

**DRAFT
INITIAL STUDY/MITIGATED NEGATIVE
DECLARATION**

**CAL POLY BEACH VOLLEYBALL COMPLEX PROJECT
CALIFORNIA POLYTECHNIC STATE UNIVERSITY,
SAN LUIS OBISPO**

Project No. 1902-1101

Prepared for:

California Polytechnic State University
1 Grand Avenue
San Luis Obispo, California 93405

Prepared by:

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369 Pacific Street
San Luis Obispo, California 93401

MAY 2019



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- Appendix A. Criterial Pollutants and Greenhouse Gas Emission Estimates
- Appendix B. Mitigation and Monitoring Reporting Program

LIST OF ACRONYMS

AB	Assembly Bill
ACOE	U.S. Army Corps of Engineers
APCD	San Luis Obispo County Air Pollution Control District
APS	Auxiliary Power System
BAU	Business as Usual
BMP	Best Management Practices
CAAQS	California Ambient Air Quality Standards
CACP	Campus Aesthetic Consistency Program
Cal Poly	California Polytechnic State University
CalEEmod	California Emissions Estimator Model
CAP	Clean Air Plan
CARB	California Air Resources Board
CCIC	Central Coast Information Center
CCR	California Code of Regulations
CDFW	California Department of Fish and Wildlife
CEQA	California Environmental Quality Act
CH ₄	Methane
CNDDB	California Natural Diversity Database
CO	Carbon Monoxide
CO ₂	Carbon Dioxide
CO ₂ e	Carbon Dioxide Equivalent
Complex	Cal Poly Beach Volleyball Complex
County Fire	County of San Luis Obispo Fire Department
CPUC	California Public Utilities Commission
CSU	California State University
CVC	California Vehicle Code
dBA	Decibel
DEM	Department of Emergency Management
DPM	Diesel Particulate Matter
EIR	Environmental Impact Report

FEMA	Federal Emergency Management Agency
FTA	Federal Transit Administration
GHG	Greenhouse Gas
GWP	Global Warming Potential
HFC	Hydrofluorocarbons
IS	Initial Study
LED	Light-emitting Diode
LOS	Level of Service
LUST	Leaking Underground Storage Tank
mgd	Million gallons per day
MM	Mitigation Measure
MMTCO ₂ e	Million Metric Tons of Carbon Dioxide Equivalent
MTCO ₂ e	Metric Tons of Carbon Dioxide Equivalent
MND	Mitigated Negative Declaration
NCAA	National Collegiate Athletic Association
NF ₃	Nitrogen Trifluoride
N ₂ O	Nitrous Oxide
NO _x	Nitrous Oxides
NPDES	National Pollution Discharge Elimination System
O ₃	Ozone
PFC	Perfluorocarbons
PG&E	Pacific Gas and Electric
PM _{2.5}	Particulate Matter 2.5 micrometers or less in diameter
PM ₁₀	Particulate Matter 10 micrometers or less in diameter
ROG	Reactive Organic Gases
RWQCB	Regional Water Quality Control Board
SAP	Strategic Action Plan
SB	Senate Bill
SCCAB	South Central Coast Air Basin
SF ₆	Sulfur Hexafluoride
SLO	San Luis Obispo

SLO City Fire	City of San Luis Obispo Fire Department
SO ₂	Sulfur Dioxide
SPL	Sound Pressure Level
SR	State Route
SWPPP	Stormwater Pollution Prevention Plan
SWRCB	State Water Resources Control Board
TISM	Transportation Impact Study Manual
USEPA	United States Environmental Protection Agency
USFWS	United States Fish and Wildlife Service
USGS	United States Geological Society
VMT	Vehicle Miles Traveled
WRRF	Water Resource Recovery Facility

1.0 INTRODUCTION

1.1 PROJECT OVERVIEW

Project Title: Cal Poly Beach Volleyball Complex Project (Project)

Lead Agency Name and Address:

California State University (CSU) Board of Trustees
401 Golden Shore
Long Beach, California 90802

Contact Person and Phone Number:

Jeffrey Dumars
Facilities Planning & Capital Projects
California Polytechnic State University (Cal Poly), San Luis Obispo
Phone: (805) 756-6588
e-mail: jdumars@calpoly.edu

Project Applicant's Name and Address:

California Polytechnic State University, San Luis Obispo
1 Grand Avenue
San Luis Obispo, California 93407
Contact: Jeffrey Dumars

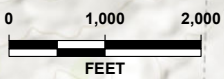
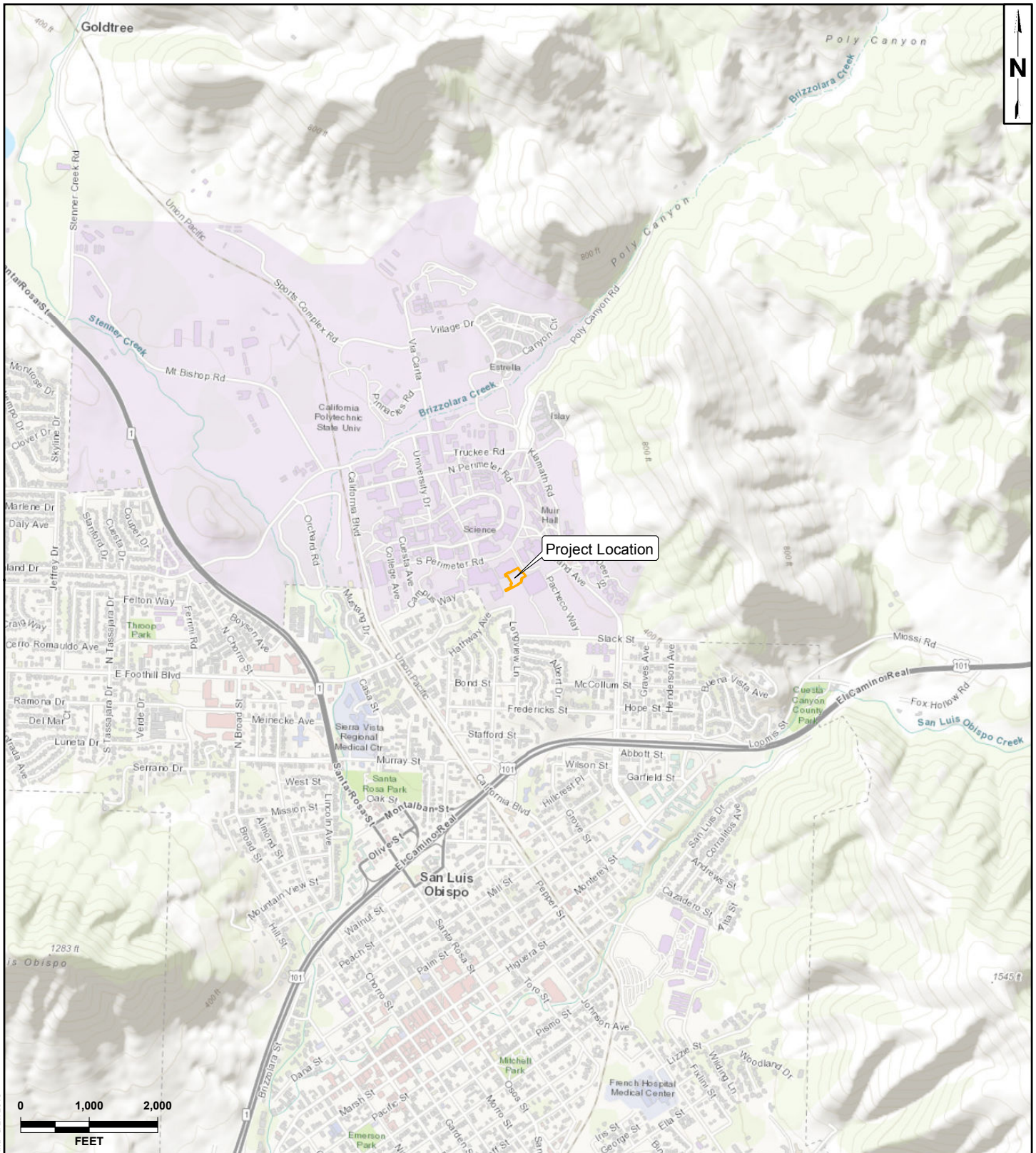
Project Location:

The Project is located in San Luis Obispo, approximately midway between San Francisco and Los Angeles on California's central coast (refer to Figure 1-1). The Cal Poly campus occupies over 6,000 acres. Cal Poly lands include range and agricultural areas as well as natural preserves, in addition to more developed areas. The more developed portion of the campus is identified as the "Campus Instructional Core" and includes agricultural support facilities and academic, housing, and administrative buildings. The Campus Instructional Core is generally bound by Highland Drive on the north, California Boulevard on the west, Slack Street on the south, and primarily undeveloped foothills on the east.

The Project site is located in the Campus Instructional Core directly south of Mott Athletic Center, east of Anderson Aquatic Center, north of Mustang Tennis Center, and west of Tahoe Road and the Grand Avenue Parking Structure. The Project site is approximately 41,000 square feet (0.94 acres) and currently contains outdoor recreational basketball courts and fitness area (refer to Figure 1-2).

Custodian of the Administrative Record for Project:

Refer to contact person listed above.



LEGEND:
 Project Location

MAP EXTENT:



Source: Esri Online Topo Basemap
 Coordinate System: NAD 1983 StatePlane California V FIPS 0405 Feet
 Notes: This map was created for informational and display purposes only.

padre
 associates, inc.
 ENGINEERS, GEOLOGISTS &
 ENVIRONMENTAL SCIENTISTS

PROJECT NAME: CAL POLY BEACH VOLLEYBALL COMPLEX SAN LUIS OBISPO COUNTY, CA	
PROJECT NUMBER: 1902-1101	DATE: March 2019

PROJECT LOCATION

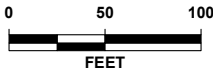
FIGURE
1-1

Cal Poly Beach Volleyball Complex Project Location.mxd 3/27/2019



LEGEND:

 Project Site



Source: Esri Online Imagery Basemap, County of San Luis Obispo
 Coordinate System: NAD 1983 StatePlane California V FIPS 0405 Feet
 Notes: This map was created for informational and display purposes only.

Cal Poly Beach Volleyball Complex | Project_Site.mxd | 3/27/2019



PROJECT NAME: CAL POLY BEACH VOLLEYBALL COMPLEX SAN LUIS OBISPO COUNTY, CA	
PROJECT NUMBER: 1902-1101	DATE: March 2019

PROJECT SITE

**FIGURE
1-2**

Project Objectives:

The Cal Poly Beach Volleyball Complex (Complex) will provide a top quality National Collegiate Athletic Association (NCAA) regulation Beach Volleyball facility for the Mott Athletic Center in San Luis Obispo, California.

Local Planning Context:

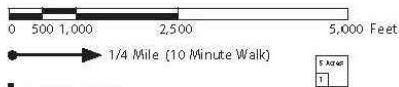
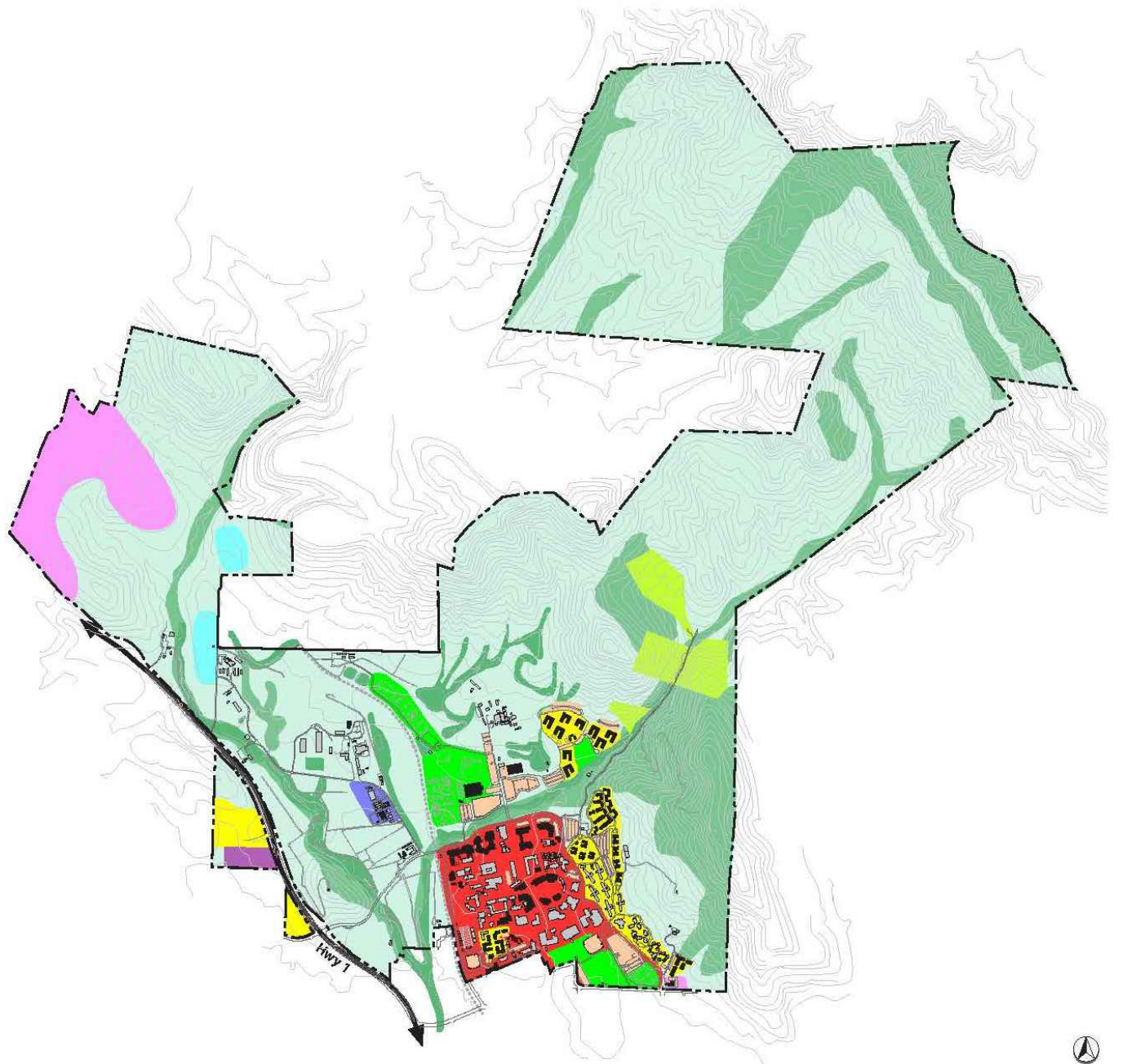
The 2001 Cal Poly Master Plan is the primary document governing land use and capital improvements on campus through the year 2020. The Master Plan includes several elements which guide development on campus, including, but not limited to Campus Instructional Core, Residential Communities, Circulation, and Parking. The Master Plan establishes land uses for the entire campus and outlines principles to guide future development. The Master Plan does not set specific standards for development; however, mitigation measures outlined in the Master Plan Environmental Impact Report (EIR), as applicable, condition Master Plan development.

The Project site is designated “Campus Instructional Core” as delineated in the 2001 Campus Master Plan and EIR (Cal Poly San Luis Obispo 2001). Refer to Figure 1-3 for Cal Poly’s Land Use Map. The Campus Instructional Core land use focuses on creating a compact, student-friendly, learner-centered area, and encompasses most of the area bounded by California Boulevard, Perimeter Road, and Grand Avenue south to Slack Avenue and Campus Way, including educational buildings and dorms.

Description of Project:

The Complex improvements include five new NCAA regulation sand volleyball courts, terraced concrete seat walls and bleachers for spectator seating, an announcer’s podium, lighting, audio and video scoreboard, Mott Gym façade enhancements to the adjacent walls and building, new pedestrian flatwork and landscape improvements. The Complex will have a maximum seating capacity of 299. Also included in the Project plans are meeting and storage rooms for the team as well as a relocated water valve. Refer to Figure 1-4 for a Project Design Schematic.

Lighting would be provided by six lighting poles located around the perimeter of the Project area. Each light pole would be between 50 to 60 feet tall and would have between three and eight light fixtures for a total of 33 light fixtures. The light fixtures would be TLC-LED-1500 type equipped with side shields. The lighting would provide the most illumination on the courts. The average illumination on each court would be 125-127 Lumens. Refer to Figure 1-5 for the Lighting Plan.




LEGEND

- | | |
|--|---|
| Campus Instructional Core | Outdoor Teaching and Learning
Includes: |
| Residential Communities | Recreation, Athletics and Physical Education |
| Public Facilities and Utilities | Natural Environment |
| Areas Suitable for Ancillary Activities and Facilities | Preserves |
| CDF Lease Property | |
| Parking (surface & structure) | |
| Remote Parking Options | |

LAND USE | EXHIBIT 5.1
San Luis Creek Watershed

SOURCE: CAL POLY MASTER PLAN 2001

 <p>padre associates, inc. ENGINEERS, GEOLOGISTS & ENVIRONMENTAL SCIENTISTS</p>	PROJECT NAME: CAL POLY BEACH VOLLEYBALL COMPLEX SAN LUIS OBISPO COUNTY, CA	CAL POLY LAND USE MAP	FIGURE 1-3
	PROJECT NUMBER: 1902-1101		

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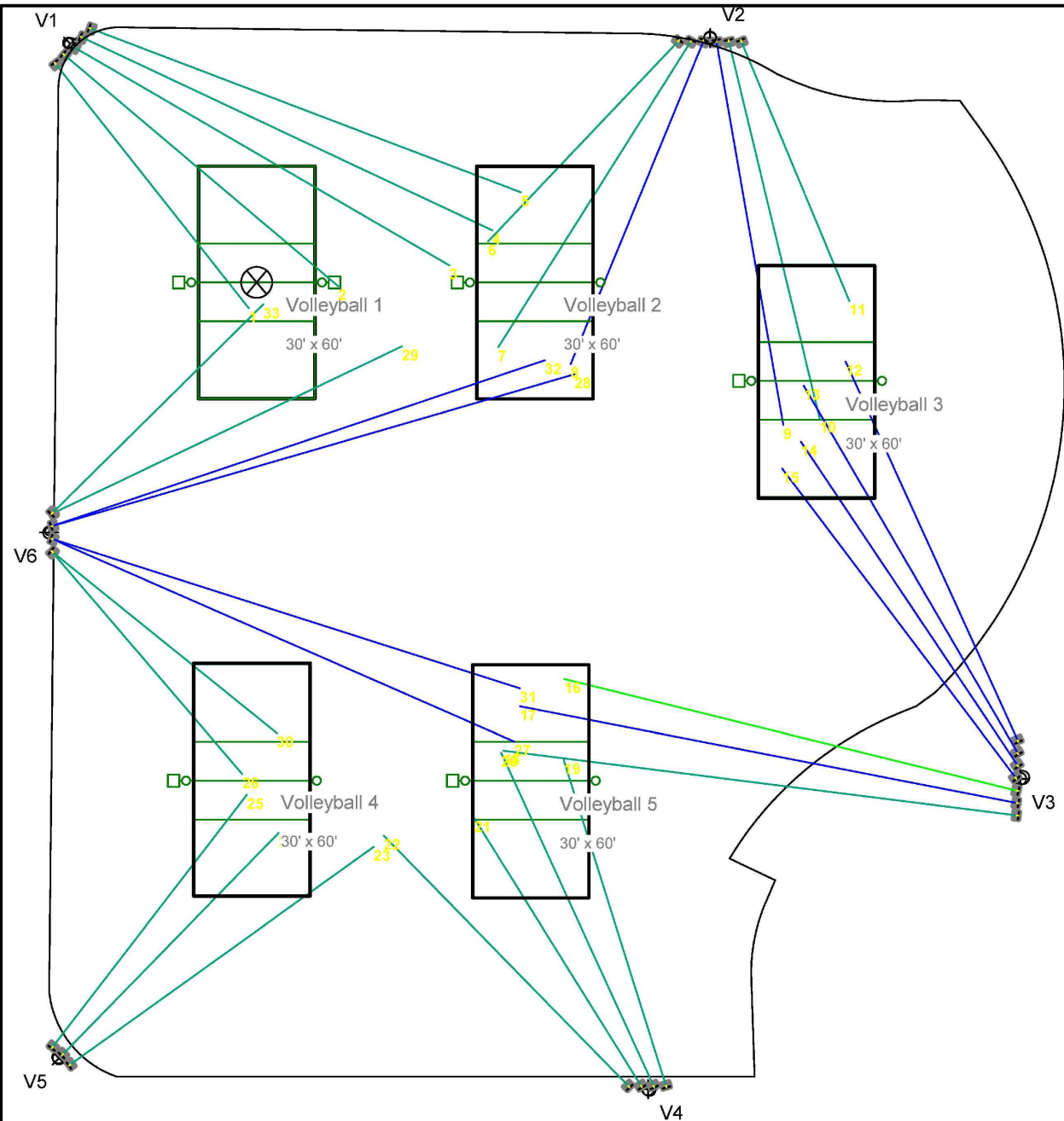
SITE PLAN
SCALE: 1"=20'-0"

<p>padre associates, inc. ENGINEERS, GEOLOGISTS & ENVIRONMENTAL SCIENTISTS</p>	PROJECT NAME: CAL POLY BEACH VOLLEYBALL COMPLEX SAN LUIS OBISPO COUNTY, CA	
	PROJECT NUMBER: 1902-1101	DATE: March 2019

BASEMAP PROVIDED BY TENOVER STUDIO

PROJECT DESIGN SCHEMATIC

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Cal Poly Sand Volleyball

San Luis Obispo, CA

EQUIPMENT LAYOUT

INCLUDES:

- Volleyball 1
- Volleyball 2
- Volleyball 3
- Volleyball 4
- Volleyball 5

Electrical System Requirements: Refer to Amperage Draw Chart and/or the "Musco Control System Summary" for electrical sizing.

