching, during project construction that would occur within the Zone of Cultural Sensitivity identified in Figure 3.4-1 of the Cal Poly 2035 Master Plan Final Environmental Impact Report (EIR) and areas within 100 feet of known prehistoric sites. Cal Poly's designated contact person shall notify the tribal representative a minimum of 7 days before beginning ground-disturbing activities and the tribal representative shall confirm the tribal monitor at least 48 hours before ground-disturbing activities are scheduled to begin. If confirmation is not provided, ground-disturbing activities may proceed without the presence of a tribal monitor. The tribal monitor and archaeological monitor shall complete daily monitoring logs that describe each day's activities, including construction activities, locations, soil, and any cultural materials identified. The monitoring logs will be emailed to the Salinan Tribe of Monterey and San Luis Obispo Counties, Northern Chumash Tribal Council, yak titᵛu titᵛu yak tiłhini (Northern Chumash Tribe), Cal Poly's archaeologist, and the designated Cal Poly contact person on a weekly basis. The onsite monitoring shall end when the site grading and excavation activities are completed or when the tribal representatives and monitor have indicated that the site has a low potential for affecting tribal cultural resources.

Significance after Mitigation

Implementation of Mitigation Measures 3.3-4a, 3.2-4b, 3.3-4c, and 3.3-4d would reduce potential impacts related to tribal cultural resources to a **less than significant** level by requiring a cultural resources awareness training program, the performance of professionally accepted and legally compliant procedures for the discovery and protection of previously undocumented archaeological resources and, in the case of a discovery, preservation in place and/or culturally appropriate treatment as directed by a tribal representative if significant artifacts are recovered.

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3.4 BIOLOGICAL RESOURCES

This section addresses common and sensitive biological resources that could be affected by implementation of the proposed project. This evaluation is based on data collected during reconnaissance-level surveys of the project site conducted on March 8 and 9, 2021 and September 1 and 2, 2022; a review of aerial photographs of the project site; searches of the California Department of Fish and Wildlife (CDFW) California Natural Diversity Database (CNDDB) (CNDDB 2022a) and California Native Plant Society (CNPS) Inventory of Rare and Endangered Plants (CNPS 2022); and review of other relevant environmental documents and biological studies prepared for the Campus Master Plan EIR in 2019.

Two comment letters regarding biological resources were received in response to the Notice of Preparation (see Appendix A). CDFW expressed concerns regarding potential impacts to special-status species including, but not limited to, California red-legged frog, steelhead, monarch butterfly, western pond turtle, special status plants species; nesting birds; federally-listed species; and waters of the State and United States. The US Army Corps of Engineers (USACE) also commented that the project may require a permit if the project could result in the discharge of dredged or fill material into waters of the United States, including wetlands pursuant to Section 404 of the Clean Water Act (CWA).

3.4.1 Regulatory Setting

Federal Endangered Species Act

The federal Endangered Species Act (ESA) requires formal or informal consultation with the US Fish and Wildlife Service (USFWS) or the National Oceanic and Atmospheric Administration National Marine Fisheries Service (NMFS) when it is likely that a project could affect species federally listed as threatened or endangered. The purpose of the ESA is to conserve the ecosystems upon which listed species depend. The law's ultimate goal is to "recover" listed species such that the protections of the act are no longer needed. The ESA requires that recovery plans be developed that describe the steps necessary to restore the species. Similarly, the act provides for the designation of "critical habitat" when prudent and determinable. Critical habitat is geographic areas that contain physical and biological features essential to the conservation of the species and that may require special management considerations or protection. Critical habitat designations affect only federal agency actions or federally funded or permitted activities.

The act also regulates the "taking" of a species listed as threatened or endangered under the ESA. In general, persons subject to ESA (including private parties) are prohibited from "taking" endangered or threatened fish and wildlife species on private property and from "taking" endangered or threatened plants in areas under federal jurisdiction or in violation of State law. Under the ESA, the definition of "take" is to "harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct." USFWS has also interpreted the definition of "harm" to include significant habitat modification that could result in take. If implementing a project would result in take of a federally listed fish or wildlife species, either the project applicant must apply for and obtain an incidental take permit (ITP) under Section 10(a) of the ESA or, if a federal discretionary action is involved, the federal agency must consult with USFWS under Section 7 of the act.

Migratory Bird Treaty Act

The Migratory Bird Treaty Act (MBTA), first enacted in 1918, provides for protection of international migratory birds and authorizes the Secretary of the Interior to regulate the taking of migratory birds. The MBTA provides that it shall be unlawful, except as permitted by regulations, to pursue, take, or kill any migratory bird, or any part, nest, or egg of any such bird. Under the MBTA, "take" is defined as "to pursue, hunt, shoot, wound, kill, trap, capture, or collect, or any attempt to carry out these activities." A take does not include habitat destruction or alteration, as long as there is not a direct taking of birds, nests, eggs, or parts thereof. The current list of species protected by the MBTA can be found in 50 CFR 10.13. The list includes nearly all birds native to the United States.

Clean Water Act

Section 404 of the CWA requires a project applicant to obtain a permit before engaging in any activity that involves any discharge of dredged or fill material into waters of the United States, including wetlands. Fill material is material placed in waters of the United States that has the effect of replacing any portion of waters of the United States with dry land or changing the bottom elevation of any portion of waters of the United States. Waters of the United States include navigable waters; interstate waters; all other waters where the use, degradation, or destruction of the waters could affect interstate or foreign commerce; relatively permanent tributaries to any of these waters; and wetlands adjacent to these waters. Wetlands are defined as those areas that are inundated or saturated by surface water or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Potentially jurisdictional wetlands typically must meet three wetland delineation criteria: hydrophytic vegetation, hydric soil types, and wetland hydrology. Wetlands that meet the delineation criteria may be jurisdictional under Section 404 of the CWA pending USACE verification.

Under Section 401 of the CWA, an applicant for a Section 404 permit must obtain a certificate from the appropriate state agency stating that the intended dredging or filling activity is consistent with the state's water quality standards and criteria. In California, the authority to grant water quality certification is delegated by the State Water Resources Control Board (SWRCB) to the nine regional water quality control boards (RWQCBs). Section 3.5, "Hydrology and Water Quality," includes further discussion of water quality regulations.

STATE

California Endangered Species Act

CDFW regulates the taking of species listed as threatened or endangered under the California Endangered Species Act (CESA), which prohibits the taking of state-listed endangered or threatened species, as well as candidate species being considered for listing, without the issuance of ITPs. Project proponents may obtain an ITP pursuant to Fish and Game Code Section 2081 if the impacts of the take are minimized and fully mitigated and if the take would not jeopardize the continued existence of the species. A "take" of a species, under CESA, is defined as "hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill" an individual of a species. The CESA definition of "take" does not include "harm" or "harass" as is included in the ESA definition. As a result, the threshold for take under CESA may be higher than under the ESA.

Porter-Cologne Water Quality Control Act

The Porter-Cologne Water Quality Control Act requires that each of the nine RWQCBs prepare and periodically update basin plans for water quality control in their respective regions. Each basin plan sets forth water quality standards for surface water and groundwater and actions to control nonpoint and point sources of pollution to achieve and maintain these standards. Basin plans offer an opportunity to protect wetlands through the establishment of water quality objectives. The RWQCB's jurisdiction includes waters of the United States, as well as areas that meet the definition of "waters of the state." "Waters of the state" is defined as any surface water or groundwater, including saline waters, within the boundaries of the state. The RWQCB has the discretion to take jurisdiction over areas not federally protected under CWA Section 404 provided they meet the definition of waters of the state, and SWRCB published a new set of procedures for discharges of dredged or fill material into waters of the state on March 22, 2019. Mitigation requiring no net loss of wetlands functions and values of waters of the state typically is required by the RWQCB.

SWRCB has adopted the following definition of wetlands:

> An area is wetland if, under normal circumstances, (1) the area has continuous or recurrent saturation of the upper substrate caused by groundwater or shallow surface water or both; (2) the duration of such saturation is sufficient to cause anaerobic conditions in the upper substrate; and (3) the area's vegetation is dominated by hydrophytes or the area lacks vegetation.

Section 1602 of the California Fish and Game Code

All diversions, obstructions, or changes to the natural flow or bed, channel, or bank of any river, stream, or lake in California that supports wildlife resources are subject to regulation by CDFW under Section 1600 et seq. of the California Fish and Game Code. Under Section 1602, it is unlawful for any person to substantially divert or obstruct the natural flow or substantially change the bed, channel, or bank of any river, stream, or lake designated by CDFW, or use any material from the streambeds, without first notifying CDFW of such activity and obtaining a final agreement authorizing such activity. CDFW's jurisdiction in altered or artificial waterways is based on the value of those waterways to fish and wildlife.

Native Plant Protection Act

The Native Plant Protection Act (NPPA) (California Fish and Game Code Section 1900 et seq.) allows the California Fish and Game Commission to designate plants as rare or endangered. Sixty-four species, subspecies, and varieties of plants are protected as rare under the NPPA. The act prohibits take of endangered or rare native plants but includes exceptions for agricultural and nursery operations; for emergencies; and, after proper notification of CDFW, for vegetation removal from canals, roads, and other building sites, changes in land use, and other situations.

Fully Protected Species

Protection of fully protected species is described in Sections 3511, 4700, 5050, and 5515 of the California Fish and Game Code. The fully protected status prohibits take or possession of these species and generally does not provide for authorization of incidental take. "Fully protected" is a separate classification, distinct from a listing as endangered or threatened under CESA and the federal ESA. The fully protected species laws were enacted prior to CESA and the ESA. Several of the fully protected species are also protected by the federal and state endangered species laws. CDFW has informed nonfederal agencies and private parties that their actions must avoid take of any fully protected species. On October 8, 2011, the governor signed Senate Bill 618, authorizing CDFW to permit the incidental take of fully protected species if the species is covered and conserved in a natural community conservation plan (NCCP). An NCCP identifies and provides for the regional protection of plants, animals, and their habitats, while allowing compatible and appropriate economic activities. There are no NCCPs adopted within the Master Plan Area.

Protection for Bird Nests and Raptors

Section 3503 of the California Fish and Game Code states that it is unlawful to take, possess, or needlessly destroy the nest or eggs of any bird. Section 3503.5 specifically states that it is unlawful to take, possess, or destroy any raptors (e.g., hawks, owls, eagles, and falcons), including their nests or eggs. Section 3513 of the California Fish and Game Code codifies the federal MBTA.

LOCAL

Cal Poly is part of the CSU, which is a statutorily and legislatively created, constitutionally authorized state entity. As explained in the "California State University Autonomy" section in Section 3.1, "Approach to the Environmental Analysis," of this EIR, the CSU is not subject to local government planning and land use plans, policies, or regulations. Nevertheless, in the exercise of its discretion, Cal Poly does reference, describe, and address local plans, policies, and regulations where appropriate and for informational purposes. This evaluation is also intended to be used by local agencies for determining, as part of their permit processes, the project's consistency with local plans, policies, and regulations.

San Luis Obispo County General Plan

The San Luis Obispo County General Plan (2010) includes the following policies related to biological resources:

- Policy BR 1.1: Protect Sensitive Biological Resources. Protect sensitive biological resources such as, wetlands, migratory species of the Pacific flyway, and wildlife movement corridors through:
  - Environmental review of proposed Development applications, including consideration of cumulative impacts;
  - Participation in comprehensive habitat management programs with other local and resource agencies; and,

  - Acquisition and management of open space lands that provide for permanent protection of important natural habitats.

- Policy BR 1.10: Identify and Protect Ecologically Sensitive Areas. Protect and enable management of ecologically sensitive areas to the maximum extent feasible.
- Policy BR. 1.11: Protect Wildlife Nursery Areas and Movement Corridors. Identify, protect, and enable the management of connected habitat areas for wildlife movement. Features of particular importance to wildlife for movement may include, but are not limited to, riparian corridors, shorelines of the coast and bay, and ridgelines.
- Policy BR 1.12: Development Impacts to Corridors. Ensure that important corridors for wildlife movement and dispersal are protected as a condition of discretionary permits. Provide linkages and corridors as needed to connect sensitive habitat areas such as woodlands, forests, and wetlands.
- Policy BR 1.15: Restrict Disturbance in Sensitive Habitat During Nesting Season. Avoid impacts to sensitive riparian corridors, wetlands, and coastal areas to protect bird-nesting activities.
- Policy BR 2.1: Coordinate with Trustee Agencies. The County will consult with trustee and other relevant state and federal agencies during environmental review when special-status species, sensitive natural communities, marine resources, or wetlands may be affected.
- Policy BR 2.2: Promote Early Consultation with Other Agencies. Require applicants to consult with all agencies with review and/or permit authority for projects in areas supporting wetlands and special-status species at the earliest opportunity.
- Policy BR 2.6: Development Impacts to Listed Species. Ensure that potential adverse impacts to threatened, rare, and endangered species from development are avoided or minimized through project siting and design. Ensure that proposed development avoids significant disturbance of sensitive natural plant communities that contain special-status plant species or provide critical habitat to special-status animal species. When avoidance is not feasible, require no net loss of sensitive natural plant communities and critical habitat.
- Policy BR 2.8: Invasive Plant Species. Promote and support efforts to reduce the effects of noxious weeds on natural habitats. The County will work with local resource and land management agencies to develop a comprehensive approach to controlling the spread of non-native invasive species and reducing their extent on both public and private land.
- Policy BR 2.9: Promote Use of Native Plant Species. Landscaping for proposed development will use a variety of native or compatible nonnative, non-invasive plant species as part of project landscaping to improve wildlife habitat values.
- Policy BR 3.2: Protection of Native Trees in New Development. Require proposed discretionary development and land divisions to avoid damage to native trees (e.g., Monterey Pines, oaks) through setbacks, clustering or other appropriate measures. When avoidance is not feasible, require mitigation measures.
- Policy BR 3.3: Oak Woodland Preservation. Maintain and improve oak woodland habitat to provide for slope stabilization, soil protection, species diversity, and wildlife habitat.
- Policy BR 3.5: Non-Native Trees. Protect healthy and non-hazardous, non-native trees (e.g., eucalyptus groves) and forests that provide raptor nesting or roosting sites or support colonies of monarch butterflies.
- Policy BR 4.1: Protect Stream Resources. Protect streams and riparian vegetation to preserve water quality and flood control functions and associated fish and wildlife habitat.
- Policy BR 4.2: Minimize Impacts from Development. Minimize the impacts of public and private development on streams and associated riparian vegetation due to construction, grading, resource extraction, and development near streams.
- Policy BR 4.5: Encourage Stream Preservation on Private Lands. Encourage private landowners to protect and preserve stream corridors in their natural state and to restore stream corridors that have been degraded.

- **Policy BR 5.1: Protect Wetlands**. Require development to avoid wetlands and provide upland buffers.
- **Policy BR 5.2: No Net Loss of Wetlands**. Ensure that all public and private projects avoid impacts to wetlands if feasible. If avoidance is not feasible, ensure no net loss of wetlands, consistent with state and federal regulations and this Element.
- **Policy BR 5.3: Wetland Conversion**. Avoid the conversion of wetlands, including vernal pools, except where grazing may improve the health and function of those wetlands. Where grazing occurs in and around wetlands and vernal pools, encourage grazing management that improves the health and function of those wetlands.
- **Policy BR 5.4: Wetlands on Agricultural Lands**. Support use of best management practices and proper range uses to minimize impacts to wetlands on agricultural lands.
- **Policy BR. 6.1: Avoid Impacts to Fisheries**. Require all proposed discretionary land use projects and land divisions to avoid impacts to freshwater and saltwater fisheries and wildlife habitat to the maximum extent feasible. When avoidance is not feasible, offset potential losses of fisheries and wildlife.

City of San Luis Obispo General Plan

The City of San Luis Obispo General Plan (City of San Luis Obispo 2014a, 2014b) includes the following policies related to biological resources:

- **Policy LU 6.6.1: Creek and Wetlands Management Objectives**. The City should manage its lake, creeks, wetlands, floodplains, and associated wetlands to achieve the multiple objectives of:
  - Maintaining and restoring natural conditions, and fish and wildlife habitat;
  - Preventing loss of life and minimizing property damage from flooding;
  - Providing recreational opportunities which are compatible with fish and wildlife habitat, flood protection, and use of adjacent private properties; and
  - Recognizing and distinguishing between those sections of creeks and Laguna Lake which are in previously urbanized areas, such as the downtown core and sections which are in largely natural areas. Those sections already heavily impacted by urban development and activity may be appropriate for multiple use whereas creeks and lakeshore in a more natural state shall be managed for maximized ecological value.
- **Policy LU 6.6.3: Amenities and Access**. New public or private developments adjacent to the lake, creeks, and wetlands must respect the natural environment and incorporate the natural features as project amenities, provided doing so does not diminish natural values. Developments along creeks should include public access across the development site to the creek and along the creek, provided that wildlife habitat, public safety, and reasonable privacy and security of the development can be maintained, consistent with the Conservation and Open Space Element.
- **Policy COS 7.3.1: Protect Listed Species (A-D).**
  A. The City will identify the location, habitat and buffer needs of species listed for protection. This information will be developed by qualified people early in the planning and development review process.
  B. The City will establish and maintain records on the location of listed species. The City will maintain, for public use, generalized maps showing known locations of listed species. Specific site information may be kept confidential to protect the resources.
  C. The City will comply with State and Federal requirements for listed species.
  D. The City will protect listed species through its actions on: land-use designations; development standards; development applications; location, design, construction and maintenance of creeks, City roads and facilities; and on land that the City owns or manages.
- **Policy COS 7.3.2: Species of Local Concern**. The City will:

A. Maintain healthy populations of native species in the long term, even though they are not listed for protection under State or Federal laws. These "species of local concern" are at the limit of their range in San Luis Obispo, or threats to their habitat are increasing.

B. Identify the location, habitat and buffer needs of species of local concern. This information will be developed by qualified people early in the planning and development review process.

C. Protect species of local concern through: its actions on land use designations, development standards, development applications; the location, design, construction, and maintenance of City facilities; land that the City owns or manages.

D. Encourage individuals, organizations, and other agencies to protect species of local concern within their areas of responsibility and jurisdiction.

E. Protect sensitive habitat, including creeks, from encroachment by livestock and human activities.

- Policy COS 7.3.3: Wildlife Habitat and Corridors. Continuous wildlife habitat, including corridors free of human disruption, shall be preserved and where necessary, created by interconnecting open spaces, wildlife habitat, and corridors. To accomplish this, the City will:

  A. Require public and private developments, including public works projects, to evaluate animal species and their movements within and through development sites and create habitats and corridors appropriate for wildlife.

  B. Plan for connectivity of open spaces and wildlife habitat and corridors using specific area plans, neighborhood plans, subdivision maps, or other applicable planning processes, consistent with Open Space Guidelines.

  C. Coordinate with San Luis Obispo County and adjoining jurisdictions, federal and state agencies such as Caltrans to assure regional connectivity of open space and wildlife corridors.

  D. Preserve and expand links between open spaces and creek corridors.

- Policy COS 7.5.1: Protection of Significant Trees. Significant trees, as determined by the City Council upon the recommendation of the Tree Committee, Planning or Architectural Review Committee, are those making substantial contributions to natural habitat or to the urban landscape due to their species, size, or rarity. Significant trees, particularly native species, shall be protected. Removal of significant trees shall be subject to the criteria and mitigation requirements in Chapter 8.6.3 [COS Element Policy]. Oak Woodland communities in the Greenbelt and in open space areas shall be protected.
- Policy COS 7.5.2: Use of Native California Plants in Urban Landscaping. Landscaping should incorporate native plant species, with selection appropriate for location.
- Policy COS 7.5.3: Heritage Tree Program. The City will continue a program to designate and help protect "heritage trees."
- Policy COS 7.5.4: Preservation of Grassland Communities and Other Habitat Types. Grassland communities and other habitat types in the Greenbelt and in designated open space areas shall be preserved.
- Policy COS 7.5.5: Soil Conservation and Landform Modification. Public and private development projects shall be designed to prevent soil erosion, minimize landform modifications to avoid habitat disturbance, and conserve and reuse onsite soils.
- Policy COS 7.7.6: Replace Invasive, Non-Native Vegetation with Native Vegetation. The City and private development will protect and enhance habitat by removing invasive, non- native vegetation that detracts from habitat values by replanting it with native California plant species. The Natural Resources Manager will prioritize projects and enlist the help of properly trained volunteers to assist in non-native vegetation removal and replanting when appropriate.
- Policy COS 7.7.7: Preserve Ecotones. Condition or modify development approvals to ensure that "ecotones," or natural transitions along the edges of different habitat types, are preserved and enhanced because of their

importance to wildlife. Natural ecotones of particular concern include those along the margins of riparian corridors, marshlands, vernal pools, and oak woodlands, where they transition to grasslands and other habitat types.

- Policy COS 7.7.8: Protect Wildlife Corridors. Condition development permits in accordance with applicable mitigation measures to ensure that important corridors for wildlife movement and dispersal are protected. Features of particular importance to wildlife include riparian corridors, wetlands, lake shorelines, and protected natural areas with cover and water. Linkages and corridors shall be provided to maintain connections between habitat areas.
- Policy COS 7.7.9: Creek Setbacks. As further described in the Zoning Regulations [Section 17.16.025], the City will maintain creek setbacks to include: an appropriate separation from the physical top of bank, the appropriate floodway as identified in the Flood Management Policy, native riparian plants or wildlife habitat, and space for paths called for by any city-adopted plan. In addition, creek setbacks should be consistent with the following:

  A. The following items should be no closer to the wetland or creek than the setback line: buildings, streets, driveways, parking lots, aboveground utilities, and outdoor commercial storage or work areas.

  B. Development approvals should respect the separation from creek banks and protection of floodways and natural features identified in Part A above, whether or not the setback line has been established.

  C. Features which normally would be outside the creek setback may be permitted to encroach where there is no practical alternative, to allow reasonable development of a parcel, consistent with the Conservation and Open Space Element.

  D. Existing bridges may be replaced or widened, consistent with policies in this Element. Removal of any existing bridge or restoration of a channel to more natural conditions will provide for wildlife corridors, traffic circulation, access, utilities, and reasonable use of adjacent properties.

- Policy COS 8.3.1: Open Space within an Urban Area. The City will preserve the areas listed in Goal 8.2.2 (creek corridors, including open channel with natural banks and vegetation, wetlands and vernal pools, grassland communities and woodlands, wildlife habitat corridors, habitat of listed species, and unique plant and animal communities including "species of local concern") and will encourage individuals, organizations, and other agencies to do likewise. The City will designate these areas as Open Space or Agriculture in the General Plan.
- Policy COS 8.3.2: Open Space Buffers. When activities close to open space resources within or outside the urban area could harm them, the City will require buffers between the activities and the resources. The City will actively encourage individuals, organizations, and other agencies to follow this policy. Buffers associated with new development shall be on the site of the development, rather than on neighboring land containing the open space resource. Buffers provide distance in the form of setbacks, within which certain features or activities are not allowed or conditionally allowed. Buffers shall also use techniques such as planting and wildlife-compatible fencing. Buffers shall be adequate for the most sensitive species in the protected area, as determined by a qualified professional, and shall complement the protected area's habitat values. Buffers shall be required in the following situations [first situation does not apply to the project]:

  A. Between urban development—including parks and public facilities—and natural habitats such as creeks, wetlands, hillsides and ridgelines, Morros, scenic rock outcrops and other significant geological features, and grassland communities, to address noise, lighting, storm runoff, spread of invasive, non-native species, and access by people and pets (see also the Safety Element for "defensible space" next to wildland fire areas).

  B. Between urban development and agricultural operations, to address dust, noise, odors, chemical use, and access by people and pets.

  C. Between agricultural operations and natural habitat, to address noise, chemical use, sediment transport, and livestock access.

  D. Between new development and cultural resources, to address visual compatibility and access by people.

  E. Between new development and scenic resources or the greenbelt, to address view blockage, lighting and noise, and visual transition from urban character to rural character.

F. Urban development or uses located adjacent to the Urban Reserve Line (URL) to provide a transition to open space or greenbelt areas. Transition areas should add to the preservation of open space lands or resources. At a minimum, a 50-foot transition area (preserved in essentially a natural state) shall be provided within the project along the project boundary with the URL, unless the transition area is defined elsewhere in this Element.

- Policy COS 8.6.3 G: Required Mitigation. Any development that is allowed on a site designated as Open Space or Agriculture, or containing open-space resources, shall be designed to minimize its impacts on open space values on the site and on neighboring land.

  A. Hillside development shall comply with the standards of the Land Use Element, including minimization of grading for structures and access, and use of building forms, colors, and landscaping that are not visually intrusive (See also Chapter [COS Element Policy] 9.21.1).

  B. Creek corridors, wetlands, grassland communities, other valuable habitat areas, archaeological resources, agricultural land, and necessary buffers should be within their own parcel, rather than divided among newly created parcels. Where creation of a separate parcel is not practical, the resources shall be within an easement. The easement must clearly establish allowed uses and maintenance responsibilities in furtherance of resource protection.

- Policy COS 8.7.2 C: Enhance and Restore Open Space. Remove invasive, non-native species in natural habitat areas, and prevent the introduction or spread of invasive, non-native species and pathogens.

3.4.2 Environmental Setting

VEGETATION AND HABITATS

The different land covers on the project site are shown in Figure 3.4-1.

Agriculture

The agriculture land cover type within the project site consists of various irrigated row crops (e.g., strawberries, grapes, vegetables), and orchards (e.g., avocados, olives, lemons). This land cover type does not contain native vegetation communities, but may provide foraging habitat for common raptors and other species.

Developed

Within project site, areas designated as developed include academic, administrative, student support, and recreation facilities; student housing; parking; and ornamental landscaping. This land cover type contains little native habitat, as it does not contain native or naturalized vegetation communities. The developed/disturbed land cover does not support potential special-status plant habitat and is not expected to support special-status wildlife species.

Eucalyptus Grove

Small stands of eucalyptus *(Eucalyptus* spp.) are found within the project site along the Union Pacific Railroad tracks that pass between the West Campus and North Campus portions of the project site.

Nonnative Annual Grassland

Within the project site nonnative annual grasslands are composed of dense to sparse cover of annual grasses, numerous species of annual forbs, and some perennial species, especially geophytes. This community differs from the pasture due to the dominance of annual grass species and a lack of active plowing, seeding, and irrigation. A small portion of the project site in the vicinity of Indonesian Reservoir may be on serpentine soils, and although not mapped, this area could be suitable habitat for serpentine grassland species.

Source: Data received from Hartman Engineering in 2022 and downloaded from City of San Luis Obispo in 2022.

Figure 3.4-1 Land Cover within the Project Site

Pasture

Pastures within the project site are those areas that are managed for the purpose of keeping livestock in fenced paddocks. The pasturelands vary in size and support a mix of bare dirt and nonnative grasses and forbs. These areas are subject to grazing and trampling by livestock. The vegetative composition in the pastures varies over time depending on what species Cal Poly staff have seeded within the area, the amount of irrigation, and the intensity of use.

Riparian Corridor

The riparian corridors within the project are found along Brizzolara Creek and Stenner Creek. The riparian corridors along these creeks include coast live oak (*Quercus agrifolia*), arroyo willow (*Salix lasiolepis*), western sycamore (*Platanus racemosa*), cottonwood (*Populus* spp.), and eucalyptus trees in the overstory. The understory supports native and nonnative shrubs and vines, including coyote brush (*Baccharis pilularis*), California blackberry (*Rubus ursinus*), stinging nettle (*Urtica dioica*), German ivy (*Delairea odorata*), periwinkle (*Vinca major*), and others.

Aquatic Habitats

Brizzolara Creek

Brizzolara Creek flows from the hills northeast of the project site to the southwest through the project site. This creek forms the boundary between the East Campus and the Academic Core subareas, on the south, and the North Campus subarea. At its intersection with Highland Drive, Brizzolara Creek makes an abrupt turn to the south and enters the West Campus subarea. An engineered fish ladder designed for steelhead passage is located at the creek's intersection with Highland Drive. Shortly after passing through the southeast corner of the West Campus subarea, Brizzolara Creek converges with Stenner Creek. Most of the Brizzolara Creek reach in these main campus subareas supports riparian scrub and woodlands including arroyo willow thickets.

Stenner Creek

Stenner Creek flows from the northwest to the southeast through the West Campus subarea.

Unnamed Drainage

In addition to Brizzolara Creek and Stenner Creek, the project site includes an unnamed drainage below Indonesian Reservoir. This drainage supports a riparian corridor both upstream and downstream of the Equine Center. This drainage flows into the pond at the sports complex.

Wetlands and Seasonal Drainages

Seasonal drainages are present within the nonnative annual grassland portions of the project site. These seasonal drainages flow into both Stenner Creek and Brizzolara Creek. In addition to these seasonal drainages, the shorelines of Nelson Reservoir, Shepard Reservoir, Indonesian Reservoir, Smith Reservoir, and Drumm Reservoir within the project site support wetland vegetation.

Retention Ponds and Reservoirs

There are six reservoirs within or directly adjacent to the project site, Middle Camp Reservoir, Nelson Reservoir, Shepard Reservoir, Smith Reservoir, Indonesian Reservoir, and Drumm Reservoir. There are also several small artificial retention ponds within the project site. These waters are held behind constructed dams and berms, and are unlined. The reservoirs support aquatic vegetation and their margins may support numerous common and special-status species.

COMMON WILDLIFE SPECIES

The project site is likely to contain common wildlife species that use the habitats on site for foraging, reproduction, or both. Some of the common wildlife species that may use the site are coast western fence lizard (*Sceloporus occidentalis bocourtii*), American robin (*Turdus migratorius*), great-horned owl (Bubo virginianus), house finch (*Haemorhous mexicanus*), red-shouldered hawk (Buteo lineatus), red-tailed hawk (*Buteo jamaicensis*), California ground squirrel (*Otospermophilus beecheyi*), coyote (*Canis latrans*), racoon (*Procyon lotor*), and striped skunk (*Mephitis mephitis*).

SENSITIVE BIOLOGICAL RESOURCES

Special-Status Species

Special-status species are defined as species that are legally protected or that are otherwise considered sensitive by federal, state, or local resource agencies. Special-status species are species, subspecies, or varieties that fall into one or more of the following categories, regardless of their legal or protection status:

- officially listed by California or the federal government as endangered, threatened, or rare;
- a candidate for state or federal listing as endangered, threatened, or rare;
- taxa (i.e., taxonomic category or group) that meet the criteria for listing, even if not currently included on any list, as described in Section 15380 of the State CEQA Guidelines;
- species identified by CDFW as California species of special concern;
- species listed as fully protected under the California Fish and Game Code;
- species afforded protection under local planning documents; and
- taxa considered by the CDFW to be "rare, threatened, or endangered in California" and assigned a California Rare Plant Rank (CRPR). The CDFW system includes five rarity and endangerment ranks for categorizing plant species of concern, summarized as follows:
  - CRPR 1A Plants presumed to be extinct in California;
  - CRPR 1B Plants that are rare, threatened, or endangered in California and elsewhere;
  - CRPR 2A Plants that are presumed extinct in California but more common elsewhere;
  - CRPR 2B Plants that are rare, threatened, or endangered in California but more common elsewhere;
  - CRPR 3 Plants about which more information is needed (a review list); and
  - CRPR 4 Plants of limited distribution (a watch list).

For the purpose of this analysis, only plants with a CRPR rank of 1A, 1B, 2A, or 2B are considered to be special-status species.

The term "California species of special concern" is applied by CDFW to animals not listed under ESA or CESA, but that are considered to be declining at a rate that could result in listing, or that historically occurred in low numbers and known threats to their persistence currently exist. CDFW's fully protected status was California's first attempt to identify and protect animals that were rare or facing extinction. Most species listed as fully protected were eventually listed as threatened or endangered under CESA; however, some species remain listed as fully protected but do not have simultaneous listing under CESA. Fully protected species may not be taken or possessed at any time and no take permits can be issued for these species except for scientific research purposes or for relocation to protect livestock.

Appendix D provides a list of special-status species potentially occurring in the project vicinity. The list was developed through review of biological studies previously conducted in the area and observations made during the March 2021 and September 2022 reconnaissance site surveys. The CNDDB (CNDDB 2022a), a statewide inventory of the locations and conditions of the State's rarest plant and animal taxa and vegetation types, was also reviewed for specific information on documented observations of special-status species previously recorded in the project vicinity, and the CNPS Inventory of Rare and Endangered Plants was also queried (CNPS 2022). A search of the CNDDB and CNPS was conducted for the following US Geological Survey 7.5-minute quadrangles surrounding the project site: Morro Bay North, Morro Bay South, Port San Luis, Atascadero, San Luis Obispo, Lopez Mountain, Arroyo Grande Northeast, Pismo Beach, and Santa Margarita. The CNDDB is based on actual recorded occurrences that are voluntarily submitted to the database and does not constitute an exhaustive inventory of every resource. Some special-status species (e.g., ringtail) are not tracked in the CNDDB, and not all areas have been surveyed for every potentially occurring special-status species. Therefore, lack of CNDDB record of a particular species in a given area is not evidence of that species' absence from the area.

The species list in Appendix D includes special-status wildlife species with both scientific and common names, legal status, description of habitat associations, and the potential for the species to occur on the project site. Most of the special-status species identified in Appendix D do not occur on the project site or have low potential for occurrence because the habitat elements they require do not occur within the project site. Special-status plant and wildlife species that could occur on or adjacent to the project site are evaluated further in this EIR, and are shown in Tables 3.4-1 and 3.4-2.

The species list in Table 3.4-1 includes both scientific and common names and legal status for the special-status plant species that may or are likely to occur on the project site. The potential for these species to occur was evaluated based on specific habitat requirements, geographic distribution, and elevation range.

Table 3.4-1 Special-Status Plants That May Occur within the Project Site

Species Name	Legal Status1 (Federal/ State/CNPS)
Marsh sandwort *Arenaria paludicola*	FE/SE/1B.1
Coulter's saltbush *Atriplex coulteri*	—/—/1B.2
San Luis mariposa lily *Calochortus obispoensis*	—/—/1B.2
La Panza mariposa lily *Calochortus simulans*	—/—/1B.3
Dwarf calycadenia *Calycadenia villosa*	—/—/1B.1
San Luis Obispo sedge *Carex obispoensis*	—/—/1B.2
San Luis Obispo owl's clover *Castilleja densiflora* ssp. *obispoensis*	—/—/1B.2
Congdon's tarplant *Centromadia parryi* ssp. *congdonii*	—/—/1B.1
Eastwood's larkspur *Delphinium parryi* ssp. *eastwoodiae*	—/—/1B.2
Betty's dudleya *Dudleya abramsii* ssp. *bettinae*	—/—/1B.2
Blochman's dudleya *Dudleya blochmaniae* ssp. *blochmaniae*	—/—/1B.1
San Joaquin spearscale *Extriplex joaquiniana*	—/—/1B.2
Coulter's goldfields *Lasthenia glabrata* ssp. *coulteri*	—/—/1B.1
Jones's layia *Layia jonesii*	—/—/1B.2
Woodland woollythreads *Monolopia gracilens*	—/—/1B.2
Aparejo grass *Muhlenbergia utilis*	—/—/2B.2
Spreading navarretia *Navarretia fossalis*	FT/—/1B.1

Species Name	Legal Status1 (Federal/ State/CNPS)
Shining navarretia *Navarretia nigelliformis* ssp. *radians*	—/—/1B.2
Adobe sanicle *Sanicula maritima*	—/SR/1B.1
Most beautiful jewelflower *Streptanthus albidus* ssp. *peramoenus*	—/—/1B.2
Saline clover *Trifolium hydrophilum*	—/—/1B.2

Notes:

[1] Legal Status Definitions

Federal:

FE Endangered (legally protected by ESA)

FT Threatened (legally protected by ESA)

State:

SE Endangered (legally protected by CESA)

SR Rare (legally protected by NPPA)

California Rare Plant Ranks:

1B Plant species considered rare or endangered in California and elsewhere (protected under CEQA, but not legally protected under ESA or CESA)

2B Plant species considered rare or endangered in California but more common elsewhere (protected under CEQA, but not legally protected under ESA or CESA)

Threat Ranks:

0.1 Seriously threatened in California (over 80% of occurrences threatened; high degree and immediacy of threat)

0.2 Moderately threatened in California (20-80% occurrences threatened; moderate degree and immediacy of threat)

0.3 Not very threatened in California (less than 20% of occurrences threatened; low degree and immediacy of threat or not current threats known)

Sources: CNDDB 2022a; CNPS 2022; Baldwin et al. 2012.

The species list in Table 3.4-2 includes both scientific and common names and legal status for the special-status wildlife species that may occur or are known to occur on the project site. The potential for these species to occur was evaluated based on documented occurrences, specific habitat requirements, geographic distribution, and range.

Table 3.4-2 Special-Status Wildlife Known or With Potential to Occur within the Project Site

Species	Legal Status[1] (Federal/State)
Invertebrates	
Crotch bumble bee *Bombus crotchii*	—/CE
Monarch butterfly *Danaus plexippus*	C/SA
Fishes	
South-Central California Coast steelhead Distinct Population Segment *Oncorhynchus mykiss*	T/SSC
Amphibians and Reptiles	
California red-legged frog *Rana draytonii*	T/SSC
Coast Range newt *Taricha torosa*	—/SSC
Western pond turtle *Actinemys marmorata*	—/SSC
Coast horned lizard *Phrynosoma coronatum*	—/SSC
Birds	
Tricolored blackbird *Agelaius tricolor*	—/E, SSC
Grasshopper sparrow *Ammodramus savannarum*	—/SSC
Burrowing owl *Athene cunicularia*	—/SSC
White-tailed kite *Elanus leucurus*	—/FP
Loggerhead shrike *Lanius ludovicianua*	—/SSC
Purple martin *Progne subis*	—/SSC
Least Bell's vireo *Vireo bellii pusillus*	E/E
Mammals	
Pallid bat *Antrozous pallidus*	—/SSC
Ringtail *Bassariscus astutus*	—/FP
Townsend's big-eared bat *Corynorhinus townsendii*	—/SSC
Western mastiff bat *Eumops perotis*	—/SSC
Monterey dusky-footed woodrat *Neotoma fuscipes annectens*	—/SSC

Species	Legal Status[1] (Federal/State)
Big free-tailed bat *Nyctinomops macrotis*	—/SSC
Mountain lion-Southern California/Central Coast evolutionary significant unit *Puma concolor*	—/CT
American badger *Taxidea taxus*	—/SSC

[1] Legal Status Definitions

Federal:

C Candidate (no formal protection other than CEQA consideration)
E Endangered (legally protected)
T Threatened (legally protected)

State:

FP Fully protected (legally protected)
SA Special Animal List (no formal protection other than CEQA consideration)
SSC Species of special concern (no formal protection other than CEQA consideration)
E Endangered (legally protected)
CE Candidate Endangered (legally protected)
CT Candidate Threatened (legally protected)

Source: CNDDB 2022a.

Sensitive Natural Communities

CDFW maintains a list of plant communities that are native to California (CDFW 2022). Sensitive natural communities are ranked by CDFW from S1 to S3, where S1 is critically imperiled, S2 is imperiled, and S3 is vulnerable. CDFW's natural-community rarity rankings follow the 2009 NatureServe Conservation Status Assessments, in which all alliances are listed with a global (G) and state (S) rank, where G1 is critically imperiled, G2 is imperiled, G3 is vulnerable, G4 is apparently secure, and G5 is secure. These communities may or may not contain special-status species or their habitat.

The Campus Master Plan EIR discussed arroyo willow thicket as a sensitive natural community; however, this community has a current ranking of G4 S4, and is no longer considered a sensitive natural community by CDFW (CDFW 2022). Sensitive natural communities that are documented to occur within the Central California Coast Ecological Section (Board of Forestry 2019) with the potential to occur in the project site are, box-elder forest, torrent sedge patch, California sycamore woodland, Fremont cottonwood forest, black cottonwood forest, red willow thicket, shining willow groves, tar plant fields, leafy stemmed tickseed fields, Idaho fescue grassland, and needle grass - melic grass grassland. While not documented within the project site, these sensitive natural communities may be present within the project site if vegetation meets the membership rules found in the *Manual of California Vegetation Online*.

3.4.3 Environmental Impacts and Mitigation Measures

METHODOLOGY

This impact evaluation is based on data collected during reconnaissance-level field surveys conducted in March 2021 and September 2022, review of aerial photographs, and information from the previously completed Campus Master Plan EIR that addressed biological resources in the project vicinity.

THRESHOLDS OF SIGNIFICANCE

An impact on biological resources would be significant if implementation of the project would:

- have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by CDFW, NOAA Fisheries, or USFWS;
- have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations or by CDFW or USFWS;
- have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool) through direct removal, filling, hydrological interruption, or other means;
- interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites;
- conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance; or
- conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan.

