

Initial Study & Proposed Negative Declaration

Sierra College Football Stadium Lighting Project

Prepared for:

Sierra College
5100 Sierra College Boulevard
Rocklin, California 95677
Contact: Laura Doty

Prepared by:

DUDEK

1102 R Street
Sacramento, California 95811
Contact: Brian Grattidge

DECEMBER 2019

Table of Contents

<u>SECTION</u>	<u>PAGE NO.</u>
ACRONYMS AND ABBREVIATIONS.....	III
1 INTRODUCTION.....	1
1.1 Project Overview	1
1.2 California Environmental Quality Act Compliance	1
1.3 Public Review Process	3
2 SUMMARY OF FINDINGS	5
2.1 Environmental Factors Potentially Affected.....	5
2.2 Mitigation Measures	5
3 INITIAL STUDY CHECKLIST	7
3.1 Aesthetics	19
3.2 Agriculture and Forestry Resources	23
3.3 Air Quality.....	24
3.4 Biological Resources	29
3.5 Cultural Resources	33
3.6 Energy	35
3.7 Geology and Soils	36
3.8 Greenhouse Gas Emissions.....	41
3.9 Hazards and Hazardous Materials	44
3.10 Hydrology and Water Quality.....	47
3.11 Land Use and Planning	51
3.12 Mineral Resources	52
3.13 Noise	53
3.14 Population and Housing.....	55
3.15 Public Services	56
3.16 Recreation.....	58
3.17 Transportation	59
3.18 Tribal Cultural Resources.....	62
3.19 Utilities and Service Systems.....	65
3.20 Wildfire	68
3.21 Mandatory Findings of Significance	70
4 REFERENCES AND PREPARERS.....	73
4.1 References Cited	73
4.2 List of Preparers	74

APPENDICES

- A Air Quality Data
- B Noise Analysis

FIGURES

1	Project Location	11
2	Project Site	13
3	Preliminary Lighting Design	15

TABLES

1	Maximum Daily Construction Criteria Air Pollutant Emissions	26
2	Estimated Annual Construction GHG Emissions.....	43

Acronyms and Abbreviations

Acronym/Abbreviation	Definition
BSA	Biologically Sensitive Area
CARB	California Air Resources Board
CBC	California Building Code
CEQA	California Environmental Quality Act
CPUC	California Public Utilities Commission
CWA	Clean Water Act
DBH	Diameter at breast height
DPM	Diesel particulate matter
EIR	Environmental Impact Report
EOP	Emergency Operations Plan
Fc	Foot candle
GHG	Greenhouse gases
GWP	Global warming potential
FMP	Facilities Master Plan
KWh	Kilowatt hours
LED	Light emitting diode
MM	Mitigation measure
MND	Mitigated Negative Declaration
MT CO _{2e}	metric tons of CO ₂ equivalent
MTP/SCS	Metropolitan Transportation Plan / Sustainable Communities Strategy
MWh	Megawatt hours
NAHC	Native American Heritage Commission
ND	Negative Declaration
NPDES	National Pollutant Discharge Elimination System
OEHHA	Office of Environmental Health Hazard Assessment
P/QP	Public / Quasi Public
PCAPCD	Placer County Air Pollution Control District
PCWA	Placer County Water Agency
SACOG	Sacramento Area Council of Governments
SIP	State Implementation Plan
SVAB	Sacramento Valley Air Basin
SWMP	Stormwater Management Plan
TAC	Toxic air contaminant
UWMP	Urban Water Management Plan
VELB	Valley elderberry longhorn beetle
WSA	Water Supply Assessment

INTENTIONALLY LEFT BLANK

1 Introduction

1.1 Project Overview

The proposed Sierra College Football Stadium Lighting Project (proposed project) is located on the Sierra College Rocklin Campus (Campus) located in the City of Rocklin (City), Placer County, shown on Figure 1. The main campus is bounded by Interstate (I-80), Rocklin Road, and Sierra College Boulevard on three sides. The football stadium and volleyball fields are located on Sierra College Boulevard between Parking Lot J and the other athletic fields at the corner of Rocklin Road and Sierra College Boulevard, as shown on Figure 2.

The proposed project includes installation of overhead lights at the football stadium and volleyball fields. These will illuminate the football stadium and the future track around the football field, the two volleyball fields, and the walkway towards the sporting fields to allow use for nighttime events and activities. Regular nighttime use of football stadium would occur 4 days per week, and hours of operation would be from 6:00 PM to 8:00 PM for night practice. The anticipated number of night football games is five per year, occurring between the months of September to November. Night games are expected to last around four to five hours, and attract 800 to 1000 spectators. Other evening uses of the stadium include up to three classes in the fall and possibly spring semester, with no spectators, and a graduation ceremony in the early summer with approximately 3,000 spectators.

1.2 California Environmental Quality Act Compliance

Pursuant to Section 15063 of the California Environmental Quality Act (CEQA) Guidelines (Title 14, California Code of Regulations, Sections 15000 et seq.), an Initial Study is a preliminary environmental analysis that is used by the lead agency as a basis for determining whether an EIR, a Mitigated Negative Declaration, or a Negative Declaration is required for a project. Sierra College, acting as the Lead Agency, has determined that an Initial Study tiering from the recently certified environmental impact report (EIR) prepared for the Sierra College Rocklin Campus Facilities Master Plan (FMP) Update (2018 FMP EIR), is the appropriate CEQA document to determine if the proposed project would result in any new, or more severe impacts than what was evaluated in the 2018 FMP EIR.

Tiering Process

The CEQA concept of “tiering” refers to the evaluation of general environmental matters in a broad program-level EIR, with subsequent focused environmental documents for individual projects that implement the program (CEQA Guidelines Section 15152). This environmental document incorporates by reference the discussions in the 2018 FMP EIR that analyze future development on the Campus both in the near term, on a project level, and in the long term on a Program level. CEQA and the CEQA Guidelines encourage the use of tiered environmental documents to reduce delays and excessive paperwork in the environmental review process. This is accomplished in tiered documents by eliminating repetitive analyses of issues that were adequately addressed in the Program EIR and by incorporating those analyses by reference.

Section 15168(d) of the CEQA Guidelines provides for simplifying the preparation of environmental documents on individual parts of the program by incorporating by reference analyses and discussions that apply to the program as a whole. Where an EIR has been prepared or certified for a program or plan, the environmental review for a later activity consistent with the program or plan should be limited to effects that were not analyzed as significant in the prior EIR or that are susceptible to substantial reduction or avoidance (CEQA Guidelines Section 15152[d]).

This Initial Study is tiered from the 2018 FMP EIR in accordance with Sections 15152 and 15168 of the CEQA Guidelines and Public Resources Code Section 21094. The 2018 FMP EIR is both a Project and Program EIR that was prepared pursuant to Sections 15161 and 15168 of the CEQA Guidelines. The 2018 FMP is designed to accommodate the long-term increase in student enrollment through the identification of projects to be constructed through the 20-year time horizon of the FMP. The FMP describes a 20-year, conceptual development program, which includes demolition of some existing structures, construction of new structures, and rehabilitation of numerous existing structures. The 2018 FMP EIR analyzes both “near-term projects” and “long-term projects.” Near-term projects are those that Sierra College anticipates will be funded within a period of approximately five years. The FMP EIR identifies mitigation measures to address significant adverse impacts, including cumulative impacts associated with future growth.

The 2018 FMP EIR does not identify the Football Stadium Lighting Project improvements as a “near term” project that could be approved within the scope of the FMP EIR (and thus avoiding an additional CEQA document). However, the project is within the scope of the Program EIR, as the stadium use is identified in the FMP and is considered in the EIR.

By tiering from the 2018 FMP EIR, this Tiered Initial Study relies on the 2018 FMP EIR for the following:

- A discussion of general background and setting information for environmental topic areas;
- Overall growth-related issues;
- Issues that were evaluated in sufficient detail in the 2018 FMP EIR for which there is no significant new information or change in circumstances that would require further analysis; and
- Assessment of cumulative impacts.

This Initial Study evaluates the potential environmental impacts of the proposed project with respect to the 2018 FMP EIR to determine what level of additional environmental review, if any, is appropriate. As shown in the Determination in Section 2 of this document, and based on the analysis contained in this Initial Study, it has been determined that the proposed project would not result in any potentially significant impacts that cannot be mitigated to less-than-significant levels or that were not adequately addressed by the 2018 FMP EIR. Therefore, the preparation of a Negative Declaration is the appropriate CEQA document.

The 2018 FMP EIR includes programmatic mitigation measures that are applicable to the proposed project. Where site and project-specific mitigation measures are necessary to ensure all project-related impacts are reduced to a level that is less than significant, those measures identified in this Initial Study. Consistency with the 2018 FMP and 2018 FMP EIR

In order to determine the project’s consistency with the 2018 FMP and 2018 FMP EIR, Section 15168 of the CEQA Guidelines requires that a Lead Agency address if a subsequent activity, or project, is within the scope of the Program EIR by reviewing the evidence in the record. Factors the Lead Agency may consider in making the determination include (but are not limited to) the following:

- Consistency of the proposed project with the type of allowable land use.
- Consistency of the proposed project with the planned density and building intensity.
- Geographic area analyzed in the Program EIR.
- Infrastructure covered in the Program EIR.

The football stadium is an existing use and is identified as a master planned use in the 2018 FMP Update (see Figure 3-6 of the FMP EIR). The project is within the FMP Campus boundary and the EIR study area. The Stadium Lighting Project is not identified by name in the FMP EIR. However, the FMP includes the stadium use, discusses various improvements

to access and parking near the stadium, and identifies stadium lighting in the Aesthetics discussion (page 4.1-8 of the FMP EIR). Therefore, the project is consistent with the 2018 FMP and the 2018 FMP EIR.

1.3 Public Review Process

This environmental analysis is tiered from the EIR prepared for the Sierra College Rocklin Campus FMP Update in 2018. The 2018 FMP EIR was certified by Sierra College on May 21, 2019 (State Clearinghouse No. 2014042088). The 2018 FMP and FMP EIR are available for review at the following locations:

Facilities and Construction Office Sierra Community College
5100 Sierra College Blvd.
Rocklin, California 95677

In reviewing the Initial Study (IS)/Negative Declaration (ND), affected public agencies and the interested public should focus on the sufficiency of the document in identifying and analyzing the possible impacts on the environment, as well as the ways in which the significant effects of the project are proposed to be avoided or mitigated (in this instance, through the implementation of measures identified in the FMP EIR).

This IS/ND is being circulated for public and agency review from December 2, 2019, to January 2, 2020. Copies of this document, the 2018 Sierra College Rocklin Campus FMP Update, and the 2018 FMP EIR are available for review at the following location:

Facilities and Construction Office
Sierra Community College
5100 Sierra College Blvd.
Rocklin, California 95677

The document is available online at:

<https://www.sierracollege.edu/about-us/admin-services/facilities/index.php>

Comments on this IS/ND must be received by 5:00 p.m. on January 2, 2020, and can be emailed to facilities01@sierracollege.edu or mailed to:

Facilities and Construction Office
Attn: Stadium Lighting Project
Sierra Community College
5100 Sierra College Blvd.
Rocklin, CA 95677

INTENTIONALLY LEFT BLANK

2 Summary of Findings

2.1 Environmental Factors Potentially Affected

The discussion provided in Section 3 of this IS found that no items would be considered potentially significant as a result of the project. The project would have a less-than-significant impact or no impact on the following areas: aesthetics, agriculture and forestry resources, air quality, biological resources, cultural resources, energy, geology and soils, greenhouse gas emissions, hazards and hazardous materials, hydrology and water quality, land use and planning, mineral resources, noise, population and housing, public services, recreation, transportation, tribal cultural resources, utilities and service systems, and wildfire. Due to incorporation of the FMP EIR mitigation measures, potentially significant impacts related to biological and cultural resources (including paleontological resources) would be reduced to a level below significance.

2.2 Mitigation Measures

The following mitigation measures are from the 2018 FMP EIR and are applicable to the construction and operation of the proposed project.

MM BIO-6 (Other raptors and migratory birds): A qualified biologist shall conduct a preconstruction survey on the Project site and within 500 feet of its perimeter, if construction occurs during the breeding season (February 1 to August 31). Any survey will be conducted in areas where there is a potential for nesting raptors and nesting migratory birds to occur. These areas include power poles or trees that are suitable for the establishment of nests. These areas also include non-native annual grassland habitat and un-harvested alfalfa and grain crops (which occur off-site but within 500 feet of the Project), which provide potential breeding habitat for ground-nesting birds such as the California quail (*Callipepla californica*), killdeer (*Charadrius vociferus*), western meadowlark (*Sturnella neglecta*), and northern harrier (*Circus cyaneus*). The preconstruction survey shall be performed within 30 days of construction to identify and mark active nests for avoidance.

Construction activities shall not occur within 500 feet of active raptor nests or within 250 feet of all other migratory bird nests unless a qualified biologist determines that smaller buffers are sufficiently protective to avoid disrupting nesting activities. These avoidance areas shall be designated as Biologically Sensitive Areas (BSAs). No construction or earth-moving activity shall occur within the BSAs until it is determined by a qualified biologist that the young have fledged (that is, left the nest) and have attained sufficient flight skills to avoid project construction zones. This typically occurs by early July, but August 31st is considered the end of the nesting period unless otherwise determined by a qualified biologist. Once raptors have completed nesting and young have fledged, the BSAs will no longer be needed and can be removed, and monitoring can be terminated.

MM CUL-1: If any prehistoric or historic artifacts, or other indications of cultural deposits such as dark gray or black sediments with stone, bone or shell artifacts, or historic privy pits or trash deposits are found once ground-disturbing activities are underway, all ground disturbance activity within 50 feet of the find shall stop. The find(s) shall be immediately evaluated by a qualified archaeologist. If the find is determined

to be a historical or unique archaeological resource, the qualified archaeologist shall formulate a proposed mitigation strategy including contingency funding and a time allotment to allow for implementation of avoidance measures or appropriate mitigation, consistent with the preferences set forth in §15064.5 of the CEQA Guidelines (favoring preservation in place where feasible). The District shall implement such recommended measures if the District determines that they are feasible in light of project design, logistics, and cost considerations. Work may continue on other parts of the Project site while mitigation of the historical or unique archaeological resource takes place.

MM CUL-4: If any fossil remains such as but not limited to vertebrate bones or teeth, or preserved parts of plants are uncovered during construction:

- a. All work in that area shall cease and be diverted away until the qualified paleontologist can determine scientific importance of the find and whether it constitutes a unique paleontological resource. If the fossils are evaluated to be scientifically important, the qualified paleontologist shall remove them as soon as is practicable. If warranted, the qualified paleontologist shall make collections of exposed fossils from the lithologic units of high paleontological importance. All vertebrate and representative samples of mega-invertebrate and plant fossils shall be collected. The qualified paleontologist shall be equipped to allow for the rapid removal of fossil remains and/or matrix and thus reduce the potential for any construction delays.
- b. Depending upon the paleontologic importance of the rock unit, the rock shall be examined periodically for microfossils by wet or dry screening. If important fossil remains are found as a result of screening, samples of sufficient size to generate a representation of the organisms preserved shall be collected and processed, if warranted, on site or at a convenient location.
- c. The reports documenting the fossil finds shall be submitted to the Sierra College Natural History Museum or the University of California, Museum of Paleontology (UCMP), at the Berkeley Natural History Museum. Any such fossils should be offered to an appropriate repository such as the Sierra College Natural History Museum or University of California Museum of Paleontology.

MM CUL-5: In the event that human remains are discovered, further excavation or disturbance shall be prohibited pursuant to Section 7050.5 of the California Health and Safety Code. The specific protocol, guidelines, and channels of communication outlined by the Native American Heritage Commission (NAHC), in accordance with Section 7050.5 of the Health and Safety Code, Section 5097.98 of the Public Resources Code (Chapter 1492, Statutes 1982, Senate Bill 297), and Senate Bill 447 (Chapter 44, Statutes of 1987), shall be followed. All reports, correspondence, and determinations regarding the discovery of human remains on the Project site shall be submitted to the Placer County Planning and Community Development Department.

In the event of the discovery of human remains, at the direction of the county coroner, Section 7050.5(c) shall guide potential Native American consultation.

3 Initial Study Checklist

1. Project title:

Sierra College Football Stadium Lighting Project

2. Lead agency name and address:

Sierra Joint Community College District
5100 Sierra College Boulevard
Rocklin, California 95677

3. Contact person and phone number:

Laura W. Doty
Director of Facilities and Construction
916.660.7650

4. Project location:

The proposed project is located on the Sierra College Rocklin Campus located in the City of Rocklin, Placer County, shown on Figure 1. The main campus is bounded by Interstate (I-80), Rocklin Road, and Sierra College Boulevard on three sides. The football stadium and beach volleyball fields are located on Sierra College Boulevard between Parking Lot J and the other athletic fields at the corner of Rocklin Road and Sierra College Boulevard, as shown on Figure 2.

5. Project sponsor's name and address:

Sierra Joint Community College District (District)
5100 Sierra College Boulevard
Rocklin, California 95677

6. General plan designation:

Public/Quasi-Public (PQP)

7. Zoning:

Planned Development Community College (PD-CC)

8. Other public agencies whose approval is required (e.g., permits, financing approval, or participation agreement):

The Sierra Joint Community College District must adopt the IS/ND before taking any action on the project. The information contained in this IS/ND shall be considered when making a decision to approve or deny the project. The analysis in this IS/ND is intended to provide environmental review for the whole of the project in accordance with CEQA requirements.

A public agency other than the lead agency that has discretionary approval power over the project is a Responsible Agency, as defined by CEQA Guidelines Section 15381. No Responsible Agencies have been identified for the proposed project. However, there are agencies with ministerial approvals that are required for project implementation. These include:

- California Division of the State Architect: Approval of construction plans, structural safety, fire and life safety, and access compliance
- State Water Resources Control Board: Ground disturbance of more than one acre would require the District to file for coverage under the Nationwide Stormwater Permit for General Construction and prepare a Stormwater Pollution Prevention Plan.

9. Have California Native American tribes traditionally and culturally affiliated with the project area requested consultation pursuant to Public Resources Code section 21080.3.1? If so, is there a plan for consultation that includes, for example, the determination of significance of impacts to tribal cultural resources, procedures regarding confidentiality, etc.?

The 2018 FMP EIR conducted an analysis, including extensive outreach to California Native American tribes, and determined no known tribal cultural resources would be affected by implementation of the FMP. Mitigation measures were identified to reduce the potential impacts of encountering previously unidentified resources during construction. These measures are incorporated into this tiered Initial Study. No California Native American tribes have requested written notification from the District pursuant to Public Resources Code section 21080.3.1.