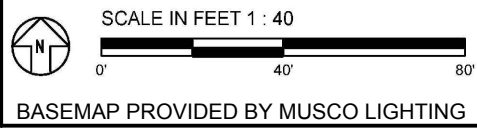
Installation Requirements: Results assume ± 3% nominal voltage at line side of the driver and structures located within 3 feet (1m) of design locations.

EQUIPMENT LIST FOR AREAS SHOWN

QTY	LOCATION	Pole		Luminaires		
		SIZE	GRADE ELEVATION	MOUNTING HEIGHT	LUMINAIRE TYPE	QTY / POLE
1	V1	50'	-	50'	TLC-LED-1500	5
1	V2	50'	-	50'	TLC-LED-1500	6
1	V3	60'	-	60'	TLC-LED-1500	7
1	V4	50'	-	50'	TLC-LED-1500	4
1	V5	50'	-	50'	TLC-LED-1500	3
1	V6	60'	-	60'	TLC-LED-1500	8
TOTALS						33

SINGLE LUMINAIRE AMPERAGE DRAW CHART

Ballast Specifications (.90 min power factor)	Line Amperage Per Luminaire (max draw)					
	208 (60)	220 (60)	240 (60)	277 (60)	347 (60)	480 (60)
Single Phase Voltage	208 (60)	220 (60)	240 (60)	277 (60)	347 (60)	480 (60)
TLC-LED-1500	-	-	-	-	-	-



padre associates, inc.
ENGINEERS, GEOLOGISTS & ENVIRONMENTAL SCIENTISTS

PROJECT NAME:
**CAL POLY BEACH VOLLEYBALL COMPLEX
SAN LUIS OBISPO COUNTY, CA**

PROJECT NUMBER: 1902-1101 DATE: May 2019

LIGHTING PLAN

FIGURE
1-5

The Jumbotron video screen and electronic score board would be mounted on the south side of Mott Gym along with the façade enhancements. The video screen would be located on the right-hand side of the south wall as seen when facing the south side of Mott Gym. The bottom of the screen would be approximately 13 feet off the ground and the screen itself would be approximately 14.4 feet tall and 24.2 feet wide with additional space above for sponsor banners and the Cal Poly logo. The façade enhancements would be custom perforated metal panels to showcase an image with contrast siding to modernize the building. The panels would be equipped with hardware and substructure to attach to the side of the building. Refer to Figure 1-6 for photographs of the Jumbotron scoreboard location as seen from nearby residences.

Construction:

The Project area is currently recreational basketball courts and fitness area. In order to construct the volleyball courts, some selective demolition and rough grading of the existing surface would be required. A drainage system and underground utilities would be installed under the courts, much of which would utilize existing drainage inlets and storm drains. The area would then be compacted and covered in concrete before the installation of the sand surface, nets, and poles. Construction of the other Project components including the seating would involve grading and paving as well as the installation of turf and new landscaping improvements.

Other Public Agencies Whose Approval is Required:

No additional approvals have been identified.

Permits and Approvals Required:

Implementation of the Project would require discretionary approvals by the Board of Trustees of the California State University (CSU Trustees). Specifically, the CSU Trustees will:

- Adopt the IS-MND;
- Approve a Campus Master Plan Amendment; and
- Approve schematic plans.

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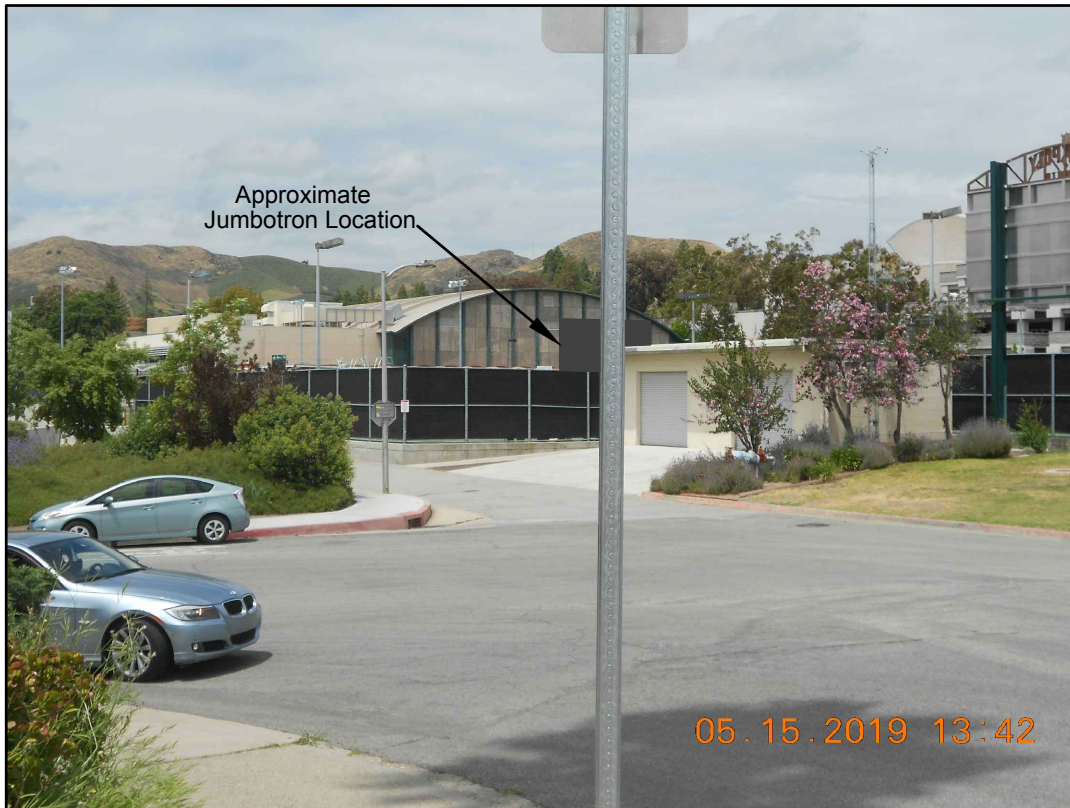


Photo 1. Corner of Longview Lane and Hathway Avenue Date: May 15,2019



Photo 2. Slack Street Date: May 15,2019

1.2 CALIFORNIA ENVIRONMENTAL QUALITY ACT COMPLIANCE

This document serves as the Initial Study (IS) and Mitigated Negative Declaration (MND) for the proposed Cal Poly Beach Volleyball Complex, located in San Luis Obispo County, California. This IS/MND has been prepared in accordance with the California Environmental Quality Act (CEQA) (California Public Resources Code, Section 21000 et seq.), and Title 14 of the California Code of Regulations (hereafter "CEQA Guidelines") (14 CCR 15000 et seq.).

A lead agency prepares an IS to determine whether a Project may have a significant impact on the environment (14 CCR 15063(a)) and thereby confirm the appropriate environmental document to be prepared by the lead agency. This IS concludes the Project would not result in any significant environmental impacts upon implementation of available and feasible mitigation measures that will be incorporated into the Project design. An MND is therefore the appropriate environmental review document under CEQA. The lead agency (CSU Trustees) will be responsible for the review and approval of the proposed Project.

2.0 SUMMARY OF FINDINGS

2.1 ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED

This Project would potentially affect the environmental factors checked below, involving at least one impact that is “Potentially Significant” or “Potentially Significant Unless Mitigation Incorporated” as indicated by the checklist on the following pages.

Table 2.1-1. Environmental Issues and Potentially Significant Impacts

<input checked="" type="checkbox"/> Aesthetics	<input type="checkbox"/> Agriculture and Forest Resources	<input type="checkbox"/> Air Quality
<input checked="" type="checkbox"/> Biological Resources	<input checked="" type="checkbox"/> Cultural Resources	<input type="checkbox"/> Energy
<input type="checkbox"/> Geology and Soils	<input type="checkbox"/> Greenhouse Gas Emissions	<input type="checkbox"/> Hazards and Hazardous Materials
<input type="checkbox"/> Hydrology and Water Quality	<input type="checkbox"/> Land Use and Planning	<input type="checkbox"/> Mineral Resources
<input checked="" type="checkbox"/> Noise	<input type="checkbox"/> Population and Housing	<input type="checkbox"/> Public Services
<input type="checkbox"/> Recreation	<input type="checkbox"/> Transportation	<input type="checkbox"/> Tribal Cultural Resources
<input type="checkbox"/> Utilities and Service Systems	<input type="checkbox"/> Wildfire	<input type="checkbox"/> Mandatory Findings of Significance

2.2 ENVIRONMENTAL DETERMINATION

On the basis of this initial evaluation:

- I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.
- I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because the mitigation measures described in Section 3 and summarized in Section 4 have been incorporated into the project. A MITIGATED NEGATIVE DECLARATION will be prepared.
- I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.
- I find that the proposed project MAY have a “potentially significant impact” or “potentially significant unless mitigated” impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.
- I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

Jeffrey Dumars
Facilities Planning and Capital Projects
California Polytechnic State University, San Luis Obispo

Date

3.0 ENVIRONMENTAL ANALYSIS AND INITIAL STUDY CHECKLIST

3.1 AESTHETICS

AESTHETICS - Would the Project:	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
a) Have a substantial adverse effect on a scenic vista?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) In non-urbanized 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 point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

3.1.1 Discussion

The Project site is located in the Campus Instructional Core directly south of Mott Athletic Center, east of Anderson Aquatic Center, north of Mustang Tennis Center, and west of Tahoe Road and the Grand Avenue Parking Structure. The Project site currently contains outdoor recreational basketball courts and fitness area.

The existing visual environment surrounding the Project site is developed and characterized by campus buildings and facilities associated with fitness, such as Mott Athletic, Anderson Aquatic Center, and Mustang Tennis Center. The Project site is also adjacent to the parking garage located off Grand Avenue. Adjacent to the existing basketball courts, and within the Project limits, are 21 ornamental redwood trees. The redwood trees will be removed during Project construction and the area will be replanted with approximately eight palm trees and associated landscaping.

The lighting of the Beach Volleyball Complex would be measured in horizontal illuminance. Illuminance (incident light) is the amount of light that strikes a surface. The illumination (measured in Lumens) for the Project is summarized for each volleyball court with the average ranging from 125-127 Lumens on each court. The lights would be arranged so that each of the courts are illuminated to the NCAA Best Lighting Practices for Volleyball for Standard Intercollegiate Play of 80 footcandles (one footcandle is equal to one Lumen per square foot). All playing areas would be lit to above NCAA standards. There are other outdoor athletic facilities with similar lighting plans in the vicinity (Anderson Aquatics Center, Mustang Tennis Complex, the Doerr Family Field, and the Miller & Capriotti Athletics Complex).

a. *Have a substantial adverse effect on a scenic vista?*

No Impact. No scenic vistas are located within the proposed Project area as identified in the Campus Master Plan and Environmental Impact Report (Cal Poly San Luis Obispo 2001). As such, the Project would not have a substantial adverse effect on a scenic vista. No impact to scenic vistas would occur as a result of the Project.

b. *Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?*

No Impact. State Route (SR) 1, between San Luis Obispo and the northern San Luis Obispo County boundary line, is an Officially Designated State Scenic Highway. SR 1 is located approximately a half-mile south of the Project site, but existing development, vegetation, and topography would block views of the Project. As such, the Project is not in the view corridor of any officially designated state scenic highway. Therefore, no impact to scenic highways would occur as a result of this Project.

c. *In non-urbanized 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 point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?*

No Impact. The Project will be located in the Campus Instructional Core in the 2001 Master Plan. This area is already urbanized and is designated for a variety of educational and athletic facilities. The Project would not conflict with any zoning regulations governing scenic quality.

d. *Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?*

Less than Significant with Mitigation. Although the Project is located in the Campus Instructional Core and near other sources of outdoor athletic lighting, the Project would create a new source of light. In order to provide lighting to NCAA standards, lighting would be provided by six lighting poles located around the perimeter of the Project area. Each light pole would be between 50 to 60 feet tall and would have between three and eight light fixtures for a total of 33 light fixtures. The light fixtures would be TLC-LED-1500 type equipped with side shields. The lighting would provide the most illumination on the courts. The average illumination on each court would be 125-127 Lumens. The Jumbotron scoreboard that would be installed on the side of Mott Gym is also a new source of light. As a result, there would be an increase in the amount of light and glare in the area of the Project. Light and glare from this Project could potentially affect surrounding neighborhoods as well as the Student Housing South Complex; therefore, implementation of mitigation measures MM AES-1 and MM AES-2 would reduce impacts to less than significant.

MM AES-1: Hooded Outdoor Lighting Fixtures. All light fixtures for the Project would be equipped with side shields and directed downward so as to prevent spillover onto adjacent areas. No unobstructed beam of light shall be directed toward sensitive uses. The use of reflective materials in the façade improvements shall be avoided so as to avoid both sun glare and project lighting glare.

MM AES-2: Scoreboard Use. In order to limit the amount of light and glare that could be seen from nearby residences, use of the scoreboard for scheduled Cal Poly events and advertisement for events or activities shall be limited from 7:00 a.m. to 10:00 p.m.

3.1.2 Mitigation Measures

Implementation of the following mitigation measure would reduce the potential for aesthetics impacts to less than significant:

MM AES-1: Hooded Outdoor Lighting Fixtures

MM AES-2: Scoreboard Use

3.2 AGRICULTURE AND FORESTRY RESOURCES

AGRICULTURE AND FORESTRY RESOURCES¹ - Would the Project:	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Natural Resources Agency, to non-agricultural use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Pub. Resources Code, § 12220, subd. (g)), timberland (as defined by Pub. Resources Code, § 4526), or timberland zoned Timberland Production (as defined by Gov. Code, § 51104, subd. (g))?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Result in the loss of forest land or conversion of forest land to non-forest use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

3.2.1 Discussion

Cal Poly contains a large portion of land devoted to agriculture including: facilities and fields, row crops, orchards, and pastures for livestock. These areas are located in the northern portion of the campus, away from the Project site. The Project site and its surrounding areas are designated Urban and Built-Up Land through the Farmland Mapping and Monitoring Program by the California Department of Conservation. The Project site is currently developed and the transition from basketball courts to volleyball courts will not affect the forestry or agricultural resources on campus.

¹ In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Department of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the State's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment Project; and the forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board.

- a. *Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Natural Resources Agency, to non-agricultural use?*
- b. *Conflict with existing zoning for agricultural use, or a Williamson Act contract?*
- c. *Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Pub. Resources Code, § 12220, subd. (g)), timberland (as defined by Pub. Resources Code, § 4526), or timberland zoned Timberland Production (as defined by Gov. Code, § 51104, subd. (g))?*
- d. *Result in the loss of forest land or conversion of forest land to non-forest use?*
- e. *Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?*

No Impact. The Project site is within the designated urban areas of the Cal Poly Campus. The Project site is not within agricultural zoning and does not conflict with the Williamson Act. The Project site and the surrounding areas are not in conflict with zoning of forest land, timberland, or Timberland Production (as defined in the Public Resources Codes 12220 (g), 4526, or 51104 (g)). Furthermore, the Project site would not result in the loss in forest land and will not convert any Farmland. Therefore, no impact to agricultural resources or forest land would occur as a result of this Project.

3.2.2 Mitigation Measures

The Project would have no impacts to agriculture and forestry resources; therefore, no mitigation is required.

3.3 AIR QUALITY

AIR QUALITY - Where available, the significance criteria established by the applicable air quality management district or air pollution control district may be relied upon to make the following determinations. Would the Project:	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
a) Conflict with or obstruct implementation of the applicable air quality plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Expose sensitive receptors to substantial pollutant concentrations?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

3.3.1 Discussion

The Project is proposed to occur within San Luis Obispo County (County) and is further located within the northern portion of the South Central Coast Air Basin (SCCAB). The SCCAB consists of San Luis Obispo County, Santa Barbara County and Ventura County.

The U.S. Environmental Protection Agency (USEPA) has jurisdiction under the Federal Clean Air Act. The California Air Resources Board (CARB) has jurisdiction under the California Clean Air Act and California Health and Safety Code. The USEPA and CARB currently classify an area as attainment, unclassified, or non-attainment, depending on whether the monitored ambient air quality data show compliance, insufficient data to determine compliance, or non-compliance with federal or state ambient air quality standards, respectively.

The San Luis Obispo County Air Pollution Control District (APCD) shares responsibility with CARB for ensuring that all State and Federal ambient air quality standards are attained within the County. The APCD has jurisdiction under the California Health and Safety Code to develop emission standards (rules) for the County, issue air pollution permits, and require emission controls for stationary sources within the County. The APCD is also responsible for the attainment of State and Federal air quality standards in the County. The APCD's plan for maintaining attainment status is outlined in the Clean Air Plan (CAP) and the Updated Strategic Action Plan (Updated SAP) (APCD 2001; APCD 2012c).