ISSUES NOT DISCUSSED FURTHER

Conflict with Local Policies or Ordinances Related to the Protection of Biological Resources

Appendix G of the State CEQA Guidelines suggests evaluating whether a project would "conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to, a general plan, specific plan, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect." Pursuant to the CSU's sovereignty, development and uses on property under control of Cal Poly that are in furtherance of its educational purposes are not subject to local land use regulation, including County of San Luis Obispo General Plan and City of San Luis Obispo General Plan policies regarding protection of biological resources. Although Cal Poly is not subject to County or City policies and regulations, Cal Poly strives to be consistent with local policies related to the protection of biological resources, where feasible. The potential for the project to affect specific biological resources and measures to reduce impacts to those resources to less than significant are discussed in Impacts 3.5-1 through 3.5-5. As a result, no significant impacts are anticipated, and this issue is not addressed further in this EIR.

Conflict with the Provisions of an Adopted Habitat Conservation Plan, Natural Community Conservation Plan, or Other Approved Local, Regional, or State Habitat Conservation Plan

The project site is not located within or adjacent to the plan area of an adopted habitat conservation plan, NCCP, or any other approved conservation plan. Therefore, the project would not have any impact on an established conservation plan, and the issue is not discussed further in this EIR.

ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

The mitigation measures identified in the following discussion are substantially similar to those in the Campus Master Plan EIR. However, because the project would affect only a portion of the Campus Master Plan area, not all habitats and species addressed therein would be affected; some new species that could be affected have since been listed; and project details and construction techniques have been further refined, which would necessitate numerous minor revisions to Campus Master Plan EIR mitigation measures, and in some cases, incorporation of additional mitigation measures, for clarity, the mitigation measures identified herein were developed to apply specifically to the WRF project as it is currently proposed. Where a mitigation measure was developed based largely on a Campus Master Plan EIR mitigation measure, the Campus Master Plan EIR mitigation measure number is identified in parentheses after the title of the project-specific mitigation measure.

Impact 3.4-1: Have a Substantial Adverse Effect, Either Directly or through Habitat Modifications, on Special-Status Plant Species

Implementation of the project could result in conversion of undeveloped suitable habitats for several special-status plants. Removal of these undeveloped habitats could result in loss of special-status plants if they are present. Loss of special-status plants would be a **significant** impact.

There are 20 special-status plant species (Table 3.4-1) that have the potential to occur within the project site. These plants have the potential to occur within riparian, nonnative annual grassland, and wetland habitat types. CNDDB documents five of these species occurring in areas adjacent to the project site (CNDDB 2022a).

Construction of the influent force main, upper and lower lift stations, recycled water storage reservoir, new distribution lines, the repairing and replacing of existing distribution lines, and modifications to MH-1 siphon, Avocado Pump Station 2, and the Sports Complex Pump Station would cause permanent disturbance to nonnative annual grassland, wetland, serpentine grassland, and riparian corridor habitat. Construction activities that would result in vegetation removal in these undeveloped habitats could result in the loss of special-status plant species if they are present. The project would create permanent disturbance where overstory and ground-level vegetation would be removed for grading and trenching, and equipment would operate on top of existing ground-level vegetation. Plants could be directly removed or damaged, including being broken, crushed, or buried. Damaged plants may experience altered growth and development, or reduced or eliminated seed-set and reproduction, and mortality of individuals or local populations could eventually result. The construction of the WRF, new swine waste collection, and elevated pad and grubbing pile would occur in areas that are already developed or are being used for agriculture and pastureland, and thus it is unlikely that special-status plant species occur in these areas.

Disturbance from construction and ongoing maintenance activities could introduce nonnative and noxious weed species to the project site and surrounding areas. Increased ground disturbance can create suitable habitat for disturbance-adapted noxious weed species. Traffic within the project site would increase during construction and there is a high risk of noxious weeds being introduced or spread to currently uninfested areas via construction equipment and personnel. Noxious weed species can outcompete native vegetation and affect species composition. This could threaten special-status plant species that are within or near the project site.

Construction activities such as grading, trenching, and operation of equipment and vehicles could create substantial amounts of fugitive dust and debris that could settle on nearby vegetation. Dust can interfere with photosynthesis when small particle build-up covers the leaves of a plant. Dust can also prevent or reduce transpiration and respiration if stomata, the tiny pores that take in carbon dioxide and release oxygen on the plant, are blocked by tiny particulate matter. When these physiological functions are disrupted, plants can experience a decrease in vigor, growth, and reproduction that can affect the vitality and survival of individuals or local populations. This could affect nearby special-status plant populations if they are within vicinity of construction-related debris deposition.

For the reasons discussed above, this impact would be **significant**.

Mitigation Measures

The following mitigation measures would be applicable to the project.

Mitigation Measure 3.4-1a: Conduct Special-Status Plant Surveys (Campus Master Plan EIR Mitigation *Measure 3.5-1a*)

Prior to project implementation, Cal Poly shall have a qualified botanist (i.e., a professional biologist with expertise in native and naturalized plants found in California who is able to use appropriate field survey methods and protocols that satisfy documentation and assessment requirements) evaluate the potential for special-status plant habitat at the proposed project site~~s~~ containing undeveloped land cover types as shown in Figure 3.4-1, "Land Cover within the Project Site," of the WRF Project EIR. Should suitable habitat for any special status plant species be identified, the qualified botanist, at Cal Poly's direction, shall conduct protocol-level surveys during the blooming period(s) for the potentially occurring special-status plants that could be removed or disturbed by project activities. Protocol-level surveys shall be conducted in accordance with *Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Natural Communities* (CDFW 2018).

Concurrent with the special-status plant survey, the botanist shall document and map any sensitive natural communities that are present. In addition, the botanist shall document invasive plants within the project site and provide a separate report with the location and extent of invasive plants within the project site to Cal Poly. If special-status plants are not found, the botanist shall document the findings in a letter report to Cal Poly and further mitigation shall not be required.

Mitigation Measure 3.4-1b: Conduct Special-Status Plant Avoidance (*Campus Master Plan EIR Mitigation Measure 3.5-1b*)

If special-status plant species are found on the project site during the protocol-level surveys required by Mitigation Measure 3.4-1a but are located outside of the permanent footprint of any proposed structures/site features and can be avoided, Cal Poly shall avoid and protect these species by establishing a no-disturbance buffer around the area occupied by special-status plants and marking the buffer boundary with high-visibility flagging, fencing, stakes, or clear, existing landscape demarcations (e.g., edge of a roadway); exceptions to this requirement are listed later in this measure. The no-disturbance buffers shall generally be a minimum of 40 feet from special-status plants, but the size and shape of the buffer zone may be adjusted if a qualified botanist determines that a smaller buffer is sufficient to avoid killing or damaging the plants or that a larger buffer is necessary to sufficiently protect plants from the proposed activity. The appropriate buffer size shall be determined based on plant phenology at the time of project initiation (e.g., whether the plants are in a dormant, vegetative, or flowering state), the individual species' vulnerability to the activity being conducted, and environmental conditions and terrain. Consideration of factors such as site hydrology, changes in light, edge effects, and potential introduction of invasive plants and noxious weeds may inform the determination of buffer width. If a no-disturbance buffer is reduced below 40 feet from a special-status plant, a qualified botanist shall provide a site- and/or activity-specific explanation with the biological technical justification for the buffer reduction, which shall be included in a memo to CDFW and Cal Poly.

Mitigation Measure 3.4-1c: Minimize and Compensate for Impacts to Special-Status Plants (*Campus Master Plan EIR Mitigation Measure 3.5-1c*)

If special-status plants are found during protocol-level rare plant surveys and cannot be avoided, Cal Poly shall consult with CDFW and USFWS, as appropriate depending on species status, to determine the appropriate action(s) to achieve no net loss of occupied habitat or individuals. Mitigation measures may include, but are not limited to, preserving and enhancing existing populations, creating off-site populations on mitigation sites through seed collection or transplantation at a 3:1 ratio, and restoring or creating suitable habitat in sufficient quantities which would collectively achieve no net loss of occupied habitat or individuals. Potential mitigation sites could include suitable transplant locations within or outside of the campus. Cal Poly shall develop and implement a site-specific mitigation strategy describing how unavoidable losses of special-status plants shall be compensated consistent with this mitigation measure and the no net loss standard. Success criteria for preserved and compensatory populations shall include:

a) The extent of occupied area and plant density (number of plants per unit area) in compensatory populations shall be equal to or greater than the affected occupied habitat.

b) Compensatory and preserved populations shall be self-producing. Populations shall be considered self-producing when:

    i) plants reestablish annually for a minimum of 5 years with no human intervention such as supplemental seeding; and

    ii) reestablished and preserved habitats contain an occupied area and flower density comparable to existing occupied habitat areas in similar habitat types in the project vicinity.

If off-site mitigation includes dedication of conservation easements, purchase of mitigation credits, or other off-site conservation measures, the details of these measures shall be included in the project-specific mitigation plan, including information on responsible parties for long-term management, conservation easement holders, long-term management requirements, success criteria consistent with those listed above and other details, as appropriate to target the preservation of long-term viable populations.

Mitigation Measure 3.4-1d: Conduct Environmental Monitoring (*Campus Master Plan EIR Mitigation Measure 3.5-1d*)

Cal Poly shall retain an environmental monitor to ensure compliance with the EIR mitigation measures. The monitor shall be responsible for: (1) ensuring that procedures for verifying compliance with environmental mitigations are implemented; (2) establishing lines of communication and reporting methods; (3) conducting compliance reporting; (4) conducting construction crew training regarding environmentally sensitive areas and/or special-status species; (5) maintaining authority to stop work; and (6) outlining actions to be taken in the event of noncompliance. Monitoring shall be conducted full time during the initial vegetation removal (clear/grub activities), then periodically throughout project construction, or at a frequency and duration as directed by the affected natural resource agencies (e.g., USACE, USFWS, CDFW, and RWQCB).

Mitigation Measure 3.4-1e: Avoid Planting Invasive Plants (*Campus Master Plan EIR Mitigation Measure 3.5-3g*)

Project landscaping shall not utilize any species included on the most recent Cal-IPC Inventory.

Mitigation Measure 3.4-1f: Use Clean and Weed-Free Vehicles and Equipment (*Campus Master Plan EIR Mitigation Measure 3.5-3h*)

a) Cal Poly shall require of its contractor(s) that all vehicles and construction equipment arrive at project areas clean and weed free when operating within 100 feet of sensitive natural communities and habitat occupied by special-status plants, to avoid inadvertent transport of invasive species. Equipment shall be inspected by the on-site inspector or environmental monitor for mud and other signs that weed seeds or propagules could be present prior to use in project areas in or within 100 feet of sensitive natural communities and habitat occupied by special-status plants. If the equipment is not clean, the environmental inspector or monitor shall deny access to the work areas until the equipment is clean.

b) Vehicles and equipment shall be cleaned using high-pressure water or air in designated weed-cleaning stations prior to operating within 100 feet of sensitive natural communities and habitat occupied by special-status plants. Cleaning stations shall be designated by a botanist or noxious weed specialist and located away from aquatic resources, riparian areas, and other sensitive natural communities.

Mitigation Measure 3.4-1g: Require Use of Certified Weed-Free Construction Materials (*Campus Master Plan EIR Mitigation Measure 3.5-3i*)

Only certified weed-free construction materials, such as sand, gravel, straw, or fill, shall be used throughout each project site.

Mitigation Measure 3.4-1h: Treat Invasive Plant Infestations (*Campus Master Plan EIR Mitigation Measure 3.5-3j*)

Before construction activities begin within 100 feet of habitat occupied by special-status plants or sensitive natural communities as determined by the protocol-level surveys required by Mitigation Measure 3.4-1a, Cal Poly shall treat invasive plant infestations in the construction area, and within 50 feet of the construction activity area. Any new invasive plant infestations discovered during construction shall be documented, reported to Cal Poly, and treated where needed. After construction is complete, Cal Poly or its contractors shall conduct postconstruction monitoring of all construction disturbance areas within 100 feet of habitat occupied by special-status plants or sensitive natural communities for new invasive plant invasions and expansion of existing weed populations and treat invasive plant infestations where needed. Postconstruction monitoring for invasive plant infestations shall be conducted annually for 3 years..

Mitigation Measure 3.4-1i: Implement Dust and Exhaust Emissions Reduction Measures (*Campus Master Plan EIR Mitigation Measure 3.3-2*)

Based on the San Luis Obispo County Air Pollution Control District (APCD) CEQA Handbook, Cal Poly shall ensure that construction contractors implement the following measures:

<u>Standard Construction Emission Reduction Measures for All Projects</u>

- Staging and queuing areas or diesel idling associated with equipment used during construction of new buildings shall not be located within 1,000 feet of sensitive receptors. This distance can be adjusted if it can be

demonstrated to Cal Poly by the construction contractor, with substantial evidence, that risk levels at nearby receptors would not exceed an estimated risk of 10 chances in a million.

- Off-road diesel equipment shall comply with the 5-minute idling restriction identified in Section 2449(d)(3) of the California Air Resources Board's (CARB's) In-Use Off-Road Diesel regulation.
- Signs shall be posted in the designated queuing areas and job sites to remind off-road equipment operators of the 5-minute idling limit.
- Reduce the amount of the disturbed area where possible.
- Use of water trucks or sprinkler systems in sufficient quantities to prevent airborne dust from leaving the site and from exceeding the APCD's limit of 20 percent opacity for greater than 3 minutes in any 60-minute period. Increasing watering frequency would be required whenever wind speeds exceed 15 miles per hour. Reclaimed (nonpotable) water should be used whenever possible. Please note that during drought conditions, water use may be a concern and the contractor or building shall consider the use of an APCD-approved dust suppressant where feasible to reduce the amount of water used for dust control.
- All dirt stockpile areas shall be sprayed daily as needed.
- Permanent dust control measures identified in the approved project revegetation and landscape plans shall be implemented as soon as possible following the completion of any soil disturbing activities.
- Exposed ground areas that are planned to be reworked at dates greater than one month after initial grading will be sown with fast germinating, noninvasive grass seed and watered until vegetation is established.
- All disturbed soil areas not subject to revegetation shall be stabilized using approved chemical soil binders, jute netting, or other methods approved in advance by APCD.
- All roadways, driveways, sidewalks, etc. to be paved shall be completed as soon as possible. In addition, building pads shall be laid as soon as possible after grading unless seeding or soil binders are used.
- Vehicle speed for all construction vehicles shall not exceed 15 mph on any unpaved surface at the construction site.
- All trucks hauling dirt, sand, soil, or other loose materials shall be covered or should maintain at least two feet of freeboard (minimum vertical distance between top of load and top of trailer) in accordance with California Vehicle Code Section 23114.
- Install wheel washers where vehicles enter and exit unpaved roads onto streets or wash off trucks and equipment leaving the site. "Track-out" is defined as sand or soil that adheres to and/or agglomerates on the exterior surfaces of motor vehicles and/or equipment (including tires) that may then fall onto any highway or street as described in California Vehicle Code Section 23113 and California Water Code 13304. To prevent track-out, designate access points and require all employees, subcontractors, and others to use them. Install and operate a "track-out prevention device" where vehicles enter and exit unpaved roads onto paved streets. The track-out prevention device can be any device or combination of devices that are effective at preventing track-out, located at the point of intersection of an unpaved area and a paved road. Rumble strips or steel plate devices require periodic cleaning to be effective. If paved roadways accumulate tracked-out soils, the track-out prevention device may need to be modified.
- Sweep streets at the end of each day if visible soil material is carried onto adjacent paved roads. Water sweepers with reclaimed water should be used where feasible.
- All of these fugitive dust mitigation measures shall be included on grading and building plans.
- Maintain all construction equipment in proper tune according to manufacturer's specifications.
- Fuel all off-road and portable diesel-powered equipment with CARB-certified motor vehicle diesel fuel (nontaxed version suitable for use off-road).
- Electrify equipment when feasible.

- Substitute gasoline-powered in place of diesel-powered equipment, where feasible.
- All architectural coatings (e.g., paint) used in project buildings and parking areas will not exceed a volatile organic compound content of 50 grams per liter.
- Use diesel construction equipment meeting CARB's Tier 2 certified engines or cleaner off-road heavy-duty diesel engines and comply with the State Off-Road Regulation.
- Use on-road heavy-duty trucks that meet the CARB's 2007 or cleaner certification standard for on-road heavy-duty diesel engines and comply with the State On-Road Regulation.
- Construction or trucking companies with fleets that that do not have engines in their fleet that meet the engine standards identified in the above two measures (e.g. captive or NOx exempt area fleets) may be eligible by proving alternative compliance.
- Use alternatively fueled construction equipment on-site where feasible, such as compressed natural gas, liquefied natural gas, propane, or biodiesel.

Significance after Mitigation

Implementation of Mitigation Measures 3.4-1a through 3.4-1d requires floristic surveys to determine if special-status plants are present in suitable habitat for the species within the project site; avoidance of special-status plants outside of the permanent footprint of the project; consultation with CDFW and USFWS (depending on species status) for any special-status plant that cannot be avoided; mitigation for the loss of special-status plants with a performance standard that achieves no net loss of plants and occupied habitat; creation of a long-term management plan to manage the preserve or compensatory populations; and environmental monitoring to ensure all requirements of environmental mitigation are being met. Implementation of Mitigation Measures 3.4.1e through 3.4-1h requires that the project does not plant invasive plant species; requires the use of certified weed free construction materials; and requires monitoring and treatment of invasive plant infestations within construction areas to prevent spread. Implementation of Mitigation Measure 3.4-1i would reduce fugitive dust by requiring dust suppression activities such as limiting the amount of disturbed area, using water to suppress dust, reducing vehicle speed, and planting groundcover vegetation or using chemical soil binders on bare ground that will not be developed within a month. Implementation of these mitigation measures would avoid, minimize, and compensate for adverse effects such that impacts on special-status plants would be reduced to a **less than significant** level.

Impact 3.4-2: Have a Substantial Adverse Effect on Special-Status Wildlife

Operation of the WRF and application of recycled water to pastures with existing irrigation would not adversely affect special-status wildlife. The construction of project components would occur in suitable habitat for mountain lion and Crotch bumble bee but would not have a substantial adverse effect on those species because it would not result in permanent loss of habitat for these species or reduce the size of local populations. However, construction of the project would occur in suitable habitat and has the potential to result in loss of individuals and substantial adverse effects on several other special-status wildlife species, such as monarch butterfly, South-Central California Coast steelhead, California red-legged frog, western pond turtle, Coast Range newt, coast horned lizard, tricolored blackbird, grasshopper sparrow, burrowing owl, white-tailed kite, least Bell's vireo, loggerhead shrike, purple martin, pallid bat, Townsend's big-eared bat, western mastiff bat, American badger, Monterey dusky-footed woodrat, and ringtail, which would be a **significant** impact.

The project site contains suitable habitat for 22 special-status invertebrates, fish, amphibians, reptiles, birds, and mammals that are known to occur or may occur within the project site (Table 3.4-2). The analysis of project impacts on each of these special-status species is discussed here.

Monarch Butterfly

The western population of monarch butterfly overwinters within wind protected eucalyptus, and other dense tree stands that provide shelter from cold temperatures. The eucalyptus groves and riparian corridors within the project site are potentially suitable overwintering habitat for monarch butterfly. While there is no documentation of monarch

butterfly overwintering within the project site itself, monarch overwintering has been recorded outside of the project site within the Stenner Creek riparian corridor downstream from Highland Avenue, and at other locations in the City (CNDDB 2022a). The number of butterflies observed overwintering along Stenner Creek fluctuated from 0 to 300 individuals between 2003 and 2019 (Cal Poly 2020). In addition to overwintering habitat present within the project site, the pastures and nonnative annual grasslands on the project site provide potential habitat for milkweed plants, which are the host plant for monarch butterfly.

The project would not result in removal of substantial numbers of milkweed plants during project construction and is not anticipated to have substantial effects on monarch butterfly, due to the small amount of habitat suitable for milkweed that would be disturbed by the project (approximately 14 acres) (Figure 3.4-1) when compared to the available habitat for milkweed (e.g., pasture, nonnative annual grassland, riparian corridor) within the campus and vicinity as a whole. The construction of lift stations, pump stations, and the WRF, would not occur within habitat suitable for overwintering monarch butterflies. The construction of the recycled water storage reservoir, the repair and replacement of existing water distribution lines, and the construction of new distribution lines may require removal of eucalyptus and other trees that could provide suitable overwintering habitat for monarch butterflies. Tree removal within the overwintering period (September through March) (Xerces 2017) could result in crushing of individuals or exposure of butterflies to cold which could result in mortality. In addition, construction may produce noise and human disturbance directly adjacent to overwintering monarch butterflies, if construction occurs during the overwintering period, resulting in butterflies taking flight and being exposed to cold temperatures, which could result in mortality of significant numbers of individuals. In addition, tree removal and disturbance within monarch butterfly overwintering habitat, could result in long term loss of overwintering habitat. The loss of overwintering monarch populations or overwintering habitat as a result of project activities would be a **potentially significant** impact.

Mitigation Measures

The following mitigation measures would be applicable to the project.

Mitigation Measure 3.4-2a: Conduct Surveys for Areas with Significant Potential for Overwintering Monarch Butterfly Sites (*Campus Master Plan EIR Mitigation Measure 3.5-2a*)

a) Cal Poly shall retain a monarch butterfly habitat specialist to conduct surveys in riparian, live oak woodland, nonnative oak woodland, and eucalyptus grove habitat within 300 feet of the project site and identify areas with significant potential for overwintering monarch butterflies. The monarch butterfly habitat specialist shall provide Cal Poly with a report summarizing the result of the surveys, including a map of areas with significant potential for overwintering monarch butterflies. Cal Poly shall use the report to identify overwintering sites that are within 300 feet of the project site. If no project components are within 300 feet of identified habitat, no further mitigation is required. If project components are identified within 300 feet, then the following measure shall apply.

b) Preconstruction surveys shall be conducted for potential overwintering monarch butterfly sites within 300 feet of any proposed 2035 Master Plan project construction areas. Surveys for overwintering aggregations of monarch butterflies shall be conducted over the winter season (November 1 to first week of March) before construction activities within 300 feet of the potential butterfly overwintering zone. A minimum of two surveys shall be conducted at least one month (30 days) apart within the monarch butterfly wintering season (November 1 to first week of March). Surveys shall follow survey methods specified by the Xerces Society for Invertebrate Conservation (Xerces 2011). If no overwintering monarch butterflies are found, no further mitigation is required. If overwintering monarch butterflies are found, then the following additional measures shall be implemented.

Mitigation Measure 3.4-2b: Implement Avoidance of Overwintering Monarch Butterfly and Protection of Active Overwintering Monarch Butterfly Sites (*Campus Master Plan EIR Mitigation Measure 3.5-2b*)

Construction activities in and around butterfly overwintering sites identified pursuant to Mitigation Measure 3.4-2a shall start outside of the overwintering season (overwintering season is typically between November 1 and the first week of March), to the greatest extent feasible, to avoid potential impacts on monarch butterfly overwintering

habitat. However, when it is not feasible to avoid the overwintering season and construction activities take place during this time, the following measures shall apply.

If an active overwintering site is located, work activities shall be delayed within 300 feet of the site location until avoidance measures have been implemented. Appropriate avoidance measures shall include the following measures (which may be modified as a result of consultation with CDFW to provide equally effective measures):

a) If the qualified wildlife biologist determines that construction activities would not affect an active overwintering site, activities shall proceed without restriction.

b) If the wildlife biologist determines there is a potential to affect an active overwintering site, a no-disturbance buffer shall be established around the overwintering site to avoid disturbance or destruction. The extent of the no-disturbance buffers shall be determined by the qualified wildlife biologist familiar with monarch butterfly and in consultation with CDFW. Buffers shall be maintained until March 7 or until the qualified biologist determines that the monarch butterflies have left the wintering site.

c) Throughout the year, Cal Poly shall avoid removing or trimming trees utilized by monarch butterflies or documented as active within the last 3 years pursuant to Mitigation Measure 3.4-2a, as well as trees adjacent to the documented active winter roost areas to prevent adverse indirect changes to the humidity, wind exposure, and temperature within the immediate vicinity of the roost site, unless Cal Poly consults with a monarch butterfly habitat specialist to identify appropriate variances to this measure. Any routine tree trimming shall be done between April and October to eliminate the risk of disturbance to overwintering monarch colonies during the core overwintering/clustering period and shall be conducted following the Management Guidelines for Monarch Butterfly Overwintering Habitat (Xerces 2017) and under the supervision of the monarch habitat specialist. This mitigation measure does not apply to removal or trimming of hazard trees or branches or management of the wintering site for the benefit of monarch butterfly.

Mitigation Measure 3.4-2c: Conduct Environmental Monitoring (*Campus Master Plan EIR Mitigation Measure 3.5-1d*)

If a no-disturbance buffer is established around an overwintering site, implement Mitigation Measure 3.4-1d.

Significance after Mitigation

Implementation of Mitigation Measure 3.4-2a requires surveys to identify overwintering monarch butterfly sites. Mitigation Measure 3.4-2b requires the avoidance of overwintering sites by delaying construction within 300 feet of the site and consultation with CDFW, and it requires Cal Poly to avoid removing or trimming trees utilized by overwintering monarch butterflies or adjacent to the winter roost unless consultation with a monarch butterfly habitat specialist determines the activity will not disturb the overwintering butterflies. By implementing these measures, potential impacts on overwintering monarch butterflies would be reduced to **less than significant**.

Crotch Bumble Bee

Crotch bumble bees have been documented to occur within the City of San Luis Obispo as recently as 2009 (CNDDB 2022a). Crotch bumble bee is a colonial nesting species that nests underground and may be found in pastures, nonnative annual grassland, and adjacent riparian habitat within the project site. The species may use abandoned rodent burrows and similar features within suitable habitat to establish nest colonies. Solitary queens may overwinter under leaf litter or in small cavities a few centimeters into loose soil. The flight season for Crotch bumble bee queens is from late February to late October, peaking in early April and July. The flight season for workers and males is from late March through September when the colony is active. Crotch bumble bees are generalist foragers that feed from open flowers with short corollas (Xerces 2018).

The construction of lift stations, pump stations (other than modifications at Avocado Pump Station 2), the WRF, and the recycled water storage reservoir would not occur within suitable habitat for Crotch bumble bee. Modifications at Avocado Pump Station 2, a portion of the repair and replacement of existing water distribution lines, and the construction of new distribution lines would occur within nonnative annual grassland, pasture, or riparian habitat potentially suitable for Crotch bumble bee nesting, foraging, and overwintering. The construction of project components within suitable habitat would not substantially reduce the locally available suitable habitat for Crotch

bumble bee because of the relatively small project impact area (approximately 14 acres) and the abundance of available habitat on the campus and within the vicinity.

Information on bumble bees in general, and Crotch bumble bee specifically, is gradually becoming more available. However, there is limited information on the abundance of Crotch bumble bee in California or on colony size of the species (CDFW 2019), and a current lack of published information on the potential magnitude of effects from the loss of individual Crotch bumble bee overwintering queens or nests on populations of the species. Therefore, assessing the impact on the species due to the potential loss of overwintering queens or nests from this project would be speculative, and further analysis of this issue is not included in accordance with CEQA Guidelines Section 15064(d)(3), although as a candidate for listing under CESA, an ITP may be required if project activities may result in loss of individual Crotch bumble bees.

Due to the limited acreage of suitable habitat that would be temporarily disturbed by the project and the unknown effects on nests and overwintering queens, it is unlikely that populations of these species would be reduced below self-sustaining levels as a result of implementation of the proposed project, or that the project would substantially reduce the number or restrict the range of this species, and the impact of the project would be **less than significant**.

South-Central California Coast Steelhead

The South-Central California Coast steelhead distinct population segment occurs within both Brizzolara Creek and Stenner Creek (Cal Poly 2020). These two streams are also designated critical habitat for the species. Upper Stenner Creek, upstream from the project site, maintains perennial flows; however, within the project site the creek is frequently dry in the summer. The portion of Brizzolara Creek within the project site (at Highland Drive) is often wet in the summer. Suitable steelhead spawning habitat occurs within Brizzolara Creek, and spawning and rearing habitat is present within Stenner Creek below the confluence with Brizzolara Creek outside of the project site (Stillwater Sciences 2019).

The operation of the WRF would not alter flows within Stenner Creek or Brizzolara Creek. The project proposes to replace existing nonpotable water for irrigation with recycled water and would not change use of ground water wells to meet campus water needs (Section 2.2.4). Recycled water would be applied at agronomic rates to areas that currently receive irrigation, which would primarily occur during the growing season (April through October), but also may occur at other times of the year as needed. Furthermore, application of recycled water at agronomic rates would prevent overwatering, runoff, and ponding. Therefore, recycled water is not anticipated to be discharged into Stenner Creek or Brizzolara Creek.

The construction of lift stations, pump stations, the WRF, and the recycled water storage reservoir would not occur within Stenner Creek, Brizzolara Creek, or associated riparian habitat. In addition, because the project would result in land disturbance greater than 1 acre, Cal Poly would be required under existing regulations to prepare a storm water pollution prevention plan (SWPPP). The SWPPP would require the implementation of construction best management practices that would avoid and minimize construction runoff. Therefore, the construction of these project components would not have an impact on South-Central California Coast steelhead.

The repair and replacement of existing water distribution lines and the construction of new distribution lines would require crossing of Stenner Creek and Brizzolara Creek. The crossing of Brizzolara Creek by the influent force main and distribution line would not occur within the creek or associated riparian habitat, because the creek is undergrounded in a culvert at the point of crossing and no riparian corridor is present.

The repair and replacement of two existing water distribution lines and the construction of a new distribution line would cross Stenner Creek in an area of the creek that is normally dry during the summer months (Stillwater Sciences 2019). These water lines would be constructed using jack and bore methods and would therefore, cross under the creek bed and would not result in direct physical disturbance to the creek or loss of aquatic habitat for the species. However, if the construction is conducted when the creek is wet, and South-Central California Coast steelhead are present, vibrations from use of the jack and bore technique could result in disturbance of steelhead, interruption of migration, and potentially increase predation risk by flushing steelhead from cover within the creek. While the jack and bore method would reduce the impact to riparian vegetation within the riparian corridor of Stenner Creek, some

riparian vegetation within the riparian corridor could be disturbed or removed during establishment of the work area needed for laydown on either side of the crossing (50 feet by 100 feet). However, the disturbance would be away from the bank of the creek and therefore unlikely to result in changes to stream shading. Furthermore, the implementation of the SWPPP would prevent any indirect impacts from decreased soil stability and increased runoff to the creek as a result of vegetation removal. Vibrations during jack and bore operations could result in disturbance and increased predation of South-Central California Coast steelhead if conducted when the species may be present; therefore, the impact of the project on South-Central California Coast steelhead would be **potentially significant**.

Mitigation Measures

The following mitigation measures would be applicable to the project.

Mitigation Measure 3.4-2d: Conduct Steelhead Impact Avoidance (*Campus Master Plan EIR Mitigation Measure.5-2j*)

Where work in Stenner Creek or Brizzolara Creek, their tributaries, or their riparian areas is required, all such work shall be conducted between June 15 and October 15 or as approved by a qualified biologist in coordination as required with USACE, NMFS, and CDFW.

Mitigation Measure 3.4-2e: Avoid and Protect Brizzolara and Stenner Creeks (*Campus Master Plan EIR Mitigation Measure 3.5-3a*)

For construction activities in the vicinity of Brizzolara and Stenner Creeks, a 50-foot buffer from the outer extent of the top-of-bank or outer extent of riparian vegetation, whichever is greater, shall be established unless a qualified biologist determines, based on site-specific conditions, that a larger or smaller buffer would be sufficient to avoid impacts on sensitive natural communities or riparian woodland. Development of new parking areas and buildings within this buffer shall be prohibited.

Mitigation Measure 3.4-2f: Implement Low-Impact Development Principles (*Campus Master Plan EIR Mitigation Measure 3.5-3b*)

Pursuant to 2035 Master Plan Principle OR 17, Cal Poly shall incorporate Low-Impact Development principles in the design of all projects within 100 feet of Brizzolara Creek, Stenner Creek, campus reservoirs, waterways and riparian areas unless a qualified biologist determines, based on site-specific conditions, that a larger or smaller buffer would be sufficient to avoid impacts on these resources.

Mitigation Measure 3.4-2g: Install Exclusion Fencing (*Campus Master Plan EIR Mitigation Measure 3.5-3c*)

Prior to construction within 100 feet of Brizzolara Creek, Stenner Creek, campus reservoirs, and other campus waterways, all grading plans shall clearly show the outer limits of riparian vegetation or top-of-bank features and specify the location of project delineation fencing that excludes the riparian areas from disturbance. The project delineation fencing shall remain in place and functional throughout the duration of the project, and no work activities shall occur outside the delineated work area.

Mitigation Measure 3.4-2h: Map and Protect Waterways and Riparian Areas (*Campus Master Plan EIR Mitigation Measure 3.5-3d*)

Prior to construction, plans shall clearly show all staging areas, which shall be located a minimum of 100 feet outside of the Brizzolara Creek, Stenner Creek, campus reservoirs, and other campus waterways and riparian areas. The minimum buffer size may be reduced at the discretion of a qualified biologist if, based on local habitat conditions and project features, the buffer is sufficient to avoid construction-related disturbances to waterways and riparian areas.

Mitigation Measure 3.4-2i: Minimize Ground Disturbance in Sensitive Natural Community Areas (*Campus Master Plan EIR Mitigation Measure 3.5-3e*)

Cal Poly shall require that ground disturbance, vegetation removal, and tree removal is limited to that necessary for construction in sensitive natural communities and riparian areas.

Mitigation Measure 3.4-2j: Conduct Environmental Monitoring (*Campus Master Plan EIR Mitigation Measure 3.5-1d*)

For work in Stenner Creek or Brizzolara Creek, their tributaries, or their riparian areas, implement Mitigation Measure 3.4-1d.

Significance after Mitigation

Implementation of Mitigation Measure 3.4-2d, which requires steelhead impact avoidance by allowing construction activities to occur only during the dry season when water is absent from the creeks and their tributaries; and Mitigation Measure 3.4-2e, which requires implementation of water-quality protection measures to prevent construction activities from generating silt discharge into the creeks or their tributaries; Mitigation Measure 3.4-2f, which requires establishment of a riparian buffer where appropriate; Mitigation Measure 3.4-2g, which requires fencing that excludes riparian areas from disturbance where appropriate; and Mitigation Measure 3.4-2h, which requires staging areas to include a buffer from riparian areas; Mitigation Measure 3.4-2i, which requires limiting vegetation removal in riparian areas, and Mitigation Measure 3.4-2j, which requires environmental monitoring for steelhead for work in the riparian areas associated with Stenner Creek and Brizzolara Creek, would reduce impacts on steelhead to a **less than significant** level.

California Red-Legged Frog

California red-legged frog has been documented to occur within the project site. One occurrence of California red-legged frog was documented in the Swine Unit pond in 2011 (Cal Poly 2020) and the species has been documented to occur historically within Brizzolara Creek (CNDDB 2022a). California red-legged frogs prefer aquatic habitats with little or no flow, the presence of surface water to at least early June, surface water depths of at least 2 to 3 feet, and the presence of sturdy underwater supports such as cattails (Cal Poly 2020). Studies have demonstrated that California red-legged frogs remain very close to breeding habitat during the breeding season and typically do not move more than approximately 300 feet into upland habitats (Bulger et al. 2003; Fellers and Kleeman 2007). However, adult and juvenile California red-legged frogs are known to travel through upland habitat (e.g., riparian, woodland, grassland) to move between breeding and nonbreeding sites (e.g., other ponds, deep pools in streams, moist and cool riparian understory, burrows) for access to refugia and foraging habitat, or to disperse to new breeding locations. During these movements through uplands, which typically occur during the wet season (between October 15 and April 15), California red-legged frogs may travel long distances from aquatic habitat, typically travel in straight lines irrespective of vegetation types, and have been documented to move over 1.7 miles between aquatic habitat sites (Bulger et al. 2003).

Shepard Reservoir contains water most of the year, and the nonnative annual grassland within the vicinity of the reservoir provides potentially suitable upland shelter habitat for California red-legged frogs. Smith Reservoir is typically dry most of the year during normal rainfall years (Cal Poly 2020); consequently, it provides suitable nonbreeding aquatic habitat when water is present. Neither of these reservoirs are known to support California red-legged frogs. In addition, there is an abundance of bull frogs (*Lithobates catesbeianus*), which prey on California red-legged frog, in the reservoirs. The presence of bull frogs substantially reduces the suitability of habitat for California red-legged frog, but does not prevent the species from occurring in these waters. The Swine Unit ponds intermittently contain contaminated water that drains from the pig holding areas, and these ponds may contain aquatic vegetation when the ponds have held water consistently. However, due to the contaminated water in the Swine Unit ponds and extended drying periods, these ponds are only marginally suitable nonbreeding habitat.

Stenner Creek, the unnamed drainages, Smith Reservoir, the Swine Unit ponds, and other detention ponds within the project site are seasonal and can be dry during normal rainfall years. Due to the intermittent nature of these waters and the presence of bull frogs, it is unlikely that California red-legged frog would breed in these features. However, considering the documented observation of California red-legged frog at the Swine Unit ponds (Cal Poly 2020), the presence of potential breeding habitat in Shepard Reservoir, and the distance of the Swine Unit ponds, and other seasonal waters from Shepard Reservoir (less than 1.7 miles), the presence of this species when water is present in the reservoirs, ponds, and drainages cannot be ruled out. The upland pastures surrounding the reservoirs and drainages are heavily used by horses and other livestock and do not support suitable upland shelter refugia (dense vegetation, moist soils, or debris that maintain moist conditions). Therefore, California red-legged frog and other amphibians are not expected to utilize the upland pastures for shelter during the dry season. If California red-legged frogs were

present in the project site during the dry season, they would remain in the wetted or moist portions of the reservoir(s), ponds, and drainages.

Construction of project components would occur within suitable upland dispersal habitat for California red-legged frog. Therefore, construction that occurs within the wet season (first rains after October 15 through April 15), has the potential to result in injury or mortality of dispersing California red-legged frogs through crushing by equipment. It is unlikely that California red-legged frog would be trapped in open trenches, due to the trenches being backfilled or covered at the end of each workday (Section 2.6.3).

The crossing of creeks by new water distribution lines or the replacement and repair of existing distribution lines would occur through the use of jack and bore methods, which would avoid direct impacts to these waters; however, these methods require up to approximately 0.82 acre of vegetation removal in addition to temporary construction areas approximately 50 feet by 100 feet in size. This disturbance would likely be within 300 feet of these creeks, which may provide year-round habitat for California red-legged frog. Construction of these project components and other project components that would occur within 300 feet of perennial waters (e.g., Avocado Pump Station 2), may result in injury or mortality of California red-legged frog.

The Swine Unit ponds that may provide marginal nonbreeding aquatic habitat for California red-legged frog in wet years, are located within the construction footprint of the recycled water storage reservoir. The construction of the recycled water storage reservoir is not likely to result in a permanent loss of nonbreeding habitat, because the new reservoir is likely to provide similar low-quality habitat. However, should construction of the recycled water storage reservoir occur when water is present in the Swine Unit ponds, and dewatering is required (Section 2.6.3), injury or mortality of California red-legged frogs could occur if the species is present.

While the project is not anticipated to result in loss of habitat for California red-legged frog, construction of project components could result in injury or mortality of individuals of the species, which would be a **significant** impact.

Mitigation Measures

The following mitigation measures would be applicable to the project.

Mitigation Measure 3.4-2k: Prepare Project-Specific California Red-Legged Frog Habitat Assessment (*Campus Master Plan EIR Mitigation Measure 3.5-2c*)

Cal Poly shall prepare a project-specific California red-legged frog habitat assessment. The assessment shall be prepared in coordination with, and shall be submitted for review by, USFWS. The assessment shall be prepared in accordance with the USFWS Revised Guidance on Site Assessments and Field Surveys for the California Red-Legged Frog (USFWS 2005), or the most recent applicable guidance. The assessment shall specifically evaluate reservoirs, ponds, and drainages and their upland areas that may be disturbed by the project.

Mitigation Measure 3.4-2l: Conduct California Red-Legged Frog Consultation (*Campus Master Plan EIR Mitigation Measure 3.5-2d*)

For project activities that would affect jurisdictional water features and California red-legged frog and/or California red-legged frog critical habitat as determined by implementing Mitigation Measure 3.4-2k, Cal Poly shall coordinate with USACE during the CWA Section 404 permitting process regarding consultation with USFWS about the potential for these activities to result in take of California red-legged frog and/or California red-legged frog critical habitat. If USACE, in consultation with USFWS, determines that the proposed project may affect or result in take of California red-legged frog, USFWS may issue a Biological Opinion with an incidental take statement for the project. Cal Poly shall comply with all measures included in the Biological Opinion, which may include compensatory mitigation for permanent and/or temporary loss of habitat, construction monitoring, salvaging of California red-legged frog, and installation of exclusion fencing between the project site and adjacent habitats.

If USACE declines to take jurisdiction over the project, thus removing a federal nexus from the project, Cal Poly shall consult directly with USFWS pursuant to Section 10 of the ESA. If USFWS determines that the project may affect or result in take of California red-legged frog or result in detrimental modification of critical habitat, it may ask Cal Poly to prepare a habitat conservation plan and obtain an ITP. Cal Poly shall comply with all measures included in the ITP.