10. Description of project, including surrounding land uses and setting:

College Campus

The project is on the existing Campus located in the eastern part of the City of Rocklin, California. The Campus spans 311 acres within the Sierra Nevada foothills of South Placer County and is generally bounded by I-80 running diagonally from southwest to northeast; by Sierra College Boulevard and undeveloped land to the east; and by residences and Rocklin Road on the south (Sierra College 2017b) (see Figure 1). The Campus is just south of the Rocklin Commons and Rocklin Crossings shopping centers. Secret Ravine cuts across Campus and runs in the same direction as I-80. A nature trail preserve winds through the oak woodlands and the riparian communities of Secret Ravine (Sierra College 2004). Opened in 1961, the enrollment of 1,500 students grew to 14,300 by 2013. The College Research office determined in Fall of 2014 that the Campus served as many as 6,000 students during peak times of the day, Monday through Thursday.

Project Site

The project site is located at the eastern part of Campus (see Figure 2). The site is bordered by Lot K and J to the north, the Gym, Cardio Room, Weight Room, and Athletic Offices to the west, soccer and baseball fields to the south, and Sierra College Boulevard to the east.

The existing football stadium, located on the project site, was opened in 2007 and seats 1,500 spectators. Known as the Homer “Buzz” Ostrom Stadium, the field includes a turf surface newly installed in 2017, a public address system and press box. The existing beach volleyball fields were opened in 2018 (Sierra College 2018b). While the

women's beach volleyball team was fielded in 2016, home games were played in Folsom until the new sand courts were opened on Campus (Sierra College 2016, 2018b).

Surrounding Land Uses

The project site is bordered by Lot K and J to the north, other athletic facilities and the main Campus to the west, a soccer field, baseball and softball fields, Lot I and Rocklin Road to the south, and Sierra College Boulevard to the east. Single-family and multi-family residential uses are located to the south of Rocklin Road, and a swath of undeveloped land designated as Mixed Use and owned by the District is located to the east of Sierra College Boulevard. Two large shopping centers, Rocklin Commons and Rocklin Crossings, are divided by I-80 and Sierra College Boulevard and are located north of the project site. Businesses include grocery stores, restaurants, and retail chains. Retail commercial uses also line along the I-80 corridor.

The project site is designated Public/Quasi-Public (PQP) and is zoned Planned Development Community College (PD-CC) by the City of Rocklin. The college campus use is consistent with the general plan and zoning designation.

Facilities Master Plan

The primary objective of the FMP is to accommodate the anticipated growth in student population, update Campus and classroom technology, and implement needed building and site improvements. The FMP describes a conceptual development program spanning a 20-year horizon, and includes demolition of certain existing structures, construction of new structures, and modernization of numerous existing structures. The 2018 FMP EIR analyzed five "near-term" projects at the project level, including a new parking structure, infrastructure improvements on the north side of Campus, a new instructional building, modernization of Weaver Hall, and modernization of the gymnasium.

The 2018 FMP EIR does not identify the proposed project as a "near term" project that could be approved within the scope of the FMP EIR. However, many of the environmental effects associated with the proposed project could be adequately addressed by the FMP EIR. By tiering from the 2018 FMP EIR, this Tiered Initial Study relies on the 2018 FMP EIR for a discussion of general background and setting information for environmental topic areas, overall growth-related issues, an assessment of cumulative impacts, and issues that were already evaluated in sufficient detail and are applicable to the proposed project.

Project Elements

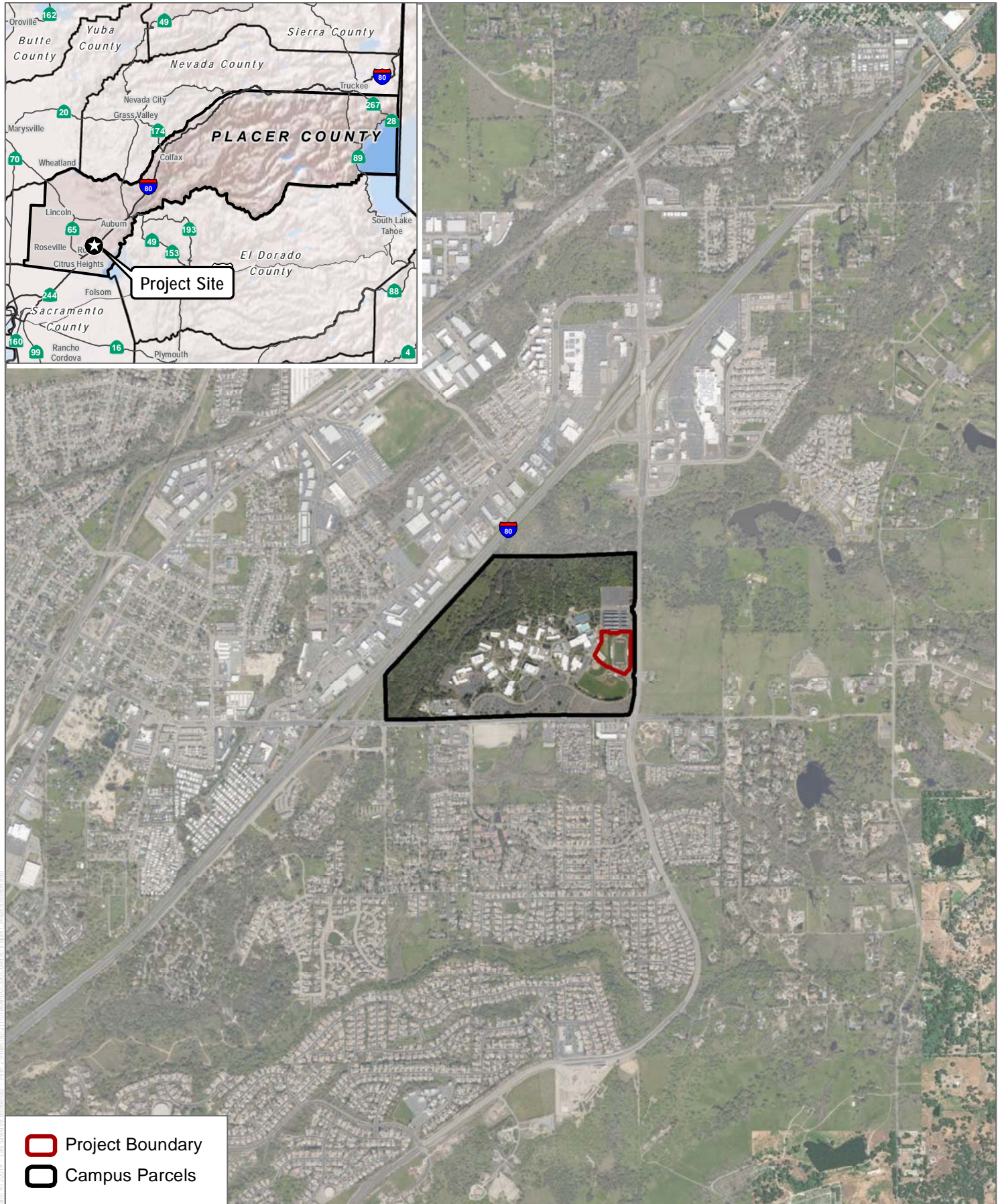
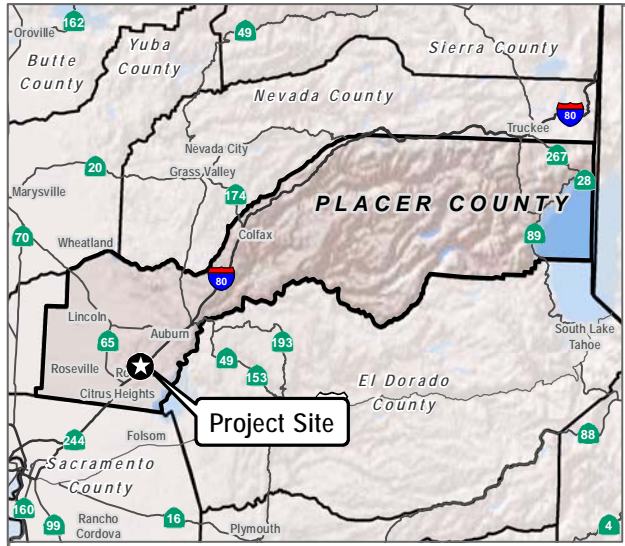
The District proposes to install field lighting at its athletic fields at the Campus. No field lighting is currently installed. Lighting would be installed at the existing football stadium and at the existing beach volleyball fields. The installed lighting would also illuminate the walkway on the way to the football and beach volleyball fields, and the future running track that will circle the football field. The football stadium is located to the east of the beach volleyball fields, near Sierra College Boulevard. These fields are proposed to be illuminated by the GameChanger Q-LED Sports Lighting System, or an equivalent system. Up to 44 light emitting diode (LED) fixtures would be installed atop four (4) new galvanized steel poles erected around the football field (see Figure 3). Lighting for the beach volleyball fields would include up to 12 total LED fixtures installed atop two (2) new galvanized steel poles. All poles shall be a minimum of 100 feet high for the football stadium and 35 feet high for the beach volleyball fields in order to ensure proper aiming angles for reduced glare.

The lighting system would utilize 1000 watt and 500 watt LED lighting fixtures. Higher wattage lights would increase glare for players on the field, and therefore will not be used. The guaranteed average light levels would be 30 foot-candles (fc) for the football field, 40 fc for the beach volleyball fields, and 13 fc for the walkway (see Figure 3). The lighting system would be mounted on new galvanized steel, concrete encased embedded poles, with galvanized steel light stanchion or crossarm assemblies. No exposed wiring would be allowed, and all electrical wiring would be routed through enclosed wire ways. All luminaires would utilize TIR lenses to control unwanted glare and improve efficiency. The lenses would be pre-aimed and pre-mounted on the light stanchion or crossarm. TIR lenses would have a protective outer lens to prevent damage from moisture, dirt, insects, or birds. All exposed components would be constructed of or coated with corrosion resistant material. Lighting design would be in accordance with all applicable regulations and standards. The new lighting would also be accompanied by a networked lighting control system and a web-based user interface.

Construction activities would include utility trenching to extend electrical to light pole locations, excavation at pole locations, installation of concrete bases at pole locations, assembly of luminaires and installation of luminaires on poles, and installation of poles on the installed concrete basins. Construction of the project would take approximately 2 months to complete. Construction activities are anticipated to occur Monday through Friday, 8:00 a.m. to 4:00 p.m. Equipment to be used during construction would likely include a trencher, small excavator, small truck, drill rig, forklift, and small crane.

Regular nighttime use of football stadium would occur 4 days per week, and hours of operation would be from 6:00 PM to 8:00 PM for night practice. The anticipated number of night football games is five per year, occurring between the months of September to November. Night games are expected to last around four to five hours, and attract 800 to 1000 spectators. Other evening uses of the stadium include up to three classes in the fall and possibly spring semester, with no spectators, and a graduation ceremony in the early summer with approximately 3,000 spectators.

Although not a part of this project, the existing berm will eventually be removed for a future running track that will circle the football field. The existing berm-mounted seating would be replaced with updated bleacher-style seating. The lighting design would accommodate this future project.



SOURCE: ESRI 2018

DUDEK



0 1,000 2,000
Feet
0 285 570
Meters
1:24,000


FIGURE 1

Project Location

Sierra College Football Stadium Lighting Project

INTENTIONALLY LEFT BLANK



 Project Boundary

SOURCE: ESRI 2018

DUDEK

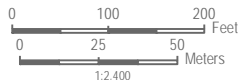
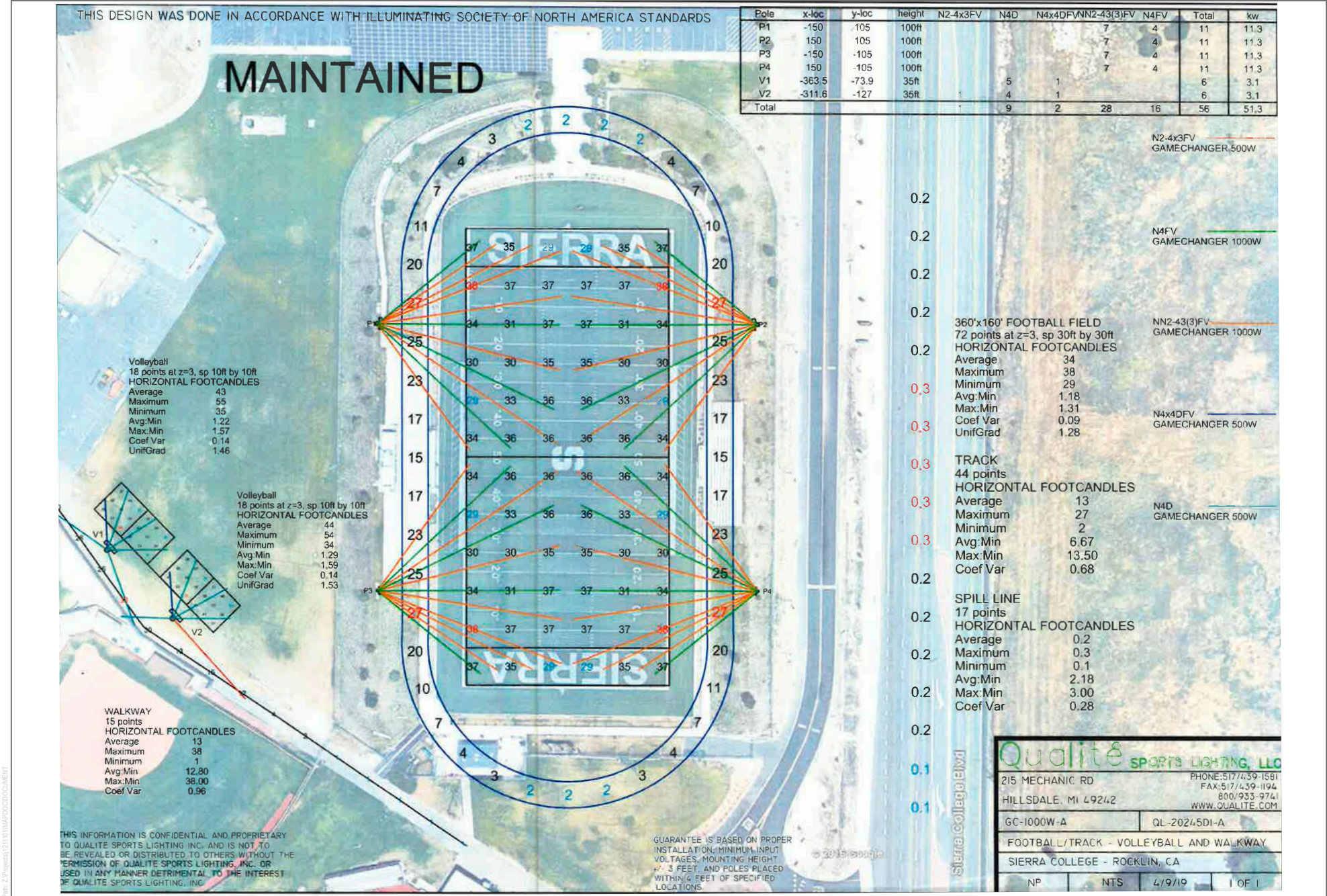


FIGURE 2
Project Site

Sierra College Football Stadium Lighting Project

INTENTIONALLY LEFT BLANK



SOURCE: Qualite Sports Lighting LLC, 2018

DUDEK

FIGURE 3

Preliminary Lighting Design

Sierra College Football Stadium Lighting Project

INTENTIONALLY LEFT BLANK

Environmental Factors Potentially Affected

The environmental resources, if checked below, would be potentially affected by this project and would involve at least one impact that is a significant or potentially significant impact that has not been adequately addressed in the 2018 FMP EIR.

- | | | |
|--|---|---|
| <input type="checkbox"/> Aesthetics | <input type="checkbox"/> Agriculture and Forestry Resources | <input type="checkbox"/> Air Quality |
| <input type="checkbox"/> Biological Resources | <input 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 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 |

As indicated in this checklist and based on the analysis presented in this Initial Study, it has been determined that for all resource areas, the proposed project would not result in any significant impacts that cannot be mitigated to a less-than-significant level or are not adequately addressed by the 2018 FMP EIR. This Initial Study has concluded that the proposed project would incrementally contribute to, but would not exceed, certain significant cumulative impacts previously identified in the 2018 FMP EIR, and that for such impacts, no new mitigation measures, other than those previously identified in the 2018 FMP EIR to further reduce the impact. The proposed project would not require any project-specific mitigation measures and completion of a Negative Declaration is therefore appropriate.

Determination (To be completed by the Lead Agency)

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 revisions in the project have been made by or agreed to by the project proponent. 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 ENVIRONMENTAL IMPACT REPORT or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier ENVIRONMENTAL IMPACT REPORT or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

Signature



Date

11/25/19

3.1 Aesthetics

	Potentially Significant Impact	Impact Adequately Addressed in 2018 FMP EIR	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
I. AESTHETICS – Except as provided in Public Resources Code Section 21099, would the project:					
a) Have a substantial adverse effect on a scenic vista?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input 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 checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input 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 checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input 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 type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Discussion

The 2018 FMP EIR considered building and related facility construction on the Campus. The analysis below reflects the applicable Campus-wide aesthetics analysis provided in Section 4.1 of the 2018 FMP EIR as it relates to the proposed project, and considers the specifications of the GameChanger Q-LED Sports Lighting System for a project-level analysis.

The project site includes the existing football stadium, beach volleyball fields, and the walkway leading up to these components. The football stadium is located to the east of the beach volleyball fields, near Sierra College Boulevard. The topography of the project site is relatively flat. The elevation of the project site ranges from 350 feet above sea level at the edges surrounding the football field, gently sloping down to around 345 feet above sea level where the beach volleyball courts exist. To the east of the project site is an area of mostly undeveloped land with one single-family residence. There are more sporting fields located south of the project site, and large parking lots with solar panel shades to the north. The football stadium seating is visible from viewpoints on Sierra College Boulevard, but the field is largely blocked from view by the raised berm.

The proposed project would involve the installation of six light poles with a total of 56 luminaries. There would be 4 light poles for the football stadium and future running track that are 100 feet in height and 2 light poles for the beach volleyball fields and walkway that are 35 feet in height. The 100-foot light poles would support approximately 44 luminaries, and the 35-foot light poles would support approximately 12 luminaries. The design of the field lighting takes into account available methods for reducing lighting spillover and glare. The minimum pole height of 100 feet for the football stadium lights would minimize off-site glare, since shorter poles would produce more glare for the surrounding area. All luminaires would utilize TIR lenses to improve lighting efficiency and control unwanted glare, and would be pre-aimed and pre-mounted.

The District anticipates five football games occurring at night between September and November, each lasting around for to five hours and attracting 800 to 1000 spectators. The football stadium would be also be used for night practice from 6:00 p.m. to 8:00 p.m., four days a week, several classes with no spectators, and a graduation ceremony held in the early summer with approximately 3,000 spectators.

a) *Would the project have a substantial adverse effect on a scenic vista?*

The 2018 FMP EIR determined that this impact is less than significant, as the Campus lacks remarkable scenery, resources, or views that could be categorized as a scenic vista. The built environment of the Campus is consistent with surrounding properties, and there are only minimal views of a grassland and oak woodland landscape. Proposed field lights would be visible to northbound and southbound motorists along Sierra College Boulevard and Rocklin Road; however, the tall and thin vertical profile of field light poles would not obstruct any scenic vista, as the area does not include any unique aesthetic resources that would be classified as a scenic vista. Distant mountain terrain is visible to motorists near the project site; however, these features are already largely blocked from view due to intervening topography, landscaping, and structures. Once installed, the tall and thin form of light poles would be present in views for a short duration and would not substantially block or obstruct the broad mountain terrain from view of local motorists. Similar to existing light poles present in view from Sierra College Boulevard and Rocklin Road, the proposed light poles would be visible but would not mask or otherwise hide scenic views.