The APCD operates a network of monitoring stations throughout the County to determine air pollutant levels. Based on federal air quality standards, the USEPA currently designates the eastern portion of the County as a non-attainment zone for the 8-hour ozone (O₃) Federal standard (APCD 2019). The County is currently designated in attainment for all other Federal air quality standards. The APCD has further identified the County as a non-attainment area for the 1-hour and 8-hour CAAQS for O₃, and the 24-hour and annual CAAQS for PM₁₀ (APCD 2019). The County has exceeded State O₃ and PM₁₀ concentration levels measured at many air

monitoring stations in the County every year for over 13 years. According to CARB (2019), the air monitoring station in San Luis Obispo (the station closest to the Project site) did not record an O₃ value above the 1-hour or 8-hour CAAQS, or PM₁₀ value above the 24 hour or annual CAAQS.

Thresholds

The APCD has adopted two sets of significance thresholds: one for project construction phase (see Table 3.3-1) and one for project operation (see Table 3.3-2).

Table 3.3-1. County APCD Thresholds of Significance (Construction)

Pollutant	Threshold ¹		
	Daily (pounds)	Quarterly Tier 1 (tons)	Quarterly Tier 2 (tons)
NO _x + ROG (combined)	137	2.5	6.3
DPM	7	0.13	0.32
Fugitive Particulate Matter (PM ₁₀), Dust ²	--	2.5	

Notes:
 1 Daily and quarterly emission thresholds are based on the California Health and Safety Code and the CARB Carl Moyer Guidelines.
 2 Any Project with a gradient area greater than 4 acres of worked area can exceed the 2.5-ton PM₁₀ quarterly threshold.

Definitions:
 NO_x = Oxides of Nitrogen
 ROG = Reactive Organic Gas
 DPM = Diesel Particulate Matter

Source: APCD 2012a

Table 3.3-2. County APCD Thresholds of Significance (Operations)

Pollutant	Threshold ¹	
	Daily (pounds)	Annual (ton)
NO _x + ROG (combined)	25	25
DPM	1.25	--
Fugitive Particulate Matter (PM ₁₀), Dust ²	25	25
CO	550	--

Notes:
 1 Daily and quarterly emission thresholds are based on the California Health and Safety Code and the CARB Carl Moyer Guidelines.
 2 Any Project with a gradient area greater than 4 acres of worked area can exceed the 2.5-ton PM₁₀ quarterly threshold.

Source: APCD 2012a

Sensitive Receptors

Several sensitive receptors are located near the Project, including Cal Poly Campus (the nearest sensitive receptor, located within the Project site), Residential properties (located approximately 450 feet southwest of the Project site), and three schools and/or daycare centers and three churches are located within 0.5 mile radius of the Project site.

a. *Conflict with or obstruct implementation of the applicable air quality plan?*

Less than Significant Impact. San Luis Obispo County is currently designated as a non-attainment area for the State ozone and PM₁₀ air quality standards. Due to the Project's short-term construction activities (approximately 59 days), the Project would not conflict or obstruct implementation of the APCD's CAP and Updated SAP. Therefore, the Project would result in a less than significant impact pursuant to the APCD's CAP and Updated SAP.

b. *Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?*

Less than Significant Impact. Tables 3.3-3 and 3.3-4 present estimated Project criteria pollutant emissions for the construction phase of the Project, using equipment specific emission factors and load factors obtained from the following sources: CalEEMod Default Data Table; EMFAC2014 Version 1.0.7; and The Port of Long Beach 2013 Air Emissions Inventory (Breeze Software 2016; CARB 2014b; Starcrest 2014). Refer to Appendix A for Criterial Pollutants and Greenhouse Gas Emission Estimates.

Table 3.3-3. Projected Project Construction Phase Peak Day Emissions

Source	Peak Day Emissions (pounds/day)						
	NO _x	ROG	PM ₁₀ ¹	PM _{2.5}	DPM	CO	SO ₂
Demolition, Utility and Excavation	15.43	0.62	2.52	0.30	0.31	12.96	0.04
Construction	101.70	2.77	3.50	1.57	1.57	16.42	0.20
Peak Day	101.70	2.77	3.50	1.57	1.57	16.42	0.20

Notes:
 PM₁₀ and PM_{2.5} emissions are calculated as exhaust and fugitive dust.

Definitions:
 CO = Carbon Monoxide
 SO₂ = Sulfur Dioxide

Table 3.3-4. Projected Project Construction Phase Total Emissions

Source	Annual Emissions (tons/year)						
	NO _x	ROG	PM ₁₀	PM _{2.5}	DPM	CO	SO ₂
Demolition, Utility and Excavation	0.191	0.008	0.014	0.005	0.004	0.173	0.001
Construction	0.136	0.007	0.006	0.003	0.002	0.068	0.0004
Total Annual Emissions	0.326	0.015	0.020	0.007	0.006	0.241	0.001

Notes:
 PM₁₀ and PM_{2.5} emissions are calculated as exhaust and fugitive dust.

The Project will consist of demolition, excavation, grading, construction, and material export and import activities. The Project is expected to last approximately 59 days (less than one quarter), according to the APCD CEQA Air Quality Handbook, the Project considered a short-term construction Project (APCD 2012a). The following Tier 4 compliant construction equipment

will be utilized during the course of the Project: backhoe, air compressor, excavator, loader, vibratory compactors, drum rollers and a skid steer loader. The Project does not involve the installation or construction of facilities or equipment would result in the long-term addition of air emissions from an operational standpoint; therefore, the estimation of operational emissions was not conducted. As shown in Tables 3.3-3 and 3.3-4, total Project construction emissions have been estimated at 0.326 tons NO_x, 0.015 tons ROG, 0.020 tons PM₁₀, 0.007 tons PM_{2.5}, 0.006 tons DPM, 0.241 tons CO, and 0.001 tons SO₂. Implementation of the Project would not result in exceedances of daily or quarterly Tier 1 APCD emissions thresholds for NO_x and ROG_s combined (approximately 0.34 tons per quarter) and DPM (approximately 0.006 tons per quarter).

Fugitive dust emissions were evaluated in comparison to the APCD's screening tool for fugitive dust emissions, and thresholds for mitigation. Specifically, any Project with a grading area greater than four acres of continuously worked area, would exceed the threshold and require mitigation (APCD 2012a). The Projects grading activities would be limited to an area less than one acre and estimated quarterly emissions for fugitive dust emissions are well below the quarterly Tier 1 APCD emissions threshold at 0.008 tons quarter.

Since NO_x+ROG_s, DPM and fugitive dust levels are below APCD thresholds mitigations are not required. However, several mitigation measures identified in the APCD CEQA Air Quality Handbook have been adopted as best management practices to further reduce potential NO_x+ROG_s, DPM and fugitive dust emissions.

MM AQ-1: Fugitive Dust Control Measures. Construction projects shall implement the following dust control measures so as to reduce PM₁₀

- Emissions in accordance with APCD requirements;
- Reduce the amount of the disturbed area where possible;
- Water trucks or sprinkler systems shall be used during construction in sufficient quantities to prevent airborne dust from leaving the site. Increased watering frequency shall be required whenever wind speeds exceed 15 mph. Reclaimed (non-potable) water shall be used whenever possible;
- All dirt stock pile 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 completion of any soil disturbing activities;
- Exposed ground areas planned to be reworked at dates greater than one month after initial grading shall be sown with a 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 the APCD;
- All roadways, driveways, sidewalks, etc. to be paved shall be completed 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 are to be covered or shall 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;
- Sweep streets at the end of each day if visible soil material is carried onto adjacent paved roads, with water sweepers using reclaimed water where feasible;
- All of these fugitive dust mitigation measures shall be shown on grading and building plans; and
- The contractor or builder shall designate a person or persons to monitor the fugitive dust emissions and enhance the implementation of the measures as necessary to minimize dust complaints, reduce visible emissions below 20 percent opacity, and to prevent transport of dust off-site; duties shall include holidays and weekend periods when work may not be in progress, and the name and telephone number of such persons shall be provided to the APCD Compliance Division prior to the start of any grading, earthwork or demolition.

MM AQ-2: Standard Mitigation Measures for Construction Equipment. The following standard mitigation measures for reducing nitrogen oxides, reactive organic gases, and diesel particulate matter emissions from construction equipment shall be implemented during construction activities:

- Equipment will be maintained in proper tune according to manufacturers' specifications
- All off-road and portable diesel-powered equipment will be fueled with CARB certified motor vehicle diesel fuel (non-taxed version suitable for use off-road)
- The use of land based 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 regulations
- 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 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
- All on- and off-road diesel equipment shall not idle for more than 5 minutes. Signs shall be posted in the designated queuing areas and job sites to remind drivers and operators of the 5-minute idling limit

- Diesel idling within 1,000 feet of sensitive receptors is not permitted
- Staging and queuing areas shall not be located within 1,000 feet of sensitive receptors
- Use electrical equipment when feasible
- Substitute gasoline-powered equipment in place of diesel-powered equipment, where feasible
- Use alternatively fueled construction equipment on-site, where feasible, such as compressed natural gas, liquefied natural gas, propane or biodiesel

MM AQ-3: Fugitive PM10 Mitigation Measures. The following measures shall be implemented during construction activities to reduce fugitive dust emissions.

- 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% opacity for greater than 3 minutes in any 60-minute period. Increased watering frequency would be required whenever wind speeds exceed 15 mph. Reclaimed (non-potable) water should be used whenever possible. Please note that since water use is a concern due to drought conditions, the contractor or builder shall consider the use of an APCD-approved dust suppressant where feasible to reduce the amount of water used for dust control. Please refer to the following link for potential dust suppressants to select from to mitigate dust emissions: <http://valleyair.org/busind/comply/PM10/Products%20Available%20for%20Controlling%20PM10%20Emissions.htm>
- All dirt stock pile areas should be sprayed daily and covered with tarps or other dust barriers as needed.
- Permanent dust control measures identified in the approved project revegetation and landscape plans should be implemented as soon as possible, following completion of any soil disturbing activities.
- Exposed ground areas that are planned to be reworked at dates greater than one month after initial grading should be sown with a fast germinating, non-invasive grass seed and watered until vegetation is established.
- All disturbed soil areas not subject to revegetation should be stabilized using approved chemical soil binders, jute netting, or other methods approved in advance by the APCD.
- All roadways, driveways, sidewalks, etc. to be paved should be completed as soon as possible. In addition, building pads should 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 are to 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.
- “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 ‘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 need 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 shall be used with reclaimed water used where feasible. Roads shall be pre-wetted prior to sweeping when feasible.
- All PM10 mitigation measures required should be shown on grading and building plans.
- The contractor or builder shall designate a person or persons to monitor the fugitive dust emissions and enhance the implementation of the measures as necessary to minimize dust complaints and reduce visible emissions below the APCD’s limit of 20% opacity for greater than 3 minutes in any 60-minute period. Their duties shall include holidays and weekend periods when work may not be in progress. The name and telephone number of such persons shall be provided to the APCD Compliance Division prior to the start of any grading, earthwork, or demolition.

MM AQ-4: Idling Control Techniques. To help reduce sensitive receptor emissions impact of diesel vehicles and equipment used to construct the Project, Cal Poly shall implement the following idling control techniques:

- California Diesel Idling Regulations
 - On-road diesel vehicles shall comply with Section 2485 of Title 13 of the California Code of Regulations. This regulation limits idling from diesel-fueled commercial motor vehicles with gross vehicular weight ratings of more than 10,000 pounds and licensed for operation on highways. It applies to California and non-California based vehicles. In general, the regulation specifies that drivers of said vehicles:
 - Shall not idle the vehicle’s primary diesel engine for greater than 5-minutes at any location, except as noted in Subsection (d) of the regulation; and

- Shall not operate a diesel-fueled auxiliary power system (APS) to power a heater, air conditioner, or any ancillary equipment on that vehicle during sleeping or resting in a sleeper berth for greater than 5-minutes at any location when within 1,000 feet of a restricted area, except as noted in Section (d) of the regulation.
- Off-road diesel equipment shall comply with the 5-minute idling restriction identified in Section 2449(d)(2) of the California Air Resources Board's In-Use Off-Road Diesel regulation.
- Signs must be posted in the designated queuing areas and job sites to remind drivers and operators of the State's 5-minute idling limit.
- The specific requirements and exceptions in the regulations can be reviewed at: <https://www.arb.ca.gov/msprog/truck-idling/factsheet.pdf> and <https://www.arb.ca.gov/regact/2007/ordiesl07/frooal.pdf>
- Diesel Idling Restrictions Near Sensitive Receptors. In addition, to the State required diesel idling requirements, Cal Poly shall comply with these more restrictive requirements to minimize impacts to nearby sensitive receptors:
 - Staging and queuing areas shall not be located within 1,000 feet of sensitive receptors.
 - Diesel idling within 1,000 feet of sensitive receptors shall not be permitted.
 - Use of alternative fueled equipment is recommended.
 - Signs that specify the no idling areas must be posted and enforced at the site.

c. Expose sensitive receptors to substantial pollutant concentrations?

Less than Significant Impact. Due to the Project's short-term construction activities (approximately 59 days) and the results of Project emissions estimates, the Project would not expose sensitive receptors to substantial pollutant concentrations.

d. *Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?*

Less than Significant Impact. Odors from fuel combustion would be generated by construction equipment; however, the short duration of the Project would limit the effects of odor on the surrounding population.

3.3.2 Mitigation Measures

Although no significant impacts resulting from air quality would occur, implementation of the following mitigation measures would reduce air quality impacts resulting from Project construction:

MM AQ-1: Fugitive Dust Control Measures

MM AQ-2: Standard Mitigation Measures for Construction Equipment

MM AQ-3: Fugitive PM10 Mitigation Measures

MM AQ-4: Idling Control Techniques

3.4 BIOLOGICAL RESOURCES

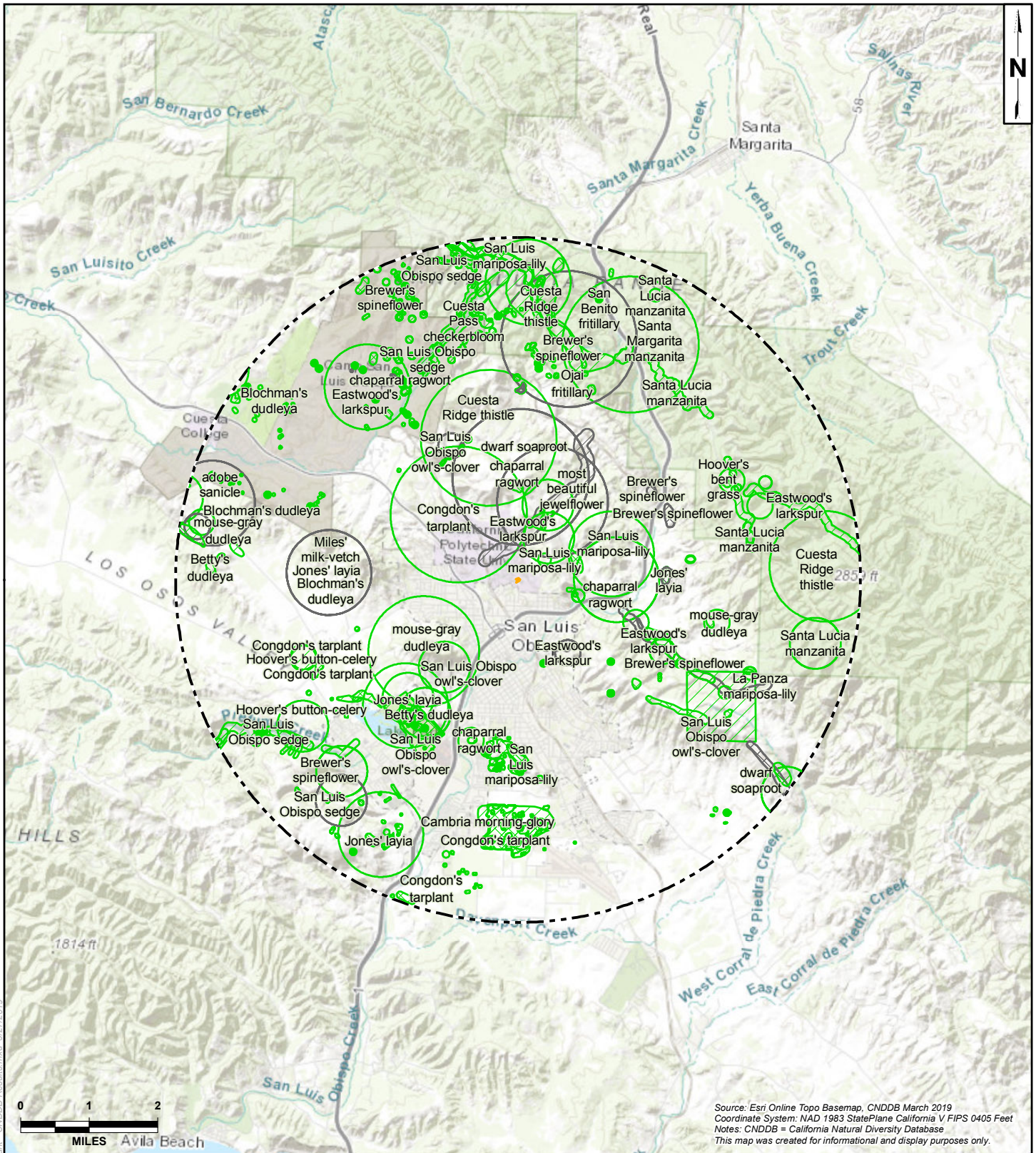
BIOLOGICAL RESOURCES (MARINE) - Would the Project:	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or State habitat conservation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

3.4.1 Discussion

The Project site is located in the Campus Instructional Core directly south of Mott Athletic Center, east of Anderson Aquatic Center, north of Mustang Tennis Center, and west of Tahoe Road and the Grand Avenue Parking Structure. The Project site currently contains an outdoor fitness area, recreational basketball courts, and a small landscape area with a stand of 21 ornamental redwood trees (*Sequoia sempervirens*). The redwood trees will be removed during Project construction and a portion of this landscape area will be replanted with approximately eight palm trees and associated landscaping.

The Project site is surrounded by Cal Poly development and small sections of ornamental landscape, and does not support any riparian habitat, wetlands, or migratory wildlife corridors. Based on a recent query of the CDFW California Natural Diversity Database (CNDDDB) (CDFW

2019) and a review of the Cal Poly Campus Master Plan and Environmental Impact Report (EIR) (Cal Poly San Luis Obispo 2001), the Project site is located within the vicinity of several documented occurrences of special-status (i.e., Federal or State-listed threatened or endangered, or other regulatory status) plant and wildlife species and is near Cal Poly lands that have the potential to support other regional special-status species. Figure 3.4-1 – Special-Status Wildlife CNDDDB Results and Figure 3.4-2 – Special-Status Wildlife CNDDDB Results show all occurrences of special-status plants and wildlife within five miles of the Project site that are documented in the CNDDDB. Tables 3.4-1 and 3.4-2 summarize all special-status plant and wildlife species with the potential to occur on Cal Poly lands, as identified in the Cal Poly Master Plan and EIR, and/or that have documented occurrences within five miles of the Project site.