Mitigation Measure 3.4-2m: Avoid California Red-Legged Frog during the Wet Season (*Campus Master Plan EIR Mitigation Measure 3.5-2e*)

To avoid the potential for take of California red-legged frogs, the initial ground-disturbing activities associated with the project that would occur in California red-legged frog habitat, as determined from Mitigation Measure 3.4-2k shall be completed in the dry season (between April 15 and the first rain following October 15) and when habitat is dry. Regardless of the seasonal rain patterns, no ground-disturbing activities may occur on these sites between first fall rains and May 31 of any year without prior authorization or concurrence from USFWS and CDFW.

Mitigation Measure 3.4-2n: Conduct Preconstruction Surveys for California Red-Legged Frog (*Campus Master Plan EIR Mitigation Measure 3.5-2f*)

Prior to construction of project components that would occur in California red-legged frog habitat as determined from Mitigation Measure 3.4-2k, Cal Poly shall retain a qualified biologist with demonstrated experience surveying for California red-legged frog. The biologist shall conduct preconstruction surveys for California red-legged frog. The survey(s) must be conducted within 48 hours before the site disturbance and encompass the entire project disturbance area and a 100-foot buffer of the disturbance area(s).

If California red-legged frog(s) are observed during the survey, the biologist shall immediately contact Cal Poly and inform them of the survey findings. Cal Poly shall delay the project activities that were planned to occur in the area until Cal Poly consults with USFWS and secures any necessary approvals, including a Biological Opinion or an ITP as may be applicable, to move forward with the project. In the absence of USFWS approval, the surveying biologist shall not capture, handle, or otherwise harass California red-legged frog. Cal Poly and its contractors shall comply with all measures within any Biological Opinion or ITP that is required for the project.

Mitigation Measure 3.4-2o: Avoid and Protect Brizzolara and Stenner Creeks (*Campus Master Plan EIR Mitigation Measure 3.5-3a*)

Implement Mitigation Measure 3.4-2e.

Mitigation Measure 3.4-2p: Install Exclusion Fencing (*Campus Master Plan EIR Mitigation Measure 3.5-3c*)

Implement Mitigation Measure 3.4-2g.

Mitigation Measure 3.4-2q: Map and Protect Waterways and Riparian Areas (*Campus Master Plan EIR Mitigation Measure 3.5-3d*)

Implement Mitigation Measure 3.4-2h.

Mitigation Measure 3.4-2r: Conduct Environmental Monitoring (*Campus Master Plan EIR Mitigation Measure 3.5-1d*)

For work that would occur in California red-legged frog habitat, implement Mitigation Measure 3.4-1d.

Significance after Mitigation

With implementation of Mitigation Measure 3.4-2k, which requires an assessment to identify California red-legged frog habitat; Mitigation Measure 3.4-2l, which requires consultation with the USFWS; Mitigation Measure 3.4-2m, which requires avoiding the California red-legged frog wet season; Mitigation Measure 3.4-2n, which requires preconstruction surveys before project implementation and consultation if California red-legged frog are located and cannot be avoided; Mitigation Measure 3.4-2o, which requires the implementation of waterway protection measures; Mitigation Measure 3.4-2p, which requires fencing that excludes waterways and riparian areas from disturbance where appropriate; Mitigation Measure 3.4-2q, which requires staging areas to include a buffer from waterways and riparian areas; and Mitigation Measure 3.4-2r, which requires environmental monitoring for California red-legged frog for work in California red-legged frog habitat, potential impacts on California red-legged frog would be avoided or reduced to **less than significant**.

Other Special-Status Reptiles and Amphibians

Western pond turtles inhabit quiet waters of ponds, small lakes, streams, and marshes, and require basking sites, such as partially submerged logs, rocks, mats of floating vegetation, or open mud banks. Western pond turtle may nest in pasture and grasslands up to 1,500 feet from aquatic habitat (Reese and Welsh 1997). Coast range newts typically occur in ponds, reservoirs, and slow-moving streams where they breed, although the species is known to make overland dispersal movements during rainy weather. Western pond turtle and coast range newt are known to occupy a variety of aquatic habitats near the project site, including Brizzolara Creek, Miossi Creek, and Stenner Creek (Cal Poly 2020; CNDDB 2022a), and may occur within perennial waters, riparian corridors, pastures and nonnative annual grasslands in the project site as well. Although not documented to occur within the project site, coast horned lizard may be present in riparian corridors, pastures, and nonnative annual grasslands within and adjacent to the project site.

The construction of project components would occur within approximately 14 acres of suitable habitat for coast horned lizard, coast range newt, and western pond turtle. Construction activities may result in the crushing and injury or mortality of individuals of all these species, and the loss of nests and eggs of coast horned lizard and western pond turtle. In addition, the construction of the recycled water reservoir may result in injury or mortality of western pond turtle if the Swine Unit ponds are occupied by western pond turtle, contain water at the time of construction, and require dewatering (Section 2.6.3). The construction and repair/replacement of water lines under the creeks would require use of jack and bore methods and would not directly impact aquatic habitat for western pond turtle and coast range newt; however, temporary construction areas required to support the use of jack and bore methods would occur within suitable upland habitat for western pond turtle, coast range newt, and coast horned lizard, and construction activities in these areas could result in injury or mortality of individuals due to crushing by equipment. However, it is unlikely that coast range newts, western pond turtles, or coast horned lizards would become trapped in open trenches, due to trenches being filled or covered at the end of each workday (Section 2.6.3). The construction of project components in pastures, nonnative grasslands, and riparian habitats, while not anticipated to result in permanent habitat loss, could result in the injury or mortality of individual western pond turtle, coast range newt, and coast horned lizard. The loss of individuals of these species would be a **potentially significant** impact.

Mitigation Measures

The following mitigation measure would be applicable to the project.

Mitigation Measure 3.4-2s: Conduct Western Pond Turtle, Coast Range Newt, and Coast Horned Lizard Surveys and Relocation (*Campus Master Plan EIR Mitigation Measure 3.5-2t*)

To minimize adverse effects on special-status reptiles and amphibians, other than California red-legged frog, Cal Poly shall implement the following measures:

a) Prior to the construction of project components within pastures, nonnative annual grasslands, or riparian corridors, Cal Poly shall retain a qualified biologist to survey for coast horned lizard within 2 weeks of project activities. If no coast horned lizards, or their eggs or nests are observed, no further mitigation is required.

b) Prior to the construction of project components that requires dewatering, dredging, or fill of an aquatic site (e.g., Swine Unit ponds), or ground-disturbing activities within inactive pasturelands or nonnative grassland with a southern sun exposure within 1,500 feet of any aquatic habitat, Cal Poly shall retain a qualified biologist to survey for western pond turtle and coast range newt within 2 weeks of project activities. If no western pond turtle, coast range newt, or their eggs or nests are observed, no further mitigation is required. If coast horned lizard, western pond turtle, coast range newt, their eggs or nests are found then the following shall be conducted:

c) Cal Poly shall retain a qualified biologist to capture and relocate coast horned lizard, western pond turtle, and coast range newt adults and juveniles. Capture and relocation efforts must be conducted using visual survey and hand capture techniques. Any captured coast horned lizard, western pond turtles, and coast range newts must be relocated to nearby suitable habitat that shall not be affected by project activities.

d) If coast horned lizard nests, newt egg masses and/or larvae, or western pond turtle nests are identified, construction shall be delayed until the eggs have hatched and individuals are capable of vacating the site or being

relocated. Because of the delicate nature of newt egg masses/larvae and habitat requirements of western pond turtle and coast horned lizard nests, delaying construction is the only viable method to protect the resource.

Mitigation Measure 3.4-2t: Conduct Environmental Monitoring (*Campus Master Plan EIR Mitigation Measure 3.5-1d*)

Where construction of project components would occur within pastures, nonnative annual grasslands, or riparian corridors, including dewatering, dredging, or fill of an aquatic site (e.g., Swine Unit ponds), or ground-disturbing activities within inactive pasturelands or nonnative grassland with a southern sun exposure within 1,500 feet of any aquatic habitat, implement Mitigation Measure 3.4-1d.

Significance after Mitigation

With implementation of Mitigation Measure 3.4-2s, which requires surveys for western pond turtle, Coast Range newt, and coast horned lizard to identify occupied habitat, avoiding eggs and nests of these species by delaying construction, and relocating individuals outside of the work areas, and Mitigation Measure 3.4-2t, which requires environmental monitoring for western pond turtle, Coast Range newt, and coast horned lizard for work in potentially suitable habitat for these species, potential impacts to special-status reptiles and amphibians, other than California red-legged frog, would be reduced to a **less than significant** level.

Special-Status and Common Nesting Birds and Raptors

The project site provides foraging and nesting habitat for several special-status bird species, as well as many species of common nesting birds.

Potentially suitable nesting habitat for tricolored blackbird colonies is present within the riparian vegetation along the reservoirs and creeks within the project site, and suitable foraging habitat is present within pasture, grassland, and agricultural habitats. The nearest recorded nesting colony is approximately 1.7 miles north of the main campus (CNDDB 2022a). During a June 26, 2019, field survey, a small flock of tricolored blackbirds was observed foraging in the fields within the project site (Cal Poly 2020). The construction of project components would not substantially reduce the available foraging habitat in the vicinity of the project due to the relatively small impact footprint (approximately 18 acres) when compared with the large amount of agricultural land, pasture, and grassland habitat available on the campus. The project may also result in minor nesting habitat removal due to trimming of riparian vegetation for the repair and replacement of existing distribution lines and construction of new lines. While this loss of potential nesting habitat would not be substantial when compared to the available riparian habitat in the vicinity of the project, construction activities could result in disturbance of nesting colonies, resulting in abandonment or failure, and mortality of chicks and eggs.

Suitable nesting habitat for burrowing owl, grasshopper sparrow, and loggerhead shrike is present within nonnative annual grassland, agricultural land, and pastures within the project site. The construction of project components would not substantially reduce the available nesting habitat for these species in the vicinity of the project due to the relatively small permanent impact footprint (approximately 18 acres) when compared with the large amount of pasture, grassland, and agricultural habitat available on the campus and in the vicinity; however, construction activities could result in disturbance of nests, resulting in abandonment or failure, and mortality of chicks and eggs.

Suitable nesting habitat for white-tailed kite, least Bell's vireo, and purple martin is present within the project site. Large trees within the riparian corridors on the project site may provide suitable nesting habitat for while-tailed kite, and purple martin. In addition, to nesting in trees, purple martin may utilize human made structures within riparian habitat (e.g., bridges, box culverts). Least Bell's vireo may nest within dense shrub vegetation within the riparian corridors of Brizzolara Creek, Stenner Creek, and the unnamed creek below Indonesian Reservoir. The project is not likely to result in a substantial loss of nesting habitat for these species, because while approximately 0.82 acre of riparian vegetation and 0.48 acre of eucalyptus grove would be removed, it would not result in a substantial loss of habitat for these species, when compared to the other suitable nesting habitat in the project vicinity. However, construction activities could result in disturbance of nests, resulting in abandonment or failure, and mortality of chicks and eggs.

Many common nesting birds and raptors may also nest within the grasslands, pastures, riparian corridors, eucalyptus groves, and other habitats within the project site. Construction activities could result in disturbance of nests of these

common birds and raptors, resulting in nest abandonment or failure, and mortality of chicks and eggs. The abandonment or failure, and loss of chicks and eggs of special-status birds or common nesting birds and raptors would be a **significant** impact.

Mitigation Measures

The following mitigation measures would be applicable to the project.

Mitigation Measure 3.4-2u: Conduct Special-Status Bird and Other Bird Nest Avoidance (*Campus Master Plan EIR Mitigation Measure 3.5-2u*)

The following measures shall be implemented to avoid or minimize loss of active special-status bird nests including tricolored blackbird, grasshopper sparrow, burrowing owl, white-tailed kite, least Bell's vireo, loggerhead shrike, and purple martin:

a) To minimize the potential for loss of special-status or other bird nests, vegetation removal activities within potentially suitable nesting habitat shall commence during the nonbreeding season (September 16–January 31), where feasible.

b) If project construction activities, including ground-disturbing activities, vegetation trimming, or tree removal are scheduled to occur between February 1 and September 15, the following measures shall be implemented:

   i. For construction activities on or within 500 feet of agricultural land, pasture, nonnative annual grassland, eucalyptus grove, or riparian habitat as shown in Figure 3.5-1, "Land Cover," of the Campus Master Plan EIR (Cal Poly 2020) and ornamental/landscaping trees in developed habitat, Cal Poly shall retain a qualified biologist to conduct habitat assessment surveys for common nesting birds and raptors, tricolored blackbird, grasshopper sparrow, burrowing owl, white-tailed kite, least Bell's vireo, loggerhead shrike, and purple martin. If no suitable habitat is present within 500 feet of construction activities, no further action is required.

   ii. Where suitable habitat is present, surveys shall be conducted by biologists adhering to guidance offered in Least Bell's Vireo Survey Guidelines (USFWS 2001); CDFW Staff Report on Burrowing Owl Mitigation (CDFW 2012) and/or current industry standards. Cal Poly shall initiate consultation with USFWS and/or CDFW as required and shall mitigate for the loss of breeding and foraging habitat as determined by consultation.

   iii. Two weeks prior to construction, a preconstruction nesting bird survey shall be conducted within suitable habitat identified in Mitigation Measure 3.4-2u(b)(i). If nests are detected, a qualified biologist shall establish no-disturbance buffers around nests. Buffers shall be of sufficient width that breeding is not likely to be disrupted or adversely affected by construction. No-disturbance buffers around active nests shall be a minimum of 0.25 mile wide for white-tailed kite, 500 feet wide for other raptors, and 250 feet wide for other special-status birds, unless a qualified biologist determines based on site-specific conditions that a larger or smaller buffer would be sufficient to avoid impacts on nesting birds. Factors to be considered in determining buffer size shall include the presence of existing buffers provided by vegetation, topography, or existing buildings/structures; nest height; locations of foraging territory; and baseline levels of noise and human activity. Buffers shall be maintained until a qualified biologist has determined that young have fledged and are no longer reliant upon the nest or parental care for survival. Monitoring of the nest by a qualified biologist during and after construction activities shall be required if the activity has potential to adversely affect the nest.

   iv. For tricolored blackbird, the qualified biologist shall conduct preconstruction surveys within tules, cattails, Himalayan blackberry, and riparian scrub habitat areas. The surveys shall be conducted no more than 14 days before construction commences. If no active nests or tricolored blackbird colonies are found during focused surveys, no further action under this measure shall be required. If active nests are located during the preconstruction surveys, the biologist shall notify CDFW. If necessary, modifications to the project design to avoid removal of occupied habitat while still achieving project objectives shall be evaluated and implemented to the extent feasible. If avoidance is not feasible or conflicts with project objectives, construction shall be prohibited within a minimum of 100 feet of the outer edge of the nesting colony, unless a qualified biologist

determines based on site-specific conditions that a larger or smaller buffer would be sufficient, to avoid disturbance until the nest colony is no longer active.

Mitigation Measure 3.4-2v: Conduct Environmental Monitoring (*Campus Master Plan EIR Mitigation Measure 3.5-1d*)

If no-disturbance buffers to avoid impacts to any nesting birds are established or tricolored blackbird colonies are located during focused surveys, implement Mitigation Measure 3.4-1d.

Significance after Mitigation

Mitigation Measure 3.4-2u requires that construction-related vegetation removal occur during the nonbreeding season. If that is not possible, the measure calls for habitat assessment, consultation with resource agencies if suitable breeding habitat is identified, and mitigation for loss or disturbance of that habitat. The measure requires surveys for special-status birds, establishment of buffers around nest sites to avoid disturbance, and maintenance of buffers until young have fledged and the nests are no longer active. Mitigation Measure 3.4-2v requires monitoring to ensure the mitigation is carried out and nests are protected. Implementation of these measures would avoid, minimize, and compensate for adverse effects such that impacts on special-status birds would be reduced to a **less than significant** level.

Special-Status and Common Bats

Large trees with cavities, culverts, outbuildings, and other structures within the project site have the potential to serve as day, winter, and maternity roosting locations for pallid bat, Townsend's big-eared bat, western mastiff bat, and common bat species. Big free-tailed bats may use these locations for day roosts, but are not known to breed in California, so maternity roosting is not likely. The removal of large trees with cavities or outbuildings, use of a Global Positioning System (GPS) Total Station near potential roosting habitat, or ground disturbing activities that cause substantial vibration near culverts and other similar structures could result in disturbance or destruction of the roosts of special-status and common bat species. The disturbance or destruction of bat roots could result in the loss of substantial numbers of bats due to hypothermia, increased predation, and loss of young if disturbance or destruction occurs during the maternity roosting season. The disturbance or destruction of special-status and common bat roosts would be a **significant** impact.

Mitigation Measures

The following mitigation measures would be applicable to the project.

Mitigation Measure 3.4-2w: Implement Bat Preconstruction Surveys and Exclusion (*Campus Master Plan EIR Mitigation Measure 3.5-2w*)

Before commencing construction activities with the potential to affect bats, including land surveying with a GPS Total Station and removal of farm structures and trees with hollows or exfoliating bark suitable for bats, a qualified biologist shall conduct surveys for roosting bats 2 weeks prior to start of construction activities. GPS Total Stations used for land surveying emit high frequency noise outside of the human hearing frequency but within the hearing range of bats, which has resulted in colony abandonment. If evidence of bat use is observed, the species and number of bats using the roost shall be determined. Bat detectors may be used to supplement survey efforts. If no evidence of bat roosts is found, then no further study and no additional measures are required. If the roost site can be avoided, a 250-foot-wide no-disturbance buffer shall be implemented unless a qualified biologist determines, based on bat species and site-specific conditions, that a larger or smaller buffer would be adequate to avoid impacts on bat roosts.

If roosts of pallid bat, Townsend's big-eared bat, western mastiff bat, big free-tailed bat, or other bat species are found, and the roost cannot be avoided, bats shall be excluded from the roosting site before the tree or structure is removed. Exclusion efforts shall be restricted during periods of sensitive activity (e.g., during hibernation or while females in maternity colonies are nursing young). Once it is confirmed that bats are not present in the original roost site, the tree or structure may be removed. A detailed program to identify exclusion methods and roost removal procedures shall be developed by a qualified biologist in consultation with CDFW before implementation.

Mitigation Measure 3.4-2x: Conduct Environmental Monitoring (*Campus Master Plan EIR Mitigation Measure 3.5-1d*)

If construction activities would occur where an active bat roost or maternity colony is found and a no-disturbance buffer has been established, implement Mitigation Measure 3.4-1d.

Significance after Mitigation

Implementation of Mitigation Measure 3.4-2w, which requires surveys for bats and, if found, avoidance of roosts, and protection from construction activities by creation of no-disturbance buffer, and Mitigation Measure 3.4-2x, which requires environmental monitoring, would avoid, minimize, and compensate for adverse effects such that impacts on bats would be reduced to a **less than significant** level.

American Badger

Uncultivated pastures and nonnative annual grassland within the project site may provide suitable habitat for American badger. This species digs burrows for shelter and reproduction (CWHR 1990). Within maternity dens, pups are present February to August. American badger dens were identified within pastures on the project site during reconnaissance surveys by Ascent biologists in 2022.

The construction of lift stations, pump stations (other than modifications to Avocado Pump Station 2), the WRF, and the recycled water storage reservoir would not occur within suitable habitat for American badger. The modification of Avocado Pump Station 2, and portions of the repair and replacement of existing water distribution lines and the construction of new distribution lines would occur within approximately 13 acres of nonnative annual grassland and pasture habitat suitable for the species. Construction in suitable habitat for American badger could result in the collapse of dens entombing individuals, resulting in injury or mortality. The injury or mortality of American badgers would be a **significant** impact.

Mitigation Measures

The following mitigation measure would be applicable to the project.

Mitigation Measure 3.4-2y: Conduct American Badger Surveys and Avoidance (*Campus Master Plan EIR Mitigation Measure 3.5-2s*)

For project activities within undeveloped grassland habitat and before ground-disturbing activities, a qualified biologist shall conduct a preconstruction survey for American badger dens. The American badger survey shall be conducted no more than 2 weeks prior to construction. If the survey results are negative (i.e., no active badger dens observed), no additional mitigation is required. If the results are positive (American badger dens are observed), the biologist shall contact Cal Poly within 24 hours and work in the area shall be delayed until Cal Poly's biologist has made one of the following determinations:

a) If the biologist determines that dens may be active, the biologist shall install a game camera for 3 days and 3 nights to determine if the den is in use. If the biologist determines that the den is a maternity den, construction activities shall be delayed during the maternity season (February to August), or until the badgers leave the den on their own accord or the biologist determines that the den is no longer in use. If the game camera does not capture an individual entering/exiting the den, the den can be excavated as described below. If the camera captures badger use of the den outside the maternity season, the biologist shall install a one-way door in the den opening and continue use of the game camera. Once the camera captures the individual exiting the one-way door, the den can be excavated as described below.

b) If the biologist determines that potential dens are inactive, the biologist shall excavate the dens with hand tools to prevent badgers from reusing them.

Mitigation Measure 3.4-2z: Conduct Environmental Monitoring (*Campus Master Plan EIR Mitigation Measure 3.5-1d*)

If active American badger dens are identified during preconstruction surveys, implement Mitigation Measure 3.4-1d.

Significance after Mitigation

Implementation of Mitigation Measure 3.4-2y, which requires surveys for American badger to identify active burrows, buffers around active burrows, avoidance of dens during the maternity season, and excavation of inactive burrows to prevent reuse within construction areas, and Mitigation Measure 3.4-2z, which requires environmental monitoring would avoid, minimize, and compensate for adverse effects such that impacts on American badger would be reduced to a **less than significant** level.

Monterey Dusky-Footed Woodrat

The riparian corridors within the project site provide potentially suitable habitat for the Monterey dusky-footed woodrat. Woodrats construct middens (nests), with shredded grass, leaves, wood, and other material. Woodrats use these middens year-round and middens may be used by multiple woodrats over the period of many years. Woodrat middens have been observed within the Cal Poly campus (Cal Poly 2020). The campus is in the region where the range of Monterey dusky-footed woodrat and big-eared woodrat (*Neotoma macrotis*) intersect (Koenig 2015), and middens may be used by either species. For the purpose of this analysis all observed middens are assumed to be those of Monterey dusky-footed woodrat.

The construction of lift stations, pump stations, the WRF, and the recycled water storage reservoir would not occur within riparian habitat suitable for Monterey dusky-footed woodrat. Similarly, the crossing of Brizzolara Creek by the influent force main and new distribution line would not occur within Monterey dusky-footed woodrat habitat, because the creek is undergrounded in a culvert at the point of crossing and no riparian corridor is present. Therefore, the construction of these project components would not have an impact on riparian corridors or Monterey woodrats that could occur within that habitat type.

The repair and replacement of existing water distribution lines and the construction of new distribution lines would occur within riparian habitat along Stenner Creek and the unnamed drainage below Indonesian Reservoir. These areas contain habitat suitable for Monterey dusky-footed woodrat. The construction and repair/replacement of water lines under the creeks using jack and bore methods would remove up to 0.82 acre of riparian habitat and require temporary construction areas approximately 50 feet by 100 feet in size. The jack and bore methods would reduce potential impacts to riparian vegetation and reduce the likelihood that woodrat middens would be destroyed during project construction; however, the size of the work area and proximity to the creek may still require removal of riparian vegetation and result in destruction of woodrat middens. The destruction of woodrat middens could result in the injury or mortality of individual woodrats, and loss of young if conducted during the maternity season (July 1 to December 1). In addition, removal of middens may leave individual woodrats vulnerable to predation or exposure. Trenches for replacement of distribution lines or construction of new lines in the vicinity of riparian vegetation would not result in the entrapment of individual woodrats, because trenches would be backfilled or covered at the end of each workday (Section 2.6.3). Direct loss of Monterey dusky-footed woodrats from construction activities and indirect effects to the species through loss of middens would be a **significant** impact.

Mitigation Measures

The following mitigation measures would be applicable to the project.

Mitigation Measure 3.4-2aa: Conduct Monterey Dusky-Footed Woodrat Midden Surveys, Avoidance, or Relocation (*Campus Master Plan EIR Mitigation Measure 3.5-2q*)

Prior to project work in riparian corridors, California sagebrush scrub, coast live oak woodland, and nonnative woodland habitat, Cal Poly shall retain a qualified biologist to survey for Monterey dusky-footed woodrat middens and assist in the removal/relocation of woodrat middens no more than 2 weeks prior to start of ground disturbance activities. The biologist shall document the results of the survey(s) in a letter report to Cal Poly and CDFW that includes a map of observed middens. If dusky-footed woodrat middens are found on a particular project site and are located outside of the permanent footprint of any proposed structure/site features and can be avoided, Cal Poly shall establish and maintain a 40-foot protective buffer, unless a reduced buffer is warranted as determined by a qualified biologist in consultation with CDFW, ensuring that the buffer does not isolate the midden from available habitat. If middens can be avoided no further mitigation is required.

If middens cannot be avoided, relocation shall be conducted in consultation with CDFW. Relocation of the middens shall occur after July 1 and before December 1 to avoid the maternity season. During implementation of site clearing activities and under supervision of the biologist, the equipment operators shall remove all vegetation and other potential woodrat shelter within the disturbance areas that surround the woodrat midden(s) to be removed. Upon completion of clearing the adjacent woodrat shelter, the operator shall gently nudge the intact woodrat midden with equipment or long handled tools. Due to the potential health hazards associated with removing woodrat middens, hand removal is

not recommended. The operators shall place their equipment within the previously cleared area and not within the undisturbed woodrat shelter area. The objective is to alarm the woodrats so that they evacuate the midden and scatter away from the equipment and into the undisturbed vegetation. Once the woodrats have evacuated the midden(s), the operator shall gently pick up the midden structure and move it to the undisturbed adjacent vegetation. The objective of moving the structure is to provide the displaced woodrats with a stockpile of material to scavenge while they build a new midden; jeopardizing the integrity of the midden structure is not an adverse impact.

Mitigation Measure 3.4-2bb: Conduct Environmental Monitoring (*Campus Master Plan EIR Mitigation Measure 3.5-1d*)

During construction in or around active Monterey dusky-footed woodrat middens, implement Mitigation Measure 3.4-1d.

Significance after Mitigation

Implementation of Mitigation Measures 3.5-2aa, which requires surveys to identify woodrat middens, no-disturbance buffers and maternity season avoidance around middens outside areas of direct effects, clearing and relocation of middens away from construction/disturbance areas for those middens that cannot be avoided, and covering of trenches to avoid entrapment, and Mitigation Measure 3.4-2bb, which requires environmental monitoring to ensure mitigation measures are implemented, would avoid, minimize, and compensate for adverse effects such that the impact of the project on Monterey dusky-footed woodrat would be reduced to a **less than significant** level.

Mountain Lion

The project is located within the range of the Central Coast Evolutionary Significant Unit of mountain lion, which is a candidate for listing under CESA. The project site and vicinity contain suitable foraging habitat, and the riparian corridors within the project site may provide movement corridors for mountain lion. However, the project site is not likely to be used by mountain lions as denning or nursery habitat due to the existing human use of the project site and the sensitivity of the species to human presence near den sites. The project would not construct permanent barriers to the movement of mountain lion through riparian corridors or remove riparian vegetation to the extent that these corridors would no longer be suitable for mountain lion movement. Furthermore, construction activities would generally occur during daylight hours when mountain lions are not active and is not likely to disrupt foraging or movement by lions. Therefore, the impact of the project on the Central Coast Evolutionary Significant Unit of mountain lion would be **less than significant**.

Mitigation Measures

No mitigation is required for this impact.

Ringtail

Suitable habitat for ringtail is present within the riparian corridors on the project site. The other tree dominated landcover within the project site, eucalyptus grove, is not habitat suitable for ringtail due to the small size of these groves and their proximity to human activities. Ringtails den in cavities in trees, and dense shrubs, both for resting and as maternity dens. A single ringtail will use several dens and move between them regularly (Cal Poly 2020).

The construction of lift stations, pump stations, the WRF, and the recycled water storage reservoir would not occur within riparian habitat suitable for ringtail. Similarly, the crossing of Brizzolara Creek by the influent force main and new distribution line would not occur within ringtail habitat because the creek is undergrounded in a culvert at the point of crossing and no riparian corridor is present, in addition the proximity to Highland Avenue and existing development makes it unlikely that the area supports ringtail. Therefore, the construction of these project components would not have an impact on ringtail.

The repair and replacement of existing water distribution lines and the construction of new distribution lines would occur within potential ringtail habitat along Stenner Creek and the unnamed drainage below Indonesian Reservoir. The construction and repair/replacement of water lines under the creeks using jack and bore methods would remove up to 0.82 acre of riparian habitat and require temporary construction areas that would be approximately 50 feet by 100 feet. While the jack and bore methods would reduce the impact to riparian vegetation during project

construction, the size of the work area and proximity to the creek may require removal of riparian vegetation and disturbance of ringtail dens. The disturbance of ringtail dens in the nonmaternity season is likely to cause ringtails to flee unharmed into adjacent habitat, and would not be a substantial adverse effect on the species as multiple dens are likely to be present. However, disturbance of dens during the maternity season (February 1 through June 15) is likely to result in injury or mortality of the female and young, which would be a **significant** impact.

Mitigation Measures

The following mitigation measures would be applicable to the project.

Mitigation Measure 3.4-2cc: Conduct Ringtail Den(s) Surveys, and Avoidance (*Campus Master Plan EIR Mitigation Measure 3.5-2o*)

If vegetation removal or construction activities within riparian habitat occur outside of the breeding and pupping season for ringtail (February 1 through June 15), no mitigation is necessary. If the ringtail breeding season cannot be avoided, Cal Poly shall retain a qualified biologist to conduct preconstruction surveys within 3 weeks prior to commencement of construction for potential natal or maternity den trees/rock crevices. If an active den is found, the qualified biologist, in consultation with CDFW, shall determine a construction-free buffer zone to be established around the den until the young have left the den. At a minimum, the buffer shall be 500 feet unless a reduced buffer is warranted as determined by a qualified biologist in consultation with CDFW. Because ringtails are known to move their offspring between dens, the biologist may maintain the den under surveillance with a trail camera in a way that does not affect the use of the den. If the biologist determines that ringtails have vacated the den during the surveillance period, then construction may begin within 7 days following this observation, but the den must remain under surveillance in the event that the mother has moved the litter back to the den. If the den is within a tree hollow, and the tree needs to be removed, the hollow section of the tree must be salvaged and secured to a nearby unaffected tree in order to maintain the number of dens in the area.

Mitigation Measure 3.4-2dd: Conduct Environmental Monitoring (*Campus Master Plan EIR Mitigation Measure 3.5-1d*)

During implementation of work in riparian corridors where ringtail occupied habitat has been identified, implement Mitigation Measure 3.4-1d.

Significance after Mitigation

Implementation of Mitigation Measure 3.5-2cc, which requires surveys to identify ringtail dens, and buffers and maternity season avoidance around construction/disturbance areas, and Mitigation Measure 3.4-2dd, which requires environmental monitoring to ensure that mitigation measures are implemented, would avoid or minimize adverse effects such that impacts on ringtail would be reduced to a **less than significant** level.

Impact 3.4-3: Have a Substantial Adverse Effect on Sensitive Natural Communities and Riparian Habitat

The operation of the WRF and application of recycled water to areas that are currently subject to irrigation is not anticipated to have an adverse impact on sensitive natural communities or riparian habitat. However, construction of project components would occur within riparian habitat, and may occur within sensitive natural communities. The construction of these components may result in removal of sensitive natural community and riparian vegetation, which would be a **potentially significant** impact.

The project site intersects the riparian corridors of Brizzolara Creek, Stenner Creek, and the unnamed drainage below Indonesian Reservoir. These riparian corridors are regulated pursuant to California Fish and Game Code Section 1602. In addition, these riparian corridors, annual grasslands, and potential serpentine grasslands within the project site may contain sensitive natural communities as defined by CDFW (CDFW 2022). Sensitive natural communities that are documented to occur within the Central California Coast Ecological Section (Board of Forestry 2019) and may occur within the riparian habitat are, box-elder forest, torrent sedge patch, California sycamore woodland, Fremont cottonwood forest, black cottonwood forest, red willow thicket, and shining willow groves. Sensitive natural communities that may occur within annual grasslands on the project site are tar plant fields, and leafy stemmed

tickseed fields. Those sensitive natural communities that may occur in serpentine grasslands are, Idaho fescue grassland and needle grass - melic grass grassland. Additional sensitive natural communities may be present on the project site (e.g., water foxtail meadow).

The construction of lift stations, pump stations, the WRF, and the recycled water storage reservoir would not occur within riparian habitat. Similarly, the crossing of Brizzolara Creek by the influent force main and new distribution line would not occur within riparian habitat because the creek is undergrounded in a culvert at the point of crossing and no riparian corridor is present. Therefore, the construction of these project components would not have an impact on riparian corridors or the potential sensitive natural communities that may be present in those habitats. The application of recycled water in the use areas is not anticipated to have effects on riparian corridors or sensitive natural communities within irrigated areas because the water would be applied to areas that are currently irrigated at agronomic rates. Therefore, changes to species composition due to changed water regimes within irrigated areas are not anticipated and runoff of recycled water into adjacent riparian corridors would not occur.

Construction of the influent force main, upper and lower lift stations, modifications to MH-1 siphon, Avocado pump station 2, and the sports complex pump station, installation of new distribution lines, and the repairing and replacement of existing lines would cause disturbance to approximately 7.4 acres of nonnative annual grassland, and serpentine grassland that may contain sensitive natural communities. Furthermore, the repair and replacement of existing lines and construction of new lines would occur within approximately 0.82 acre of riparian habitat along Stenner Creek and the unnamed drainage below Indonesian Reservoir. In addition to approximately the 0.82-acre impact described above, the construction and repair/replacement of water lines under Stenner and Brizzolara Creeks using jack and bore methods would require temporary construction areas approximately 50 feet by 100 feet in size. While the jack and bore methods would reduce the impact to riparian vegetation and potential sensitive natural communities, the size of the work area and proximity to the creek may result in removal of some riparian vegetation. In addition, ground disturbance in these temporary construction areas could result in the introduction of invasive plants, which could then outcompete native vegetation adjacent to the disturbed area. The removal of riparian and sensitive natural community vegetation during construction and the introduction of invasive plant species could have substantial adverse effects on these resources. Therefore, the impact of the project on sensitive natural communities and riparian habitat would be **potentially significant**.

Mitigation Measures

The following mitigation measures would be applicable to the project.

Mitigation Measure 3.4-3a: Avoid and Protect Brizzolara and Stenner Creeks (*Campus Master Plan EIR Mitigation Measure 3.5-3a*)

Implement Mitigation Measure 3.4-2e.

Mitigation Measure 3.4-3b: Implement Low-Impact Development Principles (*Campus Master Plan EIR Mitigation Measure 3.5-3b*)

Implement Mitigation Measure 3.4-2f.

Mitigation Measure 3.4-3c: Install Exclusion Fencing (*Campus Master Plan EIR Mitigation Measure 3.5-3c*)

Implement Mitigation Measure 3.4-2g.

Mitigation Measure 3.4-3d: Map and Protect Waterways and Riparian Areas (*Campus Master Plan EIR Mitigation Measure 3.5-3d*)

Implement Mitigation Measure 3.4-2h.

Mitigation Measure 3.4-3e: Minimize Ground Disturbance in Sensitive Natural Community Areas (*Campus Master Plan EIR Mitigation Measure 3.5-3e*)

Implement Mitigation Measure 3.4-2i.

Mitigation Measure 3.4-3f: Mitigate for the Loss of Sensitive Natural Communities (*Campus Master Plan EIR Mitigation Measure 3.5-3f*)

If loss of sensitive natural communities would not be otherwise mitigated by the proposed project (i.e., the sensitive natural community is recognized as sensitive, but not protected pursuant to other regulations or policies), then additional actions shall be implemented based on site- and project-specific impacts in order to ensure no net loss of habitat function or acreage. Such actions may include creating, restoring, and/or preserving in perpetuity in-kind communities at a sufficient ratio to achieve no net loss of habitat function or acreage. If habitat enhancement or creation takes place, Cal Poly shall develop and implement a monitoring and management plan to assess the effectiveness of the mitigation. If monitoring indicates that the actions have not adequately mitigated for the project's impacts, Cal Poly shall implement further remedial actions, restoration, and other activities to reach a no net loss of habitat function or acreage.

Mitigation Measure 3.4-3g: Use Clean and Weed-Free Vehicles and Equipment (*Campus Master Plan EIR Mitigation Measure 3.5-3h*)

Implement Mitigation Measure 3.4-1f.

Mitigation Measure 3.4-3h: Require Use of Certified Weed-Free Construction Materials (*Campus Master Plan EIR Mitigation Measure 3.5-3i*)

Implement Mitigation Measure 3.4-1g.

Mitigation Measure 3.4-3i: Treat Invasive Plant Infestations (*Campus Master Plan EIR Mitigation Measure 3.5-3j*)

Implement Mitigation Measure 3.4-1h.

Significance after Mitigation

Implementation of Mitigation Measure 3.4-3a would avoid and protect the riparian vegetation along Stenner Creek by requiring the incorporation of a 50-foot buffer from the top of bank or outer extent of riparian vegetation, Mitigation Measure 3.4-3b requires the implementation of low-impact development principles to project components, Mitigation Measure 3.4-3c requires the installation of exclusion fencing for projects that do not require crossing the waterways, Mitigation Measure 3.4-3d requires that all project plans map and protect waterways and riparian areas and project staging areas need to be located at a minimum of 100 feet outside of the top of bank of the waterways or riparian areas, Mitigation Measure 3.4-3e requires the minimization of ground disturbance in sensitive natural community areas, Mitigation Measure 3.4-3f requires the compensation for the loss of sensitive natural communities at a ratio sufficient to ensure no net loss of habitat function or acreage, Mitigation Measure 3.4-3g requires the use of weed-free vehicles and equipment, Mitigation Measure 3.4-3h requires the use of certified weed-free construction materials, and Mitigation Measure 3.4-3i requires the treatment of invasive plant infestations within construction areas to prevent spreading them. Implementation of these mitigation measures would avoid, minimize, and compensate for adverse effects such that impacts on sensitive natural communities and riparian habitat would be reduced to **less than significant**.

Impact 3.4-4: Have a Substantial Adverse Effect State or Federally Protected Wetlands or Other Waters

Operation of the WRF and application of recycled water to areas that are currently subject to irrigation are not anticipated to have an adverse impact on state or federally protected wetlands. However, the project may be constructed within state or federally protected wetlands and other waters, which may result in loss of function and services within these waters. Therefore, this impact would be **potentially significant**.

The project site contains several reservoirs and creeks that are waters of the United States and waters of the state, including Drumm Reservoir, Middle Camp Reservoir, Indonesian Reservoir, Nelson Reservoir, Shepard Reservoir, Smith Reservoir, Brizzolara Creek, Stenner Creek, and the unnamed drainage below Indonesian Reservoir (SWCA 2015). In addition, to these waters the project contains several seasonal drainages that occur within pastures near the

Animal Nutrition Facility and the Beef Cattle Evaluation Center. These seasonal drainages connect to Stenner Creek and are jurisdictional (SWCA 2015). Other small waterways are located along Mount Bishop Road and flow under the Union Pacific Railroad tracks near the Sports Complex and along California Boulevard near Spanos Stadium. These waters may connect to Brizzolara Creek and are also potentially jurisdictional; however, these waters have not been formally delineated. Similarly, the agricultural ponds within the project site at the Animal Nutrition Center and the Dairy Institute, as well as the Swine Unit ponds, have not been formally delineated; therefore, the jurisdictional status of these waters has not been determined.

The crossing of Brizzolara Creek and Stenner Creek during the repair and replacement of existing water distribution lines and the construction of the influent force main and new distribution lines would be conducted using jack and bore techniques (see Section 2.6.3) to cross under these creeks. Although this technique would avoid direct impacts on these waters and no CWA Section 404 or Section 401 permitting is likely to be required for the crossing of Stenner and Brizzolara Creeks, a Notification of Lake and Streambed Alteration would need to be filed with CDFW because of the potential for frac-out during jacking and boring under the creek.

Recycled water would be applied at agronomic rates, primarily during the growing season (April through October) and at other times of the year as needed based on irrigation needs. Furthermore, the irrigation sites would be operated to prevent overwatering, runoff, and ponding. Therefore, the project is not anticipated to result in the runoff of recycled water to jurisdictional waters. In addition, because the project would result in land disturbance greater than 1 acre, Cal Poly would be required under existing regulations to prepare a SWPPP. The SWPPP would require the implementation of construction best management practices that would avoid and minimize construction runoff.

The repair of existing water distribution lines and construction of other project components, including the influent force main and new distribution lines, and the recycled water storage reservoir may occur within state or federally protected waters because the jurisdictional status of waters in portions of the project site has not been determined and avoidance of potentially jurisdictional waters other than Stenner Creek and Brizzolara Creek may not be practical. Project activities that occur within these potentially jurisdictional waters may result in loss of functions and values which would be a substantially adverse effect on the resource.

The project would avoid work in Stenner Creek and Brizzolara Creek through the use of jack and bore techniques. In addition, the project would not result in the runoff of recycled water to potentially jurisdictional waters, and a SWPPP would be prepared to avoid and minimize construction runoff. However, the repair of existing distribution lines and construction of project components may occur within potentially jurisdictional waters, when avoidance of these waters is not practical, and result in loss of functions and values. Therefore, this impact would be **potentially significant**.