The project would involve the installation of poles and light fixtures around the perimeter of the athletics fields on the project site. As described above, the project would not block or otherwise impede views of a scenic vista as analyzed in the 2018 FMP EIR. Impacts related to scenic vistas are adequately addressed in the prior EIR.

b) *Would the project substantially damage scenic resources including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?*

The 2018 FMP EIR concluded that there are no designated State or County Scenic Highways in Placer County identified by the California Scenic Highway Mapping System, and thus no impact would occur from the FMP development. The EIR notes that there are four eligible but not currently designated State Scenic Highway segments within the County; the closest eligible segment is SR-49, which is approximately 13 miles northeast of the Campus. As the proposed project is located within the Campus, there would be no new or increased impacts regarding this topic.

- c) ***In non-urbanized areas, would the project 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?***

The project site is visible from Sierra College Boulevard and the undeveloped land to the east. As the project area and vicinity are relatively flat, there are few viewpoints into the stadium. The football stadium is visible from viewpoints on Sierra College Boulevard. A line of tall and mature trees is present south of the Campus and blocks the view from Rocklin Road into the sporting fields. Proposed field lights would be visible to northbound and southbound motorists along Sierra College Boulevard and Rocklin Road; however, the tall and thin vertical profile of field light poles would not obstruct any scenic resources. Similar to existing light poles present in view from Sierra College Boulevard and Rocklin Road, the proposed light poles would be visible but would not mask or otherwise hide scenic views.

Impacts to visual quality were considered in the 2018 FMP EIR and found to be less than significant with mitigation. The mitigation relates to removal of oak trees, which is not applicable to the proposed project. Viewpoint 4, analyzed in the EIR, includes a view of the stadium (Figure 4.1-5, 2018 FMP EIR).

The project would involve the installation of poles and light fixtures around the perimeter of the athletics fields on the project site. As described above, the project would not degrade visual character or quality of public views and would not result in an impact greater than the effects analyzed in the prior EIR.

- d) ***Would the project create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?***

Existing sources of nighttime lighting near the project site include streetlights installed along Sierra College Boulevard, Stadium Entrance Drive, and Rocklin Road, lighting from the parking lots north and south of the project site, as well as lighting from buildings and walkways on the main Campus to the west. Surrounding commercial developments also contribute nighttime lighting to the local area landscape. Existing sources of glare are relatively limited and generally consist of similar lighting sources as described above.

Construction of the project would take approximately 2 months to complete and would occur Monday through Friday 8:00 a.m. to 4:00 p.m. Because construction activities would cease at 4:00 p.m., the use of temporary lighting sources during construction would not be required.

Once installed, new lighting would facilitate nighttime use of the football stadium, track, beach volleyball fields, and nearby walkway. Regular nighttime use of the football stadium would occur four days per week for night practice from 6:00 p.m. to 8:00 p.m. Between September and November, five night games are anticipated to occur. The night games would last approximately four to five hours, and attract 800 to 1,000 spectators. Three classes are expected to use the stadium during fall and possibly spring semester, and a graduation ceremony with 3,000 spectators would occur once in the early summer.

A photometric report was submitted along with the GameChanger Q-LED Sports Lighting System specifications (see Figure 3). The report determined projected light levels from the project, and quantifies projected lighting at the fields and spillover to Sierra College Boulevard. According to the report, proposed light fixtures installed around the football stadium would generate a maximum of 38, minimum of 29, and average of 34 horizontal-footcandles (fc) of light on the football field. These four light poles would also produce a maximum of 38,

minimum of 2, and average of 13 fc for the future track that would surround the football field. The two light poles installed for the beach volleyball fields and the walkway would generate a maximum of 54, minimum of 34, and average of 44 fc on the beach volleyball fields, and a maximum of 38, minimum of 1, and average of 13 fc for the walkway segment. Light spillover onto Sierra College Boulevard would occur from the football stadium lights due to their proximity, but spillover levels would be minimal. The photometric report estimates that light levels on Sierra College Boulevard would be an average of 0.2 fc from the proposed project. The maximum of 0.3 fc would occur at the segment of the street directly across from the center of the football stadium. As Sierra College Boulevard is already installed with street lights, the slight increase in lighting would likely not be noticeable and would not affect nighttime views.

The City of Rocklin has not adopted any regulations or ordinances related to light pollution. However, the City's General Plan Policy LU-4 encourages use of techniques that minimize the adverse effects of light and glare on surrounding properties, and encourages incorporation of dark sky concepts to the extent practicable. As discussed above, light spillover onto adjacent properties would be minimal. Use of the proposed stadium lights would result in an average light level increase of 0.2 fc on Sierra College Boulevard. This increase in lighting would be negligible with consideration of the street lighting already installed. No significant impacts would occur regarding light spillover onto properties adjacent to the Campus.

Additionally, use of timers and TIR (total internal reflection) lenses for increased lighting efficiency and aiming capability would reduce opportunities for unnecessary illumination of nighttime skies. Compared to reflective lenses, TIR lenses are more effective for controlling glare and light focusing. Fixtures using reflective light technology will not be considered. All lighting fixtures would be pre-aimed before installation on the poles. In accordance with Illuminating Engineering Society recommendations, the top portion of the defined beam shall be 10 degrees or more below the plane of the luminaire. Up-lighting would not be allowed.

Additionally, regular use of the football stadium lights would only occur four days per week from 6:00 p.m. to 8:00 p.m. for night practice, and lights would be turned off when practice is over. Use of the lights for events like football games and graduation would only occur a few times a year, and the lights would be shut off after they resolve.

For the reasons described above, project lighting and glare impacts would be **less than significant** and would not adversely affect existing nighttime and daytime views in the area.

3.2 Agriculture and Forestry Resources

	Potentially Significant Impact	Impact Adequately Addressed in 2018 FMP EIR	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
II. AGRICULTURE AND FORESTRY RESOURCES – 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 forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board. Would the project:					
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 Resources Agency, to non-agricultural use?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d) Result in the loss of forest land or conversion of forest land to non-forest use?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input 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 checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Discussion

The 2018 FMP EIR considered building and related facility construction on the Campus. Because there are no lands designated as agricultural within the Campus, and no forestry resources present, the 2018 FMP found that agricultural resources impacts would not be significant.

- a-e) *Would the project 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 Resources Agency, to non-agricultural use?*

Would the project conflict with existing zoning for agricultural use, or a Williamson Act contract?

Would the project conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?

Would the project result in the loss of forest land or conversion of forest land to non-forest use?

Would the project 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?

The 2018 FMP EIR determined that there would be no Agricultural and Forestry resources impacts, as there are no lands designated as agricultural on Campus, and no trees or other plant materials harvested as forestry resources on Campus. The proposed project site is within the Campus, therefore this impact is adequately addressed by the prior EIR.

3.3 Air Quality

	Potentially Significant Impact	Impact Adequately Addressed in 2018 FMP EIR	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
III. 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:					
a) Conflict with or obstruct implementation of the applicable air quality plan?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input 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 checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Expose sensitive receptors to substantial pollutant concentrations?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input 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 checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Discussion

The 2018 FMP EIR considered the air quality impacts of implementing the FMP. See Section 4.2 of the 2018 FMP EIR for the analysis of air quality impacts associated with the FMP. The FMP EIR considered operational impacts of the FMP at buildout, and construction of certain “near term” projects. The stadium lighting project was not considered in the near-term construction air quality analysis. Therefore, the construction emissions for the proposed project are analyzed as part of this Initial Study. The analysis below reflects air quality impacts associated with construction and operations of the proposed project.

a) *Would the project conflict with or obstruct implementation of the applicable air quality plan?*

The 2018 FMP EIR determined that impacts associated with the potential to conflict with or obstruct implementation of applicable Placer County Air Pollution Control District (PCAPCD) air quality plans including the 8-Hour Ozone Attainment Plan and Reasonable Further Progress Plan (2013 SIP Revisions) would be less than significant.

The project site is under the jurisdiction of the PCAPCD within the Sacramento Valley Air Basin (SVAB). The SVAB is designated nonattainment for both national and California ozone standards. Accordingly, the PCAPCD, along with other local air districts in the SVAB, is required to comply with and implement the State Implementation Plan (SIP) to demonstrate when and how the region can attain the federal ozone (O₃) standards. As such, the PCAPCD, along with the other air districts in the region, prepared the Sacramento Regional 8-Hour Ozone Attainment and Reasonable Further Progress Plan (2017 SIP Revisions). The Ozone Attainment Plan addresses attainment of the federal 8-hour O₃ standard, while the 2015 Triennial Report and Air Quality Plan Revision address attainment of the California 1-hour and 8-hour O₃ standards (SMAQMD 2016). These are the latest plans adopted by the PCAPCD in coordination with the air quality management districts and air pollution control districts of El Dorado, Sacramento, Solano, Sutter, and Yolo counties, and they incorporate land use assumptions and travel demand modeling provided by Sacramento Area Council of Governments (SACOG). The purpose of a consistency finding is to determine if a project is inconsistent with the assumptions and objectives of the regional air quality plans, and thus if it would interfere with the region’s ability to comply with federal and state air quality standards. In general, projects are considered consistent with, and would not conflict with or obstruct implementation of the air quality plan if the growth in socioeconomic factors is consistent with the underlying regional plans used to develop the air quality management plan.

Demographic growth forecasts for various socioeconomic categories (e.g., population, housing, employment by industry) were developed by SACOG for its Metropolitan Transportation Plan/Sustainable Communities Strategy (MTP/SCS) (SACOG 2016) based on general plans for cities and counties in the SVAB. The air quality management plans rely on the land use and population projections provided in the MTP/SCS, which is generally consistent with the local plans; therefore, the air quality management plans are generally consistent with local government plans.

The proposed project would not conflict with or obstruct implementation of the MTP/SCS because it would not increase population nor would it require additional employment. Therefore, the proposed project would not increase development density and would be considered consistent with the emissions estimates in the air quality attainment plans described above. As a result, the project would not conflict with an applicable air quality plan or potentially obstruct its implementation and the impact is adequately addressed in the 2018 FMP EIR.

- b) *Would the project 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?*

The 2018 FMP EIR determined that impacts associated with construction and operational activities would not exceed the PCAPCD significance thresholds and would not result in a considerable contribution to the region's cumulative air quality impact.

Non-attainment pollutants of concern include O₃ and particulate matter with an aerodynamic diameter less than or equal to 10 microns in size (PM₁₀). If a project exceeds the identified thresholds of significance, its emissions would result in significant adverse air quality impacts to the region's existing air quality conditions. The following discussion evaluates the potential for the proposed project's construction and operational emissions to result in a considerable contribution to the region's cumulative air quality impact.

Construction Emissions

Construction of the proposed project would generate criteria air pollutant emissions from excavation for the construction of the footings for the lighting poles and trenching for electrical conduit. Exhaust from internal combustion engines used by construction equipment, vendor trucks (delivery trucks), haul trucks, and worker vehicles would result in emissions of reactive organic gases (ROGs), oxides of nitrogen (NO_x), and PM₁₀. Construction of the project would also generate carbon monoxide (CO), sulfur oxides (SO_x), and particulate matter with an aerodynamic diameter less than or equal to 2.5 microns in size (PM_{2.5}) emissions; however, only the criteria air pollutants that the PCAPCD have adopted thresholds for are presented in Table 1, though all criteria air pollutant emissions are included in Appendix A. For the purposes of estimating daily and annual construction emissions, activities were assumed to begin in the mid-2020, occurring over an approximately 2-month period. Construction would involve excavation and trenching activities. Entrained dust results from the exposure of earth surfaces to wind from the direct disturbance and movement of soil, resulting in PM₁₀ and PM_{2.5} emissions. To account for compliance with PCAPCD Rule 228 (fugitive dust), it was assumed that the active sites would be watered at least twice daily, or as necessary depending on weather conditions.

Predicted construction emissions for the worst-case day for the project are presented in Table 1 and are compared to the PCAPCD significance thresholds.

Table 1. Maximum Daily Construction Criteria Air Pollutant Emissions

	ROG	NO _x	PM ₁₀
Year	Pounds per Day		
2020	0.94	8.95	0.85
PCAPCD Threshold	82	82	82
Threshold Exceeded?	No	No	No

Source: See Appendix A for details.

Notes: ROG = reactive organic gas; NO_x = oxides of nitrogen; PM₁₀ = coarse particulate matter; PCAPCD = Placer County Air Pollution Control District.

The values shown are the maximum summer or winter daily emissions results from CalEEMod.

As shown in Table 1, ROG, NO_x and PM₁₀ emissions during construction would not exceed not exceed PCAPCD significance thresholds. Therefore, impact from construction is adequately addressed by the 2018 FMP EIR.

Operational Emissions

After construction of the new lighting systems, the proposed project would be connected to the electricity grid and operation of the stadium lights would use electricity generated off-site and supplied by PG&E. However, the criteria air pollutant emissions are generally associated with the off-site power plants themselves and not the electricity consumer (CAPCOA 2017). Operational impacts of the FMP were considered in the 2018 FMP EIR and found to be less than significant. The proposed project would not result in an increase in operational criteria air pollutant emissions beyond what was considered in the prior EIR. Therefore, the impact is adequately addressed by the 2018 FMP EIR.

Conclusion

As discussed previously, non-attainment pollutants of concern within the SVAB include O₃ and PM₁₀. Construction activities of the proposed project would generate ROG and NO_x emissions (which are precursors to O₃) and emissions of PM₁₀. However, as indicated in Table 1, project-generated construction emissions would not exceed the PCAPCD significance thresholds for ROG, NO_x, or PM₁₀. Therefore, the proposed project would not contribute to a cumulatively significant impact, and is adequately addressed by the prior EIR.

c) *Would the project expose sensitive receptors to substantial pollutant concentrations?*

The 2018 FMP EIR determined that implementation of the FMP would not expose sensitive receptors to substantial pollutant concentrations. Specifically, the 2018 FMP EIR found that (1) emissions of CO would not cause or contribute to local CO concentrations exceeding 20 parts per million (ppm) over a 1-hour averaging period or 9 ppm, and that (2) toxic air contaminants (TACs) generated during construction and operations would not be expected to result in concentrations causing significant health risks.

Toxic Air Contaminants

The PCAPCD has adopted project thresholds for evaluating potential health risks on sensitive receptors. These impacts are addressed on a localized rather than regional basis and are specific to the sensitive receptors identified for the proposed project. Sensitive receptors are people that have an increased sensitivity to air pollution or environmental contaminants. Sensitive receptor locations include schools, parks and playgrounds, day care centers, nursing homes, hospitals, and residential dwelling units. The proposed project is located greater than 1,000 feet from the closest sensitive receptors, which are located south of the project site.

“Incremental cancer risk” is the net increased likelihood that a person continuously exposed to concentrations of TACs resulting from a project over a 9-, 30-, and 70-year exposure period would contract cancer based on the use of standard Office of Environmental Health Hazard Assessment (OEHHA) risk-assessment methodology (OEHHA 2015). In addition, some TACs have non-carcinogenic effects. TACs that would potentially be emitted during construction activities would be diesel particulate matter (DPM), emitted from heavy-duty construction equipment and heavy-duty trucks. Heavy-duty construction equipment and diesel trucks are subject to California Air Resources Board (CARB) air toxic control measures to reduce diesel particulate matter (DPM) emissions. According to the OEHHA, health risk assessments, which determine the exposure of sensitive receptors to toxic emissions, should be based on a 30-year exposure period for the maximally exposed individual resident; however, such assessments should be limited to the period/duration of activities associated with the project (OEHHA 2015). Thus, the duration of

proposed construction activities (approximately 2-months) would only constitute a small percentage of the total 30-year exposure period. Regarding long-term operations, the proposed project would not result in non-permitted stationary sources that would emit air pollutants or TACs.

In summary, the proposed project would not expose sensitive receptors to substantial, long-term pollutant concentrations or health risk during construction or operations, and this impact is adequately addressed in the 2018 FMP EIR.

d) *Would the project result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?*

The 2018 FMP EIR determined that impacts associated with objectionable odors to be less than significant.

Odors are a form of air pollution that is most obvious to the public. Odors can present significant problems for both the source and surrounding community. Although offensive odors seldom cause physical harm, they can be considered a nuisance and cause concern.

Potential odors produced during construction would be attributable to concentrations of unburned hydrocarbons from tailpipes of construction equipment. In general, odors are highest near the source, but disperse quickly resulting in a reduced off-site exposure. Sensitive receptors located adjacent to the project site may be affected. However, construction activities would use typical construction techniques in compliance with PCAPCD rules and any odors associated with project construction activities would be temporary and would cease upon completion of construction. In addition, there would be no long-term odors caused by the proposed project; therefore, impacts associated with odors generated during construction and operation is adequately addressed in the 2018 FMP EIR.

3.4 Biological Resources

	Potentially Significant Impact	Impact Adequately Addressed in 2018 FMP EIR	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
IV. BIOLOGICAL RESOURCES – Would the project:					
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 Game or U.S. Fish and Wildlife Service?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input 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 Game or U.S. Fish and Wildlife Service?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input 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 checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input 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 checked="" type="checkbox"/>	<input type="checkbox"/>	<input 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 checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input 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 checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Discussion

The 2018 FMP EIR considered building and related facility construction on the Campus. See Section 4.3 of the 2018 FMP EIR for the analysis of biological resources impacts associated with the FMP. The analysis below reflects the applicable Campus-wide biological resources analysis provided in Section 4.3 of the 2018 FMP EIR as it relates to the proposed project.

- a) ***Would the project 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 Game or U.S. Fish and Wildlife Service?***

The 2018 FMP EIR concluded that some special-status species could potentially be present at the Campus and would be impacted by FMP activities. During surveys conducted in 2017 and by a Sierra College faculty member during her tenure from 1995 to 2012, no special-status plant species were observed and the Campus was noted to contain no habitat that would support such species. Most of the main Campus was considered heavily disturbed, with vegetation primarily consisting of ornamental and ruderal varieties. However, special-status wildlife species were observed and noted to have potential to occur on the Campus during these surveys. One western pond turtle was observed in Pond 1 (Figure 4.3-1 of the 2018 FMP EIR), which is located immediately south of Lot R. The EIR noted that valley elderberry longhorn beetle (VELB) could potentially occur within any six elderberry shrub clusters on Campus. Other species identified in the EIR as potentially-occurring were Central Valley steelhead, Central Valley chinook salmon, pallid bat, Townsend's big-eared bat, American badger, tricolored blackbird, golden eagle, Swainson's hawk, white-tailed kite, and other raptors and migratory birds. The EIR includes a range of mitigation measures (MMs) to avoid impacts to these special-status species, and concluded that with their implementation, project-related impacts to special-status species would be less than significant.