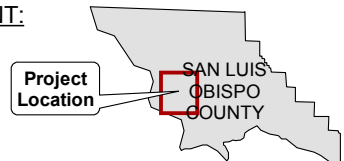


Source: Esri Online Topo Basemap, CNDDDB March 2019
 Coordinate System: NAD 1983 StatePlane California V FIPS 0405 Feet
 Notes: CNDDDB = California Natural Diversity Database
 This map was created for informational and display purposes only.

LEGEND:

- | | | | |
|-----------------------|---------------------------|----------------------|-------------------------|
| Project Location | CNDDDB Occurrences | Plant (non-specific) | Multiple (non-specific) |
| Buffer Area (5 miles) | Plant (80m) | Plant (circular) | Multiple (circular) |
| | Plant (specific) | Multiple (specific) | |

MAP EXTENT:

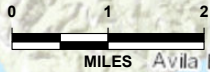
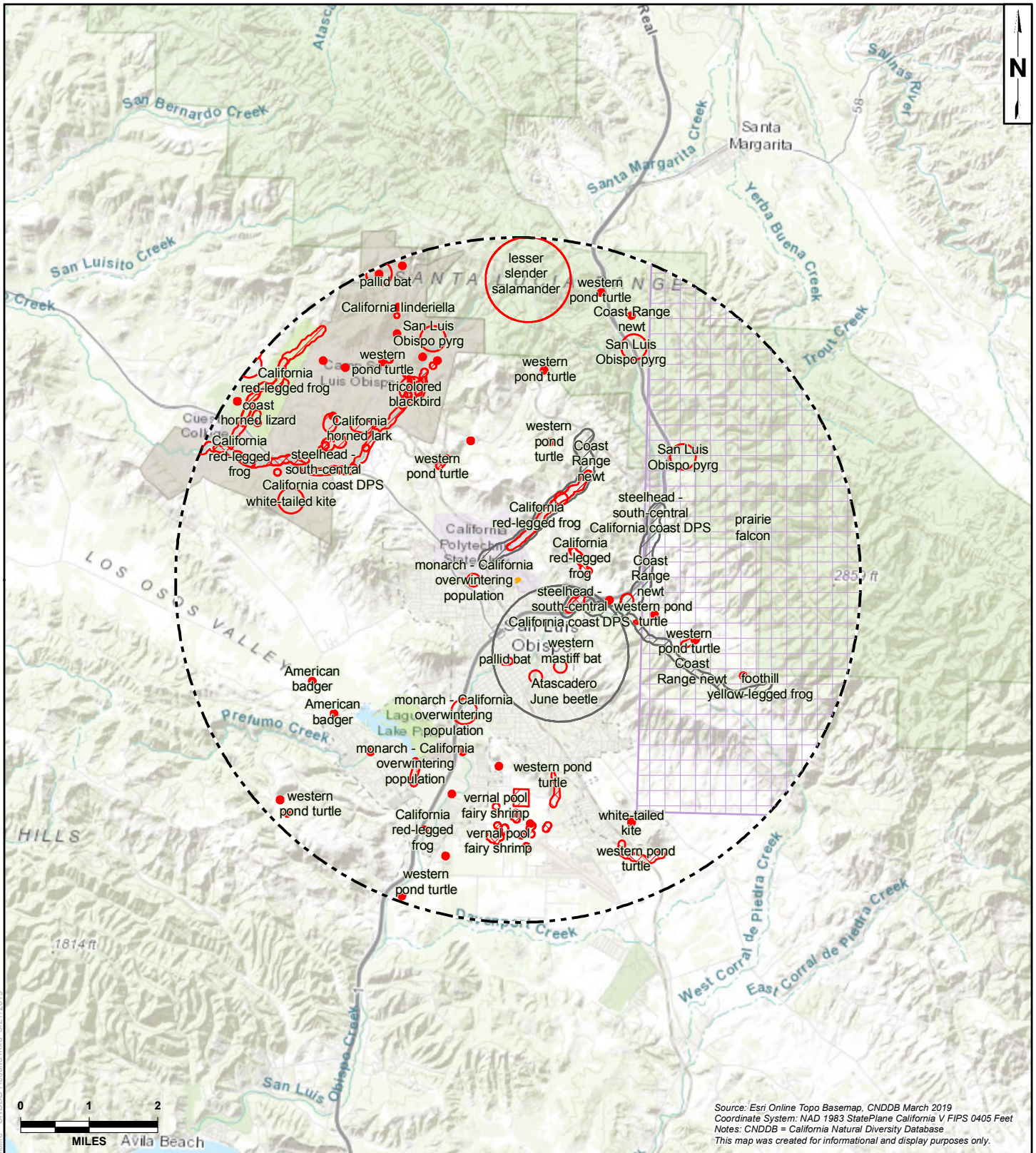


PROJECT NAME: CAL POLY BEACH VOLLEYBALL COMPLEX SAN LUIS OBISPO COUNTY, CA	
PROJECT NUMBER: 1902-1101	DATE: March 2019

**SPECIAL STATUS PLANT
CNDDDB RESULTS**

**FIGURE
3.4-1**

Cal Poly Beach Volleyball Complex Special Status Plant - CNDDDB Results.mxd 3/27/2019

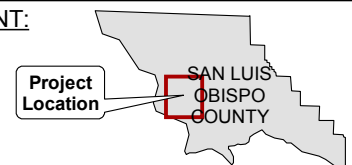


Source: Esri Online Topo Basemap, CNDDDB March 2019
 Coordinate System: NAD 1983 StatePlane California V FIPS 0405 Feet
 Notes: CNDDDB = California Natural Diversity Database
 This map was created for informational and display purposes only.

LEGEND:

- | | | | |
|-----------------------|---------------------------------|-------------------------|----------------------------------|
| Project Location | CNDDDB Occurrences Animal (80m) | Animal (non-specific) | Multiple (circular) |
| Buffer Area (5 miles) | Animal (specific) | Animal (circular) | Sensitive EO's (Commercial only) |
| | | Multiple (non-specific) | |

MAP EXTENT:



PROJECT NAME:
**CAL POLY BEACH VOLLEYBALL COMPLEX
 SAN LUIS OBISPO COUNTY, CA**

PROJECT NUMBER:
 1902-1101

DATE:
 March 2019

**SPECIAL STATUS WILDLIFE
 CNDDDB RESULTS**

FIGURE
3.4-2

Table 3.4-1. Regional Special-Status Plant Species

Scientific Name	Common Name
<i>Agrostis hooveri</i> *	Hoover's bent grass
<i>Arctostaphylos luciana</i> *	Santa Lucia manzanita
<i>Arctostaphylos obispoensis</i>	Bishop or San Luis manzanita
<i>Arctostaphylos pechoensis</i> *	Pecho manzanita
<i>Arctostaphylos pilosula</i> *	Santa Margarita manzanita
<i>Astragalus didymocarpus</i> var. <i>milesianus</i> *	Miles' milk-vetch
<i>Calandrinia breweri</i>	Brewer's calandrinia
<i>Calochortus clavatus</i> ssp. <i>clavatus</i>	Club-haired mariposa lily
<i>Calochortus obispoensis</i> *	San Luis mariposa-lily
<i>Calochortus simulans</i> *	La Panza mariposa-lily
<i>Calystegia subacaulis</i> ssp. <i>episcopalis</i> *	Cambria morning-glory
<i>Carex obispoensis</i> *	San Luis Obispo sedge
<i>Castilleja densiflora</i> var. <i>obispoensis</i> *	San Luis Obispo owl's-clover
<i>Centromadia parryi</i> ssp. <i>congdonii</i> *	Congdon's tarplant
<i>Chlorogalum pomeridianum</i> var. <i>minus</i> *	Dwarf soaproot
<i>Chorizanthe breweri</i> *	Brewer's spineflower
<i>Chorizanthe palmeri</i>	Palmer's spineflower
<i>Cirsium fontinale</i> var. <i>obispoense</i> *	San Luis Obispo fountain thistle
<i>Cirsium occidentale</i> var. <i>lucianum</i> *	Cuesta Ridge thistle
<i>Delphinium parryi</i> ssp. <i>eastwoodiae</i> *	Eastwood's larkspur
<i>Dudleya abramsii</i> ssp. <i>bettinae</i> *	Betty's dudleya
<i>Dudleya abramsii</i> ssp. <i>murina</i> *	Mouse-gray dudleya
<i>Dudleya blochmaniae</i> ssp. <i>blochmaniae</i> *	Blochman's dudleya
<i>Eryngium aristulatum</i> var. <i>hooveri</i> *	Hoover's button-celery
<i>Fritillaria ojaiensis</i> *	Ojai fritillary
<i>Fritillaria viridea</i> *	San Benito fritillary
<i>Horkelia cuneata</i> var. <i>puberula</i> *	Mesa horkelia
<i>Layia jonesii</i> *	Jones' layia
<i>Lomatium parvifolium</i>	Small-leaved lomatium

Table 3.4-1. Regional Special-Status Plant Species

Scientific Name	Common Name
<i>Monardella palmeri</i> *	Palmer's monardella
<i>Perideridia pringlei</i>	Pringle's yampah
<i>Piperia michaelii</i>	Michael's rein orchid
<i>Sanicula hoffmannii</i>	Hoffman's sanicle
<i>Sanicula maritima</i> *	Adobe sanicle
<i>Senecio aphanactis</i> *	Chaparral ragwort
<i>Sidalcea hickmanii</i> ssp. <i>anomala</i> *	Cuesta Pass checkerbloom
<i>Streptanthus albidus</i> ssp. <i>peramoenus</i> *	Most beautiful jewelflower
<i>Trifolium hydrophilum</i> *	Saline clover
*Indicates plant is documented within five miles of the Project site (CDFW 2019)	

Table 3.4-2. Regional Special-Status Wildlife Species

Common Name	Scientific Name
Cooper's hawk	<i>Accipiter cooperi</i>
Sharp-shinned hawk	<i>Accipiter striatus</i>
Black legless lizard	<i>Anniella pulchra</i>
California tiger salamander	<i>Ambystoma tigrinum</i>
Tricolored blackbird*	<i>Agelaius tricolor</i>
Pallid bat*	<i>Antrozous pallidus</i>
Golden eagle	<i>Aquila chrysaetos</i>
Great blue heron (rookery)	<i>Ardes herodias</i>
Burrowing owl*	<i>Athene cunicularia</i>
American bittern	<i>Botaurus lentiginosus</i>
Canada goose (wintering)	<i>Branta canadensis</i>
Lesser slender salamander*	<i>Batrachoseps minor</i>
Vernal pool fairy shrimp*	<i>Branchinecta lynchi</i>
Ferruginous hawk*	<i>Buteo regalis</i>
Northern harrier	<i>Circus cyaneus</i>

Table 3.4-2. Regional Special-Status Wildlife Species

Common Name	Scientific Name
Townsend's big-eared bat*	<i>Corynorhinus townsendii</i>
Monarch* - California overwintering population	<i>Danaus plexippus</i> pop.
Yellow warbler	<i>Dendroica petechia brewsteri</i>
White-tailed kite*	<i>Elanus leucurus</i>
Willow flycatcher	<i>Empidonax traillii</i>
Western pond turtle*	<i>Emys marmorata</i>
California horned lark*	<i>Eremophila alpestris actia</i>
Western mastiff bat*	<i>Eumops perotis californicus</i>
Merlin	<i>Falco columbarius</i>
Prairie falcon*	<i>Falco mexicanus</i>
Peregrine falcon	<i>Falco peregrinus</i>
Loggerhead shrike*	<i>Lanius ludovicianus</i>
California linderiella*	<i>Linderiella occidentalis</i>
Monterey dusky-footed woodrat	<i>Neotoma fuscipes (luciana)</i>
San Diego desert woodrat	<i>Neotoma lepida intermedia</i>
Steelhead* – south-central California coast DPS	<i>Oncorhynchus mykiss irideus</i> pop.
California brown pelican	<i>Pelecanus occidentalis</i>
Double-crested cormorant (rookery)	<i>Phalacrocorax auritus</i>
Coast horned lizard*	<i>Phrynosoma blainvillii</i>
Atascadero June beetle*	<i>Polyphylla nubila</i>
San Luis Obispo pyrg*	<i>Pyrgulopsis taylori</i>
Foothill yellow-legged frog*	<i>Rana boylei</i>
California red-legged frog*	<i>Rana draytonii</i>
Bank swallow	<i>Riparia riparia</i>
Western spadefoot toad	<i>Spea hammondii</i>
Coast Range newt*	<i>Taricha torosa</i>
American badger*	<i>Taxidea taxus</i>
Two-striped gartersnake	<i>Thamnophis hammondii</i>
*Indicates animal is documented within five miles of the Project site (CDFW 2019)	

The small, undeveloped sections (i.e., landscape areas) of the Project site contain only ornamental plants or trees; therefore, none of the regional special-status plants in Table 3.4-1 are expected to occur within or adjacent to the Project site. Due to surrounding development and minimal amount of vegetation in the Project site, the site does not have suitable habitat for most of the potentially-occurring special-status wildlife species listed in Table 3.4-2; however, the small stand of redwoods and surrounding ornamental vegetation within the site do have the potential to support resident and migratory nesting birds, including but not limited to the birds and raptors listed in Table 3.4-2.

Nesting birds and raptors, and their nests/eggs/young are protected under the Federal Migratory Bird Treaty Act and California Fish and Game Code. Nesting bird season generally occurs between February 1 through August 31.

- a. *Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?*

Less than Significant with Mitigation. The Project site does not contain suitable habitat for most of the special-status plants and wildlife included in the discussion above; however, the redwood trees and ornamental vegetation do have the potential to support nesting birds and/or raptors during the nesting bird season (February 1 – August 31). If Project activities occur during this time period, the Project has the potential to adversely affect Federal and/or State-protected nesting birds and their nest/eggs/young. Adverse effects of construction activities can include abandonment of eggs or young, nest destruction, and injury or mortality to individual birds. These impacts can be mitigated to less than significant with implementation of MM BIO-1 Nesting Bird Survey.

Adherence to the following mitigation measure would reduce impacts to nesting birds during construction to a less than significant level.

MM BIO-1: Nesting Bird Survey. In the event vegetation removal (i.e., redwood tree trimming/removal activities) is scheduled between February 1 and August 31 (nesting bird season), nesting bird surveys shall be completed by a qualified biologist within 48 hours prior to start of work. If any active nests are discovered within or adjacent to work limits, an appropriate buffer (i.e., 500 feet for raptors and 250 feet for other birds, or at the discretion of a qualified biologist based on biological or ecological reasons) shall be established to protect the nest until a qualified biologist has determined that the nest is no longer active and/or the young have fledged.

- b. *Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?*

No Impact. No riparian habitat or sensitive natural communities are located within or adjacent to the Project site; therefore, the Project will not impact these resources.

- c. *Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?*

No Impact. No State or Federal wetlands are located within or adjacent to the Project site; therefore, the Project will not impact these resources.

- d. *Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?*

Less than Significant. The Project site is surrounded by University development and does not link or connect to any natural lands or water resources. The ornamental vegetation and redwood trees provide potential foraging habitat for migrating birds; however, this foraging habitat is minimal in size and Project-related vegetation removal would not significantly interfere with migratory birds or any other migrating wildlife.

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

No Impact. The Project site is located on the Cal Poly campus and is managed by the University. The Project is outside of City of San Luis Obispo jurisdiction; therefore, the Project will not conflict with any local policies or ordinances. The Project would not conflict with Cal Poly policies regarding biological resources. Cal Poly does not have an adopted tree preservation Policy. The Project site would be located within existing developed areas and away from sensitive areas. Therefore, the Project is consistent with guidance provided in the Cal Poly Master Plan.

- f. *Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or State habitat conservation plan?*

No Impact. The Project site is not located within or adjacent to any lands managed by a habitat conservation plan, natural community conservation plan, or other approved local, regional, or state habitat conservation plan; therefore, the Project will not conflict with any conservation plans.

3.4.2 Mitigation Measures

Implementation of the following mitigation measure would reduce the potential for biological resource impacts to less than significant:

MM BIO-1: Nesting Bird Survey

3.5 CULTURAL RESOURCES

CULTURAL RESOURCES - Would the Project:	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
a) Cause a substantial adverse change in the significance of a historical resource pursuant to § 15064.5?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to § 15064.5?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Disturb any human remains, including those interred outside of formal cemeteries?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

3.5.1 Discussion

The analysis in this section is based on a cultural resources constraints analysis. On March 26, 2019, Padre Associates, Inc. ordered an expedited archaeological record search from the Central Coast Information Center (CCIC) located at the University of California, Santa Barbara. The records search included a review of all recorded historic-era and prehistoric cultural resources within a 0.5-mile radius of the Project site as well as a review of known cultural resource surveys and technical reports. The State Historic Property Data Files, National Register of Historic Places, National Register of Determined Eligible Properties, California Points of Historic Interest, and the California Office of Historic Preservation Archaeological Determinations of Eligibility also were analyzed.

The records search revealed that no prior cultural resource studies have been completed within the Project site. The records search also indicated that 27 prior cultural resource studies have been completed within a 0.5-mile radius of the Project site.

The records search indicated that no previously recorded cultural resources are located within the Project site; however, three previously recorded cultural resources are located within a 0.5-mile radius of the Project site. Table 3.5-1 lists and describes these resources.

Table 3.5-1. Previously Recorded Cultural Resources

Site No.	Description	Distance from Project site
CA-SLO-44	Prehistoric occupation site containing flaked stone tools and lithic debitage, ground stone, shell beads, worked bone, animal bone, and marine shell. Additionally, two fragments of human bone were found and reburied on-site. Site has been tested, but not evaluated; assumed significant. Site limits have not been completely defined.	Approximately 2500 feet southwest
CA-SLO-524	One granite bowl in the earliest stages of manufacture and traces of midden. Site has not been tested or evaluated; thus, assumed significant.	Approximately 810 feet southwest
CA-SLO-669	Four bedrock mortars on two separate bedrock outcrops. Currently, this natural outcrop of dacite is incorporated	Approximately 2000 feet northwest

Table 3.5-1. Previously Recorded Cultural Resources

Site No.	Description	Distance from Project site
	into a fountain and pond within a landscaped area of the Cal Poly campus in front of the business building. Site probably represents a satellite milling station. Site has been tested, but not evaluated; assumed significant.	

Source: CCIC, 2019.

a. Cause a substantial adverse change in the significance of a historical resource pursuant to § 15064.5?

No Impact. The records search did not identify any historical resources within the Project site. Additionally, the 2001 Campus Master Plan and Final EIR does not identify any historic resources within the Project site as shown on Exhibit 6.5 (Cal Poly, 2001). The three prehistoric sites recorded within a 0.5-mile radius have not been formally evaluated and should be assumed significant; however, the closest prehistoric site, CA-SLO-524, is approximately 810 feet southwest of the Project site and would not be impacted. No impact to historical resources would result from the Project.

b. Cause a substantial adverse change in the significance of an archaeological resource pursuant to § 15064.5?

Less than Significant with Mitigation. As described in Table 1, three prehistoric sites were recorded within a 0.5-mile radius of the Project site. Each site provides evidence of regional occupation by prehistoric populations. While the Project site has been impacted by extensive development, in the event of an accidental discovery, the following mitigation measures would reduce potential impacts to unknown cultural resources to less than significant.