Mitigation Measures

The following mitigation measures would be applicable to the project.

Mitigation Measure 3.4-4: Design Projects to Avoid and Minimize Disturbances to Jurisdictional Waters; Conduct Delineation of Jurisdictional Waters and Obtain Authorization for Fill and Required Permits; and Compensate for Unavoidable Degradation or Loss of Jurisdictional Waters (*Campus Master Plan EIR Mitigation Measure 3.5-4*)

Cal Poly shall avoid, minimize, and compensate for potential degradation or loss of waters of the United States and waters of the state by implementing the following measure.

Cal Poly shall design new facilities and improvements to existing facilities to avoid impacts on potential jurisdictional waters where feasible. If avoidance of these features is not feasible, or the jurisdictional status of any waterways that may be encroached upon is unknown, Cal Poly shall prepare a project-specific Jurisdictional Waters Delineation that identifies the project boundaries in relation to the jurisdictional boundaries of the site. For any unavoidable fill or alteration of a jurisdictional feature, Cal Poly shall coordinate with USACE to obtain a CWA Section 404 permit, CDFW to obtain a Streambed Alteration Agreement, and RWQCB to obtain a CWA Section 401 Certification. Cal Poly shall comply with all special conditions of the necessary permits.

To support the permit applications, Cal Poly shall prepare a Habitat Mitigation and Monitoring Plan (HMMP) for inclusion in the permit applications. The HMMP shall propose a 2:1 replacement ratio for permanent impacts on

jurisdictional areas and a 1:1 ratio for temporary impacts on the jurisdictional areas or higher mitigation ratios if required by the permitting agencies. Unless otherwise directed by the permitting agencies, Cal Poly shall incorporate on-site, in-kind, permittee-responsible compensatory mitigation to ensure that the drainages' functions and values are retained or improved as part of the project. The HMMP shall identify the location(s) where the proposed compensatory mitigation shall be implemented and the type (e.g., creation, restoration, enhancement, preservation) of mitigation that shall be implemented. At a minimum, the HMMP shall include a 5-year maintenance and monitoring program that facilitates the successful completion of the mitigation efforts.

Significance after Mitigation

Implementation of Mitigation Measure 3.4-4 requires that a Jurisdictional Waters Delineation be performed to determine the boundaries of jurisdictional waters within the project site, that waters be avoided when feasible, and that where fill or alteration of a jurisdictional feature is not avoided the necessary permits be obtained and that Cal Poly comply with all special conditions of those permits. Furthermore, Mitigation Measure 3.4-4 requires minimum mitigation ratios of 1:1 for temporary impacts and 2:1 for permanent impacts on jurisdictional waters. Implementation of these measures would avoid, minimize, and compensate for adverse effects such that impacts on state or federally protected wetlands or other waters would be reduced to **less than significant**.

Impact 3.4-5: Impede Wildlife Movement and the Use of Native Wildlife Nursery Sites

The project site does not contain any documented native wildlife nursery sites, but it is located along a regional movement corridor and contains riparian corridors that likely support local wildlife movement. The operation of the WRF and application of recycled water to areas that are currently subject to irrigation is not anticipated to have an adverse impact on state or wildlife movement or native wildlife nursery sites. Construction of the project would not result in structures that would impede wildlife movement, or result in substantial removal of riparian corridor vegetation such that these areas no longer support wildlife movement; therefore, this impact is **less than significant**.

This discussion addresses the potential impact of the project on movement of common wildlife, and the use of native wildlife nursery sites. The impacts to movement of special-status species are addressed in Impact 3.4-2: Adverse Effects on Special-Status Wildlife.

The project site does not contain any documented native wildlife nursery sites. However, the project is located on the edge of an Essential Connectivity Area that follows the Santa Lucia Mountains and provides a regional corridor for the movement of wildlife species (CNDDB 2022b). In addition to the project site being located on the edge of this regional corridor, the riparian corridors and creeks within the project site provide corridors for the local movement of wildlife species. The project would construct several permanent structures; however, none of these structures would be linear in nature or placed in such a way as to limit local or regional wildlife movement.

The repair and replacement of existing water distribution lines and the construction of new distribution lines would occur within riparian habitat along Stenner Creek and the unnamed drainage below Indonesian Reservoir. The construction and repair/replacement of water lines under the creeks using jack and bore methods would remove approximately 0.82 acre of riparian corridor and also require temporary construction areas approximately 50 feet by 100 feet in size. While the jack and bore methods would avoid direct impacts to the creeks themselves, there would be temporary impacts to riparian vegetation, and the construction disturbance adjacent to the riparian corridor may temporarily disrupt wildlife movement during construction. However, construction would occur during daylight hours, when most terrestrial wildlife species are inactive; therefore, the impact on movement through these corridors would be reduced.

There are no documented wildlife nursery sites within the project site, the project would not construct any permanent structures that would impede wildlife movement or result in the permanent removal of vegetation within riparian corridors, the project would avoid direct impacts to creeks, and construction activities would occur during daylight hours. For these reasons, the project would have a **less than significant** impact on wildlife movement and use of native wildlife nursery sites.

Mitigation Measures

No mitigation is required for this impact.

3.5 HYDROLOGY AND WATER QUALITY

This section identifies the regulatory context and policies related to hydrology and water quality, describes the existing hydrologic conditions on the project site and in the surrounding area, and evaluates potential hydrology and water quality impacts of the proposed project. Potential effects on the capacity of water and sewer/wastewater systems are addressed in Section 3.6, "Utilities and Service Systems."

Two comments related to hydrology and water quality were submitted In response to the Notice of Preparation. One comment was received from the US Army Corps of Engineers (USACE) regarding the potential need to obtain Clean Water Act (CWA) Section 404 permits for the project. One comment was also received from the City of San Luis Obispo regarding potential hydrology and water quality impacts related to construction and operation of the WRF, as well as potential impacts in the event of a potential upset or failure of the proposed facilities.

3.5.1 Regulatory Setting

FEDERAL

Clean Water Act

The US Environmental Protection Agency (EPA) is the lead federal agency responsible for water quality management. CWA is the primary federal law that governs and authorizes water quality control activities by EPA, as well as the states. Various elements of the CWA address water quality. These are discussed below.

CWA Water Quality Criteria/Standards

Section 303 of the CWA requires states to adopt water quality standards for all surface waters of the United States. As defined by the CWA, water quality standards consist of designated beneficial uses of the water body in question and criteria that protect the designated uses. Section 304(a) requires EPA to publish advisory water quality criteria that accurately reflect the latest scientific knowledge on the kind and extent of all effects on health and welfare that may be expected from the presence of pollutants in water. Where multiple uses exist, water quality standards must protect the most sensitive use. As described in the discussion of state regulations below, the State Water Resources Control Board (SWRCB) and its nine regional water quality control boards (RWQCBs) have designated authority in California to identify beneficial uses and adopt applicable water quality objectives (WQOs).

CWA Section 303(d) Impaired Waters List

Under Section 303(d) of the CWA, states are required to develop lists of water bodies that do not attain WQOs after implementation of required levels of treatment by point source dischargers (municipalities and industries). Section 303(d) requires that the state develop a total maximum daily load (TMDL) for each of the listed pollutants. The TMDL is the amount of the pollutant that the water body can receive and still comply with WQOs. The TMDL is also a plan to reduce loading of a specific pollutant from various sources to achieve compliance with WQOs. In California, implementation of TMDLs is achieved through water quality control plans, known as basin plans. See "State" section, below.

Stenner Creek, which runs through the West Campus subarea, is included on the 303(d) list of impaired waters for the 2018 reporting year (SWRCB 2018). State water quality standards specify designated uses that individual waters should support (e.g., recreation or water supply). Stenner Creek is designated for agricultural supply, freshwater habitat, municipal and domestic supply, water contact recreation, and noncontact recreation. It is listed as impaired for pathogen pollutants related to domestic animals and livestock, natural sources, and urban runoff/storm sewers (SWRCB 2020).

National Pollutant Discharge Elimination System

The National Pollutant Discharge Elimination System (NPDES) permit program was established in the CWA to regulate municipal and industrial discharges to surface waters of the United States. NPDES permit regulations have been established for broad categories of discharges, including point source waste discharges and nonpoint source storm

water runoff. Each permit identifies limits on allowable concentrations and mass emissions of pollutants contained in the discharge. Sections 401 and 402 of the CWA contain general requirements regarding NPDES permits.

Storm water runoff, which originates from precipitation flows over the land and is conveyed to surface waters either via surface runoff or via the storm drainage system. "Nonpoint source" pollution originates over a wide area rather than from a definable point. Nonpoint source pollution often enters receiving water in the form of surface runoff and is not conveyed by way of pipelines or discrete conveyances. Three types of storm water discharges are controlled by the NPDES program: discharges from industrial activities, discharges from construction activities, and discharges from municipal separate storm sewer systems (MS4s). The goal of the storm water regulations is to improve the quality of storm water discharged to receiving waters.

The RWQCBs in California are responsible for implementing the NPDES permit system (see "State" section, below).

CWA Section 404 Discharge of Dredged or Fill Materials

Under Section 404 of the CWA, USACE has primary responsibility for administering regulations for the disposal of dredged or fill material into waters of the United States, including jurisdictional wetlands. Activities in waters of the United States regulated under this program include dredging and filling of waters of the United States associated with a development project, water resource projects (such as dams and levees), infrastructure development (such as highways and airports), and mining projects.

Refer to Section 3.4, "Biological Resources," for further information regarding CWA requirements and applicability to the proposed project.

National Flood Insurance Act

The Federal Emergency Management Agency (FEMA) is tasked with responding to, planning for, recovering from, and mitigating against disasters. The Federal Insurance and Mitigation Administration within FEMA is responsible for administering the National Flood Insurance Program (NFIP) and administering programs that aid with mitigating future damages from natural hazards.

FEMA prepares Flood Insurance Rate Maps (FIRMs) that delineate the regulatory floodplain to assist local governments with the land use planning and floodplain management decisions needed to meet the requirements of the NFIP. Floodplains are divided into flood hazard areas, which are areas designated according to their potential for flooding, as delineated on FIRMs. Special Flood Hazard Areas are the areas identified as having a 1-percent chance of flooding in each year (otherwise known as the 100-year flood). In general, the NFIP mandates that development is not to proceed within the regulatory 100-year floodplain if the development is expected to increase flood elevation by 1 foot or more.

STATE

Porter-Cologne Water Quality Control Act

California's primary statute governing water quality and water pollution issues with respect to both surface waters and groundwater is the Porter-Cologne Water Quality Control Act of 1970 (Porter-Cologne Act). The Porter-Cologne Act, which grants SWRCB and each of the nine RWQCBs power to protect water quality, is the primary vehicle for implementation of California's responsibilities under the CWA. The applicable RWQCB for the Cal Poly campus is the Central Coast RWQCB (Region 3). SWRCB and the Central Coast RWQCB have the authority and responsibility to adopt plans and policies, regulate discharges to surface water and groundwater, regulate waste disposal sites, and require cleanup of discharges of hazardous materials and other pollutants. The Porter-Cologne Act also establishes reporting requirements for unintended discharges of any hazardous substances, sewage, or oil or petroleum products.

Under the Porter-Cologne Act, each RWQCB must formulate and adopt a water quality control plan (known as a "basin plan") for its region. The Water Quality Control Plan for the Central Coast Basin (Basin Plan) identifies beneficial uses for inland surface waters, detailed WQOs, and an Implementation Plan to achieve the WQOs. In addition to the Implementation Plan, the Basin Plan includes brief descriptions of SWRCB plans and policies and numerous RWQCB plans and policies that direct SWRCB and RWQCB actions and clarify the RWQCB's intent. The objective of the Basin Plan is to show how the quality of surface water and groundwater in the Central Coast Region should be managed and to provide the highest water quality reasonably possible. It designates beneficial uses and WQOs for waters of the state, including surface waters and groundwater, and includes programs of implementation to achieve WQOs. The current Basin Plan consists of the 2019 Basin Plan edition and all amendments fully approved after March 2019.

NPDES General Permit for Storm Water Discharges Associated with Construction Activity

SWRCB adopted the initial statewide NPDES General Permit for storm water discharges associated with construction activity in August 1999. The permit was reissued in 2009 and again in 2022. The 2022 permit goes into effect September 1, 2023. The state requires that projects disturbing 1 acre or more of land during construction file a notice of intent to be covered under this permit. Cal Poly is subject to the SWRCB's Water Quality Order No. 2022-057-DWQ, NPDES General Permit No. CAS000002 for Storm Water Discharges Associated with Construction and Land Disturbance Activities (Construction General Permit) (SWRCB 2022). Construction activity subject to this permit includes clearing, grading, and disturbing the ground, such as through stockpiling or excavation, but it does not include regular maintenance activities performed to restore the original line, grade, or capacity of the facility. As part of a SWPPP, best management practices (BMPs) are required to reduce to prevent or reduce storm water pollution, and a monitoring program is required to confirm and assess the implementation of the BMPs.

NPDES Municipal Storm Water Permitting Program

The Municipal Storm Water Permitting Program regulates storm water discharges from MS4s. Storm water is runoff from rain or snowmelt that runs off surfaces such as rooftops, paved streets, highways, or parking lots and that can carry with it pollutants, such as oil, pesticides, herbicides, sediment, trash, bacteria, and metals. The runoff can then drain directly into a local stream, lake, or bay. Often, the runoff drains into storm drains that eventually drain untreated runoff into a local water body.

The state regulates urban runoff discharges under the NPDES permits. Cal Poly is regulated as a Non-Traditional MS4 and is subject to SWRCB's Water Quality Order No. 2013-0001-DWQ, NPDES General Permit No. CAS000004 for Waste Discharge Requirements for Storm Water Discharges from Small MS4s (2013 General Permit) (SWRCB 2013). This permit requires the implementation of specific BMPs, as well as monitoring of and reporting on storm water management activities, including those during and after construction. The 2013 General Permit also requires the use of low-impact development (LID) techniques for all projects that create and/or replace 5,000 square feet or more of impervious surface to control storm water flow and prevent contamination of surface water resources. LID techniques are storm water management techniques that are intended to mimic natural hydrologic functions by infiltrating, filtering, storing, evaporating, or detaining runoff close to the source of rainfall.

General Waste Discharge Requirements for Discharges from Irrigated Lands

The Central Coast RWQCB regulates discharges from irrigated agricultural lands to protect surface water and groundwater under Order No. R3-2021-0040, General Waste Discharge Requirements for Discharges from Irrigated Lands (Agricultural Order), which applies to owners and operators of irrigated land used for commercial crop production. The Irrigated Lands Program was first established with the issuance of the first Agricultural Order in 2004, with subsequent orders in 2012 and 2017. On April 15, 2021, the Central Coast RWQCB adopted the most recent update to the Agricultural Order (referred to as Agricultural Order 4.0). The requirements in Agricultural Order 4.0 protect human health, protect and restore the beneficial uses of surface water and groundwater, and achieve WQOs specified in the Basin Plan by minimizing nitrogen discharges to groundwater and minimizing nutrient, pesticide, and sediment discharges to surface water. Agricultural Order 4.0 also requires the protection of riparian and wetland habitat and requires dischargers covered under the order to develop and implement an Irrigation and Nutrient Management Plan (INMP) that addresses both groundwater and surface water.

General Waste Discharge Requirements for Discharges from Domestic Wastewater Systems with Flows Greater than 100,000 Gallons per Day

The Central Coast RWQCB regulates discharges to land from large domestic wastewater treatment and disposal systems (i.e., those greater than 100,000 gallons per day [gpd]) under Order No. R3-2020-0020, General Waste Discharge Requirements for Discharges from Domestic Wastewater Systems with Flows Greater than 100,000 Gallons per Day (Wastewater Systems General Permit). The Wastewater Systems General Permit allows for coverage of any wastewater system with monthly average flow rates of more than 100,000 gpd that discharges to land. As defined in the Wastewater Systems General Permit, the term "wastewater systems" includes the collection system, treatment equipment, pumping stations, treatment ponds, biological treatment systems, chemical treatment systems, clarifiers, sand/media filters, disinfection systems, recycled water systems (including distribution systems), storage ponds, land application areas, disposal ponds, and other systems associated with the collection, treatment, storage, and disposal of wastewater. As such, this Wastewater System General Permit allows the production and onsite use of non-potable recycled water (as defined in California Water Code section 13050(n)) and requires all recycled water to comply with the applicable requirements described in California Code of Regulations, Title 22, Division 4, Chapter 3.

California Code of Regulations, Title 22, Division 4, Chapter 3

SWRCB enforces regulations related to recycled water through CCR Title 22, Division 4, Chapter 3, which specifies the various criteria for recycled water. Specifically, Article 1, Section 60301.230 defines and identifies the treatment standards for disinfected tertiary recycled water. In addition, Article 3, Section 60304 identifies the criteria for using recycled water for irrigation purposes, including the recycled water treatment standards for irrigating food crops, parks and playgrounds, schoolyards, residential landscaping, unrestricted-access golf courses, and any other irrigation use not specified in Section 60304 and not prohibited by other sections of the CCR. Compliance with Title 22 water recycling criteria requirements is determined by the SWRCB Division of Drinking Water (DDW), who are responsible for reviewing and approving Title 22 Engineering Reports.

California Water Code

The California Water Code is enforced by the California Department of Water Resources (DWR). The mission of DWR is "to manage the water resources of California in cooperation with other agencies, to benefit the state's people, and to protect, restore, and enhance the natural and human environments." DWR is responsible for promoting California's general welfare by ensuring beneficial water use and development statewide.

Groundwater Management

Groundwater management is outlined in the California Water Code, Division 6, Part 2.75, Chapters 1–5, Sections 10750 through 10755.4. The Groundwater Management Act was first introduced in 1992 as Assembly Bill (AB) 3030 and has since been modified by Senate Bill (SB) 1938 in 2002, AB 359 in 2011, and the Sustainable Groundwater Management Act (SGMA) (SB 1168, SB 1319, and AB 1739) in 2014. The intent of the Acts is to encourage local agencies to work cooperatively to manage groundwater resources within their jurisdictions and to provide a methodology for developing a groundwater management plan.

SGMA, which became law on January 1, 2015, applies to all groundwater basins in the state (Water Code Section 10720.3). By enacting SGMA, the legislature intended to provide local agencies with the authority and the technical and financial assistance necessary to sustainably manage groundwater within their jurisdiction (Water Code Section 10720.1).

Pursuant to the SGMA, any local agency that has water supply, water management, or land use responsibilities within a groundwater basin may elect to be a "groundwater sustainability agency" for that basin (Water Code Section 10723). A portion of the project site is located within the San Luis Obispo Valley Groundwater Basin, which is designated by DWR as a high-priority basin (San Luis Obispo County 2019). San Luis Obispo County and the City of San Luis Obispo formed Groundwater Sustainability Agencies (GSAs) within their respective jurisdictions to cover the entire San Luis Obispo Valley Groundwater Basin. Portions of the project site fall under the County's GSA coverage area (San Luis Obispo County 2019). The SMGA also requires local public agencies and GSAs in high- and medium-priority basins to develop and implement Groundwater Sustainability Plans (GSPs) or alternatives to GSPs (DWR 2019). On October 21, 2021, the Groundwater Sustainability Commission unanimously voted to recommend the San Luis

Obispo Valley Groundwater Basin GSP for adoption by the two San Luis Obispo Basin GSAs (i.e., the County and City). The final, adopted GSP was submitted to DWR by the January 31, 2022, SGMA deadline.

LOCAL

Cal Poly is part of the CSU, which is a statutorily and legislatively created, constitutionally authorized state entity. As explained in the "California State University Autonomy" section in Section 3.1, "Approach to the Environmental Analysis," of this EIR, the CSU is not subject to local government planning and land use plans, policies, or regulations. Nevertheless, in the exercise of its discretion, Cal Poly does reference, describe, and address local plans, policies, and regulations where appropriate and for informational purposes. This evaluation is also intended to be used by local agencies for determining, as part of their permit processes, the project's consistency with local plans, policies, and regulations.

San Luis Obispo County General Plan

The County's General Plan is the foundation upon which all land use decisions for the unincorporated areas of the County are based. Its main purposes are to illustrate the public policy for future land use for both public and private lands and to provide the County Board of Supervisors, Planning Commission, Subdivision Review Board, and Zoning Administrator (Hearing Officer) with specific direction for future decisions affecting land use development. The County General Plan Conservation and Open Space Element includes the following policies related to water quality, flood management, and groundwater monitoring and management (San Luis Obispo County 2010):

- Policy WR 3.1: Prevent Water Pollution. Take actions to prevent water pollution, consistent with federal and state water policies and standards, including but not limited to the federal Clean Water Act, Safe Drinking Water Act, and NPDES.
- Policy WR 3.2: Protect Watersheds. Protect watersheds, groundwater and aquifer recharge areas, and natural drainage systems from potential adverse impacts of development projects.
- Policy WR 3.3: Improve Groundwater Quality. Protect and improve groundwater quality from point and non-point source pollution, including nitrate contamination; Methyl tert-butyl ether (MTBE) and other industrial, agricultural, and commercial sources of contamination; naturally occurring mineralization, boron, radionuclides, geothermal contamination; and seawater intrusion and salts.
- Policy WR 6.2: Region-Wide Permitting. The County should coordinate with applicable state, regional, and local permitting agencies to develop and implement a region-wide permitting program that will provide consistent watershed or regional implementation measures.
- Policy WR 6.3: Drainage Problems. Consider drainage problems in the context of an entire watershed. Drainage and flood management plans should address property owner and developer responsibilities. These plans should use an integrated watershed approach that incorporates flood management, water quality, water supply, groundwater, and ecosystem protection and enhancement objectives on a watershed/basin scale.
- Policy WR 6.4: Integrated Drainage Approach. Assure that proposed development integrates ecosystem enhancement, drainage control, and natural recharge as applicable.

City of San Luis Obispo General Plan

The City's General Plan was adopted on December 9, 2014, to guide the use and protection of various resources to meet community purposes. The City's General Plan Conservation and Open Space Element and Water and Wastewater Element include various polices that address water quality, flood protection, storm water runoff, groundwater recharge, and discharge of urban pollutants (City of San Luis Obispo 2014, 2018). The following policies have been excerpted from the City's General Plan:

- Policy 10.2.1: Water Quality. The City will employ the best available practices for pollution avoidance and control and will encourage others to do so. "Best available practices" means behavior and technologies that result in the highest water quality, considering available equipment, life-cycle costs, social and environmental side effects, and the regulations of other agencies.

- **Policy 10.2.2: Ahwahnee Water Principles**. In planning for its water operations, programs and services, the City will be guided by the Ahwahnee Water Principles and will encourage individuals, organizations, and other agencies to follow these policies:

  a. Community design should be compact, mixed use, walkable and transit-oriented so that automobile-generated urban runoff pollutants are minimized and the open lands that absorb water are preserved to the maximum extent possible.

  b. Natural resources such as wetlands, flood plains, recharge zones, riparian areas, open space, and native habitats should be identified, preserved and restored as valued assets for flood protection, water quality improvement, groundwater recharge, habitat, and overall long-term water resource sustainability.

  c. Water holding areas such as creekbeds, recessed athletic fields, ponds, cisterns, and other features that serve to recharge groundwater, reduce runoff, improve water quality and decrease flooding should be incorporated into the urban landscape.

  d. All aspects of landscaping from the selection of plants to soil preparation and the installation of irrigation systems should be designed to reduce water demand, retain runoff, decrease flooding, and recharge groundwater.

  e. Permeable surfaces should be used for hardscape. Impervious surfaces such as driveways, streets, and parking lots should be minimized so that land is available to absorb storm water, reduce polluted urban runoff, recharge groundwater and reduce flooding.

  f. Dual plumbing that allows grey water from showers, sinks and washers to be reused for landscape irrigation should be included in the infrastructure of new development, consistent with State guidelines.

  g. Community design should maximize the use of recycled water for appropriate applications including outdoor irrigation, toilet flushing, and commercial and industrial processes. Purple pipe should be installed in all new construction and remodeled buildings in anticipation of the future availability of recycled water.

  h. Urban water conservation technologies such as low-flow toilets, efficient clothes washers, and more efficient water-using industrial equipment should be incorporated in all new construction and retrofitted in remodeled buildings.

  i. Ground water treatment and brackish water desalination should be pursued when necessary to maximize locally available, drought-proof water supplies.

- **Policy 10.3.2: Maintain Water Quality**. The City will do the following to maintain a high level of water quality, and will encourage individuals, organizations, and other agencies to do likewise:

  a. Design and operate its water supply, treatment, and distribution system to prevent adverse effects on water quality (potential point source of pollutants such as chlorine).

  b. Design and operate its wastewater collection and treatment system to prevent adverse effects on water quality (potential point source of pollutants such as untreated sewage and chlorine).

  c. Design, construct, and maintain its facilities such as parks, buildings and grounds, storm water facilities and parking to prevent adverse effects on water quality (potential point sources for pollutants such as petroleum and non-point sources of runoff contaminated with fertilizers, pesticides, litter, and vehicle residues).

  d. Regulate the design, construction, and operation of private facilities over which the City has permit authority to ensure they will not have adverse effects on water quality (potential point sources for, as examples, sediment from construction and chemicals used in operations, and non-point sources for contaminated runoff).

  e. Participate with other agencies, in particular the California Regional Water Quality Control Board, in watershed planning and management.

  f. In locations subject to flooding, not allow activities, such as outdoor storage, that would be substantial sources of chemical or biological contamination during a flood, even though buildings associated with the activities would meet flood-protection standards.

g. Establish standards for non-point source water pollution in cooperation with the Regional Water Quality Control Board.

h. Establish a program of baseline water quality testing for City creeks.

i. Identify and protect groundwater recharge areas to maintain suitable groundwater levels and to protect groundwater quality for existing and potential municipal water sources.

- Policy B 4.2.2: Infiltration and Inflow. The City will minimize storm water and groundwater infiltration and inflow into the sewer system.

3.5.2 Environmental Setting

HYDROLOGY AND DRAINAGE

Regional Hydrology

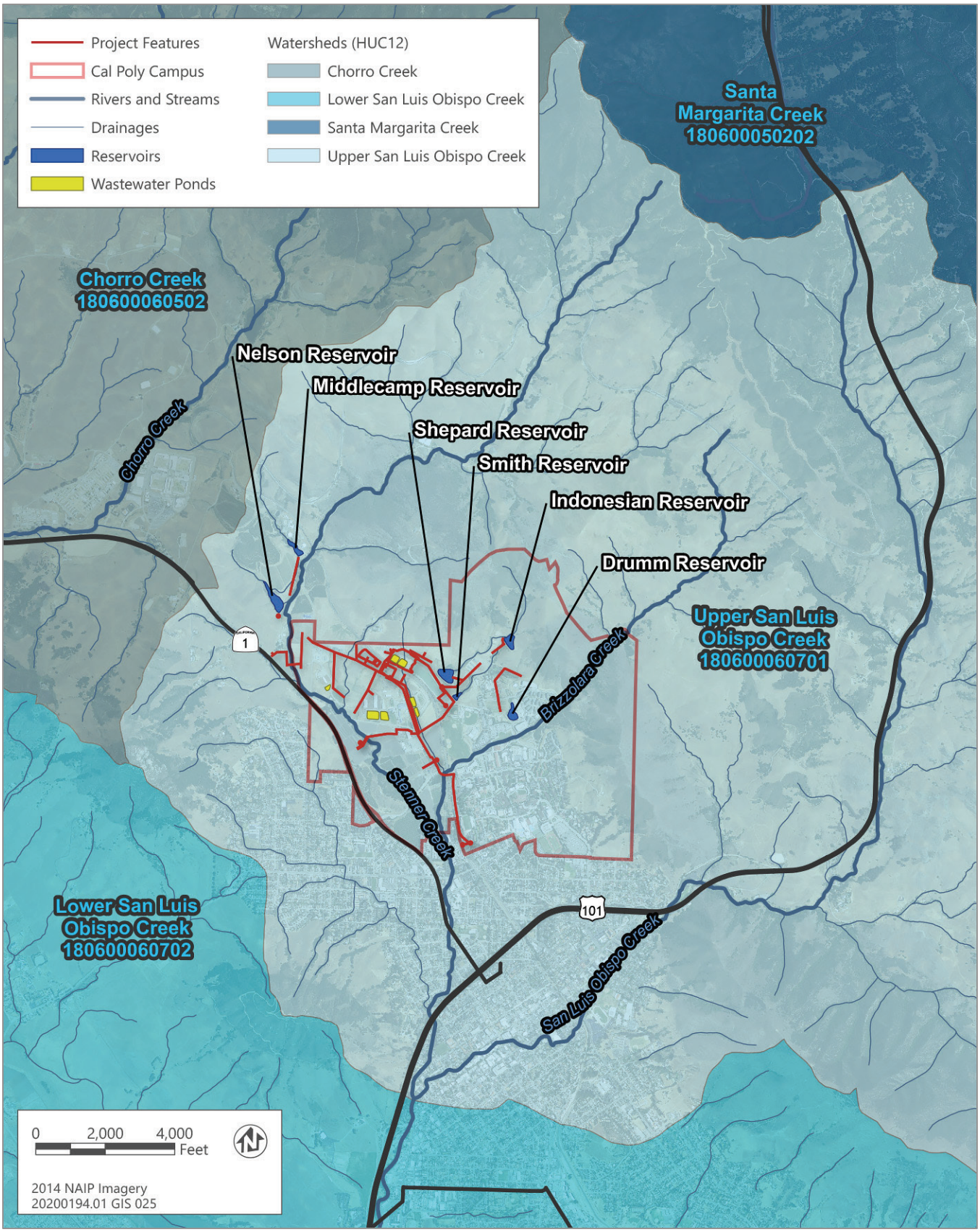
The project site, located primarily in the western subarea of the Cal Poly campus in San Luis Obispo County, abuts the City of San Luis Obispo to the south and west, and open space, ranchland, and public land to the north and east. It is located approximately 12 miles east of the Pacific Ocean and west of the Coast Ranges Geomorphic Province of California. The project site is within the Upper San Luis Obispo Creek watershed (Figure 3.5-1), within the larger Pismo Creek-Frontal Pacific Ocean watershed. The Upper San Luis Obispo Creek watershed encompasses approximately 18 square miles and is characterized by steep hillsides, a deep valley, and dense oak woodland and chaparral vegetation communities. This watershed consists primarily of agriculture, rural land uses, and scattered development (The Land Conservancy of San Luis Obispo County 1996), as well as more developed areas, such as the campus and the City of San Luis Obispo. Nearby watersheds include the Chorro Creek watershed to the southwest, the Santa Margarita Creek watershed to the northwest, Lopez Canyon watershed to the north, and the Lower San Luis Obispo Creek watershed to the southeast (Figure 3.5-1).

Local Hydrology

The project site lies within the Stenner Creek Subbasin, part of the larger San Luis Obispo Creek Basin, which serves as an important groundwater recharge area for the San Luis Obispo Creek Basin (Cal Poly 2015). San Luis Obispo Creek is a perennial coastal stream that flows south through the City of San Luis Obispo to an estuary at Avila Beach approximately 13 miles southwest of the campus. Brizzolara Creek and Stenner Creek are major tributaries to San Luis Obispo Creek (see Figure 3.5-1).

Stenner Creek flows southwest through the West Campus subarea, parallel to and east of SR 1 before joining Brizzolara Creek. Brizzolara Creek flows from Poly Canyon in the hills northeast of the campus to the southwest through the campus, including the project site. The creek forms the boundary between the East Campus and Academic Core subareas on the south and the North Campus subarea. At its intersection with Highland Drive just west of the Union Pacific Railroad tracks within the West Campus subarea, Brizzolara Creek makes an abrupt turn to the south where it is joined by Stenner Creek.

Stenner Creek and Brizzolara Creek are considered state and federal jurisdictional waters and are subject to USACE, California Department of Fish and Wildlife, and Central Coast RWQCB jurisdiction.



Source: Data received from Hartman Engineering in 2022 and data downloaded from Cal Poly and USGS in 2019.

Figure 3.5-1 Existing Water Resources

Reservoir System

There are six reservoirs within the San Luis Obispo Creek watershed. Four of them—the Drumm, Shepard, Indonesian, and Smith Reservoirs—are located within the main campus, and two—the Nelson and Middlecamp Reservoirs—are located outside and just northwest of the main campus (see Figure 3.5-1). Cal Poly owns the rights to 959 acre-feet per year (afy) of water from Whale Rock Reservoir, located approximately 15 miles northwest of the main campus in the community of Cayucos. Nonpotable water from Whale Rock Reservoir is pumped to Middlecamp Reservoir, located approximately 0.45 mile north of the main campus, and then delivered to Indonesian Reservoir for distribution to the campus agriculture reservoir system for irrigation of crops and animal production. Excess water is allowed to flow via a drainage canal to Nelson Reservoir, located south of Indonesian Reservoir, where it provides for recharge of the Stenner Creek aquifer. Smith Reservoir receives overflow from Shepard Reservoir, located to the northwest, and an unnamed drainage adjacent to the Equine Center, located approximately 5.7 miles south of Smith Reservoir. Surface water from Smith and Shepard Reservoirs then passes through a 4-foot-wide culvert along Mount Bishop Road and into Brizzolara Creek. Drumm Reservoir provides storage for nonpotable water that is used primarily for irrigation, research at Cal Poly's Irrigation Training and Research Center, and nonpoint source pollution abatement at constructed wetlands in James Creek. Excess water is allowed to flow via a drainage from Nelson Reservoir, where it provides groundwater recharge for Stenner Creek.

Groundwater Hydrology

A portion of the project site is located within the San Luis Obispo Valley Groundwater Basin; the remainder is not located within a designated groundwater basin. The San Luis Obispo Valley Groundwater Basin encompasses approximately 12,700 acres and is bounded on the northeast by the Santa Lucia Range, on the southwest by the San Luis Range, and on all other sides by contact with impermeable Miocene and Franciscan Group rocks. The northwestern portion of the basin is drained by San Luis Obispo, Prefumo, and Stenner Creeks. The southeastern portion of the basin is drained by tributaries of Pismo and Davenport Creeks. Average annual precipitation in the region ranges from 19 to 23 inches, with an average of 21 inches across the valley. The groundwater basin receives recharge from infiltration of precipitation within the valley, applied irrigation water, and streamflow. The total storage capacity of this groundwater basin was most recently (1991) reported as 24,000 acre-feet with 22,000 acre-feet of usable capacity. The sustained yield of the basin is estimated at 5,900 afy, where sustained yield is defined as the maximum quantity of water that is available from a groundwater basin on an annual basis (DWR 2004).

The San Luis Obispo Valley Groundwater Basin is designated as a high-priority basin by DWR (San Luis Obispo County 2019). In accordance with the SGMA, DWR is required to prioritize groundwater basins and direct high- and medium-priority basins to meet a timeline of targets on the path to sustainability (DWR 2018). A portion of the Campus Master Plan area, including the project site, intersects the basin and falls under the San Luis Obispo County's GSA coverage area (San Luis Obispo County 2019). Cal Poly is currently a participant in regional planning activities related to the SGMA.

As described in Section 2.2.2 of Chapter 2, "Project Description," Cal Poly currently pumps 120 afy of nonpotable groundwater from two on-campus wells for agricultural purposes only. Specifically, the groundwater is used for irrigation of human food crops and citrus orchards grown on the main campus.

Storm Water Drainage

Storm water runoff is collected by a series of inlets and conveyed by storm drain lines located throughout campus to existing drainages and either Brizzolara Creek or Stenner Creek. Most of the Cal Poly campus drains into Brizzolara Creek; however, runoff from portions of the West Campus subarea drains into an unnamed drainage (located near Foothill Road) to Stenner Creek. Both creeks ultimately drain into the estuary at the Pacific Ocean in Avila Beach. Cal Poly, in compliance with existing storm water laws and permitting requirements, implements the requirements of the 2013 General Permit and the Cal Poly Storm Water Management Program. This permit requires the implementation of six minimum control measures to address public outreach, public involvement, illicit discharge detection and elimination, construction site storm water controls, postconstruction storm water controls, and pollution prevention and good housekeeping for campus operations. Among other things, the Storm Water Management Program addresses cleaning and maintaining storm drain inlets and catch basins, ensuring that buildings and other campus

amenities are designed and constructed in ways that minimize impacts on water quality, and installing storm water BMPs for projects in accordance with approved designs (Cal Poly 2018a). Cal Poly requires, and has installed, storm water interceptors for all new projects, including the Poly Canyon Student Housing complex and other recent campus developments (Cal Poly 2017). Further, as part of the Storm Water Management Program, any new development that will create and/or replace 2,500 square feet or more of impervious surface is required to incorporate postconstruction storm water management controls, including rooftop runoff infiltration, conservation of natural and permeable areas, and/or additional on-site bioretention.

Through the Construction General Permit and MS4 storm water programs, Cal Poly seeks to maintain and improve water quality on campus by monitoring pollution concentrations in surface water, groundwater, and storm water that leaves the main campus through the storm water system. These programs address permit requirements and the use of BMPs on campus (Cal Poly 2015).

Flood Conditions

For planning purposes, the flood event most often used to delineate areas subject to flooding is the 100-year flood. This is an event that statistically has a 1-percent chance of occurring in any given year. Portions of the campus, including a portion of the project site, are located within special flood hazard areas subject to inundation during a 100-year flood, Zone A (no base flood elevations determined), as identified by the FEMA FIRM (FEMA 2019). These areas are located along Stenner Creek and Brizzolara Creek and are shown in Figure 3.5-2.

Flooding can also occur as a result of dam failure. A number of natural or human causes, including earthquakes, improper siting, fast-rising flood waters, erosion of the dam face or foundation, and structural or construction flaws, can contribute to dam failure. Other reservoir-related flooding events can result from massive, fast-moving landslides that displace large volumes of water contained in a reservoir. Such rapid displacement of water can cause large quantities of water to travel over the dam, resulting in downstream flooding. Although several dams and reservoirs are located in San Luis Obispo County (see Figure 3.5-1), the campus is not located within an identified dam inundation area on the Dam Inundation Map, according to the Safety Element of San Luis Obispo County's General Plan (San Luis Obispo County 1999), and therefore is not at risk of dam failure–related flooding.

WATER QUALITY

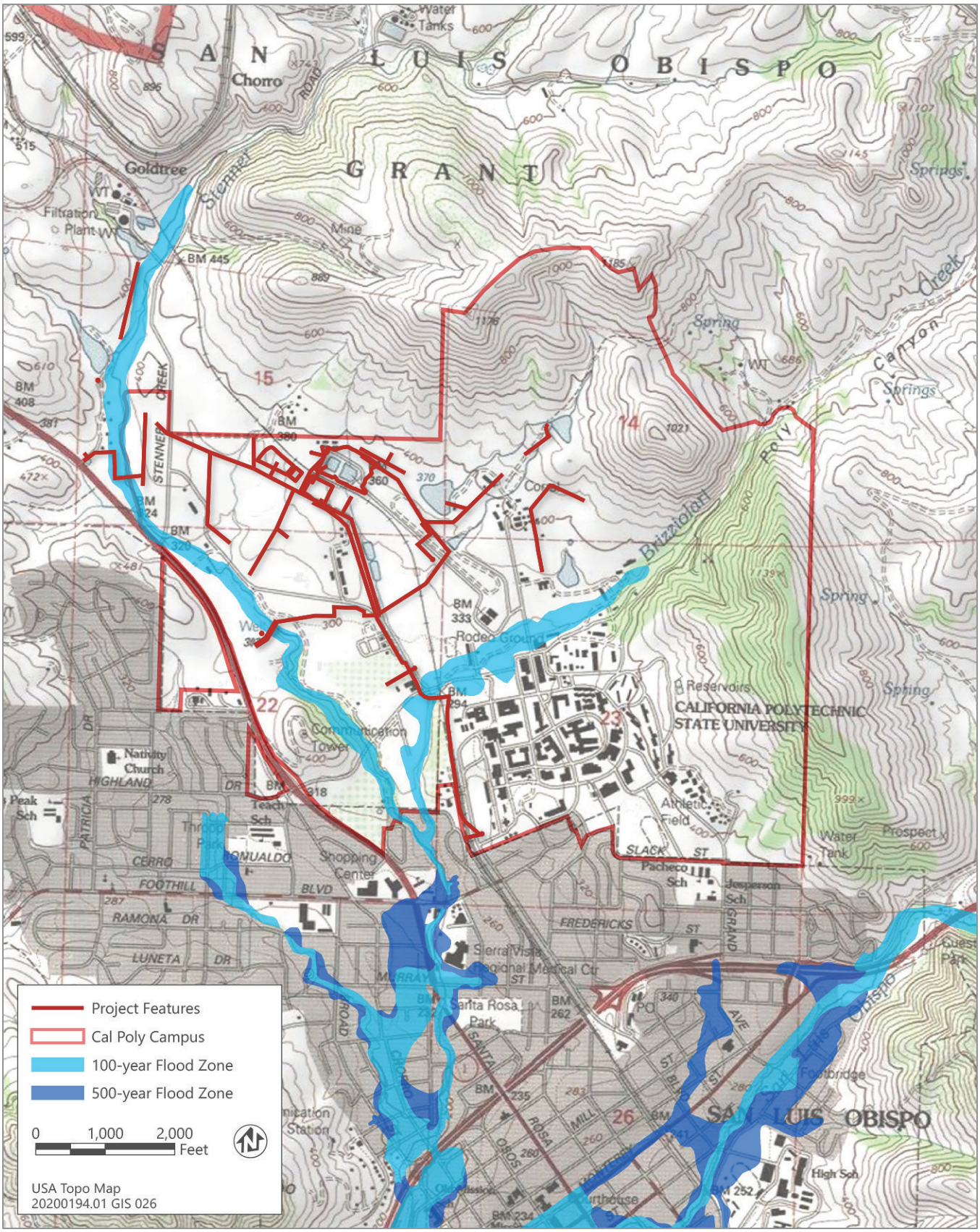
Surface Water Quality

Storm water runoff in urban areas typically contains oils, grease, fuel, antifreeze, and byproducts of combustion (such as lead, cadmium, nickel, and other metals), as well as nutrients, sediments, and other pollutants, such as fertilizers and pesticides. In addition, sizable quantities of animal waste from pets (e.g., dogs and cats) and agricultural operations could lead to fecal contamination of water sources. Precipitation during the early portion of the wet season (December to April) conveys these pollutants into storm water runoff, resulting in high pollutant concentrations in the initial wet weather runoff. This initial runoff, containing peak pollutant levels, is referred to as the "first flush" of storm events. It is estimated that during the rainy season, the first flush of heavy metals and hydrocarbons would occur during the first 5 inches of seasonal rainfall.