The 2018 FMP EIR did not identify any special-status species occurring or with the potential to occur within or in the immediate vicinity of the football stadium. As project construction and operation would affect the localized area of the football stadium, it is unlikely that there would be any impacts to special-status species. However, it is a possibility that nearby trees adjacent to the project site would provide nesting habitat for raptors and migratory birds. MM BIO-6 was proposed in the EIR to conduct a preconstruction survey within 500 feet of the perimeter of the project site, and specifies avoidance measures to prevent disruption of nesting activities. Thus, with implementation of MM BIO-6, impacts to special-status species would be less than significant and would not result in an increase in severity from what was identified in the 2018 FMP EIR.

- b) ***Would the project 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 Game or U.S. Fish and Wildlife Service?***

The 2018 FMP EIR states that the FMP project would potentially have an adverse effect on riparian habitat and oak woodland habitat. The FMP project would disturb approximately 0.01 acre of riparian habitat, and conflict with Rocklin's oak protection requirements by removing 127 oak trees. The EIR proposed two mitigation measures to reduce the related impacts to less than significant.

No riparian habitat or oak trees are present within the proposed project area. Therefore, this impact is adequately addressed in the 2018 FMP EIR.

- c) ***Would the project 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?***

Water features occurring on the Campus include a pond, wetland, two potential vernal pools, and five ditches. These features connect to Secret Ravine, which is a tributary to traditionally navigable waters. The 2018 FMP EIR concluded that the FMP project could incur significant impacts to waters protected under Section 404 of the Clean Water Act (CWA), Section 401 of the CWA, and Section 1600 of the California Fish and Game Code, and that these impacts could be reduced to less than significant with implementation of MM-BIO-9 (p. 4.3-30).

No water features are present on the proposed project site, and therefore the project would have no impact on any state or federally protected wetlands and the impact is adequately addressed in the 2018 FMP EIR.

- d) ***Would the project 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?***

The 2018 FMP EIR concluded that the FMP project would significantly impact 0.02 acre of water features and 0.01 acre of riparian habitats, which likely function, to some extent, as wildlife corridors. However, with implementation of the recommended mitigation measures, impacts would be reduced to a level that is less than significant.

None of the identified water features or riparian habitats exist within the proposed project site, and therefore no impact would occur to any wildlife corridors or wildlife nursery and the impact is adequately addressed by the 2018 FMP EIR.

- e) ***Would the project conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?***

The City of Rocklin regulates impacts to native oak trees through the Oak Tree Preservation Ordinance, which offers incentives for oak tree preservation and regulates the removal of native oak trees with 6 inches or greater diameter at breast height (DBH)¹. The City's General Plan ordinances LU-5 and OCR-43 state that projects should be designed in a manner that protects existing oak trees, and mitigation for oak tree impacts must be done in accordance with the Oak Tree Preservation Ordinance. Feasible mitigation measures include planting oaks on- or off-site to compensate for loss, or financial contributions to the Rocklin Oak Tree Preservation Fund and land dedication. The FMP EIR concluded that implementation of near-term projects would result in the removal of 127 regulated oak trees, but project-related impacts would be less than significant with mitigation incorporated.

The 2018 FMP EIR does not identify the Football Stadium Lighting Project improvements as a "near term" project that could be approved within the scope of the FMP EIR. However, the project construction and activity would not harm any oak trees, as no oak trees are present at the project site. As such, there would be no conflicts with local policies or ordinances, and the impact is adequately addressed by the 2018 FMP EIR.

¹ DBH is typically measured 4.5 feet (1.4 meters) from the ground level at the base of the tree.

f) *Would the project conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?*

The 2018 FMP EIR concluded that the Sierra College site is not located within the boundaries of any adopted Habitat Conservation Plan, Natural Community Conservation Plan, or any other conservation plan, and therefore cumulative impacts would be less than significant. As the football stadium is part of the Campus, the proposed project would also not conflict with any conservation plan. This impact was adequately addressed in the 2018 FMP EIR.

Applicable Mitigation Measures from the 2018 FMP EIR

MM BIO-6 (Other raptors and migratory birds): A qualified biologist shall conduct a preconstruction survey on the Project site and within 500 feet of its perimeter, if construction occurs during the breeding season (February 1 to August 31). Any survey will be conducted in areas where there is a potential for nesting raptors and nesting migratory birds to occur. These areas include power poles or trees that are suitable for the establishment of nests. These areas also include non-native annual grassland habitat and un-harvested alfalfa and grain crops (which occur off-site but within 500 feet of the Project), which provide potential breeding habitat for ground-nesting birds such as the California quail (*Callipepla californica*), killdeer (*Charadrius vociferus*), western meadowlark (*Sturnella neglecta*), and northern harrier (*Circus cyaneus*). The preconstruction survey shall be performed within 30 days of construction to identify and mark active nests for avoidance.

Construction activities shall not occur within 500 feet of active raptor nests or within 250 feet of all other migratory bird nests unless a qualified biologist determines that smaller buffers are sufficiently protective to avoid disrupting nesting activities. These avoidance areas shall be designated as Biologically Sensitive Areas (BSAs). No construction or earth-moving activity shall occur within the BSAs until it is determined by a qualified biologist that the young have fledged (that is, left the nest) and have attained sufficient flight skills to avoid project construction zones. This typically occurs by early July, but August 31st is considered the end of the nesting period unless otherwise determined by a qualified biologist. Once raptors have completed nesting and young have fledged, the BSAs will no longer be needed and can be removed, and monitoring can be terminated.

3.5 Cultural Resources

	Potentially Significant Impact	Impact Adequately Addressed in 2018 FMP EIR	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
V. CULTURAL RESOURCES – Would the project:					
a) Cause a substantial adverse change in the significance of a historical resource pursuant to §15064.5?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input 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"/>	<input type="checkbox"/>
c) Disturb any human remains, including those interred outside of dedicated cemeteries?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Discussion

The 2018 FMP EIR considered building and related facility construction on the Campus. See Section 4.4 of the 2018 FMP EIR for the analysis of cultural impacts associated with the FMP. A cultural resources records search and pedestrian surveys were conducted for the FMP project. The analysis below reflects the applicable Campus-wide cultural resources analysis provided in Section 4.4 of the 2018 FMP EIR as it relates to the proposed project.

a) *Would the project cause a substantial adverse change in the significance of a historical resource pursuant to §15064.5?*

Based on the Cultural Resources Report prepared for the 2018 FMP EIR, no previously recorded prehistoric or historic-era resources were identified within the Campus by the Native American Heritage Commission (NAHC) in its sacred lands file search, through contacts with Native American tribes listed by the NAHC, or in the records search at the North Central Information Center. The EIR concluded that although no historic resources were identified at the Campus, grading and/or excavation associated with the FMP project could potentially unearth and disturb these resources. The EIR proposed MM CUL-1 and MM CUL-2 to minimize impacts to historic resources. MM CUL-1 would stop ground-disturbing activities and retain a qualified archaeologist in the case that any prehistoric or historic artifacts are found. MM CUL-2 states that any structures older than 50 years shall be evaluated against the criteria for the National Register of Historic Places before demolition or modification.

The existing football stadium was opened in 2007, and the existing beach volleyball fields were opened in 2018. No structures older than 50 years old would be demolished or modified as a result of the proposed project. Therefore, MM CUL-2 would not apply to the project. No historic resources were identified on the proposed project site; however, installation of the lighting system would require minimal ground-disturbing activities that could potentially unearth historic resources. Compliance with MM CUL-1 from the 2018 FMP EIR would reduce any potential impact to previously unidentified historic resources and impact is adequately addressed by the 2018 FMP EIR.

b) *Would the project cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?*

No archaeological resources were identified on or within the immediate vicinity of the Sierra College site in the Cultural Resources Report prepared for the 2018 FMP EIR. Similar to the discussion in a), the EIR concluded that there would be a potentially significant impact to archaeological resources during grading or excavation activities. With implementation of MM CUL-1, which would retain a qualified archaeologist to assess any findings, the impact would be considered less than significant.

Installation of the lighting system would require minimal ground-disturbing activities with a small potential to unearth or harm archaeological resources. Adherence to MM CUL-1, as identified in the FMP EIR, would reduce potential archaeological impacts to less than significant. This impact is adequately addressed by the 2018 FMP EIR.

c) *Would the project disturb any human remains, including those interred outside of dedicated cemeteries?*

The pedestrian surveys, records searches, and Native American consultations done for the 2018 FMP EIR did not identify or indicate the presence of any human remains, burials, or cemeteries within the Campus. However, the EIR concluded that there would be a potentially significant impact resulting from ground-disturbing activities, and proposed MM CUL-5 which outlines protocol in the event human remains are discovered.

Installation of the lighting system would require minimal ground-disturbing activities with a small potential to unearth or disturb human remains. As concluded in the EIR, implementation of MM CUL-5 would reduce impacts to potential human remain discoveries. Therefore, the potential impact to human remains is adequately addressed by the 2018 FMP EIR.

Applicable Mitigation Measures from the 2018 FMP EIR

MM CUL-1: If any prehistoric or historic artifacts, or other indications of cultural deposits such as dark gray or black sediments with stone, bone or shell artifacts, or historic privy pits or trash deposits are found once ground-disturbing activities are underway, all ground disturbance activity within 50 feet of the find shall stop. The find(s) shall be immediately evaluated by a qualified archaeologist. If the find is determined to be a historical or unique archaeological resource, the qualified archaeologist shall formulate a proposed mitigation strategy including contingency funding and a time allotment to allow for implementation of avoidance measures or appropriate mitigation, consistent with the preferences set forth in §15064.5 of the CEQA Guidelines (favoring preservation in place where feasible). The District shall implement such recommended measures if the District determines that they are feasible in light of project design, logistics, and cost considerations. Work may continue on other parts of the Project site while mitigation of the historical or unique archaeological resource takes place.

MM CUL-5: In the event that human remains are discovered, further excavation or disturbance shall be prohibited pursuant to Section 7050.5 of the California Health and Safety Code. The specific protocol, guidelines, and channels of communication outlined by the Native American Heritage Commission (NAHC), in accordance with Section 7050.5 of the Health and Safety Code, Section 5097.98 of the Public Resources Code (Chapter 1492, Statutes 1982, Senate Bill 297), and Senate Bill 447 (Chapter 44, Statutes of 1987), shall be

followed. All reports, correspondence, and determinations regarding the discovery of human remains on the Project site shall be submitted to the Placer County Planning and Community Development Department.

In the event of the discovery of human remains, at the direction of the county coroner, Section 7050.5(c) shall guide potential Native American consultation.

3.6 Energy

	Potentially Significant Impact	Impact Adequately Addressed in 2018 FMP EIR	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
VI. Energy – Would the project:					
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 checked="" type="checkbox"/>	<input type="checkbox"/>	<input 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 checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Discussion

The 2018 FMP EIR includes discussion of whether the FMP project would result in wasteful, inefficient, or unnecessary consumption of energy. This discussion is available in Section 6.5, Energy Conservation, of the 2018 FMP EIR, consistent with Public Resources Code Section 21100(b) (3) and CEQA Guidelines Appendix F. The 2018 FMP found that implementation of the FMP would not result in wasteful, inefficient or unnecessary consumption of energy. The analysis below uses relevant information gathered from the 2018 FMP EIR as it is applicable to the proposed project, and also considers information from the air quality/greenhouse gas emissions analysis prepared by Dudek.

a) *Would the project result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?*

The 2018 FMP EIR concluded that construction and operation of the FMP project would increase the use of energy resources on the Campus, but would not result in wasteful, inefficient, or unnecessary consumption of these resources. The creation of new buildings and modification of existing buildings would consume fuel and other energy needed for transportation of materials and equipment, construction of new structures, and other aspects to support construction activities and maintenance operations. However, there is no evidence that fuels or energy sources would be used wastefully during construction of the FMP components. The FMP proposed replacement of small, one-story buildings with larger, multi-story buildings, which would provide a higher level of energy efficiency and decreased carbon footprint. Additionally, the EIR notes that the college has been implementing energy conservation programs, such as changing campus exterior pole lights from standard high-pressure sodium and metal halide fixtures to LEDs, saving an

estimated 112,000 kWh per year. The new FMP structures and components would also be compliant with the existing energy conservation programs. In addition, because the FMP is an infill project that would utilize existing utilities and enact more energy efficient heating, cooling, electrical and water systems, the EIR found there would be no wasteful, inefficient, or unnecessary consumption of energy resources.

The proposed project involves installation of lighting to illuminate the football stadium, future track, beach volleyball fields, and part of the adjacent walkway. The maximum energy consumption for the entire field lighting system shall be 51.3 kWh, as specified in the GameChanger Q-LED Sports Lighting System design specifications. Based on the Campus electricity use of 7 MWh, the field lighting system would only constitute about 0.73% of the entire Campus electricity use. Additionally, the lights would only be in use during the nighttime. The lighting system would not be a wasteful, inefficient, or unnecessary consumption of energy resources, as was concluded in the 2018 FMP EIR. Thus, the impact is adequately addressed in the 2018 FMP EIR.

b) Would the project conflict with or obstruct a state or local plan for renewable energy or energy efficiency?

There are no applicable state or local plans related to the proposed project, as discussed in the 2018 FMP EIR. Although not directly applicable, Rocklin's General Plan Policy OCR-56 specifies that energy conservation should be encouraged in new developments. In addition, the project will meet all Title 24 (California Code of Regulations) energy efficiency requirements. The lighting system is designed to conserve energy, as it utilizes LED bulbs and TIR lenses for focused aim and increased efficiency, and specifies the maximum energy use per hour. As such, the project would not conflict with or obstruct any state or local plans for renewable energy or energy efficiency. The impact is adequately addressed by the prior EIR.

3.7 Geology and Soils

	Potentially Significant Impact	Impact Adequately Addressed in 2018 FMP EIR	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
VII. GEOLOGY AND SOILS – Would the project:					
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 checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
ii) Strong seismic ground shaking?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

	Potentially Significant Impact	Impact Adequately Addressed in 2018 FMP EIR	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
iii) Seismic-related ground failure, including liquefaction?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
iv) Landslides?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Result in substantial soil erosion or the loss of topsoil?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input 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 checked="" type="checkbox"/>	<input type="checkbox"/>	<input 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 checked="" type="checkbox"/>	<input type="checkbox"/>	<input 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 checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Discussion

The 2018 FMP EIR considered building and related facility construction on the Campus. See Section 4.5 of the 2018 FMP EIR for the analysis of geology and soils impacts associated with the FMP. The analysis below reflects the applicable Campus-wide geology and soils analysis provided in Section 4.5 of the 2018 FMP EIR as it relates to the proposed project.

a) *Would the project 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.*

The 2018 FMP EIR indicated that no portion of the Campus is located on an Earthquake Fault Zone as defined by the Alquist-Priolo Earthquake Zoning Act. Therefore, the EIR concluded that the FMP project would not expose people or structures to substantial adverse effects related to rupture of a known earthquake fault, and no impact would occur. As the proposed project is within the Campus analyzed in the prior EIR, no further CEQA review is required.

ii) Strong seismic ground shaking?

The Campus is located in an area of low seismic activity. However, faults and fault systems along the eastern boundary of Placer County could potentially produce high-magnitude earthquakes. The closest recently active fault is the Cleveland Hills fault, located in the western Sierra Nevada foothills approximately 40 miles north of Rocklin. The County is located in Seismic Zone III, which indicates potential of ground acceleration levels resulting in very strong to severe perceived shaking, and moderate to heavy potential damage. Thus, the 2018 FMP EIR concluded that there would be a potentially significant impact involving strong seismic ground shaking, and proposed MM GEO-1 which requires the preparation of design-level geotechnical studies to prevent potential impacts.

The EIR concluded that compliance with MM GEO-1 and the applicable building codes, impacts related to strong seismic ground shaking would be less than significant. The proposed project would not build any habitable structures that would increase the risk of loss, injury, or death from seismic ground shaking. Thus, the project would not require preparation of a design-level geotechnical study unless the District is so directed by the Department of the State Architect. This impact is adequately addressed by the prior EIR.

iii) Seismic-related ground failure, including liquefaction?

The 2018 FMP EIR assumes that the potential for liquefaction to occur on the Campus is low, based on depth to groundwater assumptions (approximately 87 feet below ground surface). However, the actual depth to groundwater is unknown. The EIR states that there is a minute possibility that a rain event and concurrent seismic event may create a condition for liquefaction to occur. Therefore, the EIR concluded that this would be a potentially significant impact and compliance with MM GEO-1 along with applicable City General Plan policies would be required to provide certainty that any future development would not be at risk of ground failure hazard. The proposed project does not include any habitable structures that would cause substantial adverse effects related to ground failure or liquefaction. As discussed previously, the project would not warrant any design-level geotechnical studies to be completed. The impact is adequately addressed by the prior EIR.

iv) Landslides?

The Campus is within an area of low landslide incidence. However, landslides may possibly occur in the case of erosion, slope weakening through saturation, or stresses by earthquakes. The 2018 FMP identifies this as a potentially significant impact before mitigation. MM GEO-1 provides structural design recommendations pursuant to California Building Code (CBC) requirements to reduce landslide hazards. The EIR concludes that compliance with MM GEO-1 and the California Building Code would reduce potential impacts to a less-than-significant level. However, the proposed project would not include any development warranting preparation of a design-level geotechnical study, and would not build any habitable structures that would increase the risk of loss, injury, or death from landslides. Thus, the impact is adequately addressed by the prior EIR.

b) Would the project result in substantial soil erosion or the loss of topsoil?

Construction activities associated with the FMP project involve ground disturbance where topsoil is exposed, moved, or stockpiled. According to the 2018 FMP EIR, more than 7.8 acres of ground surface

area would be disturbed for construction of FMP components, and a majority of the soils are categorized as sandy loam which has medium susceptibility to erosion. The EIR concluded that this would be a potentially significant impact. However, with adherence to the City's Municipal code, the CBC, NPDES requirements, applicable General Plan policies related to soil erosion, and MM HYD-1, the EIR concluded that impacts would be reduced to less than significant. MM HYD-1 states that the District shall comply with the Sierra College Rocklin Campus Land Use Development Plan 1995-2010 recommendations to maintain water quality and that new development shall be clustered in areas less sensitive than the Secret Ravine, and detailed site surveys shall be conducted prior to construction.

The proposed project is expected to involve some level of ground disturbance during installation of the lighting system. However, ground disturbance would be minimal, within previously disturbed areas, and would not increase the amount of impervious area. Construction activities associated with the project would only involve disturbance of relatively small areas of the soil in order to install the lighting system. Any topsoil removed to install the light pole foundations or conduit would be recompacted and reseeded. Thus, MM HYD-1 would not be applicable to the proposed project. The impact is adequately addressed by the prior EIR.