MM CUL-1: Worker Awareness Training. A worker cultural resources sensitivity program shall be implemented for the Project. Prior to any ground-disturbing activity, Cal Poly shall provide an initial sensitivity training session to all Project employees, contractors, subcontractors, and other workers prior to their involvement in any ground-disturbing activities, with subsequent training sessions to accommodate new personnel becoming involved in the Project. The program may be conducted together with other environmental or safety awareness and education programs for the Project, provided that the program elements pertaining to cultural resources are provided by a qualified archaeologist.

The sensitivity program shall address:

- The cultural sensitivity of the Project site and how to identify these types of resources;
- Specific procedures to be followed in the event of an inadvertent discovery; and,
- Consequences in the event of noncompliance.

MM CUL-2: Treatment of Unknown Cultural Resources. In the event unknown cultural resources are exposed or unearthed during Project construction, all earth disturbing work within the vicinity of the find must be temporarily suspended or redirected until an archaeologist has evaluated the nature and significance of the find. If the archaeologist determines that the resource is an “historic resource” or “unique archaeological resource” as defined by California Environmental Quality Act Guidelines Section 15064.5 and avoidance is not feasible, further evaluation by the archaeologist shall occur. The archaeologist’s recommendations for further evaluation may include a Phase II testing and evaluation program to assess the significance of the site. Resources found not to be significant will not require mitigation. Impacts to sites found to be significant shall be mitigated through implementation of a Phase III data recovery program. After the find has been mitigated appropriately, work in the area may resume. A local Native American representative shall monitor any mitigation work associated with prehistoric cultural resources.

c. *Disturb any human remains, including those interred outside of formal cemeteries?*

Less than Significant. No known burials are located within the Project site or immediate area. In the unlikely event that human remains are unearthed, Cal Poly and the contractor will comply with State Health and Safety Code Section 7050.5, which requires that no further disturbance shall occur until the County of San Luis Obispo Coroner has made a determination of origin and disposition pursuant to Public Resources Code Section 5097.98. The County Coroner must be notified of the find immediately. If the human remains are determined to be Native American, the County Coroner will notify the Native American Heritage Commission within 24 hours, which will determine and notify a Most Likely Descendant, a representative of which shall complete the inspection of the site within 48 hours of notification and may recommend scientific removal and nondestructive analysis of human remains and items associated with Native American burials. Impacts would be less than significant through compliance with existing State law.

3.5.2 Mitigation Measures

Implementation of the following mitigation measures would reduce the potential for cultural resource impacts to less than significant:

MM CUL-1: Worker Awareness Training

MM CUL-2: Treatment of Unknown Cultural Resources

3.6 ENERGY

ENERGY - Would the Project:	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
a) Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

3.6.1 Discussion

Cal Poly continues to make progress in sustainability and energy efficiency on-campus. By 2035, Cal Poly wants to achieve carbon neutrality. In 2017, total greenhouse gas emissions were 17 percent below the 2015 levels and 20 percent below the 1990 levels; despite the campus doubling in on-campus residency and building square footage. Since May 2018, 25 percent of Cal Poly's total electricity needs are being met by the on-site 4.5 MW Gold Tree Solar Farm (Cal Poly 2019). Cal Poly purchases the energy it does not generate from the Pacific Gas and Electric Company (PG&E).

- a. *Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?*

Less than Significant Impact. The Project will adhere to Cal Poly's energy efficient goals implementing the installation of light-emitting diode (LED) lighting in accordance with the NCAA standards, reducing energy consumption by up to 50 percent. Besides lighting, the Project will require very little energy to operate. The courts are outdoors and will utilize the sun for lighting during daylight hours.

During the construction phase of the Project, motorized equipment will be used for excavation and grading purposes. The equipment will be operated using Best Management Practices (BMPs) to reduce idling times. Project construction will not result in a significant impact due to consumption of energy resources.

- b. *Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?*

Less than Significant Impact. Cal Poly aims to become carbon neutral by 2035, adhering to its sustainability and energy efficiency goals. So far, Cal Poly is currently, generating its own power and purchasing energy from renewable resources. The California Public Utilities Commission (CPUC) and the California Energy Commission have guidelines and programs for energy efficient construction. The proposed Project will abide by the State policies and the campus will continue to aim towards net carbon neutrality despite the small amount of energy needed to operate the Project.

3.6.2 Mitigation Measures

The Project would not result in significant impacts to energy; therefore, no mitigation is required.

3.7 GEOLOGY AND SOILS

GEOLOGY AND SOILS - Would the Project:	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
a) Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:				
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
ii) Strong seismic ground shaking?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
iii) Seismic-related ground failure, including liquefaction?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
iv) Landslides?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Result in substantial soil erosion or the loss of topsoil?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the Project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

3.7.1 Discussion

The Project site is located in the Coast Ranges Geomorphic Province of California, and more specifically the Santa Lucia mountain range. San Luis Obispo is mainly underlain by the Franciscan Complex, which consists of deposits mainly from the Cretaceous to the Jurassic era. The Project site specifically is located on the Franciscan Complex on a substrate of Mélange, which is described by the United States Geological Survey (USGS) as a “chaotic mixture of fragmented rock masses embedded in a penetratively sheared matrix of argillite and crushed metasediment.” The area is in a seismically active zone of California with proximity to several active fault zones, including the Cambria fault zone (0.85 miles east of Project site), the Oceanic

fault zone (1.5 miles east of the Project site), the Los Osos fault zone (four miles west of Project site), and the West Huasna fault zone (4.5 miles east of Project site). The dominant soil type underneath the Project site is Los Osos-Diablo complex, nine to 15 percent slopes. Los Osos-Diablo complex soils are characterized as well-drained soils with slow permeability. (Soil Web, 2019).

The Project would be located in the Campus Instructional Core, which is designated by the Cal Poly Master Plan 2001 as Urban and Built-Up Land. The Project site is not located within a landslide area. There is no native exposed soil on the Project site, except for a landscaped area.

a. *Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:*

i. *Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.*

Less Than Significant Impact. According to the USGS Quaternary Faults map, there are no active faults within Cal Poly's campus, so there would be no risk of rupture. Though there are active fault areas in proximity to the campus, it would be unlikely that any fault would open on or near the Project site.

ii. *Strong seismic ground shaking?*

Less Than Significant Impact. While there is an inherent risk of strong seismic ground shaking in San Luis Obispo, there would not be any additional risk to life or property on the Project site as compared to other construction in the vicinity of the area. All Project construction would be designed in compliance with the California Building Code and CSU Seismic Policy.

iii. *Seismic-related ground failure, including liquefaction?*

Less Than Significant Impact. Soils that are prone to liquefaction are loose, granular sediments that are saturated by groundwater. The soils that underlie the Project area are fine grained, clay loams that are well drained. Shallow groundwater is not present at the Project site. The risk of liquefaction and ground failure is low.

iv. *Landslides?*

Less Than Significant Impact. The Project site is located outside of the known landslide zone as delineated in the 2001 Master Plan.

b. *Result in substantial soil erosion or the loss of topsoil?*

Less Than Significant Impact. Construction for the Project would involve grading and trenching activities that could increase the risk of erosion. Because the footprint of the Project would disturb less than 1.0 acre of land, no Stormwater Pollution Prevention Plan (SWPPP) would be required. Erosion control measures would be implemented during construction to ensure minimal impact. The area surrounding the Project site is primarily developed area and is already covered by impervious surfaces. The Project would not drastically increase runoff for remaining soil (lawns, landscaping areas, etc.) and there would be no loss of topsoil.

- c. *Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the Project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?*

Less than Significant. The topography of the Project site is flat, which would pose low risk of causing landslide or lateral spreading. The construction of the proposed Project would follow recommendations of the Project geotechnical report regarding slope stability and compaction requirements.

- d. *Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risk to life or property?*

Less than Significant. The construction of the proposed Project would follow recommendations of the Project geotechnical report regarding slope stability and compaction requirements.

- e. *Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?*

No Impact. There would be no need for new septic systems or wastewater disposal systems as a result of the Project. No impact would occur.

- f. *Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?*

Less than Significant Impact. The Project site is located on Franciscan mélangé, a metamorphic rock with low potential to contain paleontological resources.

3.7.2 Mitigation Measures

The Project would not result in significant impacts to geology and soils; therefore, no mitigation is required.

3.8 GREENHOUSE GAS EMISSIONS

GREENHOUSE GAS EMISSIONS -Would the Project:	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

3.8.1 Discussion

Greenhouse gases (GHGs) are defined as any gas that absorbs infrared radiation in the atmosphere. GHGs include, but are not limited to, carbon dioxide (CO₂), methane (CH₄), nitrous oxide (N₂O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), sulfur hexafluoride (SF₆), and nitrogen trifluoride (NF₃). These GHGs lead to the trapping and buildup of heat in the atmosphere near the earth's surface, commonly known as the greenhouse effect.

The potential of a gas or aerosol to trap heat in the atmosphere is called global warming potential (GWP). The GWP of different GHGs varies because they absorb different amounts of heat. CO₂, the most ubiquitous GHG, is used to relate the amount of heat absorbed to the amount of the gas emissions; this is referred to as CO₂ equivalent (CO₂e). CO₂e is the amount of GHG emitted multiplied by the GWP. The GWP of CO₂, as the reference GHG, is one. Methane has a GWP of 25; therefore, one pound of methane equates to 25 pounds of CO₂e. Table 3.8-1 shows a range of gases with their associated GWP, their estimated lifetime in the atmosphere, and the GWP over a 100- year timeframe (per Federal and State reporting requirements).

Table 3.8-1. Global Warming Potential of Various Gases

Gas	Life in Atmosphere (years)	100-year GWP (average)
Carbon Dioxide	50-200	1
Methane	12	25
Nitrous Oxide	120	298
HFCs	1.5-264	12-14,800
Sulfur hexafluoride	3,200	22,800
Definitions: GWP = global warming potential HFC = hydrofluorocarbon		

Source: U.S. Environmental Protection Agency (USEPA) 40 CFR Part 98, Subpart A, Table A-1, (USEPA 2019)
 The 40 CFR Part 98 approach is used to estimate GHG emissions per million British Thermal Units, assuming 99.9 percent combustion efficiency (Appendix D).

CARB is the primary State agency responsible for providing information on implementing the GHG reductions required by Assembly Bill (AB) 32, the Global Warming Solutions Act of 2006, and its 2016 update, Senate Bill (SB) 32. Together, these laws require CARB to develop

regulations that reduce GHG emissions to 1990 levels by 2020 and to 40 percent below 1990 levels by 2030. CARB developed and approved its first Scoping Plan, describing its approach to meeting the AB 32 goal, in 2008 (CARB 2014a). With enactment of SB 32, CARB prepared a 2017 Climate Change Scoping Plan (CARB 2017). In addition to the Scoping Plan, CARB maintains an online inventory of GHG emissions in California. The most recent inventory, released July 11, 2018, includes emissions from 2000 to 2016 (CARB 2018). This inventory is an important companion to the Scoping Plan because it documents the historical emission trends and progress toward meeting the 2020 and 2030 targets, which are 431 MMTCO_{2e} and 260 MMTCO_{2e}, respectively. The inventory for 2016 indicates that the state GH emissions were 429 MMTCO_{2e}, down 12 MMTCO_{2e} from 2015 and is on track to meeting the 2020 target.

To monitor progress in emissions reduction, the Scoping Plan includes a modeled reference scenario, or “business as usual” (BAU) projection that estimates future emissions based on current emissions, expected regulatory implementation, and other technological, social, economic, and behavioral patterns. Prior BAU emissions estimates assisted CARB in demonstrating progress toward meeting the 2020 goal of 431 MMTCO_{2e}. The 2030 BAU reference scenario was modeled for the 2017 Scoping Plan Update, representing forecasted state GHG emissions with existing policies and programs but without additional action beyond that to reduce GHGs. This modeling shows that the California is expected to achieve the 2020 target but that a significant increase in the rate of GHG reductions is needed to meet the 2030 and 2050 targets (CARB 2017a).

The San Luis Obispo County APCD, in 2012, adopted GHG thresholds in effort to meet the GHG reduction goals of AB 32 (APCD 2012a and APCD 2012b). The three GHG significance thresholds that have been established for residential and commercial projects are as follows:

- Compliance with Qualified GHG Reduction Strategy
- Bright-Line Threshold of 1,150 Million metric tons of carbon dioxide equivalent (MTCO_{2e}) per year
- Efficiency Threshold of 4.9 MTCO_{2e}/Service Population (residents + employees)/year

Emissions from construction-only projects (e.g., roadways, pipelines, etc.) would be amortized over the life of the Project, and compared to an adopted GHG Reduction Strategy or the Bright-Line Threshold only. Over time, implementation of AB 32 through the newly implemented APCD GHG thresholds shall mitigate and reduce GHG emissions from industrial sources in the central coast region.

a. Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?

Less than Significant Impact. Table 3.8-2 presents estimated Project GHG construction emissions, using equipment specific emission factors and load factors obtained from the following sources: CalEEMod Default Data Table; EMFAC2014 Version 1.0.7; (CARB 2014b), and (Starcrest 2012). Refer to Appendix A for Criterial Pollutants and Greenhouse Gas Emission Estimates.

Table 3.8-2. Projected Project GHG Construction Emissions

Source	Peak Day Emissions (lbs/day)			Annual Emissions (tons/year)			
	N ₂ O	CH ₄	CO ₂	N ₂ O	CH ₄	CO ₂	MTCO _{2e}
Demolition, Utility and Excavation	0.67	0.50	4,761	0.009	0.007	60.9	57.8
Construction	3.09	0.53	22,056	0.003	0.003	37.2	34.8
Average Pounds/Day	1.88	0.51	13,515	-	-	-	-
Peak Day Within San Luis Obispo County	3.09	0.53	22,268	-	-	-	-
Total Annual Emissions Within San Luis Obispo County	-	-	-	0.013	0.010	98.1	92.6-
GHG - MTCO_{2e} Conversions				298	25	1	-
Total MTCO_{2e} / year				92.6			

Based on the projected GHG construction emissions, Project activities would emit a total of approximately 0.013 tons of N₂O, 0.010 tons of CH₄, and 98.1 tons of CO₂. Converting N₂O, CH₄, and CO₂ to MTCO_{2e} yielded a total GHG emission estimation of 92.6 MTCO_{2e} for the Project. The estimated 92.6 MTCO_{2e} is well below the APCD GHG Bright-Line (BL) threshold of 1,150 MTCO_{2e}.

Table 3.8-3. Projected Project GHG Operations Emissions

Source	Peak Day Emissions (lbs/day)			Annual Emissions (tons/year)			
	N ₂ O	CH ₄	CO ₂	N ₂ O	CH ₄	CO ₂	MTCO _{2e}
Operations	0.0017	0.0078	167.64	0.0002	0.001	21.79	19.85
Average Pounds/Day	0.0017	0.0078	167.64	-	-	-	-
Peak Day Within San Luis Obispo County	0.0017	0.0078	167.64	-	-	-	-
Total Annual Emissions Within San Luis Obispo County	-	-	-	0.0002	0.001	21.79	19.85
GHG - MTCO_{2e} Conversions				298	25	1	-
Total MTCO_{2e} / year				19.85			

Project GHG operations emissions would result from use of lighting, a Jumbotron and the associated sound system. Based on the projected GHG operations emissions, Project operation activities would emit a total of approximately 0.0002 tons of N₂O, 0.001 tons of CH₄, and 19.85 tons of CO₂. Converting N₂O, CH₄, and CO₂ to MTCO_{2e} yielded a total GHG emission estimation of 19.85 MTCO_{2e} for the Project. The estimated 19.85 MTCO_{2e} is well below the APCD GHG BL threshold of 1,150 MTCO_{2e}.

b. Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?

No Impact. The Project would not conflict or obstruct implementation of the APCD's Clean Air Plan and Updated Strategic Action Plan Update.

3.8.2 Mitigation Measures

No significant impacts resulting from GHGs would occur. However, as previously discussed in Section 3.3, Air Quality, MMs AQ-1 through AQ-6 would be implemented to further reduce and minimize impacts from GHG emissions.

MM AQ-1: Fugitive Dust Control Measures

MM AQ-2: Standard Mitigation Measures for Construction Equipment

MM AQ-3: Fugitive PM10 Mitigation Measures

MM AQ-4: Idling Control Techniques

3.9 HAZARDS AND HAZARDOUS MATERIALS

HAZARDS AND HAZARDOUS MATERIALS - Would the Project:	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
g) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

3.9.1 Discussion

The Cal Poly San Luis Obispo Environmental Health and Safety Department oversees health and safety procedures on campus, including facility construction and operations. Programs are developed and implemented by the Environmental Health and Safety Department to ensure safe handling, storage, and use of hazardous materials. The department also handles the compliant disposal of hazardous wastes and oversees employee training programs, procedures and policies, and compliance surveys.

The review of environmental records included database searches from the Geotracker and Envirostor databases, maintained respectively by the California State Water Resources Control Board (SWRCB) and Department of Toxic Substances Control. There is one SWRCB Geotracker site within one half mile of the Project site, which is a completed cleanup site of a leaking underground storage tank (LUST) located at the Cal Poly University Farm Shop. There are no Envirostor cleanup sites located within one half mile of the Project site.

The Project is located approximately one quarter mile from the nearest school, which is the shared campus of Teach Elementary School and SLO Classical Academy. The Project is not in the vicinity of any airports. The Project is located on the southeast side of Mott Gym at the back entrance of the building. The Mott Gym Emergency Evacuation Plan lists the evacuation route at the front of the building with a gathering point between the front entrance of Mott Gym and Mustang Way. The back entrance to the building would remain open and there would be a walking path around the volleyball facility for pedestrian traffic and emergency evacuations.

a. *Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?*

Less than Significant. The Project involves the demolition of the basketball courts that are currently on the south side of Mott Gym as well as the removal of ornamental redwood trees. The construction phase of the Project would pose the greatest hazard to the public in which small amounts of commonly used hazardous materials would be used including diesel fuel, lubricants, solvents, cleaning materials, and landscaping materials would be used. However, most of the construction activities would occur during the summer months when the population of students would be the lowest. All construction activities would follow plans and regulations from the Cal Poly Environmental Health and Safety Department.

b. *Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?*

Less than Significant. The most likely time of hazardous material release would be during construction phases of the Project. Construction equipment for the Project would utilize substances such as diesel fuel, lubricants, solvents, oil and other materials that could cause a health and safety hazard if the equipment were to be damaged. All construction equipment would be regularly checked and maintained to proper safety standards. The contractor would be responsible for preparing and implement a management plan for upset and accident conditions on-site, including plans for stop-work orders, containment of spills, employee training procedures, remediation, and notification of proper authorities.

c. *Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?*

Less than Significant. The Project is located approximately one quarter mile from the shared campus of the SLO Classical Academy and Teach Elementary School. The materials and emissions involved with construction and operation of the Project are not classified as acutely hazardous. Though some hazardous materials would be utilized in the construction process, the usage would be in small amounts and all plans from Cal Poly's Environmental Health and Safety Department would be adhered to.

d. *Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?*

Less than Significant. There is one hazardous materials site in the vicinity (one half mile) of the Project site which has undergone cleanup and the case is closed. There are no other hazardous materials sites on or within the vicinity of the Project site that would create a significant hazard to the public or the environment.

e. *For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?*

No Impact. The Project is located approximately four miles away from the San Luis Obispo County Regional Airport and is located approximately two miles from the boundary of the Airport Land Use Plan for the San Luis Obispo County Regional Airport. The Project site is therefore not included in the airport land use plan and would not interfere with airport flight plans. No impact would occur.

f. *Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?*

Less than Significant. The emergency evacuation point for Mott Gym is located on the north side (front of the building) with campus meeting point "R" which is located between the front entrance of Mott Gym and Mustang Way (Cal Poly Evacuation Points Map). An emergency exit door and approximately 12 foot wide walking pathway would be maintained at the south entrance of Mott Gym and access would not be blocked by the volleyball courts. The Project would follow regulations of the State Fire Marshal and Cal Poly emergency access standards.

g. *Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?*

Less than Significant. The Cal Poly Hazard Profile Overview (completed by the University Police Department and the Cal Poly Department of Emergency Management in 2017) outlines the risk of wildfire to the Cal Poly campus. Because of the Mediterranean climate (warm dry summers and cool, moderate winters) of San Luis Obispo, the natural vegetation of the area, and the steep terrain of the Santa Lucia mountains which are adjacent to campus, Cal Poly is at considerable risk of wildfire. The Project area itself is at a lower risk of impacts from wildfire due to its location in more of an urbanized area. The Project would comply with the state fire code and would allow for emergency access based on State Fire Marshal inspection.