The water quality of streams, creeks, ponds, and other surface water bodies can be greatly affected by pollution carried in contaminated surface water runoff.

Impaired Water Bodies

As discussed in Section 3.5.1, above, Stenner Creek is included on the 303(d) list of impaired waters for the 2018 reporting year (SWRCB 2018). State water quality standards specify designated uses individual waters should support (e.g., recreation or water supply). Stenner Creek is designated for agricultural supply, freshwater habitat, municipal and domestic supply, water contact recreation, and noncontact recreation. Stenner Creek is listed as impaired for pathogen pollutants related to domestic animals and livestock, natural sources, and urban runoff/storm sewers (SWRCB 2018).



Source: Data received from Hartman Engineering in 2022 and data downloaded from FEMA in 2022.

Figure 3.5-2 Designated Flood Zones

Wastewater Retention Ponds

In addition to existing creeks, unnamed drainages, and reservoirs within the campus, Cal Poly has seven clay-lined wastewater retention ponds located within the San Luis Obispo Creek watershed (see Figure 3.5-1): two wastewater retention ponds associated with the Swine Unit, four associated with the Dairy Unit (two are emergency overflow ponds), and one associated with the Beef Cattle Evaluation Center, located within the northwestern portion of the main campus. Wastewater from these ponds may be used for spray irrigation purposes. These wastewater retention ponds are subject to Cal Poly's WDR for point-source pollution, which has been put into place to regulate wastewater that is discharged to land from confined animal facilities to protect the recreational use and drinking water supplies of downstream beneficial uses. The WDR provides a framework for how each confined animal facility is managed, including how many animals are permitted in the facility, how compost is managed, and how many gallons can be discharged to these wastewater retention ponds and to existing storm water drainage facilities from the facility each day (Cal Poly 2018b).

Groundwater Quality

Groundwater quality can be affected by many things, but the chief controls on the characteristics of groundwater quality are the sources and chemical composition of recharge water, properties of the host sediment, and history of discharge or leakage of pollutants. Groundwater wells in the San Luis Obispo Valley Groundwater Basin typically yield water of magnesium bicarbonate character. Pleistocene alluvial terrace deposits are deeper, whereas Holocene alluvial terrace deposits cover the shallow portions and most recent portions of groundwater basins. Water stored in the Pleistocene alluvial terrace deposits is characterized by poor water quality, whereas water in the Holocene deposits is generally of excellent quality. Water from seven groundwater monitoring wells on the Cal Poly campus have excessive concentrations of nitrate and chloride (DWR 2004).

3.5.3 Environmental Impacts and Mitigation Measures

METHODOLOGY

Evaluation of potential hydrologic and water quality impacts is based on a review of existing documents and studies that address water resources in the vicinity of the project site. Information obtained from these sources was reviewed and summarized to describe existing conditions and to identify potential environmental effects, based on the thresholds of significance presented in this section. In determining the level of significance, the analysis assumes that the project would comply with relevant federal, state, and local laws, ordinances, and regulations.

THRESHOLDS OF SIGNIFICANCE

An impact on hydrology or water quality would be significant if implementation of the project would:

- violate any water quality standards or waste discharge requirements (WDRs) or otherwise substantially degrade surface water or groundwater quality;
- substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin;
- substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner that would:
  - result in substantial erosion or siltation on- or off-site;
  - substantially increase the rate or amount of surface runoff in a manner that would result in flooding on-site or off-site; or
  - create or contribute runoff water that would exceed the capacity of existing or planned storm water drainage systems or provide substantial additional sources of polluted runoff;
- be located in flood hazard, tsunami, or seiche zones, and risk release of pollutants due to project inundation; or

- conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan.

ISSUES NOT DISCUSSED FURTHER

Violate Any Water Quality Standards or WDRs or Otherwise Substantially Degrade Surface Water or Groundwater Quality during Construction

As discussed in Impact 3.9-1 in Section 3.9, "Hydrology and Water Quality," of the Campus Master Plan EIR, all future development associated with the Campus Master Plan, including the proposed project, that would result in disturbance of an area of 1 acre or greater would be required to prepare a SWPPP and implement and comply with all applicable BMPs during construction, as required by the Construction General Permit, including construction site runoff control elements, which would prevent construction-related discharge of pollutants into receiving waters. In addition, the project would be required to comply with the 2013 General Permit required for all campus activities, which requires specific measures for construction site runoff control. As concluded in Impact 3.9-1 of the Campus Master Plan EIR, through compliance with existing permits, plans, and regulations, such as the Construction General Permit, 2013 General Permit, and SWPPPs (required by the Construction General Permit for development 1 acre or greater) and associated BMPs, future development associated with the Campus Master Plan, including the proposed project, would not violate any water quality standards or WDRs during construction. This issue is not discussed further in this EIR. For a detailed discussion of this issue, refer to Impact 3.9-1 in Section 3.9 of the Campus Master Plan EIR.

Substantially Decrease Groundwater Supplies or Interfere Substantially with Groundwater Recharge Such That the Project May Impede Sustainable Groundwater Management of the Basin

The proposed project involves the construction and operation of an on-campus WRF and recycled water storage and distribution system to treat a portion of the campus's wastewater and deliver recycled water to campus agricultural and athletic fields for irrigation. The project would not require the use of groundwater during construction or operation. Upon completion of the project, Cal Poly would continue to pump up to 120 afy of groundwater for agricultural purposes as it currently does; the project would not increase agricultural operations or include other activities that would result in increased demand or use of groundwater. In addition, the treated recycled water produced by the WRF would be used for irrigation of campus facilities, thereby freeing up potable water supply currently used for irrigation to serve the projected potable water demand of the campus and potentially decreasing Cal Poly's future groundwater demand. Although the project would include the addition of impervious surfaces associated with the new paved access road, parking area, and WRF building, these proposed facilities would be located outside the San Luis Obispo Valley Groundwater Basin and therefore would not impede groundwater recharge of the basin. For these reasons, this issue is not discussed further in this EIR.

Conflict with or Obstruct Implementation of a Water Quality Control Plan or Sustainable Groundwater Management Plan

As discussed in Impact 3.9-6 in Section 3.9 of the Campus Master Plan EIR, future development and redevelopment that would occur under the Campus Master Plan, including the proposed project, would be required to comply with all applicable water quality requirements, including implementation of all applicable BMPs, and therefore would not conflict with or obstruct implementation of existing water quality control programs. During both construction and operation of the project, Cal Poly would comply with the 2013 General Permit, comply with the required SWPPP and associated BMPs, and implement LID techniques that would control storm water and prevent contamination to surface water resources. For these reasons, the project would not conflict with the Basin Plan. Further, the project would result in no net change of groundwater use between existing conditions and would not conflict with or obstruct implementation of the sustainable groundwater management plan to be adopted for the San Luis Obispo Valley Groundwater Basin. Because construction and operational activities associated with the project would not obstruct implementation of an applicable Water Quality Management Plan or Groundwater Basin Plan, this issue is not discussed further in this EIR.

ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

The mitigation measures identified in the following discussion are substantially similar to those in the Campus Master Plan EIR. However, because the project would affect only a portion of the Campus Master Plan area and project details and construction techniques have been further refined, which would necessitate minor revisions to Campus Master Plan EIR mitigation measures, and in some cases, incorporation of additional mitigation measures, for clarity, the mitigation measures identified herein were developed to apply specifically to the WRF project as it is currently proposed. Where a mitigation measure was developed based largely on a Campus Master Plan EIR mitigation measure, the Campus Master Plan EIR mitigation measure number is identified in parenthesis after the title of the project-specific mitigation measure.

The project would not conflict with any City or County General Plan policies or regulations identified in Section 3.5.1 related to hydrology or water quality. Even if the project would potentially conflict with City or County General Plan policies, the impact would not be considered significant, because the CSU is not subject to local policies and regulations.

Impact 3.5-1: Violate Any Water Quality Standards or Waste Discharge Requirements or Otherwise Substantially Degrade Surface Water or Groundwater Quality during Operation

During project operation, increased rates of surface water runoff associated with new impervious surfaces could promote increased erosion and sedimentation or other storm water contamination and adversely affect surface water and groundwater quality if not properly addressed. The project would comply with the Construction General Permit, the 2013 General Permit, SWPPPs, and associated BMPs. Further, the use of LID techniques, such as pervious surfaces, bioretention swales, wet wells, would control storm water flow and prevent contamination of surface water resources. In addition, operation of the WRF would occur in compliance with CCR Title 22 requirements for recycled water. Continued compliance with the 2013 General Permit, as well as compliance with CCR Title 22 requirements, would ensure that impacts related to water quality standards during project operations would be **less than significant**.

The proposed WRF would include a paved access road and parking area to accommodate haul/delivery trucks, operators, and maintenance staff and an approximately 16,000-square-foot building that would house some or all of the treatment process facilities, an electrical room, a mechanical room, a laboratory, a classroom, and restrooms. In addition, the proposed lift stations would each occupy an area of approximately 4,800 square feet. The proposed WRF and these associated facilities would result in approximately 2.4 acres of new impervious surface, which would result in an increased rate of surface water runoff on the project site. This increase in the amount of impervious surface compared to existing conditions on the project site would be relatively modest. Nevertheless, runoff from impervious surfaces could contribute to increased erosion and sedimentation or other storm water contamination and adversely affect surface water and groundwater quality if not properly addressed. The main sources of long-term storm water pollution from development are roads, automobiles, landscaping, industrial activity, spills, and illegal dumping. Developed areas can produce storm water runoff that contains oil, grease, and heavy metals and that can carry sediment into drainage pathways. The contaminated runoff ultimately can be carried to adjacent water bodies or can infiltrate groundwater.

The potential generation of polluted runoff from the project would be minimized through compliance with the Cal Poly Storm Water Management Program and the 2013 General Permit. This program and permit require the implementation of BMPs, including design, installation, and maintenance of LID practices consistent with the 2013 General Permit and Post-Construction Stormwater Management Requirements for Development Projects in the Central Coast Region (Resolution R2-2013-0032). Cal Poly is also required to comply with the pollution prevention and good housekeeping requirements of the 2013 General Permit that address the ongoing maintenance and operation of the campus facilities and infrastructure. These regulatory requirements would ensure that the project does not generate polluted runoff that would violate any water quality standards or WDRs during operations.

Operation of the WRF facility would involve primary, secondary, and tertiary treatment and disinfection processes as described in Section 2.4.2 of Chapter 2, "Project Description." The WRF would treat up to 0.5 million gallons per day peak wet weather flow and produce an average of 380 afy (339,242 gpd) of disinfected tertiary recycled water that meets the requirements specified in Title 22, Section 60301.230. Disinfected tertiary recycled water from the WRF

would be suitable for the surface irrigation of food crops (including all edible root crops where the recycled water comes into contact with the edible portion of the crop), parks and playgrounds, schoolyards, and residential landscaping (Title 22, Section 60304[a]). Irrigation would be provided at agronomic rates determined based on rainfall data and evapotranspiration sensors and other input to prevent overirrigation and runoff. The treated recycled water would not be used as a source of potable water.

The WRF would also include a belowground vault or aboveground tank to provide equalization during high inflows to the WRF. The equalization vault or tank would have up to 500,000 gallons of capacity to provide short-term peak flow storage, as well as emergency storage, as specified in CCR Title 22 Section 60341(a), allowing retention of partially treated wastewater for at least a 24-hour period. All the equipment except the pump-back equipment would be either independent of the normal power supply or provided with a standby power source. In addition, the WRF would include a waste-activated sludge (biosolids) handling area to support the dewatering and off-haul of biosolids produced by the treatment processes. Biosolids would be disposed of at a permitted municipal solid waste landfill.

In addition, the project would include construction of a new recycled water storage reservoir with a capacity of up to 120 acre-feet. The recycled water storage reservoir would be located north of the proposed WRF on land currently occupied by two swine wastewater ponds that serve the existing Swine Unit. The reservoir would be lined in accordance with SWRCB and Title 22 Section 64585 requirements and would provide storage of recycled water for up to 5 months before distribution. Ultraviolet light-disinfected tertiary effluent from the WRF would be conveyed to the recycled water storage reservoir, and sodium hypochlorite would be injected into the treated effluent before discharge into the recycled water effluent discharge pipeline to prevent pathogen regrowth in the reservoir and distribution system.

The WRF would be designed to meet water reclamation requirements and WDRs established by the Central Coast RWQCB, and Cal Poly would obtain coverage under the Wastewater Systems General Permit and Agricultural Order for the discharge of wastewater to land and agricultural land, respectively. As required by the Agricultural Order, Cal Poly would develop and implement an INMP to protect groundwater and surface water quality during irrigation activities. In addition, the required reliability features specified in CCR Title 22 Sections 60341–60355 would be implemented to ensure the safe production and distribution of recycled water for unrestricted reuse. All treatment processes would be covered or housed in the WRF building, and external influent and effluent equalization basins would include odor control technology. Because wastewater treatment plants are subject to interruptions during normal operating procedures, a contingency plan would be developed to prevent inadequately treated wastewater from being delivered to the use areas and to comply with CCR Title 22 Section 60323(c). The contingency plan would include the following information:

- a list of conditions that would require an immediate diversion to take place;
- a description of the diversion procedures;
- a description of the diversion area, including capacity, holding time, and return capabilities (if applicable);
- a plan for the disposal or treatment of any inadequately treated effluent;
- a description of fail-safe features in the event of a power failure;
- a description of procedures for notifying site operators if inadequately treated recycled water was delivered (including precautions to be implemented); and
- a description of procedures for notifying regulatory agencies of spills and unauthorized discharges.

Although the influent equalization basin would provide short-term peak flow storage and emergency storage of untreated or partially treated wastewater during maintenance or temporary treatment system upset, in the unlikely event that WRF operations were interrupted for a longer period, Cal Poly would have the ability to redirect untreated wastewater from the lower lift station into the campus sewer system for treatment at the downstream City Water Resource Recovery Facility.

In the unlikely event that inadequately treated recycled water is delivered to the irrigation sites, Cal Poly would take the necessary steps to minimize the effects of such discharge, such as requiring staff to prevent contact with the water by limiting access to the affected site, posting signs regarding the discharge, and preventing runoff. Cal Poly

would immediately notify the SWRCB Division of Drinking Water District Office and the San Luis Obispo County Environmental Health Services by telephone.

For any spills or unauthorized discharges that could endanger health or the environment, Cal Poly would notify the RWQCB by telephone within 24 hours of becoming aware of the incident. The verbal communication would include the name/contact information of the caller, date/time/location/volume of the discharge, cause of the spill, cleanup actions undertaken, status of public notifications, and information on responding agencies. A written report would be provided within 5 days that describes the violation, period of noncompliance, actions planned to correct the violation, and proposed time schedule for the corrective actions.

For the reasons described above, the project would not violate any water quality standards or WDRs or otherwise substantially degrade surface water or groundwater quality. This impact would be **less than significant**.

Mitigation Measures

No mitigation is required for this impact.

Impact 3.5-2: Substantially Alter the Existing Drainage Pattern of the Site or Area Such That Substantial Erosion, Siltation, Flooding, Polluted Runoff, or an Exceedance of the Capacity of Storm Drainage Systems Would Occur

The proposed new storage reservoir would be greater in size compared to the existing Swine Unit wastewater ponds with substantial berms elevated above ground surface that would have the potential to substantially alter existing drainage patterns and require storm drainage modifications to prevent substantial runoff from the site during operation. Because the project has the potential to permanently alter drainage patterns resulting in substantial erosion and runoff, this impact would be **potentially significant**.

Construction activities associated with the project would include grading, demolition, and vegetation removal, which have the potential to temporarily alter localized drainage patterns. These activities could expose bare soil to rainfall and storm water runoff, which could accelerate erosion and result in sedimentation of storm water and, eventually, downstream receiving water bodies. For example, removal of vegetation, excavation, grading, and stockpiling of soils for new buildings and building foundations would create soil disturbance that could accelerate erosion, especially during storm events. In addition, construction liquids such as gasoline, diesel fuel, lubricating oils, grease, solvents, and paint would be brought on-site and, if not appropriately used or stored, could contaminate runoff. If existing drainage patterns are substantially altered and not properly addressed, the pollutant load in runoff and nearby receiving water bodies could increase. However, the project would be required to comply with the Small MS4 permit, which requires specific measures for construction site runoff control to ensure that substantial alterations to drainage patterns do not occur.

In addition, because implementing the project would result in disturbance of an area greater than 1 acre, the Construction General Permit would require preparation and implementation of a SWPPP, as well as compliance with all applicable BMPs during construction. Compliance with SWPPP conditions, including storm water runoff monitoring, and implementation of BMPs in service and construction activities, including construction site runoff control, would prevent soil and construction wastes from leaving the construction site and entering the storm drain system. Specifically, implementation of these BMPs would prevent or reduce storm water pollution through treatment requirements, operating procedures, and practices to control site runoff, spillage or leaks, sludge or waste disposal, or drainage from raw material storage.

If not properly planned for, alterations to existing drainage patterns can result in increased runoff that would exceed the capacity of existing or planned on- or off-site storm water drainage systems or provide substantial additional sources of polluted runoff during project operation. Increased rates and volumes of surface water runoff associated with new impervious surfaces could promote increased erosion and sedimentation or other storm water contamination and negatively affect surface water and groundwater quality. Increased runoff from streets, driveways, parking lots, and

landscaped areas can contain nonpoint source pollutants, such as oil, grease, heavy metals, pesticides, herbicides, fertilizers, and sediment, which could result in additional sources of polluted runoff in nearby water bodies.

The project would be required to implement LID principles and techniques that mimic the site's predevelopment hydrology in the design of all facilities and improvements. Such techniques include limiting impervious coverage and other runoff-attenuating features such that storm water runoff rates and volumes do not increase, in order to prevent contamination of surface water and groundwater. Further, the potential for the project to generate polluted runoff would be minimized through mandatory compliance with the 2013 General Permit. Cal Poly would also be required to comply with Non-Traditional Small MS4 Permittee Provisions of the 2013 General Permit for the project, as described under Impact 3.5-1, above. Therefore, implementing the proposed project would not result in a substantial increase in storm water runoff or polluted runoff.

The proposed project includes a new recycled water storage reservoir on land currently occupied by two swine wastewater ponds that serve the existing Swine Unit. The proposed new reservoir would occupy approximately 7.5 acres. The reservoir would have a storage capacity of approximately 120 acre-feet and would be created by excavating the existing 8.5-million-gallon (approximately 31.3-acre-foot) swine wastewater ponds to a maximum depth of 50 feet and installing earthen berms to a maximum height of 20 feet aboveground, including at least 2 feet of freeboard. The raised berms would result in redirection of runoff in this area and may require new or modified storm drainage facilities to collect and control storm water runoff to prevent erosion and siltation. Because, implementing the proposed project could result in a substantial change to existing drainage patterns that could result in offsite runoff and require modifications to the existing storm drainage facilities, this impact would be **potentially significant**.

Mitigation Measures

The following adopted mitigation measure from the Campus Master Plan EIR would be applicable to the project.

Mitigation Measure 3.5-2a: Prepare a Drainage Plan and Supportive Hydrologic Analysis (*Campus Master Plan EIR Mitigation Measure 3.9-3*)

Before the commencement of construction activities that will modify existing drainage and/or require the construction of new drainage infrastructure to collect and control storm water runoff, Cal Poly shall prepare a drainage plan and supportive hydrologic analysis demonstrating compliance with the following, or equally effective similar measures, to maximize groundwater recharge and maintain similar drainage patterns and flow rates:

a) Off-site runoff shall not exceed existing flow rates during storm events.

b) If required to maintain the current flow rate, appropriate methods/design features (e.g., detention/retention basins, infiltration systems, or bioswales) shall be installed to reduce local increases in runoff, particularly on frequent runoff events (up to 10-year frequency) and to maximize groundwater recharge.

c) If proposed, drainage discharge points shall include erosion protection and be designed such that flow hydraulics exiting the site mimics the natural condition as much as possible.

d) Drainage from impervious surfaces (e.g., roads, driveways, buildings) shall be directed to a common drainage basin.

e) Where feasible, grading and earth contouring shall be done in a way to direct surface runoff towards the above-referenced drainage improvements (and/or closed depressions).

Mitigation Measure 3.5-2b: Implement Post-Development Storm Water Best Management Practices and Low-Impact Development (*Campus Master Plan EIR Mitigation Measure 3.9-4b*)

During the design review phase, Facilities Management and Development will verify that the storm water BMPs and LID technologies were evaluated and all appropriate BMPs are incorporated into the project. Additionally, consistent with MS4 requirements, Facilities Management and Development will also verify that post-development runoff from the project site will approximate pre-development runoff volumes. If post-development runoff does not approximate pre-development runoff, additional BMPs shall be required in order to ensure that storm drain system capacity is not exceeded and that the drainage pattern of the project site is not significantly altered in such a way that it would result in erosion, siltation, or flooding.

Significance after Mitigation

Implementation of Mitigation Measures 3.5-2a and 3.5-2b would require a drainage plan and implementation of appropriate measures that would maintain existing rain event flow rates and patterns avoiding potential impacts such as erosion or siltation, flooding, exceedance of capacity of existing or planned storm water drainage systems, additional sources of polluted runoff, or impedance or redirection of flood flows. Further, Mitigation Measure 3.5-2b would require evaluation of storm water BMPs for the project to ensure that post-project drainage maintains pre-development standards in accordance with the MS4 permit. These mitigation measures would ensure that the impacts from alteration of existing drainage patterns would be reduced to **less than significant**.

Impact 3.5-3: Be Located within Flood Hazard, Tsunami, or Seiche Zones, and Risk Release of Pollutants Due to Project Inundation

Portions of the project site are located within special flood hazard areas subject to inundation in a 100-year flood, specifically nonpotable/recycled water distribution lines and a small segment of proposed new force main. However, nonpotable/recycled water distribution lines and the proposed new force main would all be installed belowground and therefore would not be exposed to floodwaters in the event of a 100-year storm. In addition, all water that would be distributed through the nonpotable/recycled water distribution lines would be treated to required CCR Title 22 standards before being discharged from the WRF and storage reservoir. Lastly, a contingency plan would be developed to prevent inadequately treated wastewater from being delivered to the use areas and to comply with CCR Title 22 Section 60323(c). Thus, the project would not risk the release of pollutants as a result of project inundation in a flood hazard zone. However, the new reservoir would have the potential to result in flooding if the earthen berms were to fail, which could result in inundation of nearby agricultural facilities and the release of pollutants from these facilities. Therefore, project impacts related to release of pollutants due to project inundation would be **potentially significant**.

The Cal Poly campus is located approximately 13 miles east of the Pacific Ocean and thus, based on distance, is not subject to tsunamis. In addition, as discussed in Section 3.5.2, the campus is not located within an identified dam inundation area on the Dam Inundation Map in the Safety Element of San Luis Obispo County's General Plan (San Luis Obispo County 1999). Further, as described in the City of San Luis Obispo General Plan EIR, San Luis Obispo is not subject to lakefront flooding due to earthquake-induced waves (i.e., seiche) (City of San Luis Obispo 2014). Regarding the potential for seiche to occur on reservoirs, seiche is not considered a significant risk in San Luis Obispo County because existing water bodies are not large enough to generate large waves (San Luis Obispo County 1999).

As discussed above in Section 3.5.2 and shown in Figure 3.5-2, portions of the project site are located within special flood hazard areas subject to inundation by the 100-year flood, Zone A (no base flood elevations determined) (FEMA 2019). These are limited to areas located along Stenner and Brizzolara Creeks. The 100-year flood hazard area primarily runs along Brizzolara Creek at the northern edge of the Academic Core and East Campus subareas. The flood hazard area along Stenner Creek runs through a small portion of the West Campus subarea (see Figure 3.5-2). Although the proposed WRF, recycled water storage reservoir, and grubbing pile (i.e., excavated material from the reservoir) would be outside the 100-year flood zone, the project includes the construction of new and replacement nonpotable/recycled water distribution lines that would extend across Stenner Creek within the 100-year flood zone. A small segment of the proposed new force main would also be constructed within the 100-year flood zone associated with Brizzolara Creek. However, nonpotable/recycled water distribution lines and the proposed new force main would all be installed belowground and therefore would not be exposed to flood waters in the event of a 100-year storm. Further, all water that would be distributed through the nonpotable/recycled water distribution lines would be treated to CCR Title 22 standards before being discharged from the WRF and storage reservoir. Lastly, as discussed above in Impact 3.5-1, a contingency plan would be developed to prevent inadequately treated wastewater from being delivered to the use areas and to comply with CCR Title 22 Section 60323(c). Compliance with these requirements would ensure that the project would not risk the release of pollutants from inundation in a flood hazard zone.

The proposed project includes a new recycled water storage reservoir that would occupy approximately 7.5 acres and would have a storage capacity of approximately 120 acre-feet. The new reservoir would be created by excavating the existing swine wastewater ponds to a maximum depth of 50 feet and installing earthen berms to a maximum height

of 20 feet aboveground, including at least 2 feet of freeboard to impound and contain the recycled water prior to distribution. As currently designed, less than 50 acre-feet of recycled water would be stored above the elevation of the ground surface as measured from the downstream toe of the berms, so the new reservoir would not meet the criteria to be considered a jurisdictional dam under the regulatory authority of the State Division of Safety of Dams (DSOD). While the campus is not located within an identified dam inundation area, the proposed new reservoir has the potential to result in flooding if the earthen berms were to fail. The release of up to 50 acre-feet of recycled water in the event of a berm failure could result in inundation of the dairy unit, which is down gradient from the proposed new reservoir, and the Swine Unit, which is immediately adjacent to the north side of the reservoir. Inundation of these areas could risk the release of pollutants including, nutrients, bacteria, hazardous materials, chemicals, or other pollutants, and this would be a **potentially significant** impact.

Mitigation Measures

Mitigation Measure 3.5-3: Design and Construct Earthen Berms to Minimize Risk of Failure

To minimize the risk of berm failure and flooding, the earthen berms of the proposed recycled water reservoir shall be designed and constructed by qualified professional engineers consistent with best professional standards and in cooperation with Cal Poly and SWRCB, taking into consideration applicable Waste Discharge Requirements and consistent with the results of a geotechnical investigation. As determined necessary by SWRCB, Cal Poly shall retain a qualified engineer to conduct a geotechnical investigation of the reservoir site and prepare a report with design and siting recommendations. The investigation shall address, at a minimum, geology of the site and vicinity, as appropriate; subsurface conditions, based on exploratory pits, trenches and adits (horizontal borehole), drilling, coring, geophysical surveys; tests to determine seepage rates; and physical tests to measure in place the properties and behavior of foundation materials at the reservoir site. The investigations and recommendations therefrom shall be used to achieve the following performance criteria during construction and operation of the reservoir:

- The embankment, foundation, abutments, and reservoir rim shall be stable and able to withstand all loading conditions brought about by construction of the embankment, reservoir operation, and earthquakes.
- Seepage flow through the embankment, foundation, abutments, and reservoir rim shall be controlled to prevent excessive uplift pressures; piping (internal erosion); instability; sloughing; removal of material by solutioning; or erosion of material into cracks, joints, or cavities. The amount of water lost through seepage shall be controlled so that it does not interfere with planned project functions.
- The embankment shall be designed not to overtop or experience encroachment of freeboard during occurrence of the design storm event through the provision of sufficient height, spillway, or outlet works capacity.
- Freeboard must be sufficient to prevent overtopping by waves.
- Bank height should be sufficient to allow for settlement of the foundation and embankment, but not included as part of the freeboard.
- The embankment slopes shall be protected against rain erosion.
- The pond facility shall be lined, which would minimize leakage and protect slopes.
- A geotechnical engineer shall design the slopes of the pond facility with industry standard construction quality assurance to ensure slope stability.
- The pond liner shall receive industry standard operational monitoring for liner leakage throughout the life of the pond liner.

Further, Cal Poly shall prepare and implement a Spill Prevention and Emergency Response Plan that shall be reviewed and approved by SWRCB prior to initiation of operations for the new reservoir.

Significance after Mitigation

Mitigation Measure 3.5-3 would require the reservoir to be designed and constructed to meet site conditions and standard best engineering practices for safe operation and limit the potential for overtopping and berm failure.

Further, implementation of this mitigation measure would require Cal Poly to prepare and implement a Spill Prevention and Emergency Response Plan that shall be reviewed and approved by SWRCB prior to initiation of operations for the new reservoir. Therefore, implementation of Mitigation Measure 3.5-3 would minimize the potential for embankment overtopping and berm failure and ensure that impacts associated with the release of pollutants due to project inundation would be reduced to **less than significant**.

3.6 UTILITIES AND SERVICE SYSTEMS

This section evaluates the availability of existing utility and infrastructure systems (water, wastewater, stormwater, solid waste, electricity, natural gas, and telecommunications) to serve the project and the impact of the project on these systems. The analysis is based on documents obtained from the City of San Luis Obispo, the Cal Poly Campus Master Plan, the Cal Poly Campus Utilities Master Plan, and communication with a representative of Cal Poly.

Comments related to utilities and service systems that were received in response to the Notice of Preparation expressed concerns regarding water supply and necessary coordination with the City.

3.6.1 Regulatory Setting

FEDERAL

Clean Water Act

The Clean Water Act (CWA) employs a variety of regulatory and nonregulatory tools to reduce direct pollutant discharges into waterways, finance municipal wastewater treatment facilities, and manage polluted runoff. The US Environmental Protection Agency (EPA) established primary drinking water standards in Section 304 of the CWA. States are required to ensure that the public's potable water meets these standards.

Section 402 of the CWA creates the National Pollutant Discharge Elimination System (NPDES) regulatory program. Point sources must obtain a discharge permit from the proper authority (usually a state, sometimes EPA, a tribe, or a territory). NPDES permits cover various industrial and municipal discharges, including discharges from storm sewer systems in urbanized areas, storm water associated with numerous kinds of industrial activity, runoff from construction sites disturbing 1 acre or more, and mining operations. All so-called "indirect" dischargers are not required to obtain NPDES permits. "Indirect" dischargers send wastewater into a public sewer system, which carries it to the municipal sewage treatment plant, through which it passes before entering a surface water.

Safe Drinking Water Act

As mandated by the Safe Drinking Water Act (Public Law 93-523), passed in 1974, EPA regulates contaminants of concern to domestic water supply. Such contaminants are defined as those that pose a public health threat or that alter the aesthetic acceptability of the water. These types of contaminants are regulated by EPA's primary and secondary maximum contaminant levels (MCLs). MCLs and the process for setting these standards are reviewed triennially. Amendments to the Safe Drinking Water Act enacted in 1986 established an accelerated schedule for setting drinking water MCLs. EPA has delegated responsibility for California's drinking water program to the State Water Resources Control Board (SWRCB) Division of Drinking Water. The SWRCB Division of Drinking Water is accountable to EPA for program implementation and for adoption of standards and regulations that are at least as stringent as those developed by EPA.

STATE

California Code of Regulations, Energy Efficiency Standards

Energy consumption in new buildings in California is regulated by the state's Building Energy Efficiency Standards, part of the California Green Building Standards Code, contained in the CCR, Title 24, Part 2, Chapter 2-53. Title 24 applies to all new construction of both residential and nonresidential buildings and regulates energy consumed for heating, cooling, ventilation, water heating, and lighting. Updated every 3 years, the Building Energy Efficiency Standards were most recently approved and adopted by the California Building Standards Commission in 2021 and will become effective in January 2023. The Building Energy Efficiency Standards encourage the use of efficient electric

heat pumps, establish electric-ready requirements for new homes, expand solar photovoltaic and battery storage standards, and strengthen ventilation standards.

California Fire Code

The 2022 California Fire Code, which is codified at Part 9 of Title 24 of the CCR, incorporates by adoption the 2021 International Fire Code and contains regulations related to construction, maintenance, and use of buildings. Topics addressed in the California Fire Code include fire department access, fire hydrants, automatic sprinkler systems, fire alarm systems, fire and explosion hazards safety, hazardous materials storage and use, provisions intended to protect and assist fire responders, industrial processes, and many other general and specialized fire-safety requirements for new and existing buildings and the surrounding premises. The California Fire Code contains specialized technical regulations related to fire and life safety. The California Building Standards Code, including the California Fire Code, is revised and published every 3 years by the California Building Standards Commission.

California Water Code, Water Supply

According to California Water Code (CWC) Section 10910 (referenced in State CEQA Guidelines Section 15155), local lead agencies (such as Cal Poly) are required to identify the public water system(s) that would serve a project and assess whether the water supply is sufficient to provide for projected water demand associated with a project when existing and future uses are also considered (CWC Section 10910[c][3]). The definition of a water-demand project is the same as State CEQA Guidelines Section 15155.

California Water Code, Water Supply Wells and Groundwater Management

The CWC is enforced by the California Department of Water Resources (DWR). DWR's mission is "to manage the water resources of California in cooperation with other agencies, to benefit the state's people, and to protect, restore, and enhance the natural and human environments." DWR is responsible for promoting California's general welfare by ensuring beneficial water use and development statewide. The laws regarding groundwater wells are described in CWC Division 1, Article 2 and Articles 4.300 to 4.311 and in Division 7, Articles 1–4. Further guidance is provided by bulletins published by DWR, such as Bulletins 74-81 and 74-90, related to groundwater well construction and abandonment standards.

Groundwater management is outlined in the CWC, Division 6, Part 2.75, Chapters 1–5, Sections 10750 through 10755.4. The Groundwater Management Act was first introduced in 1992 as Assembly Bill (AB) 3030 and has since been modified by Senate Bill (SB) 1938 in 2002, AB 359 in 2011, and AB 1739 in 2014. The intent of the Groundwater Management Act is to encourage local agencies to work cooperatively to manage groundwater resources within their jurisdictions and to provide a methodology for developing a groundwater management plan. More information related to groundwater is provided in Section 3.5, "Hydrology and Water Quality."

Water Conservation Act of 2009

Requirements regarding per capita water use targets are defined in the Water Conservation Act of 2009, which was signed into law in November 2009 as part of a comprehensive water legislation package. Known as SB X7-7, the legislation requires a 20-percent reduction in urban per capita water use statewide by 2020. SB X7-7 also requires that retail water suppliers provide the gallons-per-capita-per-day baseline and targets in their Urban Water Management Plans.

California's Integrated Waste Management Act of 1989

The California Integrated Waste Management Act (CIWMA) of 1989 created the California Integrated Waste Management Board, now known as the California Department of Resources Recycling and Recovery (CalRecycle). CalRecycle is the agency designated to oversee, manage, and track California's 92 million tons of waste generated each year. CalRecycle provides grants and loans to help cities, counties, businesses, and organizations meet the state's waste reduction, reuse, and recycling goals. It promotes a sustainable environment in which these resources are not wasted but can be reused or recycled. In addition to many programs and incentives, CalRecycle promotes the use of new technologies to divert resources away from landfills. CalRecycle is responsible for ensuring that waste management programs are carried out primarily through local enforcement agencies.

The CIWMA is the result of two pieces of legislation: AB 939 and SB 1322. It was intended to minimize the amount of solid waste that must be disposed of through transformation and land disposal by requiring all cities and counties to divert 25 percent of all solid waste from landfill facilities by January 1, 1995, and 50 percent by January 1, 2000.

The 50-percent diversion requirement is measured in terms of per capita disposal expressed as pounds per day per resident and per employee. The per capita disposal and goal measurement system uses an actual disposal measurement based on population and disposal rates reported by disposal facilities, and it evaluates program implementation efforts.

Mandatory Recycling Requirements

AB 341 requires CalRecycle to issue a report to the legislature that includes strategies and recommendations that would enable the state to recycle 75 percent of the solid waste generated in the state by January 1, 2020, requires businesses that meet specified thresholds in the bill to arrange for recycling services by July 1, 2012, and streamlines various regulatory processes.

Mandatory Commercial Organics Recycling Requirements

In October 2014, AB 1826 Chesbro (Chapter 727, Statutes of 2014) was signed into law, requiring businesses to recycle their organic waste on and after April 1, 2016, depending on the amount of waste they generate per week. This law also requires that on and after January 1, 2016, local jurisdictions across the state implement an organic waste recycling program to divert organic waste generated by businesses, including multifamily residential dwellings of five or more units (multifamily dwellings are not required to have a food waste diversion program, however). Organic waste is food waste, green waste, landscape and pruning waste, nonhazardous wood waste, and food-soiled paper waste that is mixed in with food waste.

Short-Lived Climate Pollutant Reduction Strategy

In September 2016, SB 1383 (Lara, Chapter 395, Statutes of 2016) was signed into law, establishing methane emissions reduction targets in a statewide effort to reduce emissions of short-lived climate pollutants in various sectors of California's economy. Actions to reduce short-lived climate pollutants are essential to address the many impacts of climate change on human health, especially in California's most at-risk communities, and on the environment.

As it pertains to solid waste, SB 1383 establishes targets to achieve a 50-percent reduction in the volume of statewide disposal of organic waste from 2014 levels by 2020 and a 75-percent reduction by 2025. The law grants CalRecycle the regulatory authority required to achieve the organic waste disposal reduction targets and establishes an additional target that not less than 20 percent of the edible food that is currently disposed of be recovered for human consumption by 2025. To meet these goals, universities would be required to divert organic waste, including edible food, from disposal at landfills.

Cal Poly Campus Master Plan

As adopted in 2020, Cal Poly's Campus Master Plan includes several Guiding Principles that also serve as overarching standards relevant to development under the Campus Master Plan. They are organized by topic heading in the Campus Master Plan as General Principle (GP), Academic Mission and Learn by Doing, Design Character (DC), Implementation Program (IP), Other Recommendation, Sustainability and Environmental Stewardship (S), Transportation and Circulation, or Residential Community and University Life. The following principles were identified as relevant to utilities and service systems:

- **GP 11:** Cal Poly should be sustainable with regard to its land and resource planning, as well as site and building design, and operations. Cal Poly should meet or exceed all state and system-wide sustainability policies.
- **GP 12:** As an important element of Cal Poly's academic mission, the university should be a proactive leader in wise and sustainable land and resource management.
- **GP 14:** Cal Poly should evaluate both past investment and the need for future expansion when planning for new and redeveloped facilities.
- **DC 15:** Sites and facilities should be sized appropriate to their expected purposes.

- **IP 07:** Cal Poly should investigate the use of reclaimed water and the use of grey water systems; and turf should be limited to high use areas only.
- **S 06:** Development of campus facilities and utility infrastructure should incorporate strategies to minimize impacts on the environment.

Cal Poly Campus Utility Master Plan

The Cal Poly Campus Utility Master Plan, which was completed in June 2020, assesses campuswide domestic water, sanitary sewer, storm drain, electricity, natural gas, thermal utilities, telecommunications, supervisory control and data acquisition (SCADA) systems, and building automation control system infrastructure needs. It serves as a refined analysis and detailed planning document of the projected campus utility needs based on the Campus Master Plan and takes into consideration development of the WRF and production of recycled water to alleviate demand on potable water supply.

California State University Sustainability Policy

The CSU energy policy, in place since 1978, has been revised over time to incorporate updated energy conservation, on-site, and renewable power generation goals and to elaborate on sustainable building design practices that support these efforts.

The Trustees' long-standing policies regarding energy efficiency and utility management have reduced utility costs and provided campuses with greater control of energy-intensive systems. The CSU Sustainability Policy was first adopted in 2014 and was updated in 2022 (CSU 2022). The policy addresses energy conservation and resiliency; addresses carbon emission reduction, including building decarbonization, water conservation, transportation, waste management, physical plant management, and procurement; and is intended to reduce the environmental impacts of construction and operation of buildings and to encourage the integration of sustainability features and practices systemwide.

The following CSU sustainability policies were identified as relevant to utilities and service systems.