- c) ***Would the project 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?***

As mentioned previously, landslide and liquefaction impacts would be less than significant. The 2018 FMP EIR concludes that because the actual depth to groundwater underlying the Campus is unknown, there would potentially be an impact regarding lateral spreading. Additionally, the EIR concludes that the potential for proposed FMP development to experience collapse would be minimal, since most campus soil is considered to be well drained. Development would also be designed to comply with applicable building codes and structural requirements to withstand potentially collapsible soil. The campus has an extremely low potential for subsidence, as the Campus nor the County have never had past occurrences of subsidence. It was concluded that MM GEO-1, along with applicable City General Plan policies, would reduce lateral spreading and collapsible soil impacts to less than significant. The proposed project does not include any habitable structures that would cause substantial adverse effects related to unstable geologic units or soils. As discussed previously, the project would not warrant any design-level geotechnical studies to be completed (per MM GEO-1). Thus, the impact is adequately addressed by the prior EIR.

- d) ***Would the project 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?***

The 2018 FMP EIR concluded that soils on Campus are not considered clayey, nor are they subject to extreme expansion during periods of high rainfall. Soil types within the Campus contain a maximum 20 percent clay content, meaning there is low potential for expansive soils at the site. Additionally, FMP development would comply with applicable building codes and requirements and MM GEO-1. Thus, the EIR concluded that impacts would be less than significant. The proposed project would not require implementation of MM GEO-1, as it would not build any habitable structures or create any risks to life or property. The impact is adequately addressed in the prior EIR.

- e) ***Would the project 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?***

The 2018 FMP EIR states that the entire Campus is served by the Dry Creek wastewater treatment plant, and no septic tanks or alternative waste water systems are present or will be constructed as part of the FMP. The proposed project site is within the Campus and is connected to the same wastewater system. The proposed project would allow for different scheduling of athletic events, but would not increase wastewater demand beyond what is already considered in the FMP. The impact is adequately addressed by the prior EIR.

- f) ***Would the project directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?***

A search of late Pleistocene finds in Placer County done for the 2018 FMP EIR showed that no paleontological resources were identified on or within the immediate vicinity of the Campus. Additional research and field surveys were conducted at specific sites, including the child development center, north parking garage, and science building, and no paleontological resources were identified within those areas. However, the EIR acknowledges that grading and/or excavation could uncover or disturb unknown paleontological resources. This was considered a potentially significant impact, and the EIR proposed MM CUL-3 and MM CUL-4 to mitigate to a less-than-significant level. MM CUL-3 would retain a qualified paleontologist to monitor ground disturbance or excavation if activities proceed into the Turlock Lake Formation along the center of Campus. MM CUL-3 is not relevant to the proposed project, as the Turlock Lake Formation is not encompassed by or within the vicinity of the project area. MM CUL-4 provides guidance on what should be done if fossil remains are uncovered. The EIR analysis considered the project site within the Campus, and the impact to paleontological resources is adequately addressed by the prior EIR. MM-CUL 4 would ensure that the impact of discovering previously unknown resources would be reduced to a less than significant level.

Applicable Mitigation Measures from the 2018 FMP EIR

MM CUL-4: If any fossil remains such as but not limited to vertebrate bones or teeth, or preserved parts of plants are uncovered during construction:

- a. All work in that area shall cease and be diverted away until the qualified paleontologist can determine scientific importance of the find and whether it constitutes a unique paleontological resource. If the fossils are evaluated to be scientifically important, the qualified paleontologist shall remove them as soon as is practicable. If warranted, the qualified paleontologist shall make collections of exposed fossils from the lithologic units of high paleontological importance. All vertebrate and representative samples of mega-invertebrate and plant fossils shall be collected. The qualified paleontologist shall be equipped to allow for the rapid removal of fossil remains and/or matrix and thus reduce the potential for any construction delays.
- b. Depending upon the paleontologic importance of the rock unit, the rock shall be examined periodically for microfossils by wet or dry screening. If important fossil remains are found as a result of screening, samples of sufficient size to generate a representation of the organisms preserved shall be collected and processed, if warranted, on site or at a convenient location.

- c. The reports documenting the fossil finds shall be submitted to the Sierra College Natural History Museum or the University of California, Museum of Paleontology (UCMP), at the Berkeley Natural History Museum. Any such fossils should be offered to an appropriate repository such as the Sierra College Natural History Museum or University of California Museum of Paleontology.

3.8 Greenhouse Gas Emissions

	Potentially Significant Impact	Impact Adequately Addressed in 2018 FMP EIR	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
VIII. GREENHOUSE GAS EMISSIONS – Would the project:					
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input 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 checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Discussion

The 2018 FMP EIR considered the GHG emissions related to construction and operation of the FMP. See Section 4.6 of the 2018 FMP EIR for the GHG analysis. The FMP EIR found that construction activity would be less than significant, but that operations would have a significant impact related to GHG emissions. The proposed project was not considered in the GHG construction scenario in the 2018 FMP EIR, and is therefore analyzed at a project level in this Initial Study.

- a) ***Would the project generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?***

Climate change refers to any significant change in measures of climate, such as temperature, precipitation, or wind, lasting for an extended period (decades or longer). Gases that trap heat in the atmosphere are often called GHGs. The greenhouse effect traps heat in the troposphere through a threefold process: (1) short-wave radiation emitted by the Sun is absorbed by the Earth; (2) the Earth emits a portion of this energy in the form of long-wave radiation; and (3) GHGs in the upper atmosphere absorb this long-wave radiation and emit this long-wave radiation into space and back toward the Earth. This trapping of the long-wave (thermal) radiation emitted back toward the Earth is the underlying process of the greenhouse effect.

Principal GHGs include carbon dioxide (CO₂), methane (CH₄), nitrous oxide, O₃, and water vapor. Some GHGs, such as CO₂, CH₄, and nitrous oxide, occur naturally and are emitted to the atmosphere through natural processes and human activities. Of these gases, CO₂ and CH₄ are emitted in the greatest quantities from human activities. Emissions of CO₂ are largely byproducts of fossil-fuel combustion, whereas CH₄

results mostly from off-gassing associated with agricultural practices and landfills. Manufactured GHGs, which have a much greater heat-absorption potential than CO₂, include fluorinated gases, such as hydrofluorocarbons, perfluorocarbons, sulfur hexafluoride, and nitrogen trifluoride, which are associated with certain industrial products and processes (CAT 2006).

The Intergovernmental Panel on Climate Change developed the Global Warming Potential (GWP) concept to compare the ability of each GHG to trap heat in the atmosphere relative to another gas. The GWP of a GHG is defined as the ratio of the time-integrated radiative forcing from the instantaneous release of 1 kilogram of a trace substance relative to that of 1 kilogram of a reference gas (IPCC 2014). The reference gas used is CO₂; therefore, GWP-weighted emissions are measured in metric tons of CO₂ equivalent (MT CO₂e).

The proposed project is within the jurisdiction of the PCAPCD. To evaluate the impacts of projects on global climate change, the PCAPCD has established significance thresholds for GHG emissions. Thresholds used to determine significance are from the PCAPCD document *Placer County Air Pollution Control District Policy – Review of Land Use Projects under CEQA* (adopted October 13, 2016). PCAPCD-recommended thresholds were used in the 2018 FMP EIR. The PCAPCD recommends the following approach to determine if a project's GHG emissions would result in a significant impact:

- Tier 1 consists of comparing the project's GHG emissions to the de minimis level of 1,100 MT CO₂e per year. If a project does not exceed this threshold, it would have GHG emissions that are not cumulatively considerable.
- Tier 2 is a bright line threshold level of 10,000 MT CO₂e per year, applied to land use projects' construction phase and stationary projects' construction and operational phases. If a project exceeds this cap, the project would be deemed to have a cumulatively considerable contribution to global climate change. A land use project with GHG operational emissions between 1,100 MT CO₂e and 10,000 MT CO₂e per year can still be found less than cumulatively considerable when the results of the project's related efficiency analysis meets one of the efficiency thresholds below.
- Tier 3 compares the project emissions to efficiency thresholds. The efficiency matrix and de minimis level thresholds are only applied to a land use projects' operational phase. These thresholds are 4.5 MT CO₂e per capita for residential projects in an urban area and 5.5 MT CO₂e per capita for residential projects in a rural area. For nonresidential development, the thresholds are 26.5 MT CO₂e per 1,000 sf for projects in urban areas and 27.3 MT CO₂e per 1,000 sf for projects in rural areas. If a project does not exceed the applicable efficiency threshold, it would have GHG emissions that are not cumulatively considerable.

Construction Emissions

Construction of the proposed project would result in GHG emissions, which are primarily associated with use of off-road construction equipment, on-road vendor (material delivery) or haul trucks, and worker vehicles. Table 2 presents construction emissions for the proposed project in 2020 from on-site and off-site emission sources and compares that with the PCAPCD bright-line significance threshold of 10,000 MT CO₂e per year.

Table 2. Estimated Annual Construction GHG Emissions

Year	CO ₂	CH ₄	N ₂ O	CO ₂ e
	<i>Metric Tons Per Year</i>			
2020	26.90	0.01	0.00	27.05

Source: See Appendix A for detailed results

Notes: CH₄ = methane; CO₂ = carbon dioxide; CO₂e = carbon dioxide equivalent; N₂O = nitrous oxide

As shown in Table 2, the estimated annual construction GHG emissions for the proposed project would be approximately 27 MT CO₂e per year. The 2018 FMP EIR used 1,100 MT CO₂e as the construction standard of significance. As shown in Table 2, the proposed project is well below that level. If the proposed project is combined with the maximum construction year presented in the 2018 FMP EIR (Table 4.6-3), which is 643.54 MT CO₂e, the proposed project and other FMP construction emissions are well below the threshold. Therefore, the proposed project's construction-related GHG emissions would not result in a new or greater impact compared to 2018 FMP EIR, and this impact is adequately addressed.

Operational Emissions

After construction of the new lighting systems, GHG-generating activities are primarily associated with generation of electricity to power the proposed LED light fixtures. According to the U.S. Department of Energy (DOE), LED lighting is a highly energy-efficient form of lighting and consumes considerably less energy than incandescent bulbs (DOE 2018). The generation of electricity through combustion of fossil fuels emits CO₂, and to a lesser extent, N₂O and CH₄. Once installed, nighttime use of football stadium would occur 4 days per week, and hours of operation would be from 6:00 PM to 8:00 PM for night practice. The anticipated number of night football games is five per year, occurring between the months of September to November. In addition, night games are expected to last around four to five hours. The maximum energy consumption for the entire field lighting system including illumination of the football stadium, future track, and beach volleyball fields would be 51.3 kWh. Energy generation associated with these light fixtures would be approximately 0.04 MT CO₂e per year (EPA 2018). The project emissions would be far below the PCAPCD threshold, and would be an insignificant increase compared to the FMP build-out projection of 9,180.467 MT CO₂e per year (see Table 4.6-4 of the 2018 FMP EIR). Therefore, operational emissions are adequately addressed by the prior EIR.

b) *Would the project generate conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?*

The 2018 FMP EIR stated that the FMP would comply with all policies and requirements from the City General Plan and the Placer County Air Pollution Control District (PCAPCD). Additionally, the City has a Climate Action Plan (CAP) that was developed during the 2011 General Plan Update. The FMP project was found not to conflict with any applicable plan, policy, or regulation related to GHG reductions. The proposed project is consistent with the FMP, and would therefore not conflict with any applicable policies or measures. Thus, the impact is adequately addressed by the prior EIR analysis.

3.9 Hazards and Hazardous Materials

	Potentially Significant Impact	Impact Adequately Addressed in 2018 FMP EIR	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
IX. HAZARDS AND HAZARDOUS MATERIALS – Would the project:					
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 checked="" type="checkbox"/>	<input type="checkbox"/>	<input 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 checked="" type="checkbox"/>	<input type="checkbox"/>	<input 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 checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d) Be located on a site that 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 checked="" type="checkbox"/>	<input type="checkbox"/>	<input 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 checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input 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 checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Discussion

The 2018 FMP EIR considered building and related facility construction on the Campus. See Section 4.7 of the 2018 FMP EIR for the analysis of hazards and hazardous materials impacts associated with the FMP. The analysis below reflects the applicable Campus-wide hazards and hazardous materials analysis provided in Section 4.7 of the 2018 FMP EIR as it relates to the proposed project.

a) *Would the project create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?*

The 2018 FMP EIR acknowledged that hazardous materials are used throughout the Campus for educational and operational purposes. The Campus is a permitted small quantity hazardous waste generator and hazardous material storage facility operating under a Hazardous Materials Business Plan, approved by the Placer County Environmental Health Department. Several hazardous materials storage areas are present on Campus, and some existing structures planned for demolition as part of the FMP would potentially release asbestos and lead-based paint. Additionally, aging tank infrastructure and previous spills could contribute to hazardous conditions. Thus, the EIR proposed MM HAZ-1, which outlines measures based on the recommendations in the Phase I Environmental Site Assessment conducted for the FMP project.

The proposed project would only potentially involve common household hazardous materials such as cleaning agents and paints, and would not involve any acute hazardous waste. The project site is not located where there are reportable quantities of hazardous waste. There would be no hazardous materials stored on site, no demolition of structures involved, and no transport of large amounts of hazardous waste. Thus, project impacts would be less than significant. This impact is not an increase in severity from what was analyzed in the 2018 FMP EIR, and this impact is adequately addressed in the prior EIR.

b) *Would the project 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?*

The 2018 FMP EIR concluded that the FMP project would not create a significant hazard through upset and accident conditions, and refers to a) for further discussion. Implementation of MM HAZ-1 was proposed to reduce impacts to less than significant.

As discussed previously, the project site is not located where there are reportable quantities of hazardous waste or materials. The possibility of upset and accident conditions creating a significant hazard would be remote. Thus, impacts is adequately addressed by the 2018 FMP EIR.

c) *Would the project emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?*

The Campus is a permitted small quantity hazardous waste generator and hazardous material storage facility operating under a Hazardous Materials Business Plan, approved by the Placer County Environmental Health Department. The 2018 FMP EIR concluded that because this Hazardous Materials Business Plan addresses how the campus handles hazardous substances and waste, impacts would be less than significant and no mitigation measures are required. The proposed project site is part of the Campus and is thus managed under this Hazardous Materials Business Plan; therefore, impacts are adequately addressed by the 2018 FMP EIR.

- d) ***Would the project be located on a site that 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?***

A Phase I ESA was conducted for the 2018 FMP EIR, which found that the Campus is listed on several regulatory agency databases. This includes the Aboveground Petroleum Storage Tank Facility (APSTF), Federal Resource Conservation and Recovery Act Small Quantity Generator (RCRA-SQG), California Leaking Underground Storage Tank Site (LUST), California Historic Hazardous Substance Storage Container Database (HIST UST), and California Hazardous Material Incident Report System (CHMIRS). The Phase I ESA identified several potential environmental concerns within the Campus, and provides recommendations to reduce potential hazardous conditions. The EIR concludes that with implementation of MM HAZ-1, which is based on the Phase I ESA recommendations, impacts would be reduced to less than significant. The proposed project is not located in any of the areas identified in MM HAZ-1. Thus, the impact is adequately addressed by the prior EIR.

- 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?***

The 2018 FMP EIR concluded that the Campus was not located within an airport land use plan, or within two miles of a public airport or public use airport. Thus, there would be no impact. The proposed project is within the Campus, and therefore the EIR analysis is applicable. Impacts were adequately addressed in the prior EIR.

- f) ***Would the project impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?***

The 2018 FMP EIR concludes that the FMP project would not impair or interfere with an emergency response plan or emergency evacuation plan, both of which are provided in the school's Emergency Operations Plan (EOP). The EOP covers a variety of emergency situations such as earthquakes, fire and explosions, flooding, and hazardous materials incidents. The EOP states it was written in accordance with all federal, state, and local guidelines. Thus, the EIR concludes that impacts would be less than significant and no mitigation measures are required. The proposed project site is within the Campus and is guided by the same EOP. The project would not affect access routes. Thus, the EIR analysis is applicable and impacts were adequately addressed.

- g) ***Would the project expose people or structures, either directly or indirectly, to a significant risk of loss, injury, or death involving wildland fires?***

Rocklin is surrounded by moderate fire hazard severity zones to the west and south. The Campus contains heavily forested oak grassland in the northern and western areas. If a fire should occur, the campus would follow instructions outlined in the EOP related to fire and explosion. The Campus utilizes managed grazing of goats and sheep in order to reduce vegetation on campus. A firebreak of at least 100 feet in width is established using goat herds, and Calfire periodically cleans up dead wood on Campus nature areas. Additionally, the Rocklin Fire Department Station 23 is located a mile away from the Campus, and the City of Rocklin uses an emergency notification system that sends emergency alerts to citizens' phones. The 2018 FMP EIR concluded that with all of these measures in place to reduce loss, injury, or death involving wildland fires, impacts would be less than significant. The project site is considered in the 2018 FMP EIR, the project would not construct habitable structures, and would not affect fuel management. Thus the impact is adequately addressed by the prior EIR.

3.10 Hydrology and Water Quality

	Potentially Significant Impact	Impact Adequately Addressed in 2018 FMP EIR	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
X. HYDROLOGY AND WATER QUALITY – Would the project:					
a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input 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 checked="" type="checkbox"/>	<input type="checkbox"/>	<input 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 substantial erosion or siltation on or off site;	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input 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 checked="" type="checkbox"/>	<input type="checkbox"/>	<input 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 of polluted runoff; or	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
iv) impede or redirect flood flows?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input 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 checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

	Potentially Significant Impact	Impact Adequately Addressed in 2018 FMP EIR	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Discussion

The 2018 FMP EIR considered building and related facility construction on the Campus. See Section 4.8 of the 2018 FMP EIR for the analysis of hydrology and water quality impacts associated with the FMP. The analysis below reflects the applicable Campus-wide hazards and hydrology and water quality analysis provided in Section 4.8 of the 2018 FMP EIR as it relates to the proposed project.

a) *Would the project violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?*

The 2018 FMP EIR states that no planned components of the FMP are expected to increase the current per capita water usage or wastewater flow, as the FMP only includes modernization, replacement, or expansion of existing facilities. It is thus concluded that there would be no impact regarding violation of water quality standards or waste discharge requirements. The proposed project is included within this analysis, as it contains existing improvement of existing athletic facilities. Increased lighting at the project site would not degrade water quality. While the timing of water demand may change (from day games to evening), the overall demand would not noticeably change. Thus, the impact is adequately addressed by the prior EIR.

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

The Placer County Water Agency (PCWA) conducted a Water Supply Assessment (WSA) for the 2018 FMP. PCWA evaluated the project and its consistency with the water supply outlined in their 2015 Urban Water Management Plan (UWMP), and determined that potable and raw water demand from Campus would be less than the available water supply. Groundwater would only be used as a backup supply, and the FMP project would not require any groundwater resources other than in emergency situations. Thus, the 2018 FMP EIR concluded that there would be no impact to groundwater. The proposed project is connected to and served by the same water system. The project would not affect demand for groundwater. The impact is adequately addressed by the prior EIR.