3.9.2 Mitigation Measures

The Project would not result in significant impacts to hazards and hazardous materials; therefore, no mitigation is required.

3.10 HYDROLOGY AND WATER QUALITY

HYDROLOGY AND WATER QUALITY - Would the Project:	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
a) Violate any water quality standards or waste discharge requirements?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) 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 which would:				
i) Result in a substantial erosion or siltation of on- or off-site;	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
ii) Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site;	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
iii) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources or polluted runoff; or	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
iv) Impede or redirect flood flows?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

3.10.1 Discussion

The Central Coast Regional Water Quality Control Board (RWQCB) is responsible for issuing construction stormwater permits on behalf of the State Water Resources Control Board (SWRCB). The Project site is not located in a flood hazard zone or a tsunami inundation area (Cal Poly 2001).

a. Violate any water quality standards or waste discharge requirements?

Less than Significant Impact. The Project involves the installation of NCAA regulated volleyball courts and seating in the campus core. Existing developed campus infrastructure borders the Project site, including paved sidewalks and streets, Mott Athletic Center, Anderson Aquatic Center, Mustang Tennis Center, and the Grand Avenue Parking Center. During construction and the initial site clearance and excavation, the Project would pose short-term risks associated with sediment transport and erosion. Construction equipment on-site would pose risk of release of fuels, lubricants, and other contaminants. In addition, construction of the Project

would require approximately 41,000 square feet (less than one acre) of ground disturbance, and soils loosened during excavation and grading have the potential to degrade water quality, if mobilized and transported off-site via water flow.

Because the Project site is less than one acre of land, a General Construction Activity Stormwater Permit issued by the RWQCB is not required. However, Cal Poly has developed a Water Quality Management Plan and a Storm Water Pollution Prevention Program for development on campus (Cal Poly 2015). The Water Quality Management Plan outlines Best Management Practices (BMPs) for construction and operation, which would be applicable to the Project. Design and implementation of such a plan, as required, would ensure that the Project would not substantially degrade water quality or violate any water quality standards or waste discharge requirements. Therefore, impacts would be less than significant.

b. Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?

Less than Significant Impact. The Project involves the removal of existing basketball courts and landscaping and the construction of new sand volleyball courts and facilities within a 41,000 square foot site. The amount of impervious surface area would decrease as a result of the installation of sand volleyball courts and removal of asphalt and Portland cement. The landscaped area will be decreased slightly to make room for spectator seating. The proposed Project footprint would be minimal and would not substantially interfere with groundwater recharge. Therefore, impacts would be less than significant.

c. 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 which would:

i. Result in a substantial erosion or siltation of on- or off-site?

ii. Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?

iii. Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources or polluted runoff?

iv. Impede or redirect flood flows?

Less than Significant Impact. The Project involves the removal of the existing basketball courts and landscaping and construction of new sand volleyball courts and facilities within a 41,000 square foot site. Overall, the amount of impervious surface would decrease slightly as a result of concrete and cement being replaced by sand. The proposed Project is designed to improve existing drainages within the area. In addition to compliance with the campus Water Quality Management Plan, implementation of BMP's in the area will reduce erosion and run-off risks during the construction phase of the Project. Once construction is completed, the improvements to the stormwater drains and sub-drains will reduce the chance of flooding and siltation or erosion. Therefore, impacts would be less than significant.

d. *In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?*

Less than Significant Impact. The Cal Poly campus is located inland from the coast and is not subject to tsunami hazards. Furthermore, the campus is not located near any near any impounded bodies of water that could present hazards from seiches. According to the Federal Emergency Management Agency's (FEMAs) flood plain maps, the Cal Poly campus and the Project site are located in an area of minimal flood hazard. Therefore, less than impacts would result.

e. *Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?*

Less than Significant Impact. As stated in the previous sections, the Project site is less than one acre and would not require a permit from the RWQCB. The Project activities would align with the policies set out by the campus Water Quality Management Plan and would not adversely impact sustainable groundwater policies. Therefore, impacts would be less than significant.

3.10.2 Mitigation Measures

The Project would not result in significant impacts to hydrology and water quality; therefore, no mitigation is required.

3.11 LAND USE AND PLANNING

LAND USE AND PLANNING - Would the Project:	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
a) Physically divide an established community?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

3.11.1 Discussion

- a. *Physically divide an established community?*
- b. *Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?*

No Impact. The Project site is located in the Campus Instructional Core and would not generate additional on-campus growth with the potential to affect adjacent land uses. The Project would not physically divide an established community, nor would it conflict with any land use plans or policies adopted for the purpose of avoiding or mitigating an environmental effect or any habitat conservation plans. In addition, it would not conflict with any of the Cal Poly Master Plan’s policies related to avoiding or mitigation an environmental impact. Therefore, no impact would result.

3.11.2 Mitigation Measures

The Project would not result in significant impacts to land use and planning; therefore, no mitigation is required.

3.12 NOISE

NOISE - Would the Project:	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
a) Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Generation of excessive groundborne vibration or groundborne noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

3.12.1 Discussion

The Project site is immediately surrounded by noise-sensitive receptors including the Mott Athletic Center, Recreation Center, Anderson Aquatic Center, and Mustang Tennis Center. Other noise-sensitive receptors include the Performing Arts Center, H.P. Davidson Music Center, Vista Grande (currently under construction), and numerous residence halls.

Cal Poly has not adopted thresholds for short-term construction or long-term operational noise exposure. Cal Poly is not subject to San Luis Obispo County (County) noise standards; however, the County standards, which exempt construction noise occurring between 7:00 a.m. and 9:00 p.m. Monday through Friday, and between 8:00 a.m. and 5:00 p.m. Saturday and Sunday, were applied for the purpose of this analysis (Section 23.06.042(d) of the County Code). The Cal Poly Master Plan and EIR threshold of long-term increases in noise levels greater than 3 decibels (dBA) has been applied to this analysis.

Cal Poly has not adopted thresholds for noise or vibration impacts. Therefore, this analysis uses the Federal Transit Administration's (FTA) vibration impact thresholds to determine whether groundborne vibration would be "excessive."

The sound system that would be utilized for the Project would be a Daktronics SS-500HD Sportsound system. This system is designed to provide high quality outdoor sound to sporting events. The maximum Sound Pressure Level (SPL) at one meter (3.3 feet) in distance would be 122 dBA. However, for the outdoor volleyball matches, sound levels from the speakers are not anticipated to exceed 85 dBA. The nearest residence located on the corner of Longview Lane and Hathway Avenue is approximately 590 feet away from the noise source. The logarithmic decrease in SPL over the measured distance would result in exterior noise exposure of approximately 40 dBA at the outdoor activity areas of the residence if the speaker sound levels were 85 dBA.

- a. *Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?*

Less than Significant with Mitigation. Temporary short-term construction noise would result during Project construction. Construction activities would involve the use of the following construction equipment:

- Backhoe loader
- Compact track loader
- Hydraulic excavator (breaker and bucket)
- Truck and transfer
- Pneumatic jack hammers and concrete saws
- Drum roller
- Excavator for backfill and footings
- Concrete trucks
- Whackers/vibratory plates
- Trucks and transfers for sand delivery
- Loader for sand placement

Based on thresholds applied for the purposes of this analysis, construction noise would be exempt between 7:00 a.m. and 9:00 p.m. Monday through Friday, and between 8:00 a.m. and 5:00 p.m. Saturday and Sunday. In addition, Project construction is planned to occur during summer 2019, when there are a limited number of students on campus. To reduce conflicts to noise-sensitive uses (classrooms, residences, etc.), adherence to the following mitigation measure would reduce temporary noise impacts during construction to a less than significant level.

MM NOI-1: Construction Noise. The following Cal Poly Standard Requirements shall be implemented during Project construction:

- Maximum noise levels within 1,000 feet of any sensitive receptor (i.e., adjacent residences); noise levels for trenchers, pavers, graders and trucks shall not exceed 90 dBA at 50 feet as measured under the noisiest operating conditions. For all other equipment, noise levels shall not exceed 85 dBA at 50 feet.
- Equipment: equip jackhammers with exhaust mufflers and steel muffling sleeves. Air compressors should be of a quiet type such as a "whisperized" compressor. Compressor hoods shall be closed while equipment is in operation. Use electrically powered rather than gasoline or diesel-powered forklifts. Provide portable noise barriers around jack hammering, and barriers constructed of 3/4-inch plywood lined with 1-inch thick fiberglass on the work side.

- Operations: keep noisy equipment as far as possible from noise-sensitive site boundaries. Machines should not be left idling. Use electric power in lieu of internal combustion engine power wherever possible. Maintain equipment properly to reduce noise from excessive vibration, faulty mufflers, or other sources. All engines shall have properly functioning mufflers.
- Scheduling: schedule noisy operations so as to minimize their duration at any given location, and to minimize disruption to the adjoining users. Notify the Trustees and the Architect in advance of performing work creating unusual noise and schedule such work at times mutually agreeable.
- Do not play radios, tape recorders, televisions, and other similar items at construction site.
- University reserves the right to stop construction work, including but not limited to noisy work, during the following events: Spring and Winter Commencement, Open House, Finals Week, residence hall move-in, or at other times that may be identified by the University. University reserves the right to stop noisy work at any time when said work disrupts classes or other planned events.
- A haul route plan shall be prepared for review and approval by the University which designates haul routes as far as possible from sensitive receptors (i.e., adjacent residences).
- Whenever practical, the noisiest construction operations shall be scheduled to occur together in the construction program to avoid continuous periods of noise generation. Scheduling of noisier construction activities shall also take advantage of summer sessions and other times when classes are not in session.
- Project construction activities that generate noise in excess of 60 dB at the project site boundary shall be limited to the hours of 7:00 a.m. to 6:00 p.m.
- Pile Driver Use. If possible, the use of pile drivers shall be minimized in construction. Alternative techniques that produce less noise, such as drilled or bored piles, shall be considered.

Long-term operational noise would result during use of the volleyball complex. Regular use of the volleyball complex would not result in noise impacts different from the existing use as basketball courts. During the NCAA Beach Volleyball season (mid-February through early May) an increase in noise would result from use of the Jumbotron Scoreboard. Most games would be held on Saturday and Sunday morning and afternoon. However, games would be also played during weekday afternoon and evening. The exterior noise exposure at the nearest residence during the games would be approximately 40 dB at the outdoor activity areas. Noise would be further attenuated within the interior spaces of the residences. This level of noise would be audible but would result in a less than significant impact.

b. Generation of excessive groundborne vibration or groundborne noise levels?

Less than Significant Impact. No blasting, pile driving, or other special construction methods associated with excessive noise or groundborne vibration are anticipated during Project construction. Therefore, it is anticipated that vibration resulting from construction activities would not affect noise-sensitive uses. Impacts would be less than significant.

c. For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?

No Impact. The Project site is located approximately four miles north of the San Luis Obispo County Regional Airport; therefore, there would be no impacts relating to aircraft noise.

Mitigation Measures

Implementation of the following mitigation measure would reduce the potential for noise impacts to less than significant:

MM NOI-1: Construction Noise

3.13 POPULATION AND HOUSING

POPULATION AND HOUSING - Would the Project:	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
a) Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Displace substantial numbers of people or housing, necessitating the construction of replacement housing elsewhere?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

3.13.1 Discussion

- a. *Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?*

No Impact. The Project includes the conversion of basketball courts into sand volleyball courts. There will be no displacement of facilities or housing for students and staff for the duration of the construction phase of the Project. The Project will not influence the enrollment numbers and would not extend any roads or add new infrastructure. The Project would not result in population growth, directly or indirectly. Therefore, no impact would result.

- b. *Displace substantial numbers of people or housing, necessitating the construction of replacement housing elsewhere*

No Impact. The Project would not displace existing housing or people necessitating the construction of replacement housing. Therefore, no impact would result.

3.13.2 Mitigation Measures

The Project would not result in significant impacts to population and housing; therefore, no mitigation is required.

3.14 PUBLIC SERVICES

PUBLIC SERVICES	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
a) Would the Project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:				
Fire protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Police Protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Schools?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Parks?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Other public facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

3.14.1 Discussion

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

- Fire protection?

No Impact. Cal Poly is located in an unincorporated area of the County of San Luis Obispo, immediately adjacent to the City of San Luis Obispo. Cal Poly is in the jurisdiction and service area of the County of San Luis Obispo Fire Department (County Fire) and Cal Fire for fire services. Only the State and incorporated cities are obligated to provide fire services, according to California Laws. The State provides wildland and watershed fire protection within State Responsibility Areas. The State does not provide structure protection, rescue and emergency service, or hazardous material response. County Fire provides fire service at its discretion, protecting residents and property within its jurisdiction by creating the San Luis Obispo Fire Department in partnership with Cal Fire. Cal Fire and County Fire have contractual agreements that direct either entity to provide fire protection and emergency response services and shared funding for providing said services. Cal Poly, because of its location in the unincorporated County area and a State Responsibility Area, falls under the jurisdiction of both Cal Fire and County Fire. The nearest Cal Fire/ County Fire station to the Project site is Station 12, located at 635 N. Santa Rosa Street, across Highway 1 from the Cal Poly campus.

The City of San Luis Obispo Fire Department (SLO City Fire) provides fire protection and rescue and emergency services for the residence within the City limits and to Cal Poly (pursuant to previous written agreements with the City). SLO City Fire has four fire stations within the City, the closest to the Project site is Station 2, located at 132 North Chorro Street. SLO City Fire and Cal Fire/ County Fire adhere to the “automatic mutual aid” doctrine which allows the closest fire engine to respond to a new emergency without regard for jurisdictional lines. An Operational Plan and Agreement for Automatic Aid (Automatic Aid Agreement) from January 30, 2012 incorporates

the automatic mutual aid doctrine; and states that the City serves as the primary first responder with support from Cal Fire/County Fire as needed. The Automatic Aid Agreement exists independently of any agreement between Cal Poly and the City; and obligates the SLO City Fire to provide fire and emergency response services to Cal Poly. In exchange, the City receives support from Cal Fire/County Fire for its more rural locations and/or where Cal Fire/County Fire is the closest responder.

Through an Agreement for Enhanced Emergency Services between Cal Poly, the City, the County, and Cal Fire, Cal Poly is provided enhanced fire protection and emergency service for the campus core which includes multi-story academic buildings. The volleyball courts would abide by the standards set by the California State Fire Marshal, who has jurisdiction over State property and is responsible for overseeing the compliance for facilities and operations with fire and safety codes. The construction of the volleyball courts would not alter enrollment; therefore, the population served by the City would remain unchanged. No new fire facilities would need to be constructed as a result of the Project; therefore, no environmental impact related to the construction of the Project would result.

- Police protection

No Impact. Cal Poly is served by the University Police Department as well as the City and County law enforcement if backup is needed. The Project would bring a maximum of 299 people to the Project site during volleyball tournaments. The additional people visiting the campus would be temporary and the people would be served by the University Police Department as is. The total population served by the University Police Department would remain unchanged. There would be no need for new or physically altered police facilities. Therefore, no impact would result.

- Schools?
- Parks?
- Other public facilities?

No Impact. The Project would not affect overall enrollment or increase population or populations of small-age children. The Project would not increase the demand for schools, parks, or other public facilities. Therefore, no impacts would result.

3.14.2 Mitigation Measures

The Project would not result in significant impacts to public services; therefore, no mitigation is required.

3.15 RECREATION

RECREATION	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

3.15.1 Discussion

a. *Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?*

No Impact. The Project is not anticipated to substantially change the Cal Poly enrollment numbers; therefore, the use of neighborhood recreational facilities would remain unchanged. No impact would result.

b. *Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?*

Less than Significant Impact. The proposed Project would convert outdoor basketball courts to NCAA regulated sand volleyball courts and a seating area with the capacity to hold a maximum of 299 people for events. Also included in the Project are facility upgrades, such as the Mott Gym façade improvement and the Beach Volleyball Team Locker Room improvements. The listed facilities have already been built, and the Project will only improve or change, and not expand the existing structures. There will be more traffic to the Project site once the courts have been completed when events take place. However, the seating capacity is limited and will not affect the surrounding environment.

3.15.2 Mitigation Measures

The Project would not result in significant impacts to recreation; therefore, no mitigation is required.

3.16 TRANSPORTATION

TRANSPORTATION - Would the Project:	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
a) Conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Conflict or be inconsistent with CEQA Guidelines § 15064.3, subdivision (b)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Result in inadequate emergency access?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

3.16.1 Discussion

The CSU Transportation Impact Study Manual (TISM) provides guidance to help determine when a transportation study is required for a project (CSU 2019). This determination is based on responses to the Initial Study Checklist (Appendix G checklist). If none of the answers are “Potentially Significant,” then no further analysis is needed as long as adequate analysis underlying the answers is provided. The 2019 TISM requires studies to analyze Vehicle Miles Traveled (VMT) as opposed to Level of Service (LOS) which is another method of measuring transportation impacts. For the Cal Poly Beach Volleyball Complex, a VMT study is not required. In section 1.3 of the TISM, a list of CSU projects that are exempt from VMT studies due to their VMT reducing natures includes “Recreation/fitness/wellness centers that serve students, faculty, and staff.” For the proposed Project, the main spectators would be students, faculty, and parents. Currently, team hosts matches and tournaments in Pismo Beach, California, which is 14 miles from the Cal Poly Campus. Therefore, the baseline VMT includes the 14 mile drive for team members and spectators to travel from the Cal Poly Campus to Pismo Beach.

a. *Conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?*

Less than Significant Impact. The Project includes reuse of an existing recreational facility. Project construction would temporarily add trips to campus and city roadways in the Project vicinity through the duration of construction activities, including haul trips, worker trips, material delivery trips, and heavy equipment mobilization/demobilization trips. Ingress and egress for spectators attending games will be coordinated with Cal Poly Transportation and Parking Services. Spectators attending games will be encouraged to use the existing adjacent parking facility for vehicle parking. The minimal level of trip generation would not have an adverse effect on traffic operations or increase congestion on area roadways in the long-term. Therefore, potential traffic impacts related to construction would be less than significant.

b. Conflict or be inconsistent with CEQA Guidelines § 15064.3, subdivision (b)?