Energy Resilience and Procurement

- **Policy 2**: The CSU will consider cost effective opportunities to exceed the State of California and California Public Utilities Commission Renewable Portfolio Standard (RPS) sooner than the established goal of procuring 60 percent of its electricity needs from renewable sources by 2030 consistent with SB 100 (PUC§399.11).
- **Policy 3**: To minimize use of natural gas, campuses will transition from fossil-fuel sourced equipment to electric equipment as replacements or renovations are needed. Any in-kind fossil-fuel sourced equipment will be justified through an analysis which demonstrates why that solution represents the most cost-effective option and what alternatives were analyzed for comparative purposes. The intention of this item shall be limited to no new investment in, or renewal of, natural gas assets or infrastructure as part of campus projects starting July 1, 2035, with the exception of critical academic program needs.

Energy Conservation, Carbon Reduction, and Utility Management

- **Policy 1**: All CSU buildings and facilities, regardless of the source of funding for their operation, will be operated in the most energy efficient manner and transition to a low carbon strategy without endangering public health and safety and without diminishing the quality of education and the academic program.
- **Policy 2**: All CSU campuses shall continue to identify energy efficiency and carbon reduction improvement measures to the greatest extent possible, undertake steps to seek funding for their implementation and, upon securing available funds, expeditiously implement the measures.
- **Policy 3**: The CSU will cooperate with federal, state, and local governments and other appropriate organizations in accomplishing energy conservation and utilities management objectives throughout the state; and inform students, faculty, staff and the general public of the need for and methods of energy conservation, and carbon reduction, and utilities management.

- **Policy 4**: Each CSU campus shall designate an energy/utilities staff with the responsibility and the authority for carrying out energy conservation and utilities management programs. The Chancellor's Office will have the responsibility to coordinate the individual campus programs into a systemwide program.
- **Policy 5**: The CSU will monitor monthly energy and utility usage on all campuses and the Chancellor's Office and will prepare a systemwide annual report on energy utilization and greenhouse gas emissions. The Chancellor's Office will maintain a systemwide energy database in which monthly campus data will be compiled to produce systemwide energy reporting. Campuses will provide the Chancellor's Office the necessary energy and utility data, such as electricity and natural gas consumption; water and sewer usage; fuel consumed by fleet vehicles, boats, and ships; waste disposal for the systemwide database in a timely manner.
- **Policy 6**: Each CSU campus shall develop and maintain a campus-wide utility master plan which includes an integrated strategic energy resource plan, with tactical recommendations in the areas of new construction, decarbonization, deferred maintenance, climate resilience, facility renewal, energy projects, water conservation, solid waste management, and an energy management plan. This plan will be updated every 10 years and guide the overall energy and climate action program at each campus.

Water Conservation

- **Policy 1**: All CSU campuses shall pursue cost effective water resource conservation to reduce consumption by ten percent by 2030, as compared to a 2019 baseline, consistent with AB 1668 (California Water Code § 10609) including steps to develop sustainable, drought tolerant or native landscaping, reduce turf, install controls to optimize irrigation water use, reduce water usage in restrooms, showers, fountains and decorative water features, and promote the use of reclaimed/recycled water. In the event of a declaration of drought, the CSU will cooperate with the state, city, and county governments to the greatest extent possible to reduce water use.

Sustainable Procurement

- **Policy 1**:Campuses shall promote use of suppliers and/or vendors who reduce waste, re-purpose recycled material, or support other environmentally friendly practices in the provision of goods or services to the CSU under contract. This may include additional evaluation points in solicitation evaluations for suppliers integrating sustainable practices.
- **Policy 2**: To move to zero waste, campus practices should: (1) encourage use of products that minimize the volume of trash sent to landfill or incinerators; (2) participate in the CalRecycle Buy-Recycled program or equivalent; and (3) increase recycled content purchases in all Buy Recycled program product categories.
- **Policy32**: Campuses shall continue to report on all recycled content product categories, consistent with PCC{Public Contract Code] § 12153–12217 and shall implement improved tracking and reporting procedures for their recycled content purchases.
- **Policy 4**: Campuses shall align procedures with state initiatives to report environmental product declarations for select construction materials, consistent with PCC §3500-3505 and state mandates.
- **Policy 5**: Campuses shall promote circular economies by seeking to reduce waste when considering materials purchases, including but not limited to, office supplies, equipment, classroom supplies, and promotional and giveaway items by minimizing purchase of items that have a short useful life, are unable to be recycled, and/or are made of unsustainable or carbon intensive materials.

Waste Management

- **Policy 1**: Campuses shall seek to reduce landfill bound waste to 50 percent of total campus waste by 2030, divert at least 80 percent from landfill by 2040, and move toward zero waste.
- **Policy 3**: The CSU will continue to reduce hazardous waste disposal while supporting the academic program.

Sustainable Building & Land Management

- **Policy 1**: All future CSU new construction, remodeling, renovation, and repair projects, regardless of funding source, will be designed with consideration of optimum energy utilization, decarbonization, and low life-cycle

operating costs and shall exceed all applicable energy codes and regulations (Building Energy Efficiency Standards, Tit. 24 CCR § 6) by ten percent. In the areas of specialized construction that are not regulated through the current energy standards, such as historical buildings, museums, and auditoriums, the CSU will ensure that these facilities are designed to maximize energy efficiency. Energy efficient and sustainable design features in the project plans and specifications will be considered in balance with the academic program needs of the project within the available project budget

Since adoption of its sustainability policy, CSU is demonstrating ability to achieve the established goals. For example, in 2015, the CSU, systemwide, achieved a 19-percent reduction in overall water consumption, and in 2016, that figure was 31 percent (Cal Poly 2016). Cal Poly achieved waste diversion rates of 80 and 83 percent in 2019 and 2020, respectively (Cal Poly 2022a).

LOCAL

Cal Poly is part of the CSU, which is a statutorily and legislatively created, constitutionally authorized state entity. As explained in the "California State University Autonomy" section in Section 3.1, "Approach to the Environmental Analysis," of this EIR, the CSU is not subject to local government planning and land use plans, policies, or regulations. Nevertheless, in the exercise of its discretion, Cal Poly does reference, describe, and address local plans, policies, and regulations where appropriate and for informational purposes. This evaluation is also intended to be used by local agencies for determining, as part of their permit processes, the project's consistency with local plans, policies, and regulations.

San Luis Obispo County General Plan

The San Luis Obispo County General Plan Conservation and Open Space Element contains the following policies pertaining to utilities and service systems (San Luis Obispo County 2010):

- Policy WR 1.1: Protect Water Supplies. Continue to coordinate with water suppliers and managers to identify water management strategies to protect existing and secure new water supplies.
- Policy WR 1.2: Conserve Water Resources. Water conservation is acknowledged to be the primary method to serve the county's increasing population. Water conservation programs should be implemented countywide before more expensive and environmentally costly forms of new water are secured.
- Policy WR 1.4: Use Reclaimed Water. The County will be a leader in the use of reclaimed water. Support expanding the use of reclaimed water to make up at least 5 percent of total water use by 2015 and 10 percent of total water use by 2020.
- Policy WR 1.5: Interagency Projects. Help implement interagency projects, including emergency inter-ties between systems, jointly developed facilities, water exchanges, and other methods of enhancing reliability through cooperative efforts.
- Policy WR 1.7: Agricultural Operations. Groundwater management strategies will give priority to agricultural operations. Protect agricultural water supplies from competition by incompatible development through land use controls.

City of San Luis Obispo General Plan

The City of San Luis Obispo General Plan Land Use Element and Water and Wastewater Element contain the following policies pertaining to utilities and service systems (City of San Luis Obispo 2014, 2018):

- Policy 1.13.10: Solid Waste Capacity. In addition to other requirements for adequate resources and services prior to development, the City shall require that adequate solid waste disposal capacity exists before granting any discretionary land use approval which would increase solid waste generation.
- Policy A 3.2.1: Basis for Planning. The City will plan for future development through the Land Use Element taking into consideration available water resources from the Salinas, Whale Rock, and Nacimiento Reservoirs and recycled water.

- **Policy A 3.2.2: Coordinated Operation**. The City will coordinate the operation of the Salinas, Whale Rock, and Nacimiento Reservoirs to maximize available water resources.
- **Policy A 3.2.3: Groundwater**. The City will continue to use groundwater to enhance the resiliency of the City's water supply portfolio.
- **Policy B 3.2.1: Treating Wastewater**. The City will treat all wastewater in compliance with approved discharge permits.
- **Policy B 3.2.2: Recycled Water Production**. The City will produce high-quality, dependable recycled water, suitable for a wide range of uses.
- **Policy B 3.2.3: Beneficial Use**. The City will pursue treatment and disposal methods which provide for further beneficial use of wastewater and biosolids.
- **Policy B 4.2.1: Collection System Maintenance**. The City will manage the collection system to ensure that the proper level of maintenance is provided and that the flow in sanitary sewers does not exceed design capacity.

3.6.2 Environmental Setting

Public utilities in the project area are provided by various entities, as identified in Table 3.6-1 and discussed in detail below.

Table 3.6-1 Utility Providers for the Project Area

Utility	Agency/Provider
Disinfection/chlorination of potable water supply	City of San Luis Obispo
Wastewater collection and conveyance (off campus)	City of San Luis Obispo
Wastewater treatment	City of San Luis Obispo
Storm water conveyance (off campus)	City of San Luis Obispo
Solid waste collection (off campus)	San Luis Garbage
Electrical service to campus substation	Pacific Gas and Electric Company
Natural gas service	Southern California Gas Company
Telecommunication service	Cal Poly's Information Technology Services

Source: Data compiled by Ascent Environmental in 2022.

WATER

Water Supply

Table 2-1 summarizes the water supply sources for the Cal Poly campus. Potable water is supplied to Cal Poly through surface water rights to Old Creek via Whale Rock Reservoir. Whale Rock Reservoir is located on Old Creek, approximately one-half mile east of the community of Cayucos. The Whale Rock Reservoir system was planned, designed, and constructed under the supervision of DWR and became operational in 1961. The reservoir is jointly owned by the City, the California Department of Corrections and Rehabilitation's California Men's Colony, and Cal Poly. These three entities form the Whale Rock Commission, which is responsible for operational policy and administration of the reservoir. The City is responsible for its daily operation (City of San Luis Obispo 2021). A schematic depiction of the water supply relationship between Cal Poly and the City is shown in Figure 2-4 of Chapter 2, "Project Description."

Whale Rock Reservoir is formed by an earthen dam and was estimated to have a capacity of 40,662 acre-feet (af) at the time of construction. Facilities associated with the reservoir include a 30-inch pipeline, two pumping stations, a maintenance facility and offices, and a building used as a private residence. The pipeline is approximately 17 miles long, connecting the reservoir to the member agencies and terminating at the City's water treatment plant (WTP), discussed in more detail below. The design capacity of the pipeline is 18.94 cubic feet per second. The conveyance

system delivers water from the reservoir to the Whale Rock Commission member agencies (City of San Luis Obispo 2021). The safe annual yield of Cal Poly's water right to Old Creek is 959 acre-feet per year (afy), or 856,082 gallons per day (gpd), which is provided to Cal Poly from Whale Rock Reservoir. Cal Poly's share is conveyed first to the City's WTP. The City then conveys potable water to Cal Poly, consistent with Cal Poly's water right. Currently, approximately 320 af of Cal Poly's annual share of 959 af of water from Whale Rock remains untreated and is conveyed via a contract line to campus for irrigation of agricultural uses on campus (Watearth 2019a). In addition to water supplied from Whale Rock Reservoir, the campus pumps groundwater from two on-campus wells. These wells produce approximately 120 afy of nonpotable water, which is used to irrigate agricultural crops on the main campus.

All nonpotable water for agricultural use is managed through a series of on-campus reservoirs for water storage (Watearth 2019b).

Water Treatment and Conveyance

The City provides water treatment and water conveyance to the campus for potable and nonpotable water. The City WTP has a capacity to treat up to 16.0 million gallons per day (mgd). Cal Poly has agreements with the City to treat and convey to the campus up to 1,000 afy (892,682 gpd on an average day and 1.44 mgd during a peak day) of potable water from the City's WTP. The City's WTP is located on Stenner Creek Road, northwest of the campus. The facility was constructed in 1964 to provide treatment of surface water from Salinas and Whale Rock Reservoirs. The WTP is a conventional plant that includes ozone disinfection, coagulation, flocculation, sedimentation, and filtration. The capacity of the WTP is 16.0 mgd (City of San Luis Obispo 2021).

The City's 24-inch potable water main goes through campus, serving seven metered connections. The Academic Core subarea includes a 1-million-gallon in-ground storage tank, a 30,000-gallon elevated storage tank, and a 500,000-gallon elevated storage tank for reliable service of potable water demands and to provide adequate volume for firefighting purposes. Cal Poly owns and maintains water supply conveyance piping, including providing fire flows to its buildings, throughout the campus (Watearth 2019b).

Water Conservation Measures

As part of an indoor water audit, Cal Poly has identified fixtures, including toilets, urinals, faucets, and showerheads, in existing buildings for replacement with low-flow alternatives. Approximately 50 percent of the fixtures were replaced by the end of 2018, and Cal Poly intends to replace the remaining fixtures within the next several years. In addition, irrigation water demands were reduced through system upgrades and replacement of turf with drought-resistant plants and xeriscapes (Watearth 2019b).

Water Demand

As with other universities, water demand rates associated with Cal Poly vary throughout the year and relate to the academic calendar. Generally, potable water demand associated with on-campus development peaks from mid-September through mid-June, when on-campus population is highest. Irrigation and other basic building demands vary throughout the year, including summer, when most students leave campus but irrigation needs may be higher because of higher temperatures and less rainfall. Campus water demand is presented in Table 3.6-2 (Watearth 2019b). Peak demands shown in Table 3.6-2 were derived from the City's 2015 Final Potable Water Distribution System Operations Master Plan, which uses a peaking factor of 1.5 and 4.0 for peak daily and peak hourly demands, respectively (City of San Luis Obispo 2015). These peak demands are estimated to assist utility providers, like the City, in anticipating and being able to continue to provide reliable utility service during periods of high demand that may occur in a given day or at certain times of year. With respect to peak hourly demand, it is standard engineering practice to report peak hourly water demands in terms of mgd to provide an equivalent "estimated" peak hourly demand for ease of comparison and understanding. This factor can be readily converted to other units, such as for minutes, days, or hours, when useful for other purposes.

Table 3.6-2 Cal Poly Water Demand

	Annual Average Water Demand (gpd)	Academic Year Demand (gpd)	Summer Demand (gpd)	Peak Daily Demand (mgd)	Peak Hourly Demand (mgd)
Water demand	813,288	729,805	938,685	1.220	3.253

Notes: gpd = gallons per day; mgd = million gallons per day.

Peak factors of 1.5 and 4.0 were obtained from the City of San Luis Obispo 2015 Master Plan and applied to average daily demands.

Source: Watearth 2019b.

Extremely Dry Years (Conference Years)

Whale Rock Reservoir operates under an assumed safe yield, which is the quantity of water that can be sustainably withdrawn every year considering dry and multiple dry year conditions. The City maintains a model that estimates safe annual yield (SAY) from Whale Rock Reservoir, based on historical climatic conditions and reservoir operations. The model includes parameters for the historical record of inflows, evaporation, precipitation, and downstream releases, which are used to determine the maximum allowable annual withdrawal, or SAY. In 2017, Cal Poly and the City began updating the SAY model. The update was intended to verify the historical input data, validate and document the calculations in the model, incorporate the full extent of the 2006–2016 drought, and generate scenarios that accounted for potential climate change impacts. This process indicated that the SAY is 4,910 afy, approximately 2,000 afy less than the 6,940 afy used in previous planning documents (Water Systems Consulting 2018).

Projected Water Demand through Buildout of the Campus Master Plan

Projected water demand, based on buildout of the Campus Master Plan, is presented in Chapter 2, "Project Description," and summarized in Table 2-2. As indicated in Table 2-2, at Campus Master Plan buildout, campus potable water demand would be 891 afy (795,434 gpd), and nonpotable water demand would be 500 afy (446,371 gpd).

WASTEWATER

Wastewater Treatment and Collection Agreements between Cal Poly and the City

Since 1957, Cal Poly has purchased rights to the City's wastewater collection line capacity and treatment capacity at the City's Water Resource Recovery Facility (WRRF). Cal Poly has participated in cost-sharing of conveyance infrastructure and wastewater treatment improvements and has an agreement for rate structure and capacity share. The current treatment agreement was established in 1993 for a permanent wastewater treatment capacity share of 0.471 mgd from the City's WRRF, whereas Cal Poly's 1.2-mgd share of the wastewater collection line capacity dates to 1986, when the City and Cal Poly passed Resolution 5961, agreeing to the capacity share.

A memorandum of understanding (MOU) between the City and Cal Poly in May 2007 reinforced this agreement. The MOU includes a water treatment capacity average demand equivalent of 1,000 af as calculated on an annual basis and wastewater daily dry weather flow as calculated on a monthly average of 0.471 mgd. The agreement includes sewer rates specific to Cal Poly, based on its capacity share in the wastewater system. The City's WRRF is designed for an average daily dry weather flow of 5.1 mgd, of which Cal Poly's share is 9.2 percent. No specific peak daily or peak wet weather flow (PWWF) limitations for wastewater treatment capacity are set forth in the MOU.

A pretreatment agreement between Cal Poly and the City is consistent with Cal Poly's Class I – Significant Industrial Waste Discharge Permit (Permit No. 259-S). Cal Poly's permit limits the concentration of common wastewater constituents found in the effluent from large facilities, such as Cal Poly. The permit also contains provisions for monitoring and reporting requirements, as well as compliance schedules.

Wastewater Treatment and Collection

The City currently provides wastewater treatment and collection services to the campus under an agreement between Cal Poly and the City. As described in Chapter 2, "Project Description" under Section 2.2.5, "Existing Campus Wastewater Collection and Treatment," all of the wastewater generated by residence halls and buildings on the Cal Poly campus is discharged to the City's collection system and treated at the City's WRRF, located approximately 4

miles south of the main campus, at 35 Prado Road in San Luis Obispo. As summarized in Table 2-3 in Chapter 2, "Project Description," existing campus wastewater flows are approximately 0.280 mgd average dry weather flow (ADWF). However, campus wastewater flows are projected to increase to 0.688 mgd ADWF (3.359 mgd peak wet weather flow [PWWF]) at buildout of the Campus Master Plan.

SOLID WASTE

Cal Poly contracts with San Luis Garbage for the collection of solid waste and recycling of waste generated at the campus. Recycling containers are provided to faculty, staff, and students by Facility Services, and collection is performed by Custodial Services, Landscape Services, and the campus recycling coordinator. The total waste generated at Cal Poly in 2018, by waste stream, is provided in Table 3.6-3. Because of the ongoing global COVID-19 pandemic and subsequent reduced on-campus population, data obtained after 2019 are not considered reflective of "normal" conditions. As a result, data obtained before the start of the pandemic were applied to establish baseline conditions.

Table 3.6-3 Cal Poly Waste Generated in 2018

Waste Stream	Tons
Recycled	739
Composted	663
Donated/resold	102
Solid waste	2,143
Total consumer waste generated	3,647

Source: Nicole, pers. comm., 2019.

San Luis Garbage hauls trash to one of three local/regional landfills (as shown in Table 3.6-4), recyclables to the Cold Canyon Materials Recovery Facility (MRF), and organics to a dry anaerobic digestion plant located near the San Luis Obispo Airport. There are three solid waste disposal facilities within San Luis Obispo County. The maximum permitted throughput, remaining capacity, estimated closure date, and facility type are shown in Table 3.6-4.

Table 3.6-4 Solid Waste Disposal Facilities

Name of Facility	Maximum Permitted Throughput	Remaining Capacity	Estimated Closure Date	Facility Type	Accepted Waste Types
City of Paso Robles Landfill	450 tons per day	4,216,402 cubic yards	10/1/2051	Solid waste facility	Agricultural, construction/demolition, green waste, industrial, metals, mixed municipal, sludge (biosolids), tires, wood waste
Cold Canyon Landfill	1,650 tons per day	13,000,000 cubic yards	12/31/2040	Solid waste facility	Agricultural, construction/demolition, contaminated soil, dead animals, industrial, inert, mixed municipal, sludge (biosolids), tires
Chicago Grade Landfill	500 tons per day	4,435,887 cubic yards	12/31/2039	Solid waste facility	Agricultural, asbestos, construction/ demolition, contaminated soil, dead animals, food waste, green waste, industrial, inert material, metals, mixed municipal, other designated waste, sludge (biosolids), tires

Sources: CalRecycle 2022a, 2022b, 2022c.

Recycling and Composting

Collected recyclable materials are sent to the Cold Canyon MRF for sorting and baling. The MRF, located in San Luis Obispo, accepts recyclables, such as glass, aluminum (cans and foil), paper products (e.g., cardboard, pizza boxes, magazines, and office paper), and some plastics. Campus Dining and Facilities Management and Development

partner with San Luis Garbage to compost preconsumer food scraps from dining facilities and postconsumer compostable items from large events. Approximately 230 tons of food waste from Campus Dining are composted annually. Food scraps are also collected at student apartments on an opt-in basis to ensure the highest quality and least contamination (Cal Poly 2022b).

Cal Poly Agriculture Operations performs on-site composting of manure, along with approximately 2,500 cubic yards of green waste generated from campus landscaping maintenance. The resulting 3,500 cubic yards of finished compost is used on the student-run organic farm, campus landscaping, and Cal Poly crops for soil amendment, reducing the need for chemical fertilizer (Cal Poly 2022b).

The recycling and composting practices are intended to reduce waste generation of ongoing consumables on campus by meeting a minimum waste diversion threshold of at least 50 percent of ongoing waste and at least 75 percent of all durable goods by volume (or weight), from all sources, except facility maintenance, construction, and renovation projects. As described above, Cal Poly has a sustainability policy goal to reduce per-capita landfill disposal by 80 percent by 2020, with the ultimate goal of achieving zero net waste for the entire campus. Since 2006, Cal Poly has achieved a 38-percent reduction in per capita solid waste disposal. Cal Poly also achieved waste diversion rates of 80 and 83 percent in 2019 and 2020, respectively. Cal Poly operates an integrated waste management program that includes source use reduction, comingled recycling, composting of green waste and manure, resale of scrap metal and surplus equipment, and zero waste event catering (Cal Poly 2022a).

ENERGY

Electricity

Cal Poly purchases approximately 68 percent of its electricity from Pacific Gas and Electric Company (PG&E) and generates the other 32 percent on-site from a combination of solar photovoltaics and cogeneration. Approximately 25 percent of this use is offset by Cal Poly's 4.5-megawatt Gold Tree solar farm located approximately 1 mile northwest of campus. Cal Poly has implemented numerous energy conservation projects to reduce electrical use, including fluorescent and light-emitting-diode (LED) lighting retrofits; installation of occupancy sensors; heating, ventilation, and air conditioning (HVAC) equipment upgrades; installation of variable frequency drives for pumps and fans; and installation of digital energy management systems. In spite of the fact that the campus square footage has grown dramatically in recent years, electricity use has remained relatively flat, indicating that conservation efforts have been able to offset growth (Cal Poly 2022c).

Electricity is supplied to the main campus through the Cal Poly-owned Mustang Substation, located off Cerro Vista Circle in the northern portion of the East Campus subarea. Power is received from PG&E at a transmission level of 70,000 volts and is transformed at Mustang Substation to either 12,470 volts or 4,160 volts for distribution to campus buildings. Electrical distribution facilities in the Academic Core are all underground, whereas distribution to outlying agricultural areas is via overhead lines. Mustang Substation and all campus distribution systems are owned by Cal Poly and maintained by the campus Electric Shop (Cal Poly 2022c).

Natural Gas

Most natural gas use on campus is for space heating, production of domestic hot water, cooking, and heating of swimming pools. Natural gas is procured from the Southern California Gas Company and provided by the California Department of General Services as part of a managed portfolio including nearly all CSU and University of California campuses; California state administrative buildings; California Department of Corrections and Rehabilitation; and various cities, counties, and school districts (Cal Poly 2022d).

Cogeneration

Cogeneration, or combined heat and power, is a technology that involves using a single system and fuel source to provide two useful energy outputs at the same time. Conventional simple cycle utility power plants, such as the Diablo Canyon nuclear power plant, must dispose of waste heat to the atmosphere, the ocean, lakes, or rivers. These large-scale utility power plants typically have total system efficiencies of approximately 35 percent, meaning that 65

percent of the energy available in the fuel is wasted, resulting in increased greenhouse gas emissions and other environmental impacts. Cogeneration systems seek to capture this waste heat and use it for space heating, production of hot water, heating of swimming pools, and other process uses. Cogeneration systems are capable of total system efficiencies of 80 percent or more, resulting in substantial energy cost savings and reduced greenhouse gas emissions compared to conventional systems. Cal Poly has one cogeneration facility in the housing areas that provides combined heat and power to student apartments (Cal Poly 2022d).

TELECOMMUNICATIONS

High-speed data connections and wireless internet connections are available throughout campus for students, staff, and visitor use and are managed by Cal Poly's Information Technology Services. In addition, Cal Poly's Information Technology Services designs, installs, and maintains the wired network infrastructure on campus, including academic and administrative facilities (Cal Poly 2022e, 2022f).

3.6.3 Environmental Impacts and Mitigation Measures

ANALYSIS METHODOLOGY

Water and Wastewater

State, City, and County websites and water district urban water management plans, including the Campus Master Plan, Campus Utility Master Plan, and associated technical studies, were consulted to obtain the information required for the environmental and regulatory setting. This impact analysis considers the potential impacts on water and wastewater service associated with the construction and operation of the proposed project.

Solid Waste

This analysis evaluates the potential for increased waste generation under the proposed project, based on the following generation rates, which were developed using Cal Poly data from CalRecycle's State Agency Reporting Center: 5.29 pounds per person per day for employees and 0.77 pound per person per day for nonemployees (Nicole, pers. comm., 2019). In addition, campus policies and procedures were evaluated for consistency with attainment of solid waste reduction goals, as well as other statutes and regulations associated with solid waste.

Energy

Electricity

Impacts related to electricity were evaluated by determining whether PG&E would be able to serve the projected energy demands from the project; whether any new facilities would need to be constructed to serve the project; and if construction of electrical improvements would be required, whether it would adversely affect PG&E's electrical capacity or infrastructure or interrupt utility service during construction.

Natural Gas

Consistent with CSU's sustainability policy, the project would not include the provision of natural gas; therefore, impacts related to the increase in demand for natural gas infrastructure are not considered. Impacts were evaluated by determining whether any utility services would be interrupted during construction.

Telecommunications

The analysis pertaining to the construction and relocation of telecommunications facilities is based on the current level of on-campus facilities and a determination of whether new facilities would need to be constructed or existing facilities expanded to serve the project. The analysis also evaluated whether any existing telecommunication services would be interrupted during construction.

THRESHOLDS OF SIGNIFICANCE

A utilities and service systems impact would be significant if implementation of the WRF Project would:

- require or result in the relocation or construction of new or expanded water, or wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects;
- have insufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years;
- result in a determination by the wastewater treatment provider that serves or may serve the project that it has inadequate capacity to serve the project's projected demand, in addition to the provider's existing commitments;
- generate solid waste in excess of state or local standards or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals; or
- fail to comply with federal, state, and local management and reduction statutes and regulations related to solid waste.

ISSUES NOT DISCUSSED FURTHER

Result in Inadequate Wastewater Collection and Treatment Capacity

The project involves constructing a WRF that would provide additional wastewater treatment capacity to meet the demand associated with buildout of the Campus Master Plan. Other facilities such as lift stations and force mains needed to pump and convey wastewater generated on campus to the WRF would also be constructed as part of the project. The WRF itself, would include a classroom and restrooms which would generate a minor demand for wastewater treatment, but these flows would be treated at the WRF. No wastewater treatment and collection system infrastructure in addition to that included in the project and evaluated throughout this EIR would be required to support the project. Moreover, the project would provide for the sustainable reuse of wastewater generated on campus, which would be considered a beneficial impact of the project with respect to wastewater treatment capacity and long-term water supplies. Thus, this issue is not discussed further.

Result in Insufficient Water Supplies

With implementation of the proposed project, nonpotable water demands of campus that are currently met with a portion of the existing Whale Rock Reservoir water right would be transitioned over time to the nonpotable water supplies available through the on-campus WRF. The WRF would produce up to 380 afy of recycled water that would be used to offset campus nonpotable water supply demand for agricultural and athletic field irrigation, thereby freeing up an equivalent volume of existing Whale Rock Reservoir water supply to meet potable water demands associated with buildout of the Campus Master Plan (see Table 2-3). To accomplish this, the project would include construction of an on-campus recycled water storage reservoir, repair and replacement of nonpotable water distribution lines, and expansion of existing nonpotable water distribution lines. The environmental effects associated with this new and repaired infrastructure are evaluated as part of the project throughout this EIR.

The proposed WRF would include a classroom and restrooms, which would generate a minor demand for potable water supply. However, the WRF would be connected to the campus potable water supply system to meet the minor potable water demand associated with the project. As described in Chapter 2, "Project Description," and evaluated in the Campus Master Plan EIR, based on Cal Poly's existing agreements with the City for water treatment capacity (i.e., up to 0.9 mgd on average and 1.44 mgd on a peak day), adequate treatment capacity would be available to meet the potable water demands of Cal Poly with implementation of the Campus Master Plan, including the minor potable water demand associated with the WRF. The environmental effects of connecting to the potable water supply system are evaluated as part of the project throughout this EIR.

ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

Because the project would affect only a portion of the Campus Master Plan area and the WRF project details and construction techniques have been further refined since adoption of the Campus Master Plan EIR, the mitigation measures identified herein were developed to apply specifically to the WRF project as it is currently proposed.

The project would not conflict with any City or County General Plan policies or regulations identified in Section 3.6.1 related to utilities and service systems. Even if the project would potentially conflict with City or County General Plan policies, the impact would not be considered significant, because the CSU is not subject to local policies and regulations.

Impact 3.6-1: Cause Disruption to or Require Relocation of Existing Utility Infrastructure

Implementing the project involves constructing and operating a new WRF and associated facilities. Approximately 9,100 linear feet of new nonpotable water distribution lines would be installed, and 21,000 linear feet of nonpotable water distribution lines would be repaired or replaced. In addition, two new lift stations and approximately 9,800 linear feet of new influent force mains would be installed to collect and convey wastewater from the campus collection system to the WRF. These facilities would be buried primarily in roadways and would include connections to existing pipelines in areas where other underground infrastructure, including potable water supply lines, wastewater transmission lines, and telecommunications lines, are currently located. Although pipelines would be designed and sited to avoid existing utility infrastructure and existing infrastructure would likely be avoided during construction, if the location of existing utilities are not marked in the field, accidental disruption of services to the campus and portions of the City could occur. This impact would be **potentially significant**.

The proposed project would involve the construction and operation of a new WRF and associated facilities, including two new lift stations and influent force mains, upgrades to an existing nonpotable water supply pump station, implementation of a recycled water storage reservoir, new nonpotable water pipelines, and repair or replacement of existing pipelines to distribute nonpotable water for irrigation of on-campus agricultural and athletic fields. Approximately 9,100 linear feet of new nonpotable water distribution lines, as well as repair or replacement of 21,000 linear feet of existing nonpotable water distribution lines, would occur. In addition, two new lift stations and 9,800 linear feet of new influent force mains would be installed to collect and convey wastewater from the campus collection system to the WRF. These facilities would be buried primarily within existing roadways and would include connections to existing pipelines in areas where other underground infrastructure, including existing potable water supply lines, wastewater transmission lines, and telecommunications lines, are currently located. Figure 2-8 illustrates the location of the two new lift stations and force mains proposed to collect and convey wastewater from campus collection points to the WRF. New pipelines would be placed in areas where City water and wastewater pipelines and other utilities are currently buried. New pipelines would be designed to meet minimum horizontal and vertical separation distances in compliance with City and RWQCB requirements.

Although pipelines would be designed and sited to avoid existing utility infrastructure, and existing infrastructure would likely be avoided during construction, if the location of existing utilities are not marked in the field prior to excavation activities, they could be encountered during construction and accidental disruption of services to the campus and portions of the City could occur. Therefore, this impact would be **potentially significant**.

Mitigation Measures

Mitigation Measure 3.6-1: Locate and Avoid Underground Utilities in Areas Where Excavation Is Proposed, and Prepare a Response Plan to Be Implemented If Accidental Disruption Occurs

Cal Poly will implement the following measures before construction begins, to avoid and minimize potential damage to utilities that could result in disruption of services:

- Before the start of construction activities, verify through field surveys and the services of Underground Service Alert the locations of any utilities (e.g., high-pressure natural gas, fuel, storm water, sewer, water, electrical, or

communication) that may be buried at the project site in the areas where excavation is proposed. Any buried utility lines will be clearly marked in the field.

- Inform all construction personnel of the location of utilities during safety briefings throughout the period when construction is occurring. The locations of utilities will be clearly identified on construction drawings and posted in the construction superintendent's trailer.
- Prepare a response plan that identifies chain-of-command rules for notification of authorities and appropriate actions and responsibilities regarding the safety of the public and workers. A component of the response plan will include worker education training in response to such situations. The plan will include telephone numbers for existing utility providers. This information also will be posted in the construction superintendent's trailer on the job site during construction.

Significance after Mitigation

Implementation of Mitigation Measure 3.6-1 would require the location and identification of existing utility infrastructure before construction begins, which would minimize the potential for disruption of services and reduce this impact to **less than significant**.

Impact 3.6-2: Require or Result in the Construction of New or Expanded Utility Infrastructure

Implementation of the project would involve the construction and operation of a new WRF and associated facilities. The WRF, which would include a classroom and restrooms, would be connected to the campus potable water supply system and the WRF treatment facilities, which would serve the minor wastewater treatment and water supply demand of the proposed facility. Power to operate the WRF and upper and lower lift stations would be provided by connecting these facilities to the existing 12-kilovolt (kV) campus electrical grid. The WRF and both lift stations also would be connected to the campus telecommunications network. Further, the campus SCADA system would be expanded to include alarms and callouts for the WRF system and the new lift stations. No natural gas connection would be necessary because no on-site uses would require natural gas. Because adequate water and wastewater collection and treatment would be provided by the project, electrical and telecommunications services are available to serve the project, and the environmental effects of infrastructure proposed as part of the project are evaluated throughout this Draft EIR, project implementation would not require new or expanded utilities or service systems. Thus, this impact would be **less than significant**.

Implementation of the proposed project would involve the construction and operation of a new WRF and associated facilities, including two new lift stations and influent force mains, new pump storage tanks at an existing nonpotable water supply pump station, a new recycled water storage reservoir, new nonpotable water distribution pipelines, and repair or replacement of existing nonpotable water distribution pipelines. As previously described, the WRF would include a classroom and restrooms, which would generate a minor demand for potable water supply and wastewater treatment. However, the WRF would be served by the campus potable water supply system and WRF treatment facilities. Operation of the WRF, upper lift station, and lower lift station would require a source of power, and the project includes connection of these facilities to the existing 12-kV campus electrical grid. The lower lift station would be powered by routing a new power line through an underground duct bank and would require installing a new sectionalizing switch in the project vicinity and extending the 12-kV line approximately 1,000 linear feet underground from the north side of Spanos Stadium south around the eastern perimeter of the stadium to the lift station. The upper lift station would be connected to existing overhead electrical power lines. In addition, the WRF and both lift stations would be connected to the campus telecommunications network using underground hardwire cable. Further, the campus SCADA system would be expanded to include alarms and callouts for the WRF system and the new lift stations. No natural gas connection to the sites would be necessary because on-site uses would not require natural gas.

The project is intended to provide opportunities for the campus to produce and beneficially reuse advanced treated recycled water to free up additional potable water supplied from Whale Rock Reservoir, thereby meeting water supply and wastewater treatment capacity requirements laid out in the Campus Master Plan. No additional water treatment or conveyance capacity, wastewater collection and treatment capacity, or electrical and

telecommunications services would be necessary beyond that evaluated throughout this Draft EIR. Therefore, because project implementation would not require new or expanded utilities or service systems, this impact would be **less than significant**.

Mitigation Measures

No mitigation is required for this impact.

Impact 3.6-3: Generate Solid Waste in Excess of State or Local Standards or in Excess of the Capacity of Local Infrastructure or Otherwise Impair the Attainment of Solid Waste Reduction Goals or Requirements

Implementation of the proposed project would increase solid waste generation at Cal Poly, including the generation of construction debris and biosolids during WRF operation. However, adequate landfill capacity is available at local and regional landfills to accommodate additional solid waste generated by the project. Compliance with the Cal Poly Zero Waste Policy would continue to reduce landfill contributions, consistent with the CIWMA, AB 341, SB 1374, AB 1826, and SB 1383. Therefore, this impact would be **less than significant**.

As discussed above in Section 3.6.2, "Environmental Setting," most of the solid waste generated at Cal Poly is diverted from landfills through recycling, composting, and donating/reselling efforts. In 2019 and 2020, Cal Poly achieved waste diversion rates of 80 and 83 percent, respectively. In addition, and as noted above, Cal Poly has reduced per-capita disposal by 38 percent since 2006 (Cal Poly 2022a). Adherence to CSU's sustainability policy and Cal Poly's Zero Waste Policy would effectively result in a decrease in the amount of solid waste disposed of at landfills in the short term, and no contribution to landfill volumes in the long term. Construction of the proposed WRF and associated facilities would generate construction debris requiring disposal. As discussed in Section 2.4.3, "Recycled Water Storage and Distribution System," sludge and excavated material from the existing swine ponds would be removed and placed in a grubbing pile and used as fill at the WRF site. Any additional sludge would be land-applied to existing spray fields, consistent with existing operations, or disposed of at an off-site permitted municipal solid waste landfill. In addition, solid waste is anticipated to be generated as a result of the implementation of the laboratory, classroom, and restrooms, which together would occupy approximately 900 square feet in the proposed 16,000-square-foot WRF building; however, impacts related to solid waste associated with the building were previously accounted for in the analysis described in the Campus Master Plan EIR. In any case, as shown in Table 3.6-4, City and County landfills have substantial capacity and are projected to be available for waste disposal resulting from the project. Thus, implementation of the WRF would not substantially affect landfill capacity such that additional waste disposal facilities would be required. Therefore, this impact would be **less than significant**.

Mitigation Measures

No mitigation is required for this impact.

4 CUMULATIVE IMPACTS

4.1 INTRODUCTION TO THE CUMULATIVE ANALYSIS

This Draft EIR provides an analysis of cumulative impacts of the WRF project taken together with other past, present, and probable future projects producing related impacts, as required by Section 15130 of the State CEQA Guidelines. The goal of such an exercise is twofold: first, to determine whether the cumulative impacts of such projects considered together would be cumulatively significant, and second, to determine whether the project's incremental contribution to any such cumulatively significant impacts would be "cumulatively considerable" and thus significant. (See State CEQA Guidelines Section 15130[a]–[b], Section 15355[b], Section 15064[h], and Section 15065[c]; and *Communities for a Better Environment v. California Resources Agency* [2002] 103 Cal. App. 4th 98, 120.) In other words, the required analysis intends first to create a broad context in which to assess cumulative impacts, viewed on a geographic scale beyond the project site itself, and then to determine whether the project's incremental contribution to any significant cumulative impacts from all projects is itself significant (i.e., "cumulatively considerable").

Cumulative impacts are defined in State CEQA Guidelines Section 15355 as "two or more individual effects which, when considered together, are considerable or which compound or increase other environmental impacts." A cumulative impact occurs from "the change in the environment which results from the incremental impact of the project when added to other closely related past, present, and reasonably foreseeable probable future projects. Cumulative impacts can result from individually minor but collectively significant projects taking place over a period of time" (Section 15355[b]).

Consistent with State CEQA Guidelines Section 15130, the discussion of cumulative impacts in this Draft EIR focuses on significant and potentially significant cumulative impacts. Section 15130(b) provides, in part, the following:

> The discussion of cumulative impacts shall reflect the severity of the impacts and their likelihood of occurrence, but the discussion need not provide as great detail as is provided for the effects attributable to the project alone. The discussion should be guided by the standards of practicality and reasonableness and should focus on the cumulative impact to which the identified other projects contribute rather than the attributes of other projects which do not contribute to the cumulative impact.

A proposed project is considered to have a significant cumulative effect if:

- the cumulative effects of development without the project are not significant and the project's additional impact is substantial enough, when added to the cumulative effects, to result in a significant impact, or
- the cumulative effects of development without the project are already significant and the project contributes measurably to the effect.

The term "measurably" is subject to interpretation. The standard used herein to determine measurability is that the impact must be noticeable to a reasonable person or must exceed an established threshold of significance (defined throughout the resource sections in Chapter 3 of this Draft EIR).

This analysis addresses the five resource areas that are discussed in detail in this EIR. Other resource areas pertinent to CEQA have been evaluated sufficiently in the Campus Master Plan EIR for the reasons described in Section 3.1, "Approach to the Environmental Analysis."

4.2 CUMULATIVE SETTING

4.2.1 Geographic Scope

The geographic area that could be affected by the project and is appropriate for a cumulative impact analysis varies depending on the environmental resource topic, as presented in Table 4-1. In general, the local geographic area is the immediate project vicinity (e.g., the plan area and surrounding public viewpoints with respect to aesthetics).Within the context of this EIR, the regional geographic area is the County but could refer to an applicable habitat conservation plan area or other regional plan area.