- c) ***Would the project 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 substantial erosion or siltation on or off site;***

The majority of Campus drainage flows to the bordering city streets and into the City of Rocklin storm drainage system, which ultimately discharges into Secret Ravine. Though there are no identified drainage system capacity problems and none are anticipated with the FMP development, City Public Works staff have indicated they are uncertain about the condition of the piping system. The piping system may be constructed with corrugated metal, requiring early replacement. The Sierra Community College District (District) is not subject to any city grading permit issuance, and instead receives permits from the California Division of the State Architect. As part of the conditions, the District is not allowed to impede natural surface flow or conduct grading that can cause safety risks or violate any NPDES permits. With adherence to these conditions, the FMP would adhere to State and local stormwater management requirements. Additionally, the City's Storm Water Management Plan (SWMP) regulates construction site stormwater runoff. Under Section 401 of the Clean Water Act (CWA), activities that could result in discharges to Section 404-defined water bodies must also obtain a State Water Quality Certification (WQC), or a Water Discharge Permit (WDP) may be required to comply with the Porter-Cologne Water Quality Control Act even if the CWA does not apply. It is the District's responsibility to implement all permit conditions.

Because there are water features on campus that must be avoided or for which impacts must be mitigated (Secret Ravine), the 2018 FMP EIR concludes that the FMP project would have a potentially significant impact related to this topic. The EIR proposed implementation of MM BIO-9 to reduce impacts to wetlands, and MM HYD-1, in which the FMP must adhere to the Sierra College Rocklin Campus Land Use Development Plan 1995-2010 recommendations to maintain water quality. Recommendations include avoiding Secret Ravine and limiting expansion to less sensitive areas.

The proposed project is within the Campus and thus shares the drainage system. However, as concluded in impact discussion (a), there would be no impact regarding violation of water quality standards, waste discharge requirements, or degradation of surface or ground water quality as a result of the proposed project. The proposed project only involves light installation and would not alter the drainage system of the area enough to result in substantial erosion or siltation. As such, impacts would be less than significant. MM BIO-9 would not be required as the project would not involve any wetlands. MM HYD-1 would not be required as the project would only involve a minimal level of ground disturbance. The impact is adequately addressed by the 2018 FMP EIR.

- ii) ***substantially increase the rate or amount of surface runoff in a manner which would result in flooding on or off site;***

See impact discussion (i). The project would not alter the drainage system of the area enough to result in increased surface runoff and flooding. The project only involves installation of lighting systems and does not involve addition of impervious surfaces. Impacts to existing drainage patterns would not be increased beyond those considered in the 2018 FMP EIR and the impact is adequately addressed by the prior EIR.

- iii) *create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or***

See impact discussion (i). The project would not create or contribute runoff water to exceed the capacity of existing or planned stormwater drainage systems, or provide additional sources of polluted runoff. The project is required to comply with drainage requirements and all requirements of the NPDES permitting process. The 2018 FMP EIR concluded that with compliance to the SWMP and NPDES permitting process, as well as California Division of the State Architect and other relevant requirements, impacts to drainage systems and runoff would be less than significant. The proposed project would not result in increased runoff and is therefore adequately addressed by the prior EIR.

- iv) *impede or redirect flood flows?***

See impact discussion (i), which concluded that impacts to existing drainage patterns would be less than significant. The project involves only the installation of a lighting system, which would not substantially impede or redirect flood flows. Additionally, the project site is not within a flood hazard area. Impacts are adequately addressed by the prior EIR.

- d) *In flood hazard, tsunami, or seiche zones, would the project risk release of pollutants due to project inundation?***

The 2018 FMP EIR concluded that while the FMP project involves no construction or occupancy in a flood hazard area, proximity to Secret Ravine may necessitate drainage system improvements to minimize flood hazard exposure. Secret Ravine Creek lies east of Campus within the 100-year flood zone, while developed areas of Campus are at a higher elevation and are outside of the flood zone. In the Placer County Flood Control and Water Conservation District's 2011 update to the Dry Creek Watershed Flood Control Plan, a site was identified for a potential flood flow reduction project at Secret Ravine. This flood flow reduction project could be funded by development impact fees from projects that could potentially impact the existing drainage system. As such, the EIR proposed MM HYD-2, which requires the District to pay a fair share of any additional drainage system improvements, if deemed necessary by the Placer County Flood Control and Water Conservation District.

As discussed previously, the project would not result in substantial adverse impacts to existing drainage patterns. As such, the project would not require adherence to MM HYD-2. The project site is not within a flood hazard zone. The EIR determined that the Campus is not located near a body of water subject to seiche or tsunami, nor is there a risk for mudflow, thus there would be no impact. The proposed project site sits within the Campus and is subject to these same conditions. The impact is adequately addressed by the prior EIR.

- e) *Would the project conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?***

See impact discussion (i). The project is required to comply with applicable water quality control plans or groundwater management plans. Furthermore, installation of the lighting system would not cause any significant impacts to surface or ground water quality. The impact is adequately addressed by the prior EIR.

3.11 Land Use and Planning

	Potentially Significant Impact	Impact Adequately Addressed in 2018 FMP EIR	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
XI. LAND USE AND PLANNING – Would the project:					
a) Physically divide an established community?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input 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 checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Discussion

The 2018 FMP EIR considered building and related facility construction on the Campus. See Section 4.9 of the 2018 FMP EIR for the analysis of land use and planning impacts associated with the FMP. The analysis below reflects the applicable Campus-wide land use and planning analysis provided in Section 4.9 of the 2018 FMP EIR as it relates to the proposed project.

a) *Would the project physically divide an established community?*

The 2018 FMP EIR concludes that the FMP project would not physically divide an established community, as the project does not include any linear features such as roads, walls, or railroad lines. The proposed project would also not include such features. Thus, the impact is adequately addressed by the prior EIR.

b) *Would the project 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?*

The 2018 FMP EIR concludes that the FMP project is consistent with all applicable land use plans, policies, and regulations except for the Rocklin Oak Tree Preservation Ordinance. Phase I of the FMP, which consists of near-term projects, would impact 127 native oak trees. MM BIO-8 was proposed, requiring avoidance of oak trees to the maximum extent feasible, in order to reduce impacts to less than significant.

The proposed project is not identified as a near-term project of the FMP that would impact any oak trees. Oak trees would not be impacted by the proposed project as there are no oak trees on-site. There would be no additional effect and the impact is adequately addressed by the prior EIR.

3.12 Mineral Resources

	Potentially Significant Impact	Impact Adequately Addressed in 2018 FMP EIR	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
XII. MINERAL RESOURCES – Would the project:					
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Discussion

The 2018 FMP EIR considered building and related facility construction on the Campus. Because there was no evidence of valuable mineral resources occurring on Campus, it was determined that effects would not be significant.

a-b) Would the project result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?

Would the project result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan?

The 2018 FMP EIR found no records or evidence of historical mining of minerals or gravel within the Campus, and concluded there would be no significant impact. The proposed project site is within Campus, and is subject to the same conditions. Therefore, the impact is adequately addressed by the prior EIR

3.13 Noise

	Potentially Significant Impact	Impact Adequately Addressed in 2018 FMP EIR	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
XIII. NOISE – Would the project result in:					
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 type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Generation of excessive groundborne vibration or groundborne noise levels?	<input type="checkbox"/>	<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 checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Discussion

The 2018 FMP EIR considered potential noise impacts on the Campus. See Section 4.10 of the 2018 FMP EIR for the analysis of noise impacts associated with the implementation of the FMP. The proposed project involves construction of a lighting system to be used for nighttime sports activities, along with other limited uses (e.g., graduation ceremonies). The proposed project would have the potential to increase ambient noise levels in the vicinity of the proposed project through construction activities and events. Dudek prepared a Noise Analysis, dated September 21, 2019, for the proposed project. The analysis below reflects the applicable Campus-wide noise analysis provided in Section 4.10 of the 2018 FMP EIR as it relates to the proposed project and the project-specific noise analysis prepared by Dudek.

- a) *Would the project result in 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?*

Operational Noise

The 2018 FMP EIR concluded that the FMP would not result in substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the FMP.

As shown in Table 3 of the Noise Analysis (Appendix B), existing ambient noise levels in the project vicinity range from 62.8 to 64.1 dBA CNEL. As shown in Table 8 of Appendix B, based on the source noise levels quantified during the event noise monitoring survey, modeled noise levels generated by sporting events would range from 38 to 48 dBA Leq at nearby noise-sensitive receptors. Events such as graduation are predicted to result in noise levels ranging from 33 to 42 dBA Leq at nearby noise-sensitive receptors. As such, evening events facilitated by the proposed Project are predicted to be below the City of Rocklin General Plan stationary noise source standard of 55 dBA Leq during daytime/evening (7 AM to 10 PM) hours.

Based on the City's existing General Plan EIR traffic noise levels, the existing ambient environment at the nearby noise-sensitive receptors experience average daytime traffic noise levels of 57 to 59 dBA Leq (59 to 62 dBA Ldn). With proposed Project event noise levels ranging from 33 to 48 dBA Leq, event noise levels would be greater than 10 dB below the background noise levels experienced at the receptors. Event noise levels are expected to result in a change of less than 1 dB at nearby noise-sensitive receptors. However, as detailed below, construction of the proposed project would comply with the City's construction noise criteria and event noise levels are expected to result in a change of less than 1 dB at nearby noise-sensitive receptors. Therefore, the proposed project would not result in a substantial temporary or permanent increase in ambient noise levels.

Construction Noise

The 2018 FMP EIR concluded that temporary noise increases due to construction activity would not significantly affect off-campus receptors (including nearby residential land uses). The 2018 FMP EIR did find that temporary noise increases may impact on-campus receptors, including student housing, but this impact would be reduced to less than significant with implementation of mitigation measure NSE-1. Additionally, the receptors considered in this analysis are not located near the football stadium.

The noise analysis for the proposed project found that construction noise levels may be as high as 58 dBA Leq at the nearest off-campus residential receptor (see Table 7 of Appendix B). While nearby off-site residences may be exposed to construction noise levels marginally above the City of Rocklin stationary noise source standard, the increased noise levels would be relatively short-term and sporadic. Additionally, construction activities associated with the proposed Project would not take place during the hours of 7:00 p.m. through 8:00 a.m., during which time the City of Rocklin Construction Noise Policy prohibits excessive construction noise.

The proposed project would not result in substantial temporary (construction) or permanent (operational) increase in ambient noise levels project vicinity in excess of applicable standards, and the impact would be less than significant.

b) Would the project result in generation of excessive groundborne vibration or groundborne noise levels?

The 2018 FMP EIR concluded that the FMP project would not result in the generation of excessive groundborne vibration or groundborne noise levels. The proposed project involves construction of a lighting system used for nighttime sports activities, along with other limited uses. The most common sources of man-made vibrations are sonic booms, blasting, pile driving, pavement breaking, diesel locomotives, and rail-car coupling. The Noise Analysis (Appendix B) indicated that the proposed project would likely include construction equipment such as backhoes, loaders, cranes, forklifts, cement mixers, air compressors and hand tools, which are not major sources of vibration. Construction of the proposed project is not expected to involve principal sources for vibration. Therefore, the impact of the proposed project 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?

The 2018 FMP EIR concluded that the FMP's project site, which is inclusive of the proposed project site, is located more than two miles from a public or public use airport. Additionally, the proposed project is not located within the vicinity of a private airstrip or an airport land use plan. The nearest airport is the Lincoln Regional Airport, which is located 15 miles northwest of the campus. Therefore, the proposed project would have no impact on airports or private airstrips and would not expose people residing or working in the proposed project area to excessive noise levels.

3.14 Population and Housing

	Potentially Significant Impact	Impact Adequately Addressed in 2018 FMP EIR	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
XIV. POPULATION AND HOUSING – Would the project:					
a) Induce substantial unplanned 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 checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Discussion

The 2018 FMP EIR considered building and related facility construction on the Campus. See Section 4.11 of the 2018 FMP EIR for the analysis of population and housing impacts associated with the FMP. The analysis below reflects the applicable Campus-wide population and housing analysis provided in Section 4.11 of the 2018 FMP EIR as it relates to the proposed project.

- a) ***Would the project induce substantial unplanned 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)?***

The 2018 FMP EIR concluded that the FMP project, which included the addition of a new dormitory and parking structure, would not induce substantial population growth that would exceed growth projections. Impacts were identified as less than significant. The proposed project involves construction of a lighting system used for nighttime sports activities, along with other limited uses. The new lighting system is not related to housing, and would not involve potentially growth-inducing infrastructure. Athletic uses would have more flexibility for scheduling, but would not introduce new uses to the Campus that could require additional housing. Therefore, the impact is adequately addressed by the prior EIR.

- b) ***Would the project displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?***

The proposed project would not displace any people or housing or necessitate the construction of replacement housing elsewhere. The project is adequately addressed by the prior EIR, which found no impact related to displacement of housing.

3.15 Public Services

	Potentially Significant Impact	Impact Adequately Addressed in 2018 FMP EIR	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
XV. PUBLIC SERVICES					
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 checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Police protection?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Schools?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Parks?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other public facilities?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Discussion

The 2018 FMP EIR considered building and related facility construction on the Campus. See Section 4.15 of the 2018 FMP EIR for the analysis of public services impacts associated with the FMP. The analysis below reflects the applicable Campus-wide public services analysis provided in Section 4.15, Utilities and Public Services, of the 2018 FMP EIR as it relates to the proposed project.

- 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?

The Rocklin Fire Department provides fire protection and emergency response services to the Campus. The nearest fire station to the main campus and project site is Fire Station No. 23 (4060 Rocklin Road), which sits approximately 1.4 miles from the western edge of the football stadium. The 2018 FMP EIR found that both the near-term and long-term projects of the FMP would not require the construction or expansion of any fire department facilities that would cause any significant environmental impacts that have not already been disclosed in the City of Rocklin General Plan EIR (City of Rocklin 2011). As the proposed project is consistent with the 2018 FMP EIR and would not induce substantial campus population growth, no additional fire protection staff or equipment would be necessary as a result of the proposed project. The proposed project would allow for nighttime events, but these events would be rescheduled from current day events, and would not increase overall demand for services. Therefore, the impact is adequately addressed by the prior EIR.

Police protection?

The Campus is served by on-site security personnel and the Rocklin Police Department (4080 Rocklin Road), located approximately 1.4 miles from the western edge of the football stadium. The 2018 FMP EIR evaluated potential impacts on police protection services based on the adequacy of staffing, equipment, and facilities to meet any additional demand from the FMP. Because the FMP project is in compliance with growth projections used for the City General Plan and would be in line with its policies related to police protection services, it was anticipated that existing and future Rocklin Police Department staff levels would be sufficient to meet the FMP demands at full build-out. The proposed project would allow for nighttime events, but these events would be rescheduled from current day events, and would not increase overall demand for services. Therefore, the impact is adequately addressed by the prior EIR.

Schools?

The closest schools to the project site are Sierra Elementary School (1.4 miles), Springview Middle School (1.9 miles), and Rocklin Elementary School (1.1 miles). The 2018 FMP EIR concluded that there would be no increase in residential population that would increase demand on existing school facilities as a result of the FMP project. The FMP is in compliance with growth projections disclosed in the City General Plan, thus impacts would be less than significant. The proposed project is consistent with the 2018 FMP EIR and would not result in any need for new or expanded school facilities. The project only involves installation of lighting and would not result in any population growth. There would be no increase in severity from what was identified in the 2018 FMP EIR.

Parks?

The 2018 FMP EIR concluded that the FMP would not result in an increased residential population that would increase demand on park facilities or negatively affect service ratios. Additionally, the FMP would include the addition of new and upgraded recreational facilities to better serve the student and faculty population. Thus, it concluded that there would be a less-than-significant impact related to parks. The proposed project represents an upgrade to a recreational facility by adding a lighting system that would extend sporting activities into the nighttime. The proposed project would not induce any population growth that would affect park facilities. Thus, there would be effect on the demand for park facilities. This impact is not more severe than what was previously identified in the 2018 FMP EIR.

Other public facilities?

The 2018 FMP EIR considered potential impacts to libraries and other public buildings and services provided by the City, and concluded that there would be no increase in use of municipal services in Rocklin or other nearby communities. This was identified as a less-than-significant impact. The proposed project is consistent with the 2018 FMP EIR and would not induce any population growth enough to impact other public facilities. There would no increase in severity from what was identified in the 2018 FMP EIR.

3.16 Recreation

	Potentially Significant Impact	Impact Adequately Addressed in 2018 FMP EIR	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
XVI. RECREATION					
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 checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input 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 checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Discussion

The 2018 FMP EIR considered building and related facility construction on the Campus. See Section 4.12 of the 2018 FMP EIR for the analysis of recreation impacts associated with the FMP. The analysis below reflects the

applicable Campus-wide recreation analysis provided in Section 4.12 of the 2018 FMP EIR as it relates to the proposed project.

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?*

The 2018 FMP EIR found that the implementation of the FMP would not have a significant effect on existing neighborhood and regional parks, such that substantial physical deterioration of the facility would occur or be accelerated. While buildout of the FMP would increase the campus population, it utilizes a maximum projected enrollment of 22,500 students, which is consistent with the assumptions in the City General Plan (City of Rocklin 2012). Additionally, the FMP includes improvements and expansions to open space and recreational facilities. Thus, the EIR concluded that there would be a less-than-significant impact resulting from buildout of the FMP. The proposed project is consistent with the FMP and would not result in new or increased recreational impacts. The proposed project itself represents improvements to a recreational facility and would not result in increased use of other existing neighborhood and regional parks. As such, the proposed project would not result in new or increased recreation impacts beyond those addressed in the 2018 FMP EIR.

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?*

The 2018 FMP EIR states that full-buildout of the FMP project would include modernizations of on-Campus recreational facilities to serve the students and faculty of Sierra College, and these projects are consistent with the City General Plan policies and the FMP's overall campus vision. Thus, buildout of the FMP would not create a significant impact. The proposed project itself involves lighting of athletic fields. The football stadium may be considered a recreational facility, although it is only available to the student athletes. The football stadium is identified in the FMP, although the construction effects of the project were not evaluated at project level. Therefore, this Initial Study considers the project-level effects, and finds no new or substantially greater significant effects. Therefore, the construction related to recreational facilities is adequately addressed by the prior EIR.