Less than Significant Impact. Currently, team hosts matches and tournaments in Pismo Beach, California, which is 14 miles from the Cal Poly Campus. Implementation of the Project would result in a decrease in VMT. The Project would eliminate the need for the team and spectators to drive to Pismo Beach for tournaments and would decrease VMT and overall transportation impacts. The Project site is within one-half mile of multiple transit stops throughout the Cal Poly campus. Therefore, potential transportation impacts would not conflict with CEQA Guidelines § 15064.3, subdivision (b) and would be less than significant.

c. Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?

No Impact. The Project does not include a change in the existing roadways or intersections. Therefore, no impacts would occur.

d. Result in inadequate emergency access?

Less than Significant Impact. The Project site would be easily accessed in case of an emergency. There is direct access to the Project site from Longview Lane and Tahoe Road for emergency personnel. Therefore, potential impacts related to emergency access would be less than significant.

3.16.2 Mitigation Measures

The Project would not result in significant impacts to transportation; therefore, no mitigation is required.

3.17 TRIBAL CULTURAL RESOURCES

TRIBAL CULTURAL RESOURCES - Would the Project cause a substantial adverse change in the significance of a Tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, 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:	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
a) Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code § 21074 as either a site, feature, place, 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:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
i) Listed or eligible for listing in the California Register of historical resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k), or ii) 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 Public Resources Code § 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code § 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

3.17.1 Discussion

To date, no Native American tribes have requested government to government consultation formally with Cal Poly as required under Assembly Bill 52 (AB 52). As discussed in Section 3.5, Padre conducted a records search covering the Project area. The search was conducted to identify any previously recorded cultural resources and previously conducted cultural resources studies within a 0.5-mile radius of the Project site.

The records search revealed that no prior cultural resource studies have been completed within the Project site. The records search also indicated that 27 prior cultural resource studies have been completed within a 0.5-mile radius of the Project site. The records search indicated that no previously recorded cultural resources are located within the Project site; however, three

previously recorded cultural resources are located within a 0.5-mile radius of the Project site (refer to Table 3.5-1).

- a. *Would the project cause a substantial adverse change in the significance of a Tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, 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:*
 - i. *Listed or eligible for listing in the California Register of Historical Resources (CRHR), or in a local register of historical resources as defined in Public Resources Code section 5020.1, subdivision (k), or*
 - ii. *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 Public Resources Code section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resources Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.*

Less than Significant Impact. No tribal cultural resources have been identified in the Project boundary and Cal Poly has satisfied the requirements of AB 52 for the Project. Therefore, the Project would not result in a substantial adverse change to a tribal cultural resource. Impacts would be less than significant.

3.17.2 Mitigation Measures

The Project would not result in significant impacts to tribal cultural resources; therefore, no mitigation is required.

3.18 UTILITIES AND SERVICE SYSTEMS

UTILITIES AND SERVICE SYSTEMS - Would the Project:	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
a) Require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Result in a determination by the wastewater treatment provider, which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) 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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) Comply with federal, state, and local statutes and regulations related to solid waste?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

3.18.1 Discussion

Whale Rock Reservoir is the primary source of water supply for Cal Poly. Cal Poly was one of the developers of the Reservoir and retains rights for 34 percent of the Reservoir's capacity. Because Cal Poly owns the water rights to the Reservoir, Cal Poly does not pay additional fees for its water supply. However, Cal Poly pays fees to the City of San Luis Obispo for transportation and treatment.

The groundwater is pumped from six agricultural wells located on Cal Poly land. They are shallow, low-capacity aquifers. According to the State Water Resources Board, Cal Poly owns surface water rights to Brizzolara Creek on campus and a part of Old Creek which supplies the Whale Rock Reservoir.

Through a contractual agreement, the City of San Luis Obispo provides wastewater collection and treatment services to Cal Poly. The City meters the wastewater flows from Cal Poly and charges to University for the services accordingly. The wastewater treatment plant that serves the City, The City of San Luis Obispo's Water Resource Recovery Facility (WRRF), is located on Prado Road near the U.S. Highway 101. Through the agreement, Cal Poly has a capacity interest in the WRRF of 0.471 million gallons per day (mgd). Cal Poly's baseline dry weather (October) average daily flow was 0.312 mgd between 2014 and 2017. There is a maximum of 0.159 mgd of unused capacity for Cal Poly's share of the WRRF's capacity.

Cal Poly has an integrated waste management program that includes source use reduction, recycling, composting food waste, green waste, and manure, resale of scrap metal and surplus equipment, and zero waste event catering. Cal Poly has exceeded its 2003 goal to divert 50 percent of its solid waste. Since 2017, there has been an 86 percent diversion from landfill for all waste produced on campus. Per the California State University sustainability policy, Cal Poly must reduce landfill disposal by 80 percent by the year 2020.

The San Luis Garbage Company provides solid waste disposal services to Cal Poly. Solid waste that cannot be diverted is disposed of at the Cold Canyon Landfill, approximately seven miles from San Luis Obispo. The landfill serves the county and private municipalities. It has recently been expanded, with a remaining capacity of 14,500,000 cubic yards (CalRecycle 2018).

a. Require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?

Less than Significant Impact. The Project description includes stormwater drain infrastructure improvements and sub-drain alterations. The alterations and improvements would not modify current drainage patterns and would be constructed on previously disturbed areas. There would be no adverse impact to the environment from the improvements on drainage. An existing electrical transformer and electrical switch on site will be kept in place. The Project would include the addition of an electrical line to power the jumbotron and announcers' podium. Electrical outlets would be installed throughout the Project site to power the announcer's podium, lighting, audio, and video scoreboard. The power line would connect to the existing grid on the Cal Poly campus. The energy used by the jumbotron and announcer's podium would be minimal and would not substantially affect the overall energy usage of the campus.

Utilities adjacent to the Project site may have to be relocated during the construction phase. The existing water line and a pressure regulating valve will be relocated below grade to the south, adjacent to the parking garage.

b. Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?

Less than Significant Impact. The Cal Poly campus has sustainable water usage goals to maintain conservation while the campus grows. Since 2003, there has been a 100 percent growth in on-campus student residency and a 60 percent growth in building square footage. Yet, total campus water usage has remained constant (Cal Poly 2019). The Project proposes to construct outdoor athlete rinse stations, a drinking fountain, and irrigation for landscaping. The water resources needed to sustain these additions will be minimal and will align with the plan to conserve for drought years.

c. Result in a determination by the wastewater treatment provider, which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?

Less than Significant Impact. There will be no additional wastewater generated from the Project besides outdoor athlete rinse stations. The rinse stations will not produce a significant

amount of wastewater, and the Project would abide by the capacity limitations for the WRRF, resulting in a less than significant impact.

d. 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?

Less than Significant Impact. The proposed Project would not generate a significant amount of waste on campus. The capacity of the seating at the courts will be 299 people. All waste generated from spectators watching the games would be recycled or composted when possible. The Project would align with Cal Poly's goals for waste reduction and would not exceed any standards, resulting in a less than significant impact.

e. Comply with federal, state, and local statutes and regulations related to solid waste?

Less than Significant Impact. The Project includes the demolition and removal of asphalt concrete and Portland cement concrete that make up the current basketball courts. Furthermore, ornamental trees and vegetation will be removed from the Project site using green waste resources provided by Cal Poly. The amount of construction waste associated with the demolition of the existing courts (less than one acre of space) would be a one-time increase in solid waste. The Cold Canyon Landfill has available capacity and would be able to accommodate the Project's demolition waste. The Project would contain traditional trash and recycling facilities for visitors to the facility. Because the Project does not include the construction of residential buildings resulting in population growth, a significant increase in solid waste is not anticipated. The Project would comply with all State and local regulations related to solid waste and continue to divert waste from the landfill (currently in the 80 percent range). The Project would be in compliance with Assembly Bill 75, diverting at least 50 percent of non-hazardous solid waste from landfills. Therefore, a less than significant impact would occur to all solid waste policies.

3.18.2 Mitigation Measures

The Project would not result in significant impacts to utilities and service systems; therefore, no mitigation is required.

3.19 WILDFIRE

WILDFIRE -If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project:	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
a) Substantially impair an adopted emergency response plan or emergency evacuation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

3.19.1 Discussion

The proposed Project would be constructed in a previously disturbed area in the campus core, adjacent to the Mott Athletic Center, the Anderson Aquatic Center, the Mustang Tennis Center, and the Grand Avenue Parking Structure. The area is currently utilized as outdoor basketball courts and has a small vegetated area in the southeast corner of the Project site. The existing topography is relatively flat with a slight slope on the eastern portion outside of the Project site.

Facilities proposed in the Project would place additional structures, life, and property at risk for damage and destruction from wildland fires. However, implementation of the Project is not expected to require additional fire protection equipment or personnel to maintain fire safety.

a. Substantially impair an adopted emergency response plan or emergency evacuation plan?

Less than Significant Impact. The Department of Emergency Management (DEM) for Cal Poly supports faculty, students, and staff to maintain and sustain a risk-based emergency management program. The DEM has provided maps for emergency routes and meeting locations in the case of an emergency. The Project site is located within Zone 1 for an emergency and would utilize Grand Avenue as an evacuation route (DEM 2019). The Project site is also partially included in a map addressing points of gathering in the case of an emergency; and would utilize the “R” evacuation point or the parking lot adjacent to the site (DEM 2019). No new plans or routes would need to accommodate the Project site and the emergency response plans set by the DEM would remain unchanged, resulting in a less than significant impact.

- b. *Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?*

Less than Significant Impact. The construction of the volleyball courts would not change the topographical features of the Project site and would reduce overall vegetation. Wildfire risks would not increase in the Project area, resulting in a less than significant impact.

- c. *Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?*

Less than Significant Impact. The existing concrete pathway from Longview Lane between the Anderson Aquatic Center and the Mustang Tennis Center would remain as a maintenance access and, if needed, as emergency access. In case of a fire emergency, the pool at the Anderson Aquatic Center adjacent to the Project site could be used as a water source for fire suppression, if needed. The installation of power lines for the jumbotron, lighting, and the announcer's podium will be state-of-the-art, and carry a substantially low fire risk to the public. No emergency infrastructure construction will be necessary for the proposed Project, resulting in a less than significant impact.

- d. *Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?*

Less than Significant Impact. The Project site is surrounded by minimal vegetation with a slight uphill slope on the eastern portion of the Project site. Drainage improvements are incorporated into the Project design and will reduce or eliminate impacts associated with runoff or landslides. There will be no significant risks to the students, staff, faculty, and community members who visit the volleyball courts during sporting tournaments, resulting in a less than significant impact.

3.19.2 Mitigation Measures

The Project would not result in significant impacts to wildfire; therefore, no mitigation is required.

3.20 MANDATORY FINDINGS OF SIGNIFICANCE

MANDATORY FINDINGS OF SIGNIFICANCE-	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
a) Does the project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Does the project have impacts that are individually limited, but cumulatively considerable? (“Cumulatively considerable” means that the incremental effects of a project are significant when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of past, present and probable future projects)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

a. *Does the project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?*

Less than Significant Impact. As described in Section 3.4, Biological Resources, the Project site does not contain suitable habitat for most of the special-status plant and wildlife species with potential to occur within the Project site. However, the ornamental redwood trees have the potential to support nesting birds and/or raptors during the nesting bird season (February 1 – August 31). Based on implementation of mitigation for biological resources to protect nesting birds and/or raptors, and cultural resources to protect previously unknown resources, the Project would not substantially reduce habitat or fish wildlife populations or adversely impact historic or prehistoric resources.

b. *Does the project have impacts that are individually limited, but cumulatively considerable? (“Cumulatively considerable” means that the incremental effects of a project are significant when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of past, present and probable future projects)?*

Less than Significant with Mitigation. Project construction would not result in substantial construction impacts, and construction activities would be short-term, temporary, and localized to the Project site. Impacts during construction would be mitigated to a less than

significant level and would not contribute to a cumulative impact when considered in combination with other projects that may occur on the Cal Poly campus. The Project would not affect overall campus enrollment and is consistent with the development potential identified in the 2001 Master Plan. The Project would not generate substantial additional growth or off-site vehicle trips that could impact the City's circulation system, existing level of service standards, regional operation air contaminant emissions, GHG emission standards, or noise standards, on a cumulative basis. As a result, operational impact would not be cumulatively considerable. All Project construction and operational impacts would be mitigated to a less than significant level, and would not, in combination with other projects, be considered cumulatively considerable.

c. Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?

Less than Significant with Mitigation. Adverse direct or indirect affects to human beings may occur as a result of impacts related to aesthetics, air quality, cultural resources, geology and soils, GHG emissions, hazards and hazardous materials, hydrology and water quality, noise, public services, transportation and traffic, and utilities and service systems. Mitigation from the Cal Poly Master Plan and EIR has been provided, as well as additional mitigation measures specified, to ensure impacts remain below a level of significance. This IS/MND concludes potential adverse effects to humans are either less than significant or can be mitigated to a less-than-significant level with the implementation of mitigation. Therefore, the proposed Project does not involve any activities, during either construction or operation, that would cause significant adverse effects on human beings that cannot be readily mitigated to a less-than-significant level.

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4.2 LIST OF PREPARERS

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APPENDIX A

CRITERIA POLLUTANTS AND GREENHOUSE GAS EMISSION ESTIMATES

Cal Poly Volleyball Complex Project
CRITERIA POLLUTANTS & GREENHOUSE GAS EMISSIONS
TABLE 1: CONSTRUCTION EMISSIONS SUMMARY

Source	Peak Day Emissions, lbs/day										Annual Emissions, tons/yr										
	NO _x	ROG	PM ₁₀	PM _{2.5}	DPM	CO	SO ₂	N ₂ O	CH ₄	CO ₂	NO _x	ROG	PM ₁₀	PM _{2.5}	DPM	CO	SO ₂	N ₂ O	CH ₄	CO ₂	MTCO _{2e}
Demolition, Utility Install and Excavation Phase	15.43	0.62	2.52	0.30	0.31	12.96	0.04	0.67	0.50	4761	0.191	0.008	0.014	0.005	0.004	0.173	0.001	0.009	0.007	60.9	57.8
Construction Phase	101.70	2.77	3.50	1.57	1.57	16.42	0.20	3.09	0.53	22268	0.136	0.007	0.006	0.003	0.002	0.068	0.0004	0.003	0.003	37.2	34.8
Average Pounds/Day	58.56	1.70	3.01	0.94	0.94	14.69	0.12	1.88	0.51	13,515	-	-	-	-	-	-	-	-	-	-	-
Peak Day within San Luis Obispo County - 2018	101.70	2.77	3.50	1.57	1.57	16.42	0.20	3.09	0.53	22,268	-	-	-	-	-	-	-	-	-	-	-
Total Annual Emissions within San Luis Obispo County	-	-	-	-	-	-	-	-	-	-	0.326	0.015	0.020	0.007	0.006	0.241	0.001	0.013	0.010	98.1	92.6
GHG - MTCO_{2e} conversions																		298	25	1	-
Total MTCO₂, tons/yr																		92.6			
Daily Peak ROG+NO_x, lbs	104.5																				
Quarterly ROG+Nox, tons	0.34																				
Daily Peak DPM, lbs	1.57																				
Quarterly DPM, tons	0.006																				
Quarterly Fugitive Dust, tons	0.008																				

Notes:

- EPA Emission Factors for Greenhouse Gas Inventories (298 for N₂O, 25 for CH₄, and 1 for CO₂, April 2014, Table 9- Global Warming Potentials (GWPs) - http://www.epa.gov/sites/production/files/2015-07/documents/emission-factors_2014.pdf

NO_x - Oxides of Nitrogen

ROG - Reactive Organic Gases

PM_{2.5} - Particulate Matter 2.5 Microns or Less

PM₁₀ - Particulate Matter 10 Microns or Less

DPM - Diesel Particulate Matter

CO - carbon monoxide

SO₂ - Sulfur Dioxide

N₂O - Nitrous Oxide

CH₄ - Methane

CO₂ - Carbon Dioxide

Assumptions:

Use of equipment per client provided list

Maximum equipment use per day of 6 hours with the exception of the water truck.

Import of approximately 26,300 cubic yards of fill material from a local source (within 15 miles).

Project schedule of approximately 194 days (9 months or 3 quarters) to complete.

Cal Poly Volleyball Complex Project
CRITERIA POLLUTANTS & GREENHOUSE GAS EMISSIONS
TABLE 2: OPERATIONS EMISSIONS SUMMARY

Source	Peak Day Emissions, lbs/day			Annual Emissions, tons/yr			
	N ₂ O	CH ₄	CO ₂	N ₂ O	CH ₄	CO ₂	MTCO ₂ e
Operations Emissions	0.0017	0.0078	167.64	0.0002	0.001	21.79	19.85
Average Pounds/Day	0.0017	0.0078	167.64	-	-	-	-
<i>Peak Day within San Luis Obispo County - 2018</i>	<i>0.0017</i>	<i>0.0078</i>	<i>167.64</i>	-	-	-	-
Total Annual Emissions within San Luis Obispo County	-	-	-	0.0002	0.001	21.79	-
GHG - MTCO₂e conversions				298	25	1	-
Total MTCO₂, tons/yr				19.85			

Notes:

- CO₂ , CH₄ and N₂O emissions are estimated using methodology provided in Climate Leaders Greenhouse Gas Inventory Protocol and EPA Simplified GHG Emissions Calculator
- N₂O - Nitrous Oxide
- CH₄ - Methane
- CO₂ - Carbon Dioxide

Assumptions:

Operations schedule of 4 hours per day for 5 days per week

Cal Poly Volleyball Complex Project
CRITERIA POLLUTANTS & GREENHOUSE GAS EMISSIONS
TABLE 3: Demolition, Excavation, Rough Grading and Utility Install Activity

On-Site Sources

Source	BHP	Load Factor	Number	Hours/Day*	Duration (days)	Emission Factors (g/bhp-hr)*										Emissions (lb/day)										Total Emissions (tons)									
						NO _x	ROG	PM ₁₀	PM _{2.5}	DPM	CO	SO ₂	N ₂ O	CH ₄	CO ₂	NO _x	ROG	PM ₁₀	PM _{2.5}	DPM	CO	SO ₂	N ₂ O	CH ₄	CO ₂	NO _x	ROG	PM ₁₀	PM _{2.5}	DPM	CO	SO ₂	N ₂ O	CH ₄	CO ₂
Backhoe	130	37	1	6	32	0.260	0.060	0.008	0.008	0.018	3.700	0.005	0.004	0.152	503	0.17	0.038	0.005	0.005	0.011	2.354	0.003	0.003	0.097	320	0.003	0.001	0.000	0.000	0.000	0.038	0.000	0.000	0.002	5.117
Compressor	80	48	2	4	32	0.260	0.060	0.008	0.008	0.018	3.700	0.006	0.397	0.067	568	0.18	0.041	0.005	0.005	0.012	2.506	0.004	0.269	0.045	385	0.003	0.001	0.000	0.000	0.000	0.040	0.000	0.004	0.001	6.158
Excavator	222	38	1	6	34	0.260	0.060	0.008	0.008	0.018	2.200	0.005	0.004	0.153	507	0.29	0.067	0.009	0.009	0.020	2.455	0.006	0.005	0.171	565	0.005	0.001	0.000	0.000	0.000	0.042	0.000	0.000	0.003	9.609
Roller	115	36	1	6	1	0.260	0.060	0.008	0.008	0.018	3.700	0.005	0.004	0.153	508	0.14	0.033	0.004	0.004	0.010	2.026	0.003	0.002	0.084	278	0.000	0.000	0.000	0.000	0.001	0.000	0.000	0.000	0.139	
Skidsteer	65	37	1	6	32	2.740	0.120	0.008	0.008	0.018	3.700	0.005	0.004	0.153	506	0.87	0.038	0.003	0.003	0.006	1.177	0.002	0.001	0.049	161	0.014	0.001	0.000	0.000	0.019	0.000	0.000	0.001	2.577	
Total															1.65	0.22	0.03	0.03	0.06	10.52	0.02	0.28	0.45	1709	0.024	0.003	0.000	0.000	0.001	0.139	0.000	0.004	0.006	23.6	