Table 4-1 Geographic Scope of Cumulative Impacts

Resource Topic	Geographic Area
Aesthetics	Local (project area and surrounding public viewpoints)
Archaeological, Historical, and Tribal Cultural Resources	Local (project area and surrounding communities)
Biological Resources	Regional (County)
Hydrology and Water Quality	Regional (watershed and groundwater basin) and local (immediate project vicinity)
Utilities and Service Systems	Local (utility service areas)

Source: Compiled by Ascent Environmental in 2022.

Table 4-2 lists past, present, and reasonably foreseeable probable future development projects in the vicinity of the project site. This list is not intended to be an all-inclusive list of projects in the area surrounding the proposed WRF site and associated project features but rather a list of projects constructed, approved, or under review in the vicinity of the project site that have some relation to the environmental impacts of constructing and operating the proposed project. The list of projects is based on the list of projects included in the approved Campus Master Plan and other campus projects, as well as information obtained from the City of San Luis Obispo, San Luis Obispo County, and the California Department of Transportation (Caltrans) District 5, and it includes projects within approximately 0.5 mile of project features.

Table 4-2 Cumulative Projects List

Project Name	Developed or Proposed Land Use	Size	Status
Cal Poly			
Oppenheimer Family Equine Center	Agricultural	Riding arena, animal health center, events center consisting of 317,000 square feet of facilities: ▶ 88,000-square-foot event center ▶ 110,000-square-foot pavilion ▶ 10,000-square-foot health center ▶ 60,000 square feet of greenhouse space ▶ barns and husbandry homes (balance)	Planned for construction
Center for Wine and Viticulture	Winery and academic	16,000 square feet of instructional space, 10,000 square feet dedicated to fermentation	Under construction
Science and Agricultural Teaching and Research Complex	Academic	Faculty offices, conference and seminar rooms, lecture halls, classroom spaces, consisting of 75,000 square feet of facilities: ▶ 35,000 square feet of academic space ▶ 35,000 square feet of office/administrative/circulation space ▶ 4,500 square feet of conference rooms	Under construction

Project Name	Developed or Proposed Land Use	Size	Status
Vista Grande Dining Replacement	Restaurant	Three-story dining complex with six micro-restaurants consisting of 38,000 square feet of facilities: ▶ 30,000 square feet of kitchen and dining space ▶ 4,300 square feet of administrative offices ▶ 1,500 square feet of market space ▶ 1,500 square feet of patio seating	Completed
Fremont Slide Restoration Project	Erosion control features	Not applicable	Completed
Tennis Clubhouse	Recreation	Up to 8,600 square feet, including approximately 1,500 square feet of locker room space for both men and women, approximately 3,200 square feet of administrative support area for the tennis teams and racket repair, a storage room, a hydration area, men's and women's restrooms, coaches' offices, a conference room, and approximately 1,700 square feet for a viewing deck and uncovered space for court viewing; maximum seating capacity of 117 and an elevator for accessibility	Under environmental review
Concessions - north end zone stadium	Recreation	0.5 acre of improved site for vending and queuing, with three portable concession stations	Under environmental review
Campus Master Plan	Academic, administrative, and support space	1,745,000 square feet, including 455,000 square feet in replacement buildings	Planned
	Student housing	7,238 new beds	Planned
	Faculty/staff housing	180 rental units and 53 homes, clubhouse and daycare centers, and 235 parking spaces	Undergoing environmental review
	University-based retirement community	Senior living units (approximately 120 independent living units, 50 assisted living units, and 30 memory care units)	Planned
	Recreation	32.4 acres of outdoor areas, 35.6 acres of facilities, and 2.8 acres of additional recreation buildings	Madden Football Center under environmental review; remaining recreational uses are planned
	Circulation and infrastructure improvements	Two new roads that would support the planned campus uses north of Brizzolara Creek; redesign of North Perimeter Road, University Drive, South Perimeter Road, and the eastern end of Highland Drive; new and improved pedestrian and bicycle paths throughout the campus; and multimodal transit center in the vicinity of the proposed Creekside Village near the terminus of Highland Drive at University Road that opens onto Creekside Village	Planned
	Parking	174 new parking spaces	Planned
City of San Luis Obispo			
22 North Chorro Street	Mixed use (residential/ commercial/retail)	27 residential units and approximately 2,000 square feet of commercial space	In operation
71 Palomar Avenue	Residential	33-unit apartment complex	Under construction

Project Name	Developed or Proposed Land Use	Size	Status
790 Foothill Boulevard	Mixed use (residential/ commercial/retail)	6,800-square-foot, four-story apartment complex (78 units, ground-floor commercial	Building review
Ferrini Apartments	Residential	5 apartment units	Under construction
500 Westmont Avenue	Subdivision of existing lot	41-lot tract map	Under plan review

Source: Data compiled by Ascent Environmental in 2022 based on data obtained from the City of San Luis Obispo, San Luis Obispo County, and California Polytechnic State University (Cal Poly) in 2019. No projects within 0.5 mile of the project site were associated with San Luis Obispo County or the California Department of Transportation District 5.

4.3 ANALYSIS OF CUMULATIVE IMPACTS

The CEQA Guidelines state that a previously approved plan may be used in a cumulative impact analysis and that the pertinent discussion of cumulative impacts contained in one or more previously certified EIRs may be incorporated by reference (Section 15130[d]). Furthermore, no further cumulative impact analysis is required when a project is consistent with a general, specific, master, or comparable programmatic plan when the lead agency determines that the regional or areawide cumulative impacts of the proposed project have already been adequately addressed, as defined in CEQA Guidelines Section 15152(f), in a certified EIR for that plan (Section 15130[d]). CEQA further directs that a tiered EIR focus on significant environmental effects that were not already analyzed in the previous environmental analysis (CEQA Sections 21068.5 and 21093; see also Section 21094[c]). The related plan or program considered in the analysis of the cumulative impacts of the proposed project is the Campus Master Plan.

The State CEQA Guidelines allow for incorporating by reference all or portions of other documents. Incorporation by reference is useful for including long, descriptive, or technical materials that provide general background but do not contribute directly to the pertinent analysis (Section 15150). Therefore, the Campus Master Plan EIR is incorporated by reference. The portions of this document relevant to this discussion are summarized below and within the respective resource area analyses. This document is available online at https://afd.calpoly.edu/facilities/planning-capital-projects/ceqa/master-plan/.

The following sections contain a summary of the cumulative impacts disclosed in the Campus Master Plan EIR, which included analysis of the WRF project, followed by an analysis of the extent to which the project as refined in this EIR, together with the list provided in Table 4-2, would affect these conclusions. This cumulative analysis assumes that all mitigation measures identified in Chapter 3 of this Draft EIR to mitigate project impacts are implemented. The analysis herein analyzes whether, after implementation of project-specific mitigation and performance criteria that minimize environmental effects, the residual impacts of the project would cause a cumulatively significant impact or would contribute considerably to existing/anticipated (without the project) cumulatively significant effects. Where the project would so contribute, additional mitigation is recommended where feasible.

4.3.1 Aesthetics

SUMMARY OF CUMULATIVE IMPACTS UNDER THE CAMPUS MASTER PLAN EIR

The Campus Master Plan EIR evaluated the cumulative aesthetics impacts related to scenic resources, proximity to a state scenic highway, and effects of light and glare. Development of past and current projects and future proposed projects continue to alter the visual environment of Cal Poly, the City of San Luis Obispo, and the surrounding area. Generally, the visual resource impacts of the related projects are site specific and would not necessarily combine with other projects because they are not in the same viewshed. This is due in part to the urban location of many of the related projects, as well as intervening terrain and vegetation. However, the impacts of further development near SR 1 in the West Campus subarea (e.g., the Farm Shop and University-based retirement community), and development of the Slack and Grand project in the East Campus subarea, combined with potential development in the surrounding unincorporated County, could intensify the urban character of the region, reduce agricultural land and open space,

further detract from long-distance views of the Morros from locations in the City, and damage scenic resources in a state scenic highway (University-based retirement community). Collectively, the projects implemented under the Campus Master Plan, as identified in the Campus Master Plan EIR, would result in a cumulatively significant impact on views and scenic resources. In addition, implementation of the Campus Master Plan would introduce new lighting sources; however, although these fixtures would be similar in nature to existing lighting, implementation of mitigation measures would reduce potentially significant impacts to a less than significant level. Thus, cumulative impacts are identified as less than significant with respect to skyglow in the Campus Master Plan EIR.

CUMULATIVE IMPACTS OF THE PROJECT

Cumulative Impact on Visual Quality and Character

The Campus Master Plan, which includes the WRF as a near-term project, was determined to result in significant cumulative impacts related to degradation of visual quality and character as a result of proposed new, permanent structures in the West Campus, specifically the Farm Shop and the University-Based Retirement Community, and in the East Campus, specifically the residential neighborhood proposed for the northeast corner of Slack Street and Grand Avenue. The development in these two areas would be located in areas of high viewer sensitivity and could be incompatible with the existing visual character and quality of the sites. Project development in the West Campus would potentially result in adverse effects on scenic vistas, including views of the Morros, and development of the Slack and Grand project in the East Campus could result in substantial degradation of existing visual character. The WRF project's contribution to significant cumulative impacts on visual quality and character would not be cumulatively considerable, because project components either would be screened from view with appropriate landscaping or would blend in with existing adjacent development, as discussed under Impact 3.2-1. As a result, implementing the project **would not result in a considerable contribution to a significant cumulative impact** on visual quality and character.

Cumulative Impact on Scenic Resources within a State Scenic Highway

The Campus Master Plan, which includes the WRF as a near-term project, was determined to result in significant cumulative impacts on scenic resources within a state scenic highway as the result of development in the West Campus subarea, which would be constructed along SR 1, would be prominently visible, and would reduce views of Bishop Peak and the surrounding landscape. The project's contribution to significant cumulative impacts on scenic resources within a state scenic highway would not be cumulatively considerable, because project features would not be visible from SR 1, a state scenic highway, as discussed under Impact 3.2-2. As a result, implementing the project **would not result in a considerable contribution to a significant cumulative impact** associated with damage of scenic resources within a state scenic highway.

Cumulative Impact Related to Light and Glare

The Campus Master Plan, which includes the WRF as a near-term project, was determined not to result in significant cumulative impacts related to light and glare. The project would introduce new sources of light and glare associated with new buildings and facilities, as discussed under Impact 3.2-3; however, these new sources would not be substantially greater than assumed under the Campus Master Plan, because the proposed facilities would be substantially similar to those assumed for the WRF project in the Campus Master Plan EIR. Mitigation Measure 3.2-3a would require the use of nonreflective surfaces, which would limit glare from surfaces during the daytime, and Mitigation Measure 3.2-3b would require directional lighting with shielded and cutoff-type light fixtures that would limit nighttime lighting spillage and skyglow. With implementation of these mitigation measures, implementing the WRF project, as refined in this EIR, in combination with the projects listed in Table 4-2, **would not result in a considerable contribution to a significant cumulative impact** on light and glare.

4.3.2 Archaeological, Historical, and Tribal Cultural Resources

SUMMARY OF CUMULATIVE IMPACTS UNDER THE CAMPUS MASTER PLAN EIR

The Campus Master Plan EIR evaluated the cumulative context for archaeological, historical, and tribal cultural resources. The cumulative context for historical resources is Cal Poly, San Luis Obispo County, and the Central Coast region where common patterns of historic-era settlement have occurred over roughly the past two centuries. The cumulative context for archaeological resources, human remains, and tribal cultural resources is the former territory of the Chumash, the Obispeño (after Mission San Luis Obispo de Tolosa), and the Salinan. Because all significant cultural resources are unique and nonrenewable, all adverse effects erode a dwindling resource base. The loss of any one archaeological site could affect the scientific value of others in a region because these resources are best understood in the context of the entirety of the cultural system of which they are a part.

With regard to historical resources, the Campus Master Plan does not presently propose to demolish or remove any existing known historic buildings or other resources, and to the extent that any known historic buildings are remodeled, the remodeling would be done in compliance with the Secretary of the Interior Guidelines for the Rehabilitation, Reuse and Restoration of Historic Buildings. However, it is possible that a historic building, feature, object, or structure, including those that have not yet been identified as historically significant and those that will become historically significant over the life of the Campus Master Plan, would need to be demolished or altered in such a way that it would no longer convey its historic significance. Thus, as identified in the Campus Master Plan EIR, the cumulative impact on historical resources would be significant.

With respect to archaeological resources, adverse effects on currently known archaeological resources and potentially newly discovered archaeological resources would be avoided or mitigated through adopted mitigation measures. With implementation of these measures, the project would not contribute to a cumulative loss of significant archaeological resources. Thus, as identified in the Campus Master Plan EIR, the cumulative impact on archaeological resources would not be cumulatively considerable.

Compliance with California Health and Safety Code Sections 7050.5 and 7052 and PRC Section 5097, as well as CEQA Sections 21080.3.2 and 21084.3(a) and Cal Poly's continuing notification of the Northern Chumash Tribe and Torres Martinez Desert Cahuilla Indians of all projects, would require that treatment of the cultural and tribal cultural resources, including human remains, occurs in a manner consistent with the California Native American Heritage Commission guidance. Thus, as identified in the Campus Master Plan EIR, the cumulative impact on human remains and tribal cultural resources would be less than significant.

CUMULATIVE IMPACTS OF THE PROJECT

Cumulative Impact on Historical Resources

The Campus Master Plan, which includes the WRF as a near-term project, would result in a significant cumulative impact on historical resources. The project's contribution to a significant cumulative impact on historical resources would not be cumulatively considerable, because no historical resources would be affected under the project, as discussed under Impact 3.3-1. Therefore, implementing the WRF project **would not result in a considerable contribution to a significant cumulative impact** on historical resources.

Cumulative Impact on Archaeological Resources

The Campus Master Plan, which includes the WRF as a near-term project, would not result in a significant cumulative impact on archaeological resources. The project-related ground-disturbing activities, including building, reservoir, and pipeline construction and utility improvements, could result in discovery of or damage to yet undiscovered archaeological resources, as discussed under Impact 3.3-2; however, ground disturbance would not be substantially greater than assumed under the Campus Master Plan, because the types of construction and extent of ground-disturbing activities would be substantially similar to those assumed for the WRF project in the Campus Master Plan EIR. Mitigation Measures 3.3-2a. 3.3-2b, and 3.3-2c would require the performance of professionally accepted and

legally compliant procedures for the discovery and protection of previously undocumented significant archaeological resources. Therefore, with implementation of these mitigation measures, implementing the WRF project **would not result in a considerable contribution to a significant cumulative impact** on undiscovered archaeological resources.

Cumulative Impact Related to Disturbance of Human Remains

The Campus Master Plan, which includes the WRF as a near-term project, would not result in a significant cumulative impact related to disturbance of human remains. The project's contribution to a significant cumulative impact related to disturbance of human remains would not be cumulatively considerable, because compliance with California Health and Safety Code Section 7050.5 and PRC Section 5097 would provide an opportunity to avoid or minimize the disturbance of human remains and to appropriately treat any remains that are discovered, as discussed under Impact 3.2-4. Therefore, implementing the WRF project **would not result in a considerable contribution to a significant cumulative impact** related to disturbance of human remains.

Cumulative Impact on Tribal Cultural Resources

The Campus Master Plan, which includes the WRF as a near-term project, would not result in a significant cumulative impact on disturbance of tribal cultural resources. Ground-disturbing activities during project construction could uncover previously unknown tribal cultural resources; however, Mitigation Measures 3.2-4a, 3.3-4b, 3.3-4c, and 3.3-4d would require a cultural resources awareness training program, the performance of professionally accepted and legally compliant procedures for the discovery and protection of previously undocumented archaeological resources and, in the case of a discovery, preservation in place and/or culturally appropriate treatment as directed by a tribal representative if significant artifacts are recovered. Therefore, with implementation of these mitigation measures, implementing the WRF project **would not result in a considerable contribution to a significant cumulative impact** on tribal cultural resources.

4.3.3 Biological Resources

SUMMARY OF CUMULATIVE IMPACTS UNDER THE CAMPUS MASTER PLAN EIR

The Campus Master Plan EIR evaluated biological resources related to waters of the United States and waters of the state; special-status species; and nonnative woodland, grasslands, and riparian habitats. Through full implementation of mitigation measures, potential impacts would be avoided, reduced, or compensated to such an extent that they would not result in a considerable contribution to a cumulative impact. In addition, most of the permanent conversion and loss of habitat as a result of the Campus Master Plan projects would be limited to already disturbed or previously converted habitats, and project implementation would not result in permanent habitat loss in surrounding open space. Thus, cumulative impacts are identified as less than significant with respect to biological resources in the Campus Master Plan EIR.

CUMULATIVE IMPACTS OF THE PROJECT

Cumulative Impact on Special-Status Plant Species

The Campus Master Plan, which includes the WRF as a near-term project, would not result in a significant cumulative impact on special-status plant species. Implementation of the project could result in conversion of undeveloped habitats that may provide suitable habitat for several special-status plants, as discussed under Impact 3.4-1. However, implementation of Mitigation Measures 3.5-1a through 3.5-1d would avoid, minimize, and compensate for impacts on special-status plants based on floristic surveys. In addition, Mitigation Measures 3.5-3e through 3.5-3h would prohibit the planting of invasive plant species on project sites, and Mitigation Measure 3.5-3i would reduce fugitive dust by requiring dust suppression activities. Therefore, with implementation of these mitigation measures, implementing the WRF project **would not result in a considerable contribution to a significant cumulative impact** on special-status plant species.

Cumulative Impact on Special-Status Wildlife Species

The Campus Master Plan, which includes the WRF as a near-term project, would not result in a significant cumulative impact on special-status wildlife species. The project site contains suitable habitat for 22 special-status invertebrates, fish, amphibians, reptiles, birds, and mammals that are known to occur or may occur within the project site. Although the operation of the WRF and application of recycled water to areas that are currently subject to irrigation is not anticipated to have an adverse impact on special-status wildlife species, construction of the project would occur in suitable habitat and has the potential to result in loss of individuals and substantial adverse effects on several special-status wildlife species, as discussed under Impact 3.4-2. Mitigation Measures 3.4-2a through 3.4-2z and 3.4-2aa through 3.4-2cc, would ensure that impacts on special-status wildlife species, individuals, and their habitats are avoided, minimized, or compensated for based on preconstruction surveys and environmental monitoring during construction. Therefore, with implementation of these mitigation measures, implementing the WRF project **would not result in a considerable contribution to a significant cumulative impact** on special-status wildlife species.

Cumulative Impact on Sensitive Natural Communities and Riparian Habitat

The Campus Master Plan, which includes the WRF as a near-term project, would not result in a significant cumulative impact on natural communities and riparian habitat. Construction of project components would occur in riparian habitat and may occur in sensitive natural communities, as discussed under Impact 3.4-3. However, Mitigation Measures 3.4-3a through 3.4-3l would ensure that impacts on sensitive natural communities and riparian habitat are avoided, minimized, or compensated for to ensure no net loss of habitat function or acreage. Therefore, with implementation of these mitigation measures, implementing the WRF project **would not result in a considerable contribution to a significant cumulative impact** on natural communities and riparian habitat.

Cumulative Impact on State or Federally Protected Wetlands or Other Waters

The Campus Master Plan, which includes the WRF as a near-term project, would not result in a significant cumulative impact on state or federally protected wetlands or other waters. The operation of the WRF and application of recycled water to areas that are currently subject to irrigation are not anticipated to have an adverse impact on state or federally protected wetlands or other waters. In addition, the construction of the project would avoid work in state or federally protected wetlands and other waters, as discussed under Impact 3.4-4. Therefore, implementing the WRF project **would not result in a considerable contribution to a significant cumulative impact** on state or federally protected wetlands or other waters.

Cumulative Impact on Wildlife Movement or Native Wildlife Nursery Sites

The Campus Master Plan, which includes the WRF as a near-term project, would not result in a significant cumulative impact on wildlife movement or use of native wildlife nursery sites. Construction and operation of the WRF and application of recycled water to areas that are currently subject to irrigation are not anticipated to have an adverse impact on wildlife movement or use of native wildlife nursery sites, as discussed under Impact 3.4-5. Therefore, implementing the WRF project **would not result in a considerable contribution to a significant cumulative impact** on wildlife movement.

4.3.4 Hydrology and Water Quality

SUMMARY OF CUMULATIVE IMPACTS UNDER THE CAMPUS MASTER PLAN EIR

A variety of programs have been implemented with the goal of halting degradation of water quality. Several state and federal agencies are involved in these programs, many of which are required by or originate in the federal Clean Water Act. Development under the Campus Master Plan would be required to comply with the campus construction storm water protection program, which includes implementation of appropriate best management practices (BMPs) to protect surface and groundwater quality. Further, the Campus Master Plan and future projects would be required to comply with the National Pollutant Discharge Elimination System General Permit No. CAS000004 for Waste Discharge Requirements for Storm Water Discharges from Small Municipal Separate Storm Sewer Systems (MS4).

These permits would ensure compliance with applicable laws and implementation of BMPs on the ground during construction. The increase of wastewater resulting from the increase in campus population would be treated at the City's Water Resource Recovery Facility, as well as the proposed WRF, to be constructed as part of the project. New impervious surfaces from development of the Campus Master Plan would result in new sources of storm water runoff and contamination, as well as an increased risk of erosion and sedimentation. However, development under the Campus Master Plan is required to comply with the Cal Poly Storm Water Pollution Prevention Plan, the Phase II Small MS4 Permit, and the SWRCB's Water Quality Order No. 2013-0001-DWQ, NPDES General Permit No. CAS000004 for Waste Discharge Requirements for Storm Water Discharges from Small MS4s. Further, implementation of mitigation measures would further reduce the potential for on-site impacts under the Campus Master Plan to be cumulatively considerable. Water quality regulations require implementation of construction and postconstruction site-specific BMPs and water quality protection measures. Therefore, the Campus Master Plan EIR identified less than significant cumulative impacts related to water quality and storm water drainage in the Campus Master Plan EIR.

The Campus Master Plan EIR indicated that portions of the Master Plan Area are located in the 100-year floodplain; however, any new development proposed in the floodplain would be required to incorporate flood-proofing design measures to ensure that water quality and/or risks associated with flooding do not occur. The Campus Master Plan may involve construction of additional academic and administrative facilities in these flood hazard zones, resulting in the risk of release of pollutants if a flood event were to occur. However, Mitigation Measure 3.9-7 would require that if buildings are constructed in the 100-year flood zone, they would be placed above the 100-year flood elevation to avoid potential impacts associated with flooding. Therefore, as identified in the Campus Master Plan EIR, the cumulative impact related to floodplains would be less than significant.

CUMULATIVE IMPACTS OF THE PROJECT

Cumulative Impact Related to Violations of Water Quality Standards or Waste Discharge Requirements

The Campus Master Plan, which includes the WRF as a near-term project, would not result in a significant cumulative impact related to water quality standards and waste discharge requirements. Continued compliance with the Small MS4 Permit and the 2013 General Permit, as well as compliance with CCR Title 22 requirements, would ensure that impacts related to meeting water quality standards during project operations would be less than significant, as discussed under Impact 3.5-1. Therefore, implementing the WRF project **would not result in a considerable contribution to a significant cumulative impact** related to violation of water quality standards or waste discharge requirements.

Cumulative Impact on Water Quality and Stormwater Drainage

The Campus Master Plan, which includes the WRF as a near-term project, would not result in a significant cumulative impact on water quality and storm water drainage. Although the proposed project would result in a substantial change to existing drainage patterns at the location of the recycled water storage reservoir that could also affect the capacity of storm drain systems, as discussed under Impact 3.5-2, Mitigation Measures 3.5-2a and 3.5-2b would require a drainage plan and implementation of appropriate measures that would maintain existing rain event flow rates and patterns, thereby avoiding potential impacts such as erosion or siltation, flooding, exceedance of capacity of existing or planned storm water drainage systems, additional sources of polluted runoff, or impedance or redirection of flood flows. In addition, Mitigation Measure 3.5-2b would require evaluation of storm water BMPs for the project to ensure that postproject drainage maintains predevelopment standards in accordance with the MS4 permit. Therefore, with implementation of adopted Campus Master Plan EIR mitigation measures, implementing the WRF project **would not result in a considerable contribution to a significant cumulative impact** on water quality and stormwater drainage.

Cumulative Impact Related to Flood Hazards

The Campus Master Plan, which includes the WRF as a near-term project, would not result in a significant cumulative impact related to flood hazard areas subject to inundation in a 100-year flood. Although portions of the project site—specifically, nonpotable/recycled water distribution lines and a small segment of proposed new force main—are

located in special flood hazard areas subject to inundation in a 100-year flood, all these facilities would be installed belowground. Furthermore, the nonpotable/recycled water lines would convey water treated to CCR Title 22 standards before being discharged from the WRF and storage reservoir. Thus, the project would not risk the release of pollutants as a result of project inundation in a flood hazard zone, as described under Impact 3.5-3. Further, while the proposed new reservoir would have the potential to inundate nearby agricultural facilities resulting in the potential release of pollutants from these facilities if the earthen berms were to fail, as described under Impact 3.5-3, Mitigation Measure 3.5-3 would require the reservoir to have adequate freeboard and be designed to limit the potential for berm failure. Therefore, implementing the WRF project **would not result in a considerable contribution to a significant cumulative impact** related to release of pollutants due to project inundation.

4.3.5 Utilities and Service Systems

SUMMARY OF CUMULATIVE IMPACTS UNDER THE CAMPUS MASTER PLAN EIR

The Campus Master Plan EIR evaluated the need for relocation or construction of new or expanded water and wastewater infrastructure, electrical or natural gas services, and telecommunications services, noting that utility providers periodically consider the need to purchase more resources and upgrade/expand infrastructure. Impacts related to construction of utility infrastructure projects are evaluated in the relevant resources section (e.g., biological resources, cultural resources, hydrology, and water quality) of the Campus Master Plan EIR. As identified in the Campus Master Plan EIR, cumulative impacts related to water, wastewater, electricity, natural gas, and telecommunications facilities would be less than significant.

The Campus Master Plan EIR discussed the capacity of solid waste facilities in San Luis Obispo County. The three regional landfills located near Cal Poly can accommodate up to 2,600 tons per day of solid waste with a total remaining capacity of 25,000,000 cubic yards, and none of these landfills are anticipated to close before 2039. As identified in the Campus Master Plan, the cumulative impact related to solid waste would be less than significant.

CUMULATIVE IMPACTS OF THE PROJECT

Cumulative Impact Related to Relocation of Existing Utility Infrastructure

Impact 3.6-1 of this Draft EIR provides a discussion of the potentially significant impact related to disruption of services to the campus and portions of the City during construction of the project. Mitigation Measure 3.6-1 would reduce this impact to less than significant by requiring that existing utility locations be verified and marked prior to construction and a response plan be prepared and implemented in the event of accidental utility disruption. This impact is specific to the WRF project and would not combine with other projects to create a cumulative condition. Thus, the impact related to relocation of existing utility infrastructure **would not result in a considerable contribution to a significant cumulative impact**.

Cumulative Impact Related to New or Expanded Utility Infrastructure

As part of Campus Master Plan implementation, and as detailed in the Utility Master Plan, utility improvements are necessary to support campus buildout (e.g., expansion of electrical distribution infrastructure). Because the Campus Master Plan identifies new and expanded utility infrastructure to support buildout, no significant impacts were identified beyond those evaluated in the other resource sections of the Campus Master Plan EIR (e.g., construction-related impacts on biological resources, air quality, and other topics). The project would facilitate treatment of a portion of campus wastewater flows and production and beneficial reuse of advanced treated recycled water, thereby meeting wastewater capacity and nonpotable water supply requirements laid out in the Campus Master Plan. Adequate water and wastewater treatment and conveyance and electrical and telecommunications services would be available to serve the demand associated with the project, and the environmental effects of infrastructure proposed as part of the project are evaluated throughout this Draft EIR, as discussed under Impact 3.6-2. Furthermore, without the WRF project, Cal Poly would need to negotiate additional City collection and treatment capacity and the City

would need to upgrade and expand its WRRF and collection pipelines to support additional flows generated through buildout of the Campus Master Plan. Thus, implementing the WRF project **would not result in a considerable contribution to a significant cumulative impact** related to new or expanded utility infrastructure.

Cumulative Impact Related to Solid Waste Generation

The Campus Master Plan, which includes the WRF as a near-term project, would not result in a significant cumulative impact related to solid waste generation. Adequate landfill capacity is available at local and regional landfills to accommodate the additional solid waste that would be generated by the project, as discussed under Impact 3.6-3. Therefore, implementing the WRF project **would not result in a considerable contribution to a significant cumulative impact** on solid waste.

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5 ALTERNATIVES

5.1 INTRODUCTION

State CEQA Guidelines Section 15126.6(a) requires EIRs to describe:

> a range of reasonable alternatives to the project, or to the location of the project, which would feasibly attain most of the basic objectives of the project but would avoid or substantially lessen any of the significant effects of the project, and evaluate the comparative merits of the alternatives. An EIR need not consider every conceivable alternative to a project. Rather it must consider a reasonable range of potentially feasible alternatives that will foster informed decision making and public participation. An EIR is not required to consider alternatives which are infeasible. The lead agency is responsible for selecting a range of project alternatives for examination and must publicly disclose its reasoning for selecting those alternatives. There is no ironclad rule governing the nature or scope of the alternatives to be discussed other than the rule of reason.

This section of the State CEQA Guidelines also provides guidance regarding what the alternatives analysis should consider. Subsection (b) further states that the purpose of the alternatives analysis is as follows:

> Because an EIR must identify ways to mitigate or avoid the significant effects that a project may have on the environment (Public Resources Code Section 21002.1), the discussion of alternatives shall focus on alternatives to the project or its location which are capable of avoiding or substantially lessening any significant effects of the project, even if these alternatives would impede to some degree the attainment of the project objectives, or would be more costly.

The State CEQA Guidelines require that the EIR include information about each alternative sufficient to allow meaningful evaluation, analysis, and comparison with the proposed project. If an alternative would cause one or more significant effects in addition to those that would be caused by the project as proposed, the significant effects of the alternative must be discussed, but in less detail than the significant effects of the project as proposed (Section 15126.6[d]).

The State CEQA Guidelines further require that a "no project" alternative be considered (Section 15126.6[e]). The purpose of describing and analyzing a no project alternative is to allow decision makers to compare the impacts of approving a proposed project with the impacts of not approving the project. If the no project alternative is the environmentally superior alternative, CEQA requires that the EIR "shall also identify an environmentally superior alternative among the other alternatives" (Section 15126[e][2]).

In defining "feasibility" (e.g., "feasibly attain most of the basic objectives of the project"), Section 15126.6(f)(1) states:

> Among the factors that may be taken into account when addressing the feasibility of alternatives are site suitability, economic viability, availability of infrastructure, general plan consistency, other plans or regulatory limitations, jurisdictional boundaries (projects with a regionally significant impact should consider the regional context), and whether the proponent can reasonably acquire, control or otherwise have access to the alternative site (or the site is already owned by the proponent). No one of these factors establishes a fixed limit on the scope of reasonable alternatives.

In determining what alternatives should be considered in the EIR, it is important to consider the objectives of the project, the project's significant effects, and unique project considerations. These factors are crucial to the development of alternatives that meet the criteria specified in Section 15126.6(a). Although, as noted above, EIRs must contain a discussion of "potentially feasible" alternatives, the ultimate determination as to whether an alternative is feasible or infeasible is made by the lead agency's decision-making body, here the Board of Trustees. (See CEQA Sections 21081.5 and 21081[a][3].)

5.2 CONSIDERATIONS FOR SELECTION OF ALTERNATIVES

5.2.1 Attainment of Project Objectives

In determining what alternatives should be considered in the EIR, the objectives of the project must be considered because attainment of most of the basic objectives forms one of the tests as to whether an alternative is feasible (see discussion above). Cal Poly identified the following objectives of the WRF project, consistent with, and in furtherance of, the Campus Master Plan, as previously described in Chapter 2, "Project Description," of this Draft EIR:

- maximize use of Whale Rock Reservoir water supply allocation to meet potable water demand associated with Campus Master Plan buildout;
- provide reliable, scalable, high-quality recycled water to serve existing and planned on-campus agricultural irrigation and meet other nonpotable campus water demands;
- supply water in a manner that aligns with Cal Poly's climate action plan and promotes the use of recycled water in support of CSU's 2022 Sustainability Policy;
- maximize Cal Poly water supply resilience to drought conditions;
- provide additional wastewater treatment capacity to accommodate increased wastewater generation associated with Campus Master Plan buildout;
- provide wastewater treatment and recycled water storage facilities that minimize odor issues, minimize energy demand, and limit disturbance to natural lands;
- maximize cost-effectiveness of water supply, wastewater, and recycled water services required to serve Campus Master Plan buildout; and
- provide students with additional hands-on learning environments and opportunities.

5.2.2 Environmental Impacts of the Water Reclamation Facility Project

Sections 3.2 through 3.6 of this Draft EIR address the environmental impacts of implementation of the project. Potentially feasible alternatives were developed with consideration for avoiding or lessening the significant adverse impacts of the project, as identified in these sections. No significant and unavoidable environmental impacts resulting from the project were identified.

Aesthetics

- Impact 3.2-3: Create a New Source of Substantial Light or Glare Which Would Adversely Affect Day or Nighttime Views. Less than significant with mitigation incorporated.

Archaeological, Historical, and Tribal Cultural Resources

- Impact 3.3-2: Cause a Substantial Adverse Change in the Significance of a Unique Archaeological Resource. Less than significant with mitigation incorporated.
- Impact 3.3-4: Cause a Substantial Adverse Change in the Significance of a Tribal Cultural Resource. Less than significant with mitigation incorporated.

Biological Resources

- Impact 3.4-1: Have a Substantial Adverse Effect, Either Directly or through Habitat Modifications, on Special-Status Plant Species. Less than significant with mitigation incorporated.
- Impact 3.4-2: Have a Substantial Adverse Effect on Special-Status Wildlife. Less than significant with mitigation incorporated.

- Impact 3.4-3: Have a Substantial Adverse Effect on Sensitive Natural Communities and Riparian Habitat. Less than significant with mitigation incorporated.
- Impact 3.4-4: Have a Substantial Adverse Effect on State or Federally Protected Wetlands or Other Waters. Less than significant with mitigation incorporated.

Hydrology and Water Quality

- Impact 3.5-2: Substantially Alter the Existing Drainage Pattern of the Site or Area Such That Substantial Erosion, Siltation, Flooding, Polluted Runoff, or an Exceedance of the Capacity of Storm Drainage Systems Would Occur. Less than significant with mitigation incorporated.
- Impact 3.5-3: Be Located within Flood Hazard, Tsunami, or Seiche Zones, and Risk Release of Pollutants Due to Project Inundation. Less than significant with mitigation incorporated.

Utilities and Service Systems

- Impact 3.6-1: Cause Disruption to or Require Relocation of Existing Utility Infrastructure. Less than significant with mitigation incorporated.

5.3 ALTERNATIVES CONSIDERED BUT NOT EVALUATED FURTHER

As described above, State CEQA Guidelines Section 15126.6(a) provides that the range of potential alternatives for the project shall include those that could feasibly attain most of the basic objectives of the project and could avoid or substantially lessen one or more of the significant effects. Alternatives that fail to meet the fundamental project purpose need not be addressed in detail in an EIR (*In re Bay-Delta Programmatic Environmental Impact Report Coordinated Proceedings* [2008] 43 Cal.4th 1143, 1165–1167).

In determining what alternatives should be considered, it is important to acknowledge the objectives of the project, the project's significant effects, and unique project considerations. These factors are crucial to the development of alternatives that meet the criteria specified in Section 15126.6(a). Although, as noted above, EIRs must contain a discussion of "potentially feasible" alternatives, the ultimate determination as to whether an alternative is feasible or infeasible is made by lead agency decision makers (See CEQA Section 21081[a][3].) At the time of action on the project, the decision makers may consider evidence beyond that found in this EIR in addressing such determinations. The decision makers, for example, may conclude that a particular alternative is infeasible from a policy standpoint and may reject an alternative on that basis provided that the decision maker(s) adopts a finding, supported by substantial evidence, to that effect and provided that such a finding reflects a reasonable balancing of the relevant economic, environmental, social, and other considerations supported by substantial evidence (*City of Del Mar v. City of San Diego* [1982] 133 Cal.App.3d 401, 417; *California Native Plant Society v. City of Santa Cruz* [2009] 177 Cal.App.4th 957, 998).

The EIR should also identify any alternatives that were considered by the lead agency but were rejected during the planning or scoping process and briefly explain the reasons underlying the lead agency's determination. The following alternatives were considered by Cal Poly but were rejected and not evaluated in this Draft EIR.

- California Men's Colony Treatment of Future Wastewater Flows and Delivery of Recycled Water Alternative. Under this alternative, no new WRF would be constructed on campus. Instead, wastewater flows would continue to be conveyed to the City, with flows from future net new on-campus development conveyed via a new 2.8-mile-long force main to the California Department of Corrections and Rehabilitation (CDCR) California Men's Colony's (CMC's) wastewater treatment plant (WWTP). The CMC WWTP would then provide Title 22 recycled water back to the campus. The volumes of wastewater conveyed to CMC, and returned as recycled water, would be sufficient to support recycled water demands on campus at Campus Master Plan buildout. Recycled water from the CMC WWTP would be conveyed back to the campus via a new 4.6-mile-long recycled water conveyance pipeline, stored in a new on-campus recycled water reservoir, and used to meet campus nonpotable irrigation demand. The new reservoir would be located in the same place and be of the same dimensions as under the proposed project. Similar to the proposed project, new lift stations and recycled water distribution pipelines would be constructed, repaired, and replaced on campus.

Although this alternative would achieve the project objectives, there are practical issues that render this alternative infeasible from a construction and operations standpoint. The cost to permit and construct a new separate force main to convey campus wastewater to the CMC WWTP and a recycled water pipeline to deliver recycled water back to the campus would be substantial. The primary issue of concern from an operations standpoint is that CDCR would require transfer of operation and maintenance of the facilities from CMC to Cal Poly to implement this alternative. However, CMC also provides wastewater treatment services to Cuesta College, Camp San Luis, and San Luis Obispo County facilities but does not currently generate revenue through those wastewater treatment services due to a prior agreement, and those agencies would have no incentive to enter into a new service agreement to pay for services they currently receive at no charge. Thus, under this scenario, Cal Poly would become responsible for the cost of wastewater treatment for multiple entities relying on the CMC WWTP, and would be exposed to potentially increasing regulatory requirements for the CMC WWTP discharge into Chorro Creek and the Morro Bay Estuary, costs that would be difficult to predict and potentially maintain over the long term. For these reasons, this alternative is not practical. Therefore, this alternative is not considered in further detail.

- City Wastewater Treatment and On-Demand Recycled Water Delivery Alternative. Under this alternative, no new WRF would be constructed on campus. Instead, existing and future wastewater flows would be conveyed to and treated at the City Water Resource Recovery Facility (WRRF), and the on-campus WRF, associated collection system components, and recycled water reservoir would not be constructed. Improvements to the campus agricultural irrigation distribution system would still be needed. Additional wastewater treatment and transmission capacity would be negotiated under an agreement with the City to serve the campus at buildout of the Campus Master Plan. Recycled water would be purchased by Cal Poly from the City on an as-needed basis to meet nonpotable water demands on campus. New controls, pump stations, and blending locations would need to be incorporated into the existing system across the Cal Poly infrastructure. In addition, a new recycled water pipeline would be constructed from the City to campus that would connect to the existing nonpotable water distribution system. Upgrades to the City's existing recycled water pumping and distribution system would also be necessary to continue to provide adequate pipeline pressures and flows to existing City recycled water users while also meeting Cal Poly on-demand recycled water needs. Under this alternative, there would be no new or expanded on-campus water storage facilities.

  Although this alternative would achieve most of the project objectives, because the additional cost to upgrade of the City's recycled water pumping and distribution system would be substantial, this alternative is considered infeasible. Therefore, this alternative is not considered in further detail.

5.4 ALTERNATIVES ANALYSIS

The following alternatives are evaluated in this Draft EIR:

- Alternative 1: No Project Alternative. This alternative assumes no construction of the WRF, force main, reservoir, or pump stations. Where maintenance of nonpotable water distribution pipelines on campus has been deferred, these pipelines would be repaired or replaced in a manner similar to that described for the proposed project.
- Alternative 2: City Wastewater Treatment and Additional Whale Rock Reservoir Water Supply Alternative. Under this alternative, all existing and future wastewater flows from Cal Poly would be conveyed to the City for treatment, nonpotable water demand on campus would be reduced through removal of some agricultural uses, and potable and nonpotable water demands would be met through an increased water allocation from Whale Rock Reservoir.
- Alternative 3: City Wastewater Treatment and Recycled Water Delivery Alternative. Under this alternative, all existing and future wastewater flows from Cal Poly would be conveyed to the City for treatment, and potable water demand on campus would be met through the existing water allocation from Whale Rock Reservoir. Cal Poly would purchase recycled water from the City to meet its nonpotable water demands, and construct a new reservoir on campus to store the recycled water purchased from the City. This new reservoir would be located in the same place and be of the same dimensions and capacity as under the proposed project.