3.17 Transportation

	Potentially Significant Impact	Impact Adequately Addressed in 2018 FMP EIR	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
XVII.TRANSPORTATION – Would the project:					
a) Conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

	Potentially Significant Impact	Impact Adequately Addressed in 2018 FMP EIR	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
b) Conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" 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 checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d) Result in inadequate emergency access?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Discussion

The 2018 FMP EIR considered building and related facility construction on the Campus. See Section 4.13 of the 2018 FMP EIR for the analysis of transportation impacts associated with the FMP. The analysis below reflects the applicable Campus-wide traffic analysis provided in Section 4.13 of the 2018 FMP EIR as it relates to the proposed project.

a) *Would the project conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities?*

The 2018 FMP EIR analyzed the buildout of the FMP and concluded that there would be significant and unavoidable traffic impacts at Rocklin intersections due to an existing lack of capacity at the I-80/Rocklin interchange. The FMP project would cause LOS to worsen from C to D at the Rocklin Road/Sierra College Boulevard intersection, from C to D at the Rocklin Road/Aguilar Road intersection, and from C to E at the Rocklin Road/El Don Drive intersection. The eastbound I-80 Sierra College Boulevard off-ramp maximum queue would be exceeded during the AM peak hour by 125 feet, with the addition of approximately 360 vehicles to the eastbound right-turn movement. The FMP project would also contribute to a significant and unavoidable worsened traffic impact along SR 65 between I-80 and Blue Oaks Boulevard. Significant and unavoidable impacts would also occur during the PM peak hour at the following intersections: Granite Drive, Aguilar Road, El Don Drive/Campus Drive, and Sierra College Boulevard. The addition of trips would result in a queue spillback at westbound Rocklin Road, impacting upstream intersections.

The 2018 FMP EIR proposed three MMs to reduce impacts. MM TRA-1 would implement transportation demand strategies such as dynamic rideshare matching and parking cost increases. However, impacts would remain significant and unavoidable even with MM TRA-1. MM TRA-2 would require Sierra College to pay the cost of reoptimizing signal timings at the Rocklin Road/Sierra College Boulevard intersection, reducing impacts to a less-than-significant level. MM TRA-3 would modify the westbound approach to the Rocklin Road/Sierra College Boulevard intersection by restriping the roadway, also reducing impacts at the Rocklin Road/Sierra College Boulevard intersection to less than significant. MM TRA-4 through MM TRA-7 are additional MMs intended to decrease impacts at the Rocklin Road intersections. Impacts to the Rocklin Road/Aguilar Road and Rocklin

Road/El Don Drive/ Campus Drive intersection would remain significant and unavoidable because funds needed for reconstruction have not yet been identified. Impacts to the I-80/Rocklin Road interchange would not be reduced by the proposed mitigation measures and would remain significant and unavoidable.

Additionally, the FMP was concluded to have a significant and unavoidable impact related to transit, as buildout of the FMP would add travel time along Rocklin Road and could adversely effect on-time bus service. The FMP would comply with strategies and policies related to bicycle facilities as identified in Chapter V of the City of Rocklin Parks and Trails Master Plan, therefore related impacts would be less than significant. The FMP would also not conflict with any applicable plan, ordinance, or policy establishing measures of effectiveness of the City's pedestrian system, as the project would include additional pedestrian facilities to better accommodate pedestrian travel, thus impacts would be less than significant.

The proposed project is consistent with the FMP, and thus may be considered to contribute to buildout impacts of the FMP. However, the proposed project itself is not expected to affect any component of the circulation system, as it only includes buildout of a lighting system for the sporting fields. Vehicle miles traveled are not expected to increase in number, as travel to sporting games and other events held on the field would simply be shifted from day to night. In addition, as the FMP traffic impacts are related to AM and PM weekdays, weekend football games would not substantially contribute to these impacts. Primary project access is at Sierra College Blvd. and Stadium Drive, which is projected to operate acceptably (Level of Service B) even in the cumulative plus FMP buildout scenario (Table 4.13-19, 2018 FMP EIR). There would be no new or increased impact beyond what was analyzed in the 2018 FMP EIR.

b) *Would the project conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)?*

The proposed project would not conflict with CEQA Guidelines section 15064.2, subdivision (b). The project would be approved before July 1, 2020, the statewide implementation date of SB 743, which requires the use of vehicle miles travelled (VMT) as the metric for transportation impact analysis (CalTrans 2019). Thus, there would be **no impact**.

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

The project will not change any roadways or include any geometric design features such as sharp curves or dangerous intersections. The new lighting system does not introduce any compatible uses and would increase visibility at nighttime around the stadium and field area. The 2018 FMP EIR did not find any potentially significant transportation impact with regard to increased design hazards or incompatible uses. Buildout of the FMP would require improvements to roads, of which would be designed to applicable standards for motorists, bicyclists, and pedestrians. The proposed project would not alter roadways or introduce new uses, and is therefore adequately addressed by the prior EIR.

d) *Would the project result in inadequate emergency access?*

The 2018 FMP EIR concluded that buildout of the FMP would result in a less-than-significant impact to inadequate emergency access, as there is direct access along Rocklin Road to the campus, in which emergency vehicles from Fire Station No. 23 would require a less than five-minute drive to access the Campus via either of the two signalized accesses on Rocklin Road. There are additional access points to the football stadium via Sierra College Boulevard, which lead into the large parking lot north of the field.

The proposed project involves buildout of a lighting system, which would not affect the accessibility of any roads or emergency access. Therefore, there is no new or increased impact from what was identified in the 2018 FMP EIR.

3.18 Tribal Cultural Resources

	Potentially Significant Impact	Impact Adequately Addressed in 2018 FMP EIR	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
XVIII. 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:					
a) 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	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) 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 Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Discussion

The 2018 FMP EIR considered building and related facility construction on the Campus. See Section 4.14 of the 2018 FMP EIR for the analysis of tribal cultural resources impacts associated with the FMP. The analysis below reflects the applicable Campus-wide tribal cultural resources analysis provided in Section 4.14 of the 2018 FMP EIR as it relates to the proposed project.

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, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k)?***

A Cultural Resources Inventory Report was prepared for the FMP project, indicating that the Campus contained segments of a historic-era ditch and placer mined area, both sites of which are not classified as Native American nor appear eligible for the California Register of Historical Resources. However, the report noted that the Secret Ravine drainage was an area of intensive use both historically and prehistorically, and significant resource may be encountered during ground-disturbing activities. The 2018 FMP EIR concluded that with implementation of MM CUL-1 and MM CUL-4 as described previously, impacts would be reduced to a less-than-significant level. The proposed project is consistent with the 2018 FMP EIR analysis, as the project site is located within Campus. While there are no historical resources identified near the project site, ground-disturbing activities performed to install the lighting system would potentially unearth or harm undiscovered resources. MM CUL-1 and MM CUL-4 would ensure that impacts would continue to remain less than significant, and the impact is adequately addressed by the prior EIR.

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 Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe?***

The Native American Heritage Commission (NAHC) was contacted in April of 2014 by QK for the FMP project. The NAHC responded with a list of 12 individuals from tribes who may have knowledge of tribal cultural resources on Campus. This list included contacts representing the Shingle Springs Band of Miwok Indians, Maidu/Washoe, United Auburn Indian Community of the Auburn Rancheria, Tsi-Akim Maidu, Nisenan-Su Maidu-Konkow-Washoe, and Colfax-Todds Valley Consolidated Tribe. The NAHC was contacted again in October of 2017 and sent a list of six tribal contacts representing the Shingle Springs Band of Miwok Indians, United Auburn Indian Community of the Auburn Rancheria, Tsi Akim Maidu, Colfax-Todds Valley Consolidated Tribe, and the Washoe Tribe of Nevada and California. Responses indicated the Campus is considered sensitive for tribal cultural resources, though none were identified. Due to the sensitivity of the Campus location, it is possible that undiscovered resources could be uncovered during project construction. With implementation of MM CUL-1 and MM CUL-4, impacts would be reduced to a less-than-significant level. The 2018 FMP EIR analysis is applicable to the proposed project, and no new or increased impact would occur.

Applicable Mitigation Measures from the 2018 FMP EIR

MM CUL-1: If any prehistoric or historic artifacts, or other indications of cultural deposits such as dark gray or black sediments with stone, bone or shell artifacts, or historic privy pits or trash deposits are found once ground-disturbing activities are underway, all ground disturbance activity within 50 feet of the find shall stop. The find(s) shall be immediately evaluated by a qualified

archaeologist. If the find is determined to be a historical or unique archaeological resource, the qualified archaeologist shall formulate a proposed mitigation strategy including contingency funding and a time allotment to allow for implementation of avoidance measures or appropriate mitigation, consistent with the preferences set forth in §15064.5 of the CEQA Guidelines (favoring preservation in place where feasible). The District shall implement such recommended measures if the District determines that they are feasible in light of project design, logistics, and cost considerations. Work may continue on other parts of the Project site while mitigation of the historical or unique archaeological resource takes place.

MM CUL-4: If any fossil remains such as but not limited to vertebrate bones or teeth, or preserved parts of plants are uncovered during construction:

- a. All work in that area shall cease and be diverted away until the qualified paleontologist can determine scientific importance of the find and whether it constitutes a unique paleontological resource. If the fossils are evaluated to be scientifically important, the qualified paleontologist shall remove them as soon as is practicable. If warranted, the qualified paleontologist shall make collections of exposed fossils from the lithologic units of high paleontological importance. All vertebrate and representative samples of mega-invertebrate and plant fossils shall be collected. The qualified paleontologist shall be equipped to allow for the rapid removal of fossil remains and/or matrix and thus reduce the potential for any construction delays.
- b. Depending upon the paleontologic importance of the rock unit, the rock shall be examined periodically for microfossils by wet or dry screening. If important fossil remains are found as a result of screening, samples of sufficient size to generate a representation of the organisms preserved shall be collected and processed, if warranted, on site or at a convenient location.
- c. The reports documenting the fossil finds shall be submitted to the Sierra College Natural History Museum or the University of California, Museum of Paleontology (UCMP), at the Berkeley Natural History Museum. Any such fossils should be offered to an appropriate repository such as the Sierra College Natural History Museum or University of California Museum of Paleontology.

3.19 Utilities and Service Systems

	Potentially Significant Impact	Impact Adequately Addressed in 2018 FMP EIR	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
XIX. UTILITIES AND SERVICE SYSTEMS – Would the project:					
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 checked="" 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 checked="" type="checkbox"/>	<input type="checkbox"/>	<input 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 checked="" type="checkbox"/>	<input type="checkbox"/>	<input 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 checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e) Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Discussion

The 2018 FMP EIR considered building and related facility construction on the Campus. See Section 4.15 of the 2018 FMP EIR for the analysis of utilities and service systems impacts associated with the FMP. The analysis below reflects the applicable Campus-wide utilities and service systems analysis provided in Section 4.15, Utilities and Public Services, of the 2018 FMP EIR as it relates to the proposed project. The proposed project would use the same utility connections analyzed in the 2018 FMP EIR.

- a) ***Would the project 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?***

Water Facilities

The 2018 FMP EIR concluded that the FMP project would not result in the construction of new water or expanded water facilities. The Campus currently receives potable and raw water from PCWA, and from 2013 to 2017 there was a 48 percent reduction in potable water consumption due to Campus water reduction measures. The WSA prepared for the FMP project determined that estimated demand from full buildout of the FMP would be 52.9 AFY, a value less than the assumed treated water Campus demand value of 84 AFY described in the 2015 UWMP. Given this information, it was determined that there are sufficient supplies to meet the needs of the FMP. Therefore, there would be a less-than-significant impact related to new or expanded water facilities. The 2018 FMP EIR analysis is applicable to the proposed project. Any water usage increase from the proposed project would be due to possible additional night uses of the stadium or fields, which would have a negligible effect on water demand, as these night events would primarily replace current day events. There would be no new or increased impact than previously identified in the 2018 FMP EIR.

Wastewater Treatment

The Campus is served by a sanitary sewer collection system owned and operated by the South Placer Municipal Utility District (SPMUD). Wastewater is transported through a trunkline along Rocklin Road and then treated at the Dry Creek Wastewater Treatment Plant, which has an average daily flow of 12 million gallons per day and a design capacity of 18 million gallons per day. The 2018 FMP EIR concluded that there would be a less-than-significant impact regarding new or wastewater treatment facilities, as consultation with Roseville wastewater treatment plant officials indicated that a proposed 50% increase in wastewater flows from Campus over the 20-year horizon would be less than significant given the capacity of the system. Additionally, although the sewer trunkline along Rocklin Road has potentially limited capacity, it was indicated that replacement with a large line is already planned. The 2018 FMP EIR analysis is applicable to the proposed project. Any increase in wastewater from the proposed project would be due to possible additional night uses of the stadium or fields, which would largely be a shift from current day events, and would have a negligible effect on overall wastewater flows. There would be no new or increased impact than previously identified in the 2018 FMP EIR.

Stormwater Drainage

The 2018 FMP EIR concluded that long-term projects of the FMP may result in the need for new storm water drainage facilities or expansion of existing facilities, and this potentially significant impact would be mitigated to less-than-significant with adherence to MM HYD-1. However, the proposed project would not affect stormwater drainage, as it only involves installation of lighting systems and does not involve addition

of impervious surfaces. The project will utilize the current storm drainage system serving the project site. This would not be an increase in severity from what was identified in the 2018 FMP EIR.

Electric Power, Natural Gas, or Telecommunications Facilities

The proposed project would not require new or expanded electric power, natural gas, or telecommunications facilities. PG&E provides electrical and gas needs for the Campus. The maximum energy consumption for the entire field lighting system shall be 51.3 kWh or less. PG&E is required by the California Public Utilities Commission (CPUC) to update existing systems to meet any additional demand from new development. As stated in the 2018 FMP EIR, PG&E would be able to adequately provide electric and gas services to the new development and building updates of the FMP. Thus, impacts related to electric power facilities would be less than significant. This amount is not a significant increase over the current Campus usage of 7 MWh (1.5 MWh are provided by solar generation on-campus, while the rest is provided by PG&E). In addition, project energy demand would be intermittent and off-peak. The proposed project would have no impact regarding new or expanded natural gas or telecommunications facilities, as those services are not needed for the project. Therefore, the impact to these utilities is adequately addressed by the prior EIR.

b) *Would the project have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry, and multiple dry years?*

The 2018 FMP EIR concluded that there would be sufficient water supplies available to serve FMP buildout and no new or expanded entitlements would be needed. The WSA for the FMP evaluated the ability of PCWA to provide sufficient water supplies to the Campus, and determined that even in dry years and multiple dry years, the Campus water supply would be secure and adequate. The proposed project would may result in a temporary water demand increase during nighttime events, but overall stadium water demand would not significantly change. As such, the impact to water supply is adequately addressed by the prior EIR.

c) *Would the project 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?*

See impact discussion (a). The 2018 FMP EIR concluded that there would be a less-than-significant impact related to wastewater treatment. The analysis is applicable to the proposed project and there would be no new or increased impacts.

d) *Would the project 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?*

The 2018 FMP EIR concluded that the FMP project would increase solid waste by approximately 1.4 tons per day from increased students on Campus over the 20-year horizon, and this would be a less-than-significant impact. The Western Placer Waste Management Authority provides recycling and waste disposal services to the Campus, and waste is transferred to the Western Regional Sanitary Landfill and an adjacent recycling facility. The EIR determined that Campus waste constitutes about 1% of the total waste delivered to the landfill and recycling facility, thus the 1.4 ton per day increase would have little effect. The proposed project would not significantly change the amount or type of waste generated by the Campus, as the project would primarily allow flexibility of scheduling existing athletic events. Thus, there would be no new or increased impact than previously identified in the 2018 FMP EIR.

e) **Would the project comply with federal, state, and local management and reduction statutes and regulations related to solid waste?**

The 2018 FMP EIR concluded that the FMP project would comply with all federal, state, and local statutes and regulations related to solid waste. Approximately 59% of all solid waste recovered from the Campus in 2017 was recycled, and any solid waste generated from FMP construction and operation would be consistent with the College's recycling program and the City's requirements. The proposed project would not significantly change the amount or type of waste generated by the Campus, as the project would primarily allow flexibility of scheduling existing athletic events. As such, the 2018 FMP EIR analysis is applicable to the project and impacts would remain less than significant.

3.20 Wildfire

	Potentially Significant Impact	Impact Adequately Addressed in 2018 FMP EIR	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
XX. WILDFIRE – If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project:					
a) Substantially impair an adopted emergency response plan or emergency evacuation plan?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input 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 checked="" type="checkbox"/>	<input type="checkbox"/>	<input 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 checked="" type="checkbox"/>	<input type="checkbox"/>	<input 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 checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Discussion

The 2018 FMP EIR does not have a separate wildfire hazard section, as the Draft EIR predates the recent update to Appendix G of the CEQA Guidelines on December 28, 2018. However, there is discussion of wildfire hazards in Section 4.5, Geology and Soils, Section 4.7, Hazards and Hazardous Materials, and Section 4.8, Hydrology and Water Quality. Per the 2018 FMP EIR, wildland fire hazards in Placer County occur mostly outside urban areas typically to the north and east of the Campus. According to the Cal Fire's Fire Hazard Severity Zones in SRA, those areas are classified as having a moderate fire hazard (page 4.7-3).

a) *Would the project substantially impair an adopted emergency response plan or emergency evacuation plan?*

The proposed project would install lighting at existing sporting fields and would not alter existing land uses that might increase the risk of wildfire ignition. The project would rely on existing access points along Rocklin Road and Sierra College Boulevard. As discussed in Section 3.9 of this Initial Study, the 2018 FMP EIR concludes that the FMP project would not impair or interfere with an emergency response plan or emergency evacuation plan, both of which are provided in the College's Emergency Operations Plan (EOP). The EOP covers emergency situations including fire and explosions. The EOP states it was written in accordance with all federal, state, and local guidelines. Thus, the EIR concludes that impacts would be less than significant and no mitigation measures are required. The proposed project site is within the Campus and is guided by the same EOP. Thus, the potential impact is adequately addressed by the prior EIR.

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

As discussed previously, the City of Rocklin does not contain any land classified by Cal Fire as a High Severity Zone. As discussed in the Hazards and Hazardous materials section, the Campus utilizes managed grazing of goats and sheep to reduce vegetation. Goat herds clear weeds and grasses to establish a firebreak of at least 100 feet in width of the north side of the service road, and Cal Fire periodically cleans out dead wood in the nature area on Campus. The proposed project site is an existing stadium within the developed portion of the Campus. Existing land uses would not be altered. Therefore, potential wildfire impacts would not be increased, and this impact is adequately addressed in the prior EIR.

c) *Would the project 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?*

The project would rely on existing access points along Rocklin Road and Sierra College Boulevard and continue to use existing infrastructure. Installation of the lighting system would require electrical wiring, however, this would not exacerbate fire risk as the project site is located in an area that is already served by existing utilities. Electrical wiring would be provided through enclosed wire ways and no exposed wiring will be allowed. Therefore, the proposed project would not increase the impact regarding fire risk of associated infrastructure.

- d) *Would the project 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?*

The proposed project site is relatively flat and within an urbanized area that does not contain a significant risk of flooding, landslides, slope instability, or drainage changes. As noted in the Geology and Soils and Hydrology and Water Quality impact discussions, the proposed project not contribute to impacts regarding landslides, flooding, and runoff. The impact is adequately addressed in the prior EIR.