On-Road Sources

Source	Peak Round Trips/Day	Average Round Trips/Day	Number of Vehicles	Length of Round Trip (miles)	Duration (days)	Emission Factors (g/mile)										Peak Day Emissions (lb/day)										Total Emissions (tons)									
						NO _x	ROG	PM ₁₀	PM _{2.5}	DPM	CO	SO ₂	N ₂ O	CH ₄	CO ₂	NO _x	ROG	PM ₁₀	PM _{2.5}	DPM	CO	SO ₂	N ₂ O	CH ₄	CO ₂	NO _x	ROG	PM ₁₀	PM _{2.5}	DPM	CO	SO ₂	N ₂ O	CH ₄	CO ₂
Passenger Vehicle - LDA	5	5	5	10	32	0.330	0.031	0.0595	0.0210	0.000	0.289	0.003	0.009	0.006	274	0.182	0.017	0.033	0.012	0.000	0.159	0.002	0.005	0.003	151	0.003	0.000	0.001	0.000	0.000	0.003	0.000	0.000	0.000	2.420
Light-Duty Truck - LDT2	4	4	5	10	32	0.286	0.044	0.0927	0.0015	0.002	1.690	0.004	0.016	0.009	370	0.126	0.019	0.041	0.001	0.001	0.745	0.002	0.007	0.004	163	0.002	0.000	0.001	0.000	0.000	0.012	0.000	0.000	0.000	2.609
Med-Heavy Duty - T6 Utility	2	2	2	10	32	4.401	0.162	0.1460	0.0125	0.013	0.572	0.016	0.005	0.272	1729	0.388	0.014	0.013	0.001	0.001	0.050	0.001	0.000	0.024	153	0.006	0.000	0.000	0.000	0.000	0.001	0.000	0.000	0.000	2.440
Heavy Duty Haul Truck - T7T	2	2	2	20	7	7.250	0.166	0.2464	0.1085	0.113	0.665	0.014	0.229	0.016	1539	1.279	0.029	0.043	0.019	0.020	0.117	0.002	0.040	0.003	271	0.004	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.950	
Heavy Duty Haul Truck - T7T	2	2	2	30	7	7.250	0.166	0.2464	0.1085	0.113	0.665	0.014	0.229	0.016	1539	1.918	0.044	0.065	0.029	0.030	0.176	0.004	0.061	0.004	407	0.007	0.000	0.000	0.000	0.001	0.000	0.000	0.000	1.425	
Heavy Duty Haul Truck - T7T	1	1	3	20	2	7.250	0.166	0.2464	0.1085	0.113	0.665	0.014	0.229	0.016	1539	0.959	0.022	0.033	0.014	0.015	0.088	0.002	0.030	0.002	204	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.204	
Heavy Duty Trucks - T7TC	10	10	10	5	32	8.099	0.236	0.3027	0.1624	0.170	1.003	0.014	0.228	0.015	1545	8.93	0.260	0.334	0.179	0.187	1.105	0.015	0.251	0.016	1703	0.143	0.004	0.005	0.003	0.003	0.018	0.000	0.004	0.000	27.25
Total															13.78	0.406	0.561	0.255	0.254	2.442	0.028	0.395	0.056	3052	0.166	0.005	0.007	0.003	0.003	0.034	0.000	0.005	0.001	37.30	

Notes:

- Hours per day and durations provided by Project Applicant.
- Round trips for LDA and LDT2 is estimated from San Luis Obispo City Area (10-miles).
- Estimated trucks to transport demolition debris to Cold Canyon Landfill, 20 mile round trip.
- Estimated trucks to transport Sand from a Hansons Aggregates in Sisquoc, 100 mile round trip.

Cal Poly Volleyball Complex Project
CRITERIA POLLUTANTS & GREENHOUSE GAS EMISSIONS
TABLE 4: Construction Activity

On-Site Sources

Source	BHP	Load Factor	Number	Hours/Day	Duration (days)	Emission Factors (g/bhp-hr)										Emissions (lb/day)										Total Emissions (tons)										
						NO _x	ROG	PM ₁₀	PM _{2.5}	DPM	CO	SO ₂	N ₂ O	CH ₄	CO ₂	NO _x	ROG	PM ₁₀	PM _{2.5}	DPM	CO	SO ₂	N ₂ O	CH ₄	CO ₂	NO _x	ROG	PM ₁₀	PM _{2.5}	DPM	CO	SO ₂	N ₂ O	CH ₄	CO ₂	
Excavator	222	38	1	6	21	0.260	0.060	0.008	0.008	0.018	2.200	0.005	0.004	0.153	507	0.29	0.067	0.009	0.009	0.020	2.455	0.006	0.005	0.171	565	0.003	0.001	0.000	0.000	0.000	0.026	0.000	0.000	0.002	5.935	
Loader	115	36	1	6	2	2.140	0.110	0.008	0.008	0.018	3.700	0.005	0.004	0.151	500	1.17	0.060	0.004	0.004	0.010	2.026	0.003	0.002	0.083	274	0.001	0.000	0.000	0.000	0.000	0.002	0.000	0.000	0.000	0.274	
Plate Compactors	115	36	1	6	17	4.142	0.661	0.161	0.161	0.018	3.469	0.008	0.004	0.059	568	2.27	0.362	0.088	0.088	0.010	1.900	0.004	0.002	0.032	311	0.019	0.003	0.001	0.001	0.000	0.016	0.000	0.000	0.000	2.645	
Total																																				8.85

On-Road Sources

Source	Peak Round Trips/Day	Average Round Trips/Day	Number of Vehicles	Length of Round Trip (miles)	Duration (days)	Emission Factors (g/mile)										Peak Day Emissions (lb/day)										Total Emissions (tons)									
						NO _x	ROG	PM ₁₀	PM _{2.5}	DPM	CO	SO ₂	N ₂ O	CH ₄	CO ₂	NO _x	ROG	PM ₁₀	PM _{2.5}	DPM	CO	SO ₂	N ₂ O	CH ₄	CO ₂	NO _x	ROG	PM ₁₀	PM _{2.5}	DPM	CO	SO ₂	N ₂ O	CH ₄	CO ₂
Passenger Vehicle - LDA	4	4	6	10	26	0.330	0.031	0.0595	0.0210	0.0000	0.289	0.003	0.009	0.006	274	0.175	0.017	0.031	0.011	0.000	0.153	0.002	0.005	0.003	145	0.002	0.000	0.000	0.000	0.000	0.002	0.000	0.000	0.000	1.888
Light-Duty Truck - LDT2	4	4	6	10	26	0.286	0.044	0.0927	0.0015	0.0017	1.690	0.004	0.016	0.009	370	0.151	0.023	0.049	0.001	0.001	0.894	0.002	0.008	0.005	196	0.002	0.000	0.001	0.000	0.000	0.012	0.000	0.000	0.000	2.543
Med-Heavy Duty - T6 Utility	2	2	2	10	32	4.401	0.162	0.1460	0.0125	0.013	0.572	0.016	0.005	0.272	1729	0.388	0.014	0.013	0.001	0.001	0.050	0.001	0.000	0.024	153	0.006	0.000	0.000	0.000	0.000	0.001	0.000	0.000	0.000	2.440
Heavy Duty Haul Truck - T7T	10	10	10	60	2	7.250	0.166	0.2464	0.1085	0.113	0.665	0.014	0.229	0.016	1539	95.91	2.191	3.260	1.435	1.500	8.796	0.182	3.031	0.208	20353	0.096	0.002	0.003	0.001	0.002	0.009	0.000	0.003	0.000	20.35
Heavy Duty Haul Truck - T7T	1	1	2	20	2	7.250	0.166	0.2464	0.1085	0.113	0.665	0.014	0.229	0.016	1539	0.64	0.015	0.022	0.010	0.010	0.059	0.001	0.020	0.001	136	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.14	
Heavy Duty Trucks - T7TC	2	2	2	10	15	8.099	0.236	0.3027	0.1624	0.1697	1.003	0.014	0.228	0.015	1545	0.714	0.021	0.027	0.014	0.015	0.088	0.001	0.020	0.001	136	0.005	0.000	0.000	0.000	0.001	0.000	0.000	0.000	1.022	
Total																																			28.382

Notes:

- Hours per day and durations provided by Project Applicant.
- Round trips for LDA and LDT2 is estimated from San Luis Obispo City Area (10-miles).
- Estimated trucks to transport concrete from a Hansons Aggregates in San Luis Obispo, CA, 10 mile round trip.
- Estimated trucks to transport Sand from a Hansons Aggregates in Sisquoc, 100 mile round trip.

Cal Poly Volleyball Complex Project
CRITERIA POLLUTANTS & GREENHOUSE GAS EMISSIONS
TABLE 5: Construction Activity - Fugitive Dust Emissions

Activity	Source	Source Units	Number of Days	Emission Factor	Emission Factor, Units	Peak Day Emissions (lbs/day)		Total Emissions (tons)	
						PM ₁₀	PM _{2.5}	PM ₁₀	PM _{2.5}
Site Grading	0.1	acres/day	6	0.429	lbs PM10/day/acre	0.05	0.00	0.0002	0.0000
Demolition	225.0	tons/day	7	0.007917	lbs/ton	1.8	0.00	0.0062	0.0009
Truck Loading & Dumping	575.0	tons/day	10	1.72E-04	lbs/ton	0.10	0.01	0.0005	0.0001
Total						1.93	0.02	0.0069	0.0010

Fugitive Dust Emissions: Inputs for the Table

Emission factors based on following inputs

Mean number of rain days per year	0	worst case
Silt content of soil, fill storage pile, %	1.5	SCAQMD default value
Roadway inputs (paved and unpaved, as per URBEMIS)		
Roads mean vehicle weight, tons	20.61	based on project description, HHDT + LDT and vehicles weight (average of full and empty)
unpaved dirt road silt content, %	8.4	AP-42 construction sites
Truck Loading inputs		
k, particle size multiplier, default=0.35 for pm10	0.35	
U, mean wind speed, mph range 1.3-15	8.15	
M, moisture content, default=12%	12	
PM2.5/PM10 ratio truck loading	0.15	
Site grading emissions from CalEEMod for grading	0.091	ratio of PM2.5/PM10 CalEEMod
Demolition materials, tons/yds ³	1.000	estimated for concrete debris
Fill materials, tons/yds ³	1.000	estimated for soils
Mitigation: demolition area watering (fraction reduction)	0.61	0.61 for watering every 3 hours (SCAQMD)
Mitigation: grading/dist area watering (fraction reduction)	0.61	0.61 for watering every 3 hours (SCAQMD)
Mitigation: dumping soil moisture (fraction reduction)	0.69	0.69 for minimum 12% soil moisture (SCAQMD)
Mitigation: storage piles (fraction reduction)	0.90	0.90 for watering by hand and covering (SCAQMD)
Mitigation: roads (fraction reduction)	0.55	0.55 for watering 3X per day (SCAQMD), 0.80 for soil binders applied monthly (AP-42)

Notes:

PM2.5/PM10 ratio as per AP-42 k factor for PM10 and PM2.5

Demolition dust calculations as per EPA AP-42 11.19 and 13.2.4

Truck loading dumping cut/fill based on CalEEMod

Storage pile emissions based on SCAQMD Handbook (URBEMIS does not address emissions from storage piles)

Paved and unpaved road dust emissions based on AP-42 2006 (unpaved) Chapt 13. EPA AP-42 2006 is the same as URBEMIS and CalEEMod

One month assumes 22 days of activity, as per URBEMIS

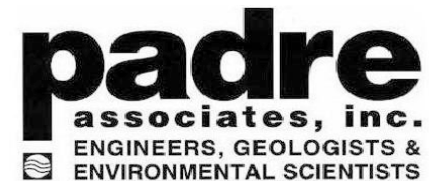
Cal Poly Volleyball Complex Project
CRITERIA POLLUTANTS & GREENHOUSE GAS EMISSIONS
TABLE 6: Operations GHG Emissions

On-Site Sources

Source	KWh	Hours/Day	Duration (days)	Emission Factor (lb/KWh)			Emissions (lb/day)			Total Emissions (tons)		
				N ₂ O	CH ₄	CO ₂	N ₂ O	CH ₄	CO ₂	N ₂ O	CH ₄	CO ₂
Lighting	47.09	5	260	0.006	0.028	610.820	0.0014	0.0067	143.8176	0.0002	0.0009	18.696
Jumbotron	6	5	260	0.006	0.028	610.820	0.0002	0.0009	18.3246	0.0000	0.0001	2.382
Sound Sytem	1.8	5	260	0.006	0.028	610.820	0.0001	0.0003	5.497	0.0000	0.0000	0.715
Total							0.002	0.008	168	0.0002	0.0010	21.793

Notes:

- Hours per day and durations provided by Project Applicant.



Cal Poly Volleyball Complex Project
CRITERIA POLLUTANTS & GREENHOUSE GAS EMISSIONS
TABLE 7: Emission Factors and Assumptions

Onsite				Emission Factors, g/bhp-hr*										Emission Factors, lb/bhp-hr									
Source	Tier	Operational Horsepower	Load Factor	NO _x	ROG	PM ₁₀	PM _{2.5}	DPM	CO	SO ₂	N ₂ O	CH ₄	CO ₂	NO _x	ROG	PM ₁₀	PM _{2.5}	DPM	CO	SO ₂	N ₂ O	CH ₄	CO ₂
Backhoe	4	130	37	0.260	0.060	0.008	0.008	0.018	3.700	0.005	0.0042	0.152	503	0.0006	0.0001	0.0000	0.0000	0.0000	0.0082	0.00001	0.00001	0.00034	1.1081
Compressor	4	80	48	0.260	0.060	0.008	0.008	0.018	3.700	0.006	0.397	0.067	568	0.0006	0.0001	0.0000	0.0000	0.0000	0.0082	0.00001	0.00088	0.00015	1.2529
Excavator	4	222	38	0.260	0.060	0.008	0.008	0.018	2.200	0.005	0.0042	0.153	507	0.0006	0.0001	0.0000	0.0000	0.0000	0.0049	0.00001	0.00001	0.00034	1.1167
Loader	4	115	36	2.140	0.110	0.008	0.008	0.018	3.700	0.005	0.0042	0.151	500	0.0047	0.0002	0.0000	0.0000	0.0000	0.0082	0.00001	0.00001	0.00033	1.1014
Plate Compactors	4	8	43	4.142	0.661	0.161	0.161	0.018	3.469	0.008	0.0042	0.059	568	0.0091	0.0015	0.0004	0.0004	0.0000	0.0076	0.00002	0.00001	0.00013	1.2529
Roller	4	95	38	0.260	0.060	0.008	0.008	0.018	3.700	0.005	0.0042	0.153	508	0.0006	0.0001	0.0000	0.0000	0.0000	0.0082	0.00001	0.00001	0.00034	1.1204
Skidsteer	4	65	37	2.740	0.120	0.008	0.008	0.018	3.700	0.005	0.0042	0.153	506	0.0060	0.0003	0.0000	0.0000	0.0000	0.0082	0.00001	0.00001	0.00034	1.1162

Offsite				Emission Factors, g/mile										Emission Factors, lb/mile									
Source	Tier	Region	Speed	NO _x	ROG	PM ₁₀	PM _{2.5}	DPM	CO	SO ₂	N ₂ O	CH ₄	CO ₂	NO _x	ROG	PM ₁₀	PM _{2.5}	DPM	CO	SO ₂	N ₂ O	CH ₄	CO ₂
Passenger Vehicle - LDA	N/A	San Luis Obispo County	65	0.330	0.031	0.059	0.021	0.000	0.289	0.003	0.009	0.006	274	0.0007	0.0001	0.0001	0.0000	0.0000	0.0006	0.00001	0.00002	0.00001	0.6051
Light-Duty Truck - LDT2	N/A	San Luis Obispo County	65	0.286	0.044	0.093	0.002	0.002	1.690	0.004	0.016	0.009	370	0.0006	0.0001	0.0002	0.0000	0.0000	0.0037	0.00001	0.00004	0.00002	0.8152
Med-Heavy Duty - T6 Utility	N/A	San Luis Obispo County	15	4.401	0.162	0.146	0.012	0.013	0.572	0.016	0.005	0.272	1729	0.0097	0.0004	0.0003	0.0000	0.0000	0.0013	0.00004	0.00001	0.00060	3.8127
Med-Heavy Duty - T6 Utility	N/A	San Luis Obispo County	65	1.668	0.015	0.142	0.008	0.009	0.059	0.009	0.148	0.001	1073	0.0037	0.0000	0.0003	0.0000	0.0000	0.0001	0.00002	0.00033	0.00000	2.3666
Heavy Duty Haul Truck - T7T	N/A	San Luis Obispo County	55	7.250	0.166	0.246	0.109	0.113	0.665	0.014	0.229	0.016	1539	0.0160	0.0004	0.0005	0.0002	0.0003	0.0015	0.00003	0.00051	0.00003	3.3922
Heavy Duty Trucks - T7TC	N/A	San Luis Obispo County	55	8.099	0.236	0.303	0.162	0.170	1.003	0.014	0.228	0.015	1545	0.0179	0.0005	0.0007	0.0004	0.0004	0.0022	0.00003	0.00050	0.00003	3.4067

Onsite			Emission Factors, lb/MWhr		
Source	Tier	Electricity Use Region	N ₂ O	CH ₄	CO ₂
Electricity Usage	N/A	California	0.0060	0.0285	610.82

- Notes:**
- ¹ Equipment list and engine size provided by Project Applicant. HP were adjusted whenever data was available for the size of the equipment provided by the applicant.
 - ² Construction equipment criteria pollutant emission factors and load factors were obtained from CalEEMod, Appendix D 2016.
 - ³ N₂O and CH₄ emission factors for construction equipment were obtained from CFR Part 98 Table C-2 and CalEEMod Appendix D- Default Data Tables, Table 3.4. Kg/mmbtu was converted to kg/bhp-hr using a diesel energy density of 7000 btu/hp-hr.
 - ⁴ CO₂ emission factors for construction equipment were obtained from CalEEMod Appendix D- Default Data Tables, Table 3.4.
 - ⁵ DPM emission factors for construction equipment were obtained from The Port of Long Beach, 2013 Emissions Inventory Appendix D- Table D-2.
 - ⁶ CO₂, CH₄ and N₂O emissions are estimated using methodology provided in Climate Leaders Greenhouse Gas Inventory Protocol and EPA Simplified GHG Emissions Calculator

APPENDIX B

MITIGATION AND MONITORING REPORTING PROGRAM

[Note: MMRP will be completed during preparation of the Final IS/MND]