5.4.1 Alternative 1: No Project Alternative

Under this alternative, construction of the WRF, force main, reservoir, and pump stations would not occur. Where maintenance of nonpotable water distribution pipelines on campus has been deferred, these pipelines would be repaired or replaced in a manner similar to that described for the proposed project.

Implementation of this alternative would limit on-campus growth, as identified for Alternative 3 of the Campus Master Plan EIR, the Net Student Growth Only Alternative. For example, there would be fewer new student beds on campus, and planned faculty/staff workforce housing and the University-Based Retirement Community would be eliminated.

AESTHETICS

Under Alternative 1, there would be no alteration of the visual character of the project site, and views of the area from surrounding vantage points would not change as a result of construction activities or project operation. Pipelines that would be repaired or replaced are located underground and would not affect the existing visual setting of the project site. By comparison, the project would involve development of aboveground facilities, including the WRF building and areas surrounding the reservoir. In addition, lighting features would be installed on the WRF building; however, impacts related to light and glare would be reduced to less than significant through implementation of adopted Campus Master Plan EIR mitigation measures. Although implementing the proposed project with recommended mitigation would not result in significant impacts on aesthetic resources, under Alternative 1, there would be no change in the existing visual character, views of the area, or light and glare conditions and, as a result, implementing this Alternative would avoid impacts related to aesthetics associated with the project altogether. Therefore, Alternative 1 would result in reduced impacts with respect to aesthetics compared to the project. *(Less impact)*

ARCHAEOLOGICAL, HISTORICAL, AND TRIBAL CULTURAL RESOURCES

Implementing Alternative 1 would involve substantially less ground disturbance compared to the proposed project, thereby reducing potential impacts related to the disturbance, destruction, or alteration of any known or as-yet-undiscovered/unrecorded prehistoric or historic archaeological resources, tribal cultural resources, human remains, or historic architectural resources. Impacts on these resources under the proposed project would be reduced to a less than significant level through implementation of adopted Campus Master Plan EIR mitigation measures. Because Alternative 1 would require substantially less ground disturbance than the proposed project, it would have less potential to disturb as-yet-undiscovered subsurface archaeological or tribal cultural resources. Therefore, Alternative 1 would result in reduced impacts on cultural resources compared to the project. *(Less impact)*

BIOLOGICAL RESOURCES

Construction under Alternative 1 would be limited to repair and replacement of existing on-campus nonpotable water distribution pipelines. These activities would involve trenching along existing pipeline alignments and backfilling the trenches, so impacts would be temporary. In contrast, constructing the WRF, reservoir, and other project features associated with the proposed project would result in effects on special-status plant and wildlife species and removal of sensitive natural community and riparian vegetation. Mitigation measures provided in Section 3.4, "Biological Resources," would reduce these impacts to a less than significant level. However, Alternative 1 would avoid sensitive plant and wildlife individuals and habitats associated with the WRF and reservoir footprints and new nonpotable water distribution pipelines and therefore would result in reduced potential for biological resource impacts compared to the project. *(Less impact)*

HYDROLOGY AND WATER QUALITY

Construction under Alternative 1 would be limited to repair and replacement of existing on-campus nonpotable water distribution pipelines and would not create new areas of impervious surfaces. Although impacts on hydrology and water quality would be less than significant under the proposed project because construction and operation of the

project would comply with the Small Municipal Separate Storm Sewer System (MS4) Permit, the 2013 General Permit, CCR Title 22 requirements, and implementation of adopted Campus Master Plan EIR mitigation measures, there would be substantially reduced potential to degrade water quality under Alternative 1. In addition, in contrast to the proposed project, there would be no aboveground structures developed in flood hazard areas. Overall, Alternative 1 would result in reduced impacts on hydrology and water quality compared to the project. *(Less impact)*

UTILITIES AND SERVICE SYSTEMS

Implementing Alternative 1 would not result in additional demand for water, wastewater treatment, storm water conveyance, electricity, natural gas, or telecommunications service, nor would it result in the need for new infrastructure. By comparison, the proposed project would involve development of a new wastewater treatment facility and associated project components, which would result in the environmental impacts discussed in Chapter 3 of this EIR. Because construction under Alternative 1 would be limited to repair and replacement of existing on-campus pipelines, the potential for disruption of other existing utilities would be limited, and the environmental impacts would be reduced relative to the proposed project because no new infrastructure is proposed and a smaller area would be affected (i.e., only existing nonpotable water distribution pipeline alignments). Further, without the construction of the WRF, there would not be additional solid waste generated. Overall, Alternative 1 would have reduced impacts related to utilities and service systems compared to the project. *(Less impact)*

SUMMARY OF ALTERNATIVE 1: NO PROJECT ALTERNATIVE EVALUATION

As described above, implementing Alternative 1 would result in reduced impacts compared to the project with respect to aesthetics; archaeological, historical, and tribal cultural resources; biological resources; hydrology and water quality; and utilities and service systems. Section 5.5, "Comparison of Alternatives," includes a comparison of the environmental impacts of Alternative 1 to those of the project.

Implementing Alternative 1 would not achieve any of the objectives of the project. Without the project, Cal Poly would need to continue to rely on the City for all of its wastewater treatment services, and Whale Rock Reservoir water would continue to be relied upon to meet both potable and nonpotable water demands on campus. Additional hands-on learning opportunities would not be provided, and most importantly, planned growth under the Campus Master Plan would be limited because a portion of Cal Poly's Whale Rock Reservoir water allocation would still be needed to meet nonpotable demands on campus and would not be freed up to support the additional potable water demand from campus growth.

5.4.2 Alternative 2: City Wastewater Treatment and Additional Whale Rock Reservoir Water Supply Alternative

Under this alternative, the proposed Cal Poly WRF, collection system components, and recycled water reservoir would not be constructed, and existing and future wastewater flows would be conveyed to and treated at the City WRRF. Without operation of the proposed Cal Poly WRF, the campus would exceed collection and treatment capacity stipulated in the existing agreements with the City during the course of Master Plan buildout. Facility improvements at the City WRRF, as part of the SLO Water Plus project (City of San Luis Obispo 2019), are underway to expand the ADWF from 5.1 mgd to 5.4 mgd. However, this nominal increase would accommodate growth planned in the City under its 2035 General Plan and is not sufficient to treat the potentially increased flows from Cal Poly (City of San Luis Obispo 2016). That is, additional flows associated with buildout of the Campus Master Plan under this alternative could not be accommodated without further expansion of treatment capacity at the City WRRF, or reallocation of existing capacity to Cal Poly that has or would be freed up by ongoing City water conservation programs. Likewise, City collection system capacity would be exceeded unless pipelines from the campus to the City were upsized. Thus, this alternative assumes upgrades to the City's WRRF and collection system pipelines, which would require additional CEQA analysis by the City as lead agency. This analysis does not attempt to address in detail impacts that would occur from upsizing the City's collection system and expanding its WRRF, which would be speculative absent specific design and other details at this time.

The California Department of Corrections and Rehabilitation is deactivating the West Facility of the CMC (CDCR 2023). This facility currently houses approximately 2,000 inmates (Jones 2022). Inmates typically use approximately 130 gallons per inmate per day of water (CDCR 2018). Thus, it is estimated that deactivation of the West Facility of the CMC would free up approximately 260,000 gallons per day (291 acre-feet per year [afy]) of water supply. CMC obtains its water supply from several sources, including an estimated 320 afy safe annual yield from Whale Rock Reservoir (Elliot, per. comm., 2023; SWRCB 2023). This alternative assumes that 291 afy of CMC's water allocation from Whale Rock Reservoir would be reallocated to Cal Poly and used to meet campus water demands.

The addition of 291 afy of CMC's water allocation would increase Cal Poly's share of Whale Rock Reservoir water to 1,250 afy (existing 959 afy plus 291 afy from CMC). Potable water demand at buildout of the Campus Master Plan would be 891 afy. With regard to nonpotable water demand, this alternative assumes that the Mission Avocado project would be abandoned (i.e., avocado orchards would be removed), thereby reducing Cal Poly's nonpotable water demand to 296 afy (500 afy minus 204 afy from Mission Avocado project) (Worth, pers. comm. 2023). Therefore, total water demand at Master Plan buildout under this alternative would be 1,187 afy. With the addition of the CMC Whale Rock Reservoir water allocation and reduction in nonpotable water demand, there would be adequate potable and nonpotable water supply to serve buildout of the Campus Master Plan. See Table 5-1, which provides an accounting of water supply and demand under this alternative.

Table 5-1 Allocation of Cal Poly Water Supply and Demand under Alternative 2

Alternative 2	Average Day (afy)
Water Supply	
Existing Cal Poly Whale Rock Reservoir Water Right	959
Reallocated West Facility Portion of CMC Whale Rock Reservoir Water Right	291
On-Campus Groundwater Wells	120
Total	1,370
Water Demand	
Campus Master Plan Buildout Potable Water Demand	891
Campus Master Plan Buildout Nonpotable Water Demand[1]	296
Total	1,187
Net Total Water Supply (Total Supply – Total Demand)	**183**

Notes: afy = acre-feet per year; CMC = California Men's Colony.

[1] Assumes 296 afy as the maximum nonpotable water demand with abandonment of Mission Avocado project, 120 afy of which would be supplied from groundwater and the remaining would be supplied as untreated water from the Whale Rock Reservoir allocation.

Source: Worth, pers. comm., 2023; Data compiled by Ascent Environmental in 2023.

Under this alternative, the proposed Cal Poly WRF, collection system components, and recycled water reservoir would not be constructed. The City would continue to meet the treatment requirements for potable water conveyed to campus through Cal Poly's existing agreement with the City, which allows for up to 1,000 afy of treatment capacity (i.e., Cal Poly water treatment demand would be 891 afy at buildout of the Master Plan). Although the schedule of potable water supplied to the campus might need to be addressed with the City, no upgrades or increase in capacity to existing potable water pipelines would be necessary, and the existing potable water storage system would remain sufficient. Where maintenance of existing nonpotable water distribution pipelines on campus has been deferred, these pipelines would be repaired or replaced in a manner similar to that described for the proposed project.

AESTHETICS

Under Alternative 2, without development of the WRF or recycled water reservoir, the visual character of the project site and views of the area from surrounding vantage points would not be altered. Pipelines that would be constructed, repaired, or replaced on campus would be located underground and would not affect the existing visual setting of the project site. Implementing the project would involve development of aboveground structures, including the WRF building and its related lighting features; however, impacts related to light and glare would be reduced to a less than significant level through implementation of adopted Campus Master Plan EIR mitigation measures. Although implementing the proposed project would not result in significant impacts on aesthetic resources, implementing Alternative 2 would not involve any changes to the existing conditions (e.g., no WRF building or reservoir berms) and, as a result, would result in reduced impacts with respect to aesthetics compared to the project. *(Less impact)*

ARCHAEOLOGICAL, HISTORICAL, AND TRIBAL CULTURAL RESOURCES

Alternative 2 would not involve development of a WRF or recycled water storage reservoir and thus would involve less ground disturbance on campus compared to the proposed project, thereby reducing potential impacts related to the disturbance, destruction, or alteration of any known or as-yet-undiscovered/unrecorded prehistoric or historic archaeological resources, tribal cultural resources, human remains, or historic architectural resources on campus. However, Alternative 2 would require ground disturbance to construct new and repair or replace existing nonpotable distribution pipelines. Mitigation measures in the adopted Campus Master Plan EIR would be applicable to the project and would reduce potential impacts related to the disturbance, destruction, or alteration of any known or as-yet-undiscovered/unrecorded prehistoric or historic archaeological resources, tribal cultural resources, human remains, or historic architectural resources to less than significant. Therefore, the cultural resource impacts under Alternative 2 would be less than under the project. *(Less impact)*

BIOLOGICAL RESOURCES

Alternative 2 would involve installation of new and repair and replacement of existing on-campus recycled water distribution pipelines. It would not involve development of the WRF, construction of the influent force main and lift stations, or construction of the new on-campus reservoir—all of which could result in effects on special-status plant and wildlife species and removal of sensitive natural community and riparian vegetation. Mitigation measures identified in Section 3.4, "Biological Resources," would reduce potential impacts from installation of new and repair or replacement of existing on-campus recycled water distribution pipelines to a less than significant level. In contrast to the proposed project, Alternative 2 would avoid sensitive plant and wildlife individuals and habitats associated with the WRF footprint and other project features and therefore would result in reduced potential for biological resource impacts compared to the project. Because avocado orchards are actively maintained and frequently disturbed, they would not provide habitat for nesting birds or burrowing species (e.g., American badger); thus, the removal of avocado orchards would not cause substantial adverse effects on biological resources. *(Less impact)*

HYDROLOGY AND WATER QUALITY

Alternative 2 would involve installation of new and repair and replacement of existing on-campus recycled water distribution pipelines. It would not involve development of the WRF, construction of the influent force main and lift stations, or construction of the new on-campus reservoir and therefore would not create new areas of impervious surfaces. Impacts on hydrology and water quality would be less than significant under the proposed project because construction and operation of the project would comply with the Small MS4 Permit, the 2013 General Permit, CCR Title 22 requirements, and implementation of adopted Campus Master Plan EIR mitigation measures. With the exception of storm water-related effects from construction of the WRF and recycled water storage reservoir, which would not occur under Alternative 2, impacts related to storm water under Alternative 2 would be similar to those under the proposed project. In contrast to the proposed project, there would be no aboveground structures developed in flood hazard areas under Alternative 2 and therefore no potential for impacts related to flooding. Removal of the avocado orchards would

not affect groundwater recharge, because irrigation occurs at agronomic rates and thus, irrigation water does not effectively percolate into the soil to support recharge of the underlying aquifer. Overall, implementation of Alternative 2 would result in reduced impacts on hydrology and water quality compared to the project. *(Less impact)*

UTILITIES AND SERVICE SYSTEMS

Implementing Alternative 2 would not result in additional demand for water, storm water conveyance, or electricity, natural gas, or telecommunications service. This alternative would result in the need for upsizing of the City's collection system and expansion of its WRRF and these wastewater utility improvements could result in environmental impacts. However, as previously stated, because design information is not available at this time, this analysis does not speculate on the potential environmental impacts of these improvements. By comparison, the proposed project would involve development of a new wastewater treatment facility and associated project components, which would result in the environmental impacts discussed in Chapter 3 of this EIR. Unlike the proposed project, Alternative 2 would not result in potential disruption of services on campus because it would not involve the construction of the wastewater influent force mains included as part of the proposed project. However, because the City's collection system would require upsizing, it is possible that service disruptions could occur within the city. Mitigation Measure 3.6-1, which is applicable to the project, would be applicable to this alternative as well. This alternative would have no impact on future solid waste generation (compared to Campus Master Plan projections), because it would not limit future campus growth. Overall, Alternative 2 would have similar impacts related to utilities and service systems compared to the project. *(Similar impact)*

SUMMARY OF ALTERNATIVE 2: CITY WASTEWATER TREATMENT AND ADDITIONAL WHALE ROCK RESERVOIR WATER SUPPLY ALTERNATIVE EVALUATION

As described above, implementing Alternative 2 would result in similar impacts compared to the project with respect to utilities and service systems, and reduced impacts compared to the project with respect to aesthetics; archaeological, historical, and tribal cultural resources; biological resources; and hydrology and water quality. Section 5.5, "Comparison of Alternatives," includes a comparison of the environmental impacts from Alternative 2 relative to those of the project.

Although Alternative 2 would have reduced impacts compared to the project and would support buildout of the Campus Master Plan, it would not achieve most of the objectives of the project.

Alternative 2 would fully achieve three of the eight project objectives, including those related to maximizing use of Whale Rock Reservoir water supply to meet Campus Master Plan buildout demand for potable water; increasing wastewater treatment capacity to accommodate Campus Master Plan buildout; and providing wastewater treatment and recycled water storage facilities that minimize odor issues, energy demand, and disturbance to natural lands.

Because Cal Poly would rely on the Whale Rock Reservoir water allocation for all potable and nonpotable water demands, Cal Poly would have less certainty regarding supplies in times of drought and recycled water supplies would not be scalable. Therefore, this alternative would only partially achieve three of the eight project objectives, including those related to providing reliable, scalable, high-quality recycled water to serve existing and planned on-campus nonpotable water demands, supplying water in a manner that aligns with Cal Poly's climate action plan and promotes the use of recycled water in support of CSU's 2022 Sustainability Policy; and improving Cal Poly's water supply resilience to drought conditions.

Finally, Alternative 2 would not achieve two of the eight project objectives. Because implementing this alternative would increase reliance on the City for wastewater conveyance and treatment services, it is not clear whether this alternative would be cost-effective. While Cal Poly would not incur the costs associated with construction and operation of an on-campus WRF, its share of the cost to expand the City's WRRF to treat Cal Poly wastewater flows associated with Campus Master Plan buildout would have to be negotiated with the City. Furthermore, because this alternative would not include construction and operation of an on-campus WRF, it would not provide additional hands-on learning opportunities for students.

5.4.3 Alternative 3: City Wastewater Treatment and Recycled Water Delivery Alternative

Under this alternative, the proposed Cal Poly WRF and collection system components would not be constructed, and existing and future wastewater flows would be conveyed to and treated at the City WRRF. As discussed above for Alternative 2, without operation of the WRF, wastewater flows associated with Campus Master Plan buildout would exceed existing collection and treatment capacity agreements with the City and could not be accommodated by the City without further expansion of treatment capacity at the City WRRF, or reallocation of existing capacity to Cal Poly that has or would be freed up by ongoing City water conservation programs. Likewise, City collection capacity would be exceeded without expansion of pipelines from the campus to the City. Thus, this alternative assumes upgrades to the City's WRRF and collection system pipelines, which would require additional CEQA analysis by the City as lead agency. This analysis does not attempt to address in detail impacts that would occur from upsizing the City's collection system and expanding its WRRF, which would be speculative absent specific design and other details at this time.

Under this alternative, recycled water would be purchased by Cal Poly from the City and stored in a new on-campus recycled water reservoir to supply nonpotable water demands on campus and free up water supply under Cal Poly's existing Whale Rock Reservoir water right to serve potable demand associated with buildout of the Campus Master Plan. The new recycled water storage reservoir would be located in the same place and be of the same dimensions as under the proposed project. This alternative would also require the construction of a new booster pump station and pressurized recycled water delivery pipeline on campus, as well as new controls and blending locations to convey recycled water from the City to the new storage reservoir and existing nonpotable water distribution system. It is anticipated that the new booster pump station would be located in the same place, but with smaller dimensions, as the lower lift station under the proposed project, and the recycled water delivery pipeline would follow the same route as the force main under the proposed project. To deliver recycled water to the campus, the City's existing recycled water delivery system would need to be extended to the campus. It is anticipated that the City would construct this extension which would involve installation of approximately 2.25 miles of new recycled water pipeline primarily within roadway rights-of-way starting along Bishop Street near Terrace Hill and extending northeast to Johnson Avenue, then northwest to San Luis Drive, and finally north along California Boulevard to campus. Where maintenance of existing on-campus nonpotable water distribution pipelines has been deferred, Cal Poly would repair or replace these in a manner similar to that described for the proposed project.

AESTHETICS

Under Alternative 3, without development of the WRF, alteration of the visual character of the project site and views of the area from surrounding vantage points would be limited primarily to construction of the new reservoir on campus. Pipelines that would be repaired or replaced, and proposed new pipelines from the City to campus, would be located underground and would not affect the existing visual setting of the project site. By comparison, the project would involve development of aboveground structures, including the WRF building and its related lighting features; however, impacts related to light and glare would be reduced to a less than significant level through implementation of adopted Campus Master Plan EIR mitigation measures. Although implementing the proposed project would not result in significant impacts on aesthetic resources, Alternative 3 would involve fewer changes in the existing conditions (e.g., no WRF building) and, as a result, would result in reduced impacts with respect to aesthetics compared to the project. *(Less impact)*

ARCHAEOLOGICAL, HISTORICAL, AND TRIBAL CULTURAL RESOURCES

Alternative 3 would not involve development of a WRF and thus would involve less ground disturbance on campus compared to the proposed project, thereby reducing potential impacts related to the disturbance, destruction, or alteration of any known or as-yet-undiscovered/unrecorded prehistoric or historic archaeological resources, tribal cultural resources, human remains, or historic architectural resources on campus. However, Alternative 3 would require additional ground disturbance in roadways to construct the pipeline to deliver recycled water from the City to

campus. Mitigation measures in the adopted Campus Master Plan EIR would be applicable to the project and would reduce potential impacts related to the disturbance, destruction, or alteration of any known or as-yet-undiscovered/unrecorded prehistoric or historic archaeological resources, tribal cultural resources, human remains, or historic architectural resources to less than significant. Therefore, the cultural resource impacts under Alternative 3 would result in impacts similar to those that would occur under the project. *(Similar impact)*

BIOLOGICAL RESOURCES

Alternative 3 would include construction of the new on-campus reservoir, installation of new recycled water delivery pipelines to convey recycled water from the City to campus, and installation of new and repair and replacement of existing on-campus recycled water distribution pipelines. This alternative would not include development of the WRF and some other project features associated with the proposed project that would result in effects on special-status plant and wildlife species and removal of sensitive natural community and riparian vegetation. Mitigation measures provided in Section 3.4, "Biological Resources," would reduce these impacts to a less than significant level. In contrast to the proposed project, Alternative 3 would avoid sensitive plant and wildlife individuals and habitats associated with the WRF footprint and therefore would result in reduced potential for biological resource impacts compared to the project. *(Less impact)*

HYDROLOGY AND WATER QUALITY

Alternative 3 would include construction of the new on-campus reservoir, installation of new recycled water delivery pipelines to convey recycled water from the City to campus, and installation of new and repair and replacement of existing on-campus recycled water distribution pipelines, and it would not create new areas of impervious surfaces. Impacts on hydrology and water quality would be less than significant under the proposed project because construction and operation of the project would comply with the Small MS4 Permit, the 2013 General Permit, CCR Title 22 requirements, implementation of adopted Campus Master Plan EIR mitigation measures, and implementation of an additional mitigation measure that would require the reservoir to be designed and constructed to meet site conditions and standard best engineering practices for safe operation and to limit the potential for overtopping and berm failure. With the exception of storm water-related effects from construction of the WRF, which would not occur under Alternative 3, impacts related to storm water under Alternative 3 would be similar to those under the proposed project. All other impacts related to hydrology and water quality under Alternative 3 would be similar to those under the proposed project. Therefore, overall, Alternative 3 would result in reduced impacts on hydrology and water quality compared to the project. *(Less impact)*

UTILITIES AND SERVICE SYSTEMS

Implementing Alternative 3 would not result in additional demand for storm water conveyance, electricity, natural gas, or telecommunications service. This alternative would result in the need for extension of the City's recycled water delivery pipeline, upsizing of the City's collection system, and expansion of its WRRF and these wastewater utility improvements could result in environmental impacts. However, as previously stated, because design information is not available at this time, this analysis does not speculate on the potential environmental impacts of these improvements. By comparison, the proposed project would involve development of a new wastewater treatment facility on campus and associated project components, which would result in the environmental impacts discussed in Chapter 3 of this EIR. Similar to the proposed project, Alternative 3 would involve the construction of a recycled water reservoir as well as a new lift station and a new recycled water delivery pipeline. The recycled water delivery pipeline would be located primarily within roadway rights-of-way and installed belowground. Like the project, Alternative 3 could result in potential accidental disruption of services to the campus during construction of the recycled water delivery pipeline if the locations of existing utilities are not marked for avoidance in the field; however, Mitigation Measure 3.6-1 would reduce this impact to less than significant. Without the construction of the WRF, Alternative 3 would not increase solid waste generation at Cal Poly through the generation of construction debris or biosolids, and therefore, would have no impact on landfill capacity or otherwise impair the attainment of solid waste reduction goals or requirements. Overall, Alternative 3 would have similar impacts related to utilities and service systems compared to the project. *(Similar impact)*

SUMMARY OF ALTERNATIVE 3: CITY WASTEWATER TREATMENT AND DELIVERY OF RECYCLED WATER ALTERNATIVE EVALUATION

As described above, implementing Alternative 3 would result in impacts similar to those of the project with respect to archaeological, historical, and tribal cultural resources; and utilities and service systems; and reduced impacts compared to those of the project with respect to aesthetics, biological resources, and hydrology and water quality. Section 5.5, "Comparison of Alternatives," includes a comparison of the environmental impacts from Alternative 3 relative to those of the project.

Although Alternative 3 would have reduced impacts compared to the project with respect to most environmental resources and would support buildout of the Campus Master Plan, like Alternative 2, this alternative would not achieve most of the project objectives.

Alternative 3 would fully achieve three of the eight project objectives, including those related to maximizing use of the campus's Whale Rock Reservoir allocation to meet demand associated with Campus Master Plan buildout; increasing wastewater treatment capacity to accommodate Campus Master Plan buildout; and providing wastewater treatment and recycled water storage facilities that minimize odor issues, energy demand, and disturbance to natural lands.

Alternative 3 would require reliance on the City for treatment and delivery of adequate volumes of recycled water to meet campus nonpotable water demand, and recycled water delivery by the City could be subject to implementation delays or affected by future changes in the City's allocation priorities. For these reasons, Cal Poly would have less certainty regarding supplies in times of drought and less control over scalability. Therefore, this alternative would only partially achieve three of the project objectives, including those related to providing reliable, scalable, high-quality recycled water to serve the campus's nonpotable water demands; supplying water in a manner that aligns with Cal Poly's climate action plan and promotes the use of recycled water in support of CSU's 2022 Sustainability Policy; and improving Cal Poly's water supply resilience to drought conditions.

Alternative 3 would not achieve two of the eight project objectives. Because implementing this alternative would increase reliance on the City for wastewater conveyance and treatment services, as well as add to reliance on the City for recycled water supplies, it is not clear whether this alternative would be cost-effective. While Cal Poly would not incur the costs associated with construction and operation of an on-campus WRF under this alternative, its share of the cost to expand the City WRRF to treat Cal Poly wastewater flows associated with Campus Master Plan buildout and extend the City's recycled water pipeline to deliver recycled water to campus would have to be negotiated with the City. Furthermore, because this alternative would not include construction and operation of an on-campus WRF, it would not provide additional hands-on learning opportunities for students.

5.5 COMPARISON OF ALTERNATIVES

Table 5-2 summarizes the environmental analyses provided above for the project alternatives.

Table 5-2 Summary Environmental Impacts of the Alternatives Relative to the Proposed Project

Environmental Topic	Proposed Project	Alternative 1: No Project Alternative	Alternative 2: City Wastewater Treatment and Additional Whale Rock Reservoir Water Supply Alternative	Alternative 3: City Wastewater Treatment and Recycled Water Delivery Alternative
Aesthetics	Less than significant (with mitigation)	Less	Less	Less
Archaeological, Historical, and Tribal Cultural Resources	Less than significant (with mitigation)	Less	Less	Similar
Biological Resources	Less than significant (with mitigation)	Less	Less	Less

Environmental Topic	Proposed Project	Alternative 1: No Project Alternative	Alternative 2: City Wastewater Treatment and Additional Whale Rock Reservoir Water Supply Alternative	Alternative 3: City Wastewater Treatment and Recycled Water Delivery Alternative
Hydrology and Water Quality	Less than significant (with mitigation)	Less	Less	Less
Utilities and Service Systems	Less than significant (with mitigation)	Less	Similar	Similar

Source: Compiled by Ascent Environmental in 2023.

5.6 ENVIRONMENTALLY SUPERIOR ALTERNATIVE

State CEQA Guidelines Section 15126.6 states that an EIR should identify the "environmentally superior" alternative. All impacts under the proposed project would be less than significant with implementation of mitigation included in this Draft EIR. No residual significant and unavoidable impacts would occur. Because implementing Alternative 1: No Project Alternative (described above in Section 5.4.1) would avoid all adverse impacts resulting from construction and operation of the project analyzed in Chapter 3, as well as those under Alternatives 2 and 3, it would be environmentally superior. However, the No Project Alternative would not meet any of the objectives of the project, as presented above in Section 5.2.1. When the environmentally superior alternative is the No Project Alternative, the State CEQA Guidelines (Section 15126.6[e][2]) require selection of an environmentally superior alternative from among the other alternatives evaluated.

As described in Section 5.4.2, implementing Alternative 2: City Wastewater Treatment and Additional Whale Rock Reservoir Water Supply Alternative would result in similar impacts compared to the proposed project with respect to utilities and service systems, and reduced impacts compared to the proposed project with respect to aesthetics; archaeological, historical, and tribal cultural resources; biological resources; and hydrology and water quality. However, this alternative would not meet most of the project objectives. As described in Section 5.4.3, implementing Alternative 3: City Wastewater Treatment and Recycled Water Delivery Alternative would result in impacts similar to those of the proposed project with respect to archaeological, historical, and tribal cultural resources; and utilities and service systems; and would result in reduced impacts compared to the proposed project with respect to aesthetics, biological resources, and hydrology and water quality. However, Alternative 3 also would not meet most of the objectives of the project.

Because the proposed project would not result in any significant environmental effects that cannot be mitigated to a less than significant level, and neither Alternative 2 nor Alternative 3 would meet most of the basic project objectives, neither action alternative would be environmentally superior to the proposed project.

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6 OTHER CEQA SECTIONS

Section 15126 of the State CEQA Guidelines requires that all aspects of a project be considered when evaluating its impact on the environment, including planning, acquisition, development, and operation. As part of this analysis, the EIR must also identify (1) significant environmental impacts that cannot be avoided if the project is implemented, (2) significant irreversible environmental changes that would result from implementation of the project, and (3) growth-inducing impacts of the project. Although growth inducement itself is not considered an environmental effect, it could potentially lead to foreseeable physical environmental effects, which are discussed under Section 6.3.1, "Summary of Growth-Inducing Impacts of the Project," below.

6.1 SIGNIFICANT AND UNAVOIDABLE ADVERSE IMPACTS

State CEQA Guidelines Section 15126.2(c) requires EIRs to include a discussion of the significant environmental effects that cannot be avoided if the proposed project is implemented. As documented throughout Chapter 3 (project-level impacts) and Chapter 4, "Cumulative Impacts," of this Draft EIR, after implementation of mitigation measures, all significant impacts associated with the proposed WRF project would be reduced to a less than significant level. The project would not result in any residual significant and unavoidable adverse impacts.

6.2 SIGNIFICANT IRREVERSIBLE ENVIRONMENTAL CHANGES

The State CEQA Guidelines require a discussion of any significant irreversible environmental changes that would be caused by the project. Specifically, State CEQA Guidelines Section 15126.2(d) states:

> Uses of nonrenewable resources during the initial and continued phases of the project may be irreversible since a large commitment of such resources makes removal or nonuse thereafter unlikely. Primary impacts and, particularly, secondary impacts (such as highway improvement which provides access to a previously inaccessible area) generally commit future generations to similar uses. Also irreversible damage can result from environmental accidents associated with the project. Irretrievable commitments of resources should be evaluated to assure that such current consumption is justified.

Implementing the project would result in the irreversible and irretrievable commitment of energy and material resources during construction and operation, including:

- construction materials, including such resources as soil, rock, concrete, steel, and polyvinyl chloride;
- water supply for project construction (for controlling dust and maintaining soil compaction);
- energy expended in the form of electricity, gasoline, diesel fuel, and oil for equipment and transportation vehicles that would be needed for project construction, operation, and maintenance: and
- a minor increase in operational energy demand in the form of electricity, related to the introduction of lift station pumps and other equipment at the WRF that would be used during operation of the proposed project.
- The use of these nonrenewable resources is expected to account for a minimal portion of the region's resources and would not affect the availability of these resources for other needs within the region. Construction of the project would result in the irretrievable commitment of nonrenewable energy resources, primarily in the form of fossil fuels (including fuel oil) and gasoline for automobiles and construction equipment. However, construction activities would not result in inefficient use of energy or natural resources because contractors would use best available engineering techniques, construction and design practices, and equipment operating procedures. With respect to operational activities, compliance with and exceedance of applicable building codes would ensure that natural resources are conserved or recycled to the maximum extent feasible.

6.3 GROWTH INDUCEMENT

CEQA Section 21100(b)(5) specifies that the growth-inducing impacts of a project must be addressed in an EIR. Section 15126.2(e) of the State CEQA Guidelines provides the following guidance for assessing the growth-inducing impacts of a project:

> Discuss the ways in which the proposed project could foster economic or population growth, or the construction of additional housing, either directly or indirectly, in the surrounding environment. Included in this are projects which would remove obstacles to population growth (a major expansion of a waste water treatment plant might, for example, allow for more construction in service areas). Increases in the population may tax existing community service facilities, requiring construction of new facilities that could cause significant environmental effects. Also, discuss the characteristics of some projects which may encourage and facilitate other activities that could significantly affect the environment, either individually or cumulatively. It must not be assumed that growth in any area is necessarily beneficial, detrimental, or of little significance to the environment.

A project can induce growth directly, indirectly, or both. Direct growth inducement would result if a project involved construction of new housing. Indirect growth inducement would result, for instance, if implementing a project resulted in:

- substantial new permanent employment opportunities (e.g., commercial, industrial, or governmental enterprises);
- substantial short-term employment opportunities (e.g., construction employment) that indirectly stimulates the need for additional housing and services to support the new temporary employment demand; or
- removal of an obstacle to additional growth and development, such as removing a constraint on a required public utility or service (e.g., construction of a major sewer line with excess capacity through an undeveloped area).

The State CEQA Guidelines do not distinguish between planned and unplanned growth for purposes of considering whether a project would foster additional growth. Therefore, for purposes of this EIR, to reach the conclusion that a project is growth inducing as defined by CEQA, the EIR must find that it would foster (i.e., promote, encourage, allow) additional growth in economic activity, population, or housing, regardless of whether the growth is already approved by and consistent with local plans. The conclusion does not determine that induced growth is beneficial or detrimental, consistent with Section 15126.2(e) of the State CEQA Guidelines.

If the analysis conducted for the EIR results in a determination that a project is growth inducing, the next question is whether that growth may cause adverse effects on the environment. Environmental effects resulting from induced growth fit the CEQA definition of "indirect" effects in the State CEQA Guidelines (Section 15358[a][2]). These indirect or secondary effects of growth may result in significant environmental impacts. CEQA does not require that the EIR speculate unduly about the precise location and site-specific characteristics of significant, indirect effects caused by induced growth, but a good-faith effort is required to disclose what is feasible to assess. Potential secondary effects of growth could include consequences—such as conversion of open space to developed uses, increased demand on community and public services and infrastructure, increased traffic and noise, degradation of air and water quality, or degradation or loss of plant and wildlife habitat—that are the result of growth fostered by the project.

The decision to allow those projects that result from induced growth is the subject of separate discretionary processes by the lead agency(ies) responsible for considering such projects. Because the decision to allow growth is subject to separate discretionary decision making, and such decision making is itself subject to CEQA, the analysis of growth-inducing effects is not intended to determine site-specific environmental impacts and specific mitigation for the potentially induced growth. Rather, the discussion is intended to disclose the potential for environmental effects to occur more generally, so that decision makers are aware that additional environmental effects are a possibility if growth-inducing projects are approved. The consideration of whether impacts would occur, their extent, and the ability to mitigate them is appropriately left to the agency responsible for approving such projects when complete applications for development are submitted.

6.3.1 Summary of Growth-Inducing Impacts of the Project

GROWTH-INDUCING EFFECTS OF CONSTRUCTION

The construction labor force would fluctuate depending on the phase of work. Construction efforts would be relatively modest and short term (occurring over a 5-year period) and are not expected to result in employees relocating to the area. According to the most recent labor data available from the US Bureau of Labor Statistics, 6,080 residents in the San Luis Obispo-Paso Robles-Arroyo Grande Metropolitan Statistical Area are employed in the construction industry (BLS 2021). The project would require eight to 36 workers per day during construction, which represents a small number of workers available from nearby areas (i.e., within the larger metropolitan area of San Luis Obispo). Thus, it is reasonable to assume that construction workers would be available during development of the project, and substantial population growth or increases in housing demand in the region as a result of these construction jobs is not anticipated. Therefore, the project would not be expected to directly induce population growth by bringing substantial numbers of construction jobs to the area, or to result in associated increases in demand for housing or goods and services.

GROWTH-INDUCING EFFECTS OF OPERATION

The project involves operation of an on-campus WRF and recycled water storage and distribution system to treat a portion of the campus' wastewater and deliver recycled water to campus agricultural and athletic fields for irrigation. The project was identified as a near-term project in the Campus Master Plan to meet the nonpotable water needs of the Cal Poly campus and free up an equivalent volume of the existing potable water supply from Whale Rock Reservoir to serve the projected potable water demand of the Cal Poly campus in the future."

The WRF, a project included in the Campus Master Plan, would be necessary to support on-campus growth. As described in Section 2.2.4, "Projected Campus Water Demand," implementation of the Campus Master Plan will increase net water demand, and without recycled water supplied by the WRF, there would not be adequate supply to meet water demand. Furthermore, as described in Section 2.2.6, "Projected Campus Wastewater Demand," the projected campus growth under the Campus Master Plan will also increase demand for wastewater treatment, and wastewater flows would exceed Cal Poly's contracted capacity at the City Water Resource Recovery Facility without implementation of the WRF.

With implementation of the proposed project, the nonpotable water demands of the campus that are currently met through a portion of the existing Whale Rock Reservoir water right would be transitioned over time to nonpotable recycled water supplied by the on-campus WRF, and the campus would then use Whale Rock Reservoir water freed up by operation of the WRF to meet the additional potable water needs of the campus under the Campus Master Plan. At the same time, the WRF would provide additional wastewater treatment capacity needed to serve buildout of the campus.

Thus, implementation of the WRF project would remove obstacles to growth contemplated in the Campus Master Plan related to insufficient potable water supply and wastewater treatment capacity. Therefore, the project would be growth inducing with respect to the campus. However, as discussed in Section 6.1.2 of the Campus Master Plan EIR, "Growth-Inducing Impacts of the 2035 Master Plan," implementation of the Campus Master Plan, including the WRF project, would not induce development of new off-campus housing. It would contribute to regional economic and job growth off campus, albeit at levels in line with growth contemplated by City and County plans (see discussion on pages 6-2 and 6-3 of the Campus Master Plan EIR). Therefore, the Campus Master Plan EIR concluded that implementation of the Campus Master Plan would result in a minor, incremental contribution to regional growth and its related impacts. The analysis in the Campus Master Plan EIR further notes that in considering proposals for future developments, the regional entities would evaluate the details, alternatives, and mitigation measures to decide whether potential impacts can be mitigated and avoided or would be significant and unavoidable. Thus, because the WRF project as proposed is substantially similar to the WRF project evaluated as part of the Campus Master Plan EIR, indirect project impacts related to growth inducement have been adequately addressed in the Campus Master Plan EIR (see Section 6.1, "Growth Inducement," of the Campus Master Plan EIR), and no further analysis is required.

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7 REFERENCES

Executive Summary

No references are cited in the executive summary.

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8 REPORT PREPARERS

California State University, Office of the Chancellor

Anne Collins-Doehne ..... Director, Land Use Planning and Environmental Review, Capital Planning, Design and Construction

California Polytechnic State University, San Luis Obispo

Marcus Jackson ..... Project Manager, Facilities Planning and Capital Projects
Scott Bloom, MPP, PE ..... Campus Planner, Facilities Planning and Capital Projects
Dennis Elliott, PE, CEM ..... Executive Director, Facilities Operations, Facilities Management and Development
Erin Grace Winnett, CHMM, QISP ..... Environmental Protection Program Specialist, Environmental Health and Safety

Ascent Environmental, Inc. (EIR Preparation)

Sydney Coatsworth, AICP ..... Principal
Andrea Shephard, PhD ..... Project Manager
Marianne Lowenthal ..... Assistant Project Manager
Chris Mundhenk ..... Senior Technical Reviewer
Bryn Kirk ..... Aesthetics, Utilities and Service Systems
Dimitri Antoniou, AICP ..... Air Quality, Energy, Greenhouse Gas Emissions
Roberto Mora, RPA ..... Archaeological, Historical and Tribal Cultural Resources
Alta Cunningham ..... Archaeological, Historical and Tribal Cultural Resources Senior Reviewer
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Ted Thayer ..... Biological Resources
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Gayiety Lane ..... Publishing Specialist
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Natural Investigations Company (Cultural and Tribal Cultural Resources Investigation)

Cindy J. Arrington, M.S., RPA ..... Principal
Phil Hanes, M.A., RPA ..... Senior Archaeologist
John A. Nadolski, M.A. ..... Senior Archaeologist
Nancy E. Sikes, Ph.D., RPA ..... Senior Archaeologist
Dylan Stapleton, M.A., RPA ..... Archaeologist

Hartman Engineering (WRF Feasibility Analysis and Preliminary Design)

Craig Hartman, PE ..... Principal Engineer

Larry Walker Associates (WRF and Recycled Water Use Permitting)

Denise Conners ..... Associate Engineer II
Nubia Donikian ..... Project Engineer

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Ascent Environmental
455 Capitol Mall, Suite 300
Sacramento, CA 95814

ascentenvironmental.com