3.21 Mandatory Findings of Significance

	Potentially Significant Impact	Impact Adequately Addressed in 2018 FMP EIR	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
XXI. MANDATORY FINDINGS OF SIGNIFICANCE					
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 checked="" type="checkbox"/>	<input type="checkbox"/>	<input 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 considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input 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"/>	<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?***

As described in Section 3.4, Biological Resources, the 2018 FMP EIR did not identify any special-status species occurring or with the potential to occur within or in the immediate vicinity of the football stadium. Thus, the proposed project would have a less than significant impact to special-status species. There would be no impact to any riparian habitat or sensitive natural community, protected wetlands, migratory wildlife corridors or wildlife nursery sites, or oak trees, as none of those features occur on the proposed project site.

The project's potential to degrade, threaten, or otherwise eliminate important historical or archaeological resources is analyzed in Section 3.5, Cultural Resources, and Section 3.17, Tribal Cultural Resources. The Cultural Resources Report for the 2018 FMP EIR did not identify any significant historical or archaeological resources on Campus. As such, no known cultural resources would be impacted by the proposed project and there is low potential for the inadvertent discovery of cultural resources during the limited ground-disturbing activities within the existing stadium and adjacent athletic fields. If previously undiscovered resources are uncovered during construction, Mitigation Measures CUL-1, CUL-4, and CUL-5 would be implemented. With implementation of these mitigation measures, impacts to cultural and tribal resources would be less than significant with mitigation incorporated.

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

The proposed project is consistent with the FMP, and may therefore be considered to contribute to the impacts identified in the 2018 FMP EIR, including cumulative impacts. Future improvements at the football stadium may include construction of a track around the football field, which would require removal of the berm and new stadium seating. As discussed in this Initial Study, the construction and operation of the proposed project would result in either no, or less-than-considerable, increases to the cumulative impacts identified in the 2018 FMP EIR. Per CEQA Guidelines Sections 15152(f)(2) and 15168(d)(2), the 2018 FMP EIR adequately addresses the potential cumulative impacts associated with the proposed project.

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

The project would not cause any substantial adverse effects on human beings. The 2018 FMP EIR assessed direct and indirect environmental effects on human beings analyzed in the following sections: aesthetics, air quality, geology and soils, hazards and hazardous materials, hydrology and water quality, land use and planning, noise, population and housing, and transportation and traffic. As discussed in this Initial Study, the proposed project would not result in new or greater effects on human beings, either directly or indirectly. Project-level analyses were prepared for air quality and noise, which may potentially affect sensitive receptors. These impacts are less-than-significant, and consistent with the findings of the 2018 FMP EIR. Therefore, this impact has been adequately addressed in the prior EIR and there would not be a substantial adverse effect to human beings.

INTENTIONALLY LEFT BLANK

4 References and Preparers

4.1 References Cited

14 CCR 15000–15387 and Appendices A through N. Guidelines for Implementation of the California Environmental Quality Act, as amended.

California Public Resources Code, Section 21000–21189.3. California Environmental Quality Act, as amended.

CalFire (California Department of Forestry and Fire Protection). 2008. *Very High Fire Hazard Severity Zones in Local Responsibility Areas Map: Placer County*. November 28, 2008

Caltrans. 2019. SB 743 Implementation. Available at: <https://dot.ca.gov/programs/transportation-planning/office-of-smart-mobility-climate-change/sb-743>

CAPCOA. 2017. *California Emissions Estimator Model (CalEEMod) User's Guide Version 2016.3.2*. Prepared by Trinity Consultants and the California Air Districts. November 2017. <http://www.caleemod.com/>.

CAT (Climate Action Team). 2006. *Climate Action Team Report to Governor Schwarzenegger and the Legislature*. California Environmental Protection Agency, CAT. March 2006.

CEC (California Energy Commission). 2015. 2016 Building Energy Efficiency Standards for Residential and Nonresidential Buildings. June 2015. Available at: <https://ww2.energy.ca.gov/2015publications/CEC-400-2015-037/CEC-400-2015-037-CMF.pdf>

City of Rocklin. 2006. Oak Tree Preservation Guidelines and Ordinance. Updated April 2006. Available at: https://www.rocklin.ca.us/sites/main/files/file-attachments/oak_tree_preservation_guidelines.pdf

City of Rocklin. 2012. City of Rocklin General Plan. Available at: <https://www.rocklin.ca.us/post/general-plan>

City of Rocklin. 2016. Construction Noise Guidelines. Available at: <https://www.rocklin.ca.us/construction-noise-guidelines>

City of Rocklin. 2018. Zoning Map. Adopted October 9, 2019. Revised November 15, 2018. Available at: https://www.rocklin.ca.us/sites/main/files/file-attachments/existingzoning_20161115.pdf

DOE (U.S. Department of Energy). 2018. LED Lighting. Accessed April 26, 2018. <https://www.energy.gov/energysaver/save-electricity-and-fuel/lighting-choices-save-you-money/led-lighting>.

EPA (U.S. Environmental Protection Agency). 2018. Greenhouse Gas Equivalencies Calculator. Accessed April 26, 2018. <https://www.epa.gov/energy/greenhouse-gas-equivalencies-calculator>.

EPA (U.S. Environmental Protection Agency). 2019. Summary of the Energy Independence and Security Act. Available at: <https://www.epa.gov/laws-regulations/summary-energy-independence-and-security-act>

- IPCC (Intergovernmental Panel on Climate Change). 2014. Climate Change 2014 Synthesis Report: A Report of the Intergovernmental Panel on Climate Change. Contribution of Working Groups I, II and III to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change. Accessed August 2016. <http://www.ipcc.ch/report/ar5/syr/>.
- OEHHA (Office of Environmental Health Hazard Assessment). 2015. *Air Toxics Hot Spots Program, Risk Assessment Guidelines, Guidance Manual for Preparation of Health Risk Assessments*. February 2015.
- Sierra College. 2004. Nature Trail Preserve. Available at: <https://www.sierracollege.edu/about-us/beyond-the-classroom/nat-hist-museum/exhibits-out/nature-trail.php>
- Sierra College. 2016. Women's Beach Volleyball. Available at: <https://www.sierracollege.edu/athletics/sports/beach-volleyball/index.php>
- Sierra College. 2017a. Athletic Facilities. Available at: <http://athletics.sierracollege.edu/about/facilities>
- Sierra College. 2017b. About the Rocklin Campus. Available at: <https://www.sierracollege.edu/about-us/visit/rocklin-campus.php>
- Sierra College. 2018a. Rocklin Campus Map. Available at: https://www.sierracollege.edu/_files/resources/about-us/visit/documents/rocklin-map-brochure-8-18-v1.pdf
- Sierra College. 2018b. "Sierra beach volleyball to host first ever home match March 9". Story by Scott Johnston. Available at: <http://athletics.sierracollege.edu/sports/beachvball/2017-18/releases/20180308g7bs0l>
- SMAQMD (Sacramento Metropolitan Air Quality Management District). 2016. *2015 Triennial Progress Report*. Accessed September 22, 2016. [http://www.airquality.org/ProgramCoordination/Documents/11\)%20%202015TriennialReportandProgressRevision.pdf](http://www.airquality.org/ProgramCoordination/Documents/11)%20%202015TriennialReportandProgressRevision.pdf).

4.2 List of Preparers

Dudek

Brian Grattidge, Project Manager
Michael Carr, Noise
Angelica Chiu, Analyst
Brayden Dokkestul, GIS Specialist
Ian McIntire, Air Quality and GHG
Carolyn Somvilay, Analyst

Sierra Joint Community College District

Colin Irwin, Deputy Director, Plant Operations

Appendix A

Air Quality Data

CalEEMod Version: CalEEMod.2016.3.2

Date: 9/5/2019 9:24 AM

Sierra College Football Stadium Project
Placer County APCD Air District, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Other Non-Asphalt Surfaces	0.01	Acre	0.01	435.60	0

1.2 Other Project Characteristics

Urbanization	Rural	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	74
Climate Zone	2			Operational Year	2021
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MW hr)	641.35	CH4 Intensity (lb/MW hr)	0.029	N2O Intensity (lb/MW hr)	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Sierra College Football Stadium. PCAPCD.

Land Use - Assumed an area of 0.01-acre area for lighting and related infrastructure.

Construction Phase - Revised construction schedule.

Off-road Equipment - Revised equipment.

Off-road Equipment - Revised equipment.

Off-road Equipment - Revised equipment.

Off-road Equipment - Revised equipment.

Off-road Equipment - Revised equipment.

Trips and VMT - Revised trip characteristics. Assumed 3 to 5 workers per day and 12 total delivery truck trips.

Sierra College Football Stadium Project - Placer County APCD Air District, Annual

Grading - Default earthwork movement assumed.

Construction Off-road Equipment Mitigation - Water two times daily.

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	1.00	4.00
tblConstructionPhase	NumDays	2.00	20.00
tblConstructionPhase	NumDays	100.00	10.00
tblOffRoadEquipment	OffRoadEquipmentType		Concrete/Industrial Saws
tblOffRoadEquipment	OffRoadEquipmentType		Tractors/Loaders/Backhoes
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	PhaseName		Grading
tblOffRoadEquipment	PhaseName		Grading
tblOffRoadEquipment	PhaseName		Paving
tblOffRoadEquipment	PhaseName		Trenching
tblOffRoadEquipment	PhaseName		Grading
tblOffRoadEquipment	UsageHours	4.00	8.00
tblOffRoadEquipment	UsageHours	6.00	8.00
tblOffRoadEquipment	UsageHours	6.00	8.00
tblProjectCharacteristics	UrbanizationLevel	Urban	Rural
tblTripsAndVMT	HaulingTripNumber	0.00	12.00
tblTripsAndVMT	WorkerTripNumber	5.00	6.00
tblTripsAndVMT	WorkerTripNumber	10.00	6.00
tblTripsAndVMT	WorkerTripNumber	3.00	6.00
tblTripsAndVMT	WorkerTripNumber	0.00	10.00
tblTripsAndVMT	WorkerTripNumber	13.00	6.00

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2020	0.0185	0.1739	0.1444	3.1000e-004	0.0109	9.3800e-003	0.0203	4.8700e-003	8.8300e-003	0.0137	0.0000	26.8984	26.8984	6.2000e-003	0.0000	27.0533
Maximum	0.0185	0.1739	0.1444	3.1000e-004	0.0109	9.3800e-003	0.0203	4.8700e-003	8.8300e-003	0.0137	0.0000	26.8984	26.8984	6.2000e-003	0.0000	27.0533

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2020	0.0185	0.1739	0.1444	3.1000e-004	6.1900e-003	9.3800e-003	0.0156	2.5300e-003	8.8300e-003	0.0114	0.0000	26.8983	26.8983	6.2000e-003	0.0000	27.0533
Maximum	0.0185	0.1739	0.1444	3.1000e-004	6.1900e-003	9.3800e-003	0.0156	2.5300e-003	8.8300e-003	0.0114	0.0000	26.8983	26.8983	6.2000e-003	0.0000	27.0533

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	43.26	0.00	23.26	48.05	0.00	17.08	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	5/1/2020	5/6/2020	5	4	Site preparation
2	Grading	Grading	5/7/2020	6/3/2020	5	20	Foundation excavation
3	Trenching	Trenching	6/4/2020	6/24/2020	5	15	Trenching and conduit
4	Building Construction	Building Construction	6/25/2020	7/8/2020	5	10	Lighting installation/mounting
5	Paving	Paving	7/9/2020	7/15/2020	5	5	Foundation work/walkway

Acres of Grading (Site Preparation Phase): 2

Acres of Grading (Grading Phase): 0

Acres of Paving: 0.01

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Grading	Bore/Drill Rigs	1	8.00	221	0.50
Grading	Concrete/Industrial Saws	1	8.00	81	0.73
Trenching	Trenchers	1	8.00	78	0.50
Building Construction	Cranes	1	8.00	231	0.29
Building Construction	Forklifts	2	8.00	89	0.20
Paving	Cement and Mortar Mixers	1	8.00	9	0.56
Paving	Pumps	1	8.00	84	0.74
Grading	Tractors/Loaders/Backhoes	1	8.00	97	0.37

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	2	6.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Grading	4	6.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Trenching	1	6.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	5	10.00	0.00	12.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Paving	5	6.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

3.2 Site Preparation - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					1.0600e-003	0.0000	1.0600e-003	1.1000e-004	0.0000	1.1000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	4.2000e-004	4.2100e-003	4.5600e-003	1.0000e-005		2.7000e-004	2.7000e-004		2.4000e-004	2.4000e-004	0.0000	0.5457	0.5457	1.8000e-004	0.0000	0.5501
Total	4.2000e-004	4.2100e-003	4.5600e-003	1.0000e-005	1.0600e-003	2.7000e-004	1.3300e-003	1.1000e-004	2.4000e-004	3.5000e-004	0.0000	0.5457	0.5457	1.8000e-004	0.0000	0.5501

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.0000e-005	4.0000e-005	4.5000e-004	0.0000	1.5000e-004	0.0000	1.5000e-004	4.0000e-005	0.0000	4.0000e-005	0.0000	0.1252	0.1252	0.0000	0.0000	0.1253
Total	6.0000e-005	4.0000e-005	4.5000e-004	0.0000	1.5000e-004	0.0000	1.5000e-004	4.0000e-005	0.0000	4.0000e-005	0.0000	0.1252	0.1252	0.0000	0.0000	0.1253

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					4.8000e-004	0.0000	4.8000e-004	5.0000e-005	0.0000	5.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	4.2000e-004	4.2100e-003	4.5600e-003	1.0000e-005		2.7000e-004	2.7000e-004		2.4000e-004	2.4000e-004	0.0000	0.5457	0.5457	1.8000e-004	0.0000	0.5501
Total	4.2000e-004	4.2100e-003	4.5600e-003	1.0000e-005	4.8000e-004	2.7000e-004	7.5000e-004	5.0000e-005	2.4000e-004	2.9000e-004	0.0000	0.5457	0.5457	1.8000e-004	0.0000	0.5501

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.0000e-005	4.0000e-005	4.5000e-004	0.0000	1.5000e-004	0.0000	1.5000e-004	4.0000e-005	0.0000	4.0000e-005	0.0000	0.1252	0.1252	0.0000	0.0000	0.1253
Total	6.0000e-005	4.0000e-005	4.5000e-004	0.0000	1.5000e-004	0.0000	1.5000e-004	4.0000e-005	0.0000	4.0000e-005	0.0000	0.1252	0.1252	0.0000	0.0000	0.1253

3.3 Grading - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					7.5300e-003	0.0000	7.5300e-003	4.1400e-003	0.0000	4.1400e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	9.0500e-003	0.0893	0.0805	1.9000e-004		4.3300e-003	4.3300e-003		4.1400e-003	4.1400e-003	0.0000	16.3587	16.3587	3.8900e-003	0.0000	16.4560
Total	9.0500e-003	0.0893	0.0805	1.9000e-004	7.5300e-003	4.3300e-003	0.0119	4.1400e-003	4.1400e-003	8.2800e-003	0.0000	16.3587	16.3587	3.8900e-003	0.0000	16.4560

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.9000e-004	2.1000e-004	2.2500e-003	1.0000e-005	7.3000e-004	0.0000	7.4000e-004	1.9000e-004	0.0000	2.0000e-004	0.0000	0.6259	0.6259	1.0000e-005	0.0000	0.6262
Total	2.9000e-004	2.1000e-004	2.2500e-003	1.0000e-005	7.3000e-004	0.0000	7.4000e-004	1.9000e-004	0.0000	2.0000e-004	0.0000	0.6259	0.6259	1.0000e-005	0.0000	0.6262

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					3.3900e-003	0.0000	3.3900e-003	1.8600e-003	0.0000	1.8600e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	9.0500e-003	0.0893	0.0805	1.9000e-004		4.3300e-003	4.3300e-003		4.1400e-003	4.1400e-003	0.0000	16.3587	16.3587	3.8900e-003	0.0000	16.4560
Total	9.0500e-003	0.0893	0.0805	1.9000e-004	3.3900e-003	4.3300e-003	7.7200e-003	1.8600e-003	4.1400e-003	6.0000e-003	0.0000	16.3587	16.3587	3.8900e-003	0.0000	16.4560

Sierra College Football Stadium Project - Placer County APCD Air District, Annual

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.9000e-004	2.1000e-004	2.2500e-003	1.0000e-005	7.3000e-004	0.0000	7.4000e-004	1.9000e-004	0.0000	2.0000e-004	0.0000	0.6259	0.6259	1.0000e-005	0.0000	0.6262
Total	2.9000e-004	2.1000e-004	2.2500e-003	1.0000e-005	7.3000e-004	0.0000	7.4000e-004	1.9000e-004	0.0000	2.0000e-004	0.0000	0.6259	0.6259	1.0000e-005	0.0000	0.6262

3.4 Trenching - 2020**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	3.1500e-003	0.0285	0.0198	3.0000e-005		2.1300e-003	2.1300e-003		1.9600e-003	1.9600e-003	0.0000	2.2236	2.2236	7.2000e-004	0.0000	2.2416
Total	3.1500e-003	0.0285	0.0198	3.0000e-005		2.1300e-003	2.1300e-003		1.9600e-003	1.9600e-003	0.0000	2.2236	2.2236	7.2000e-004	0.0000	2.2416

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.2000e-004	1.6000e-004	1.6800e-003	1.0000e-005	5.5000e-004	0.0000	5.5000e-004	1.5000e-004	0.0000	1.5000e-004	0.0000	0.4694	0.4694	1.0000e-005	0.0000	0.4697
Total	2.2000e-004	1.6000e-004	1.6800e-003	1.0000e-005	5.5000e-004	0.0000	5.5000e-004	1.5000e-004	0.0000	1.5000e-004	0.0000	0.4694	0.4694	1.0000e-005	0.0000	0.4697

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	3.1500e-003	0.0285	0.0198	3.0000e-005		2.1300e-003	2.1300e-003		1.9600e-003	1.9600e-003	0.0000	2.2236	2.2236	7.2000e-004	0.0000	2.2416
Total	3.1500e-003	0.0285	0.0198	3.0000e-005		2.1300e-003	2.1300e-003		1.9600e-003	1.9600e-003	0.0000	2.2236	2.2236	7.2000e-004	0.0000	2.2416

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.2000e-004	1.6000e-004	1.6800e-003	1.0000e-005	5.5000e-004	0.0000	5.5000e-004	1.5000e-004	0.0000	1.5000e-004	0.0000	0.4694	0.4694	1.0000e-005	0.0000	0.4697
Total	2.2000e-004	1.6000e-004	1.6800e-003	1.0000e-005	5.5000e-004	0.0000	5.5000e-004	1.5000e-004	0.0000	1.5000e-004	0.0000	0.4694	0.4694	1.0000e-005	0.0000	0.4697

3.5 Building Construction - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	3.7100e-003	0.0399	0.0224	4.0000e-005		2.0800e-003	2.0800e-003		1.9100e-003	1.9100e-003	0.0000	3.8775	3.8775	1.2500e-003	0.0000	3.9089
Total	3.7100e-003	0.0399	0.0224	4.0000e-005		2.0800e-003	2.0800e-003		1.9100e-003	1.9100e-003	0.0000	3.8775	3.8775	1.2500e-003	0.0000	3.9089

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	5.0000e-005	1.6600e-003	2.7000e-004	0.0000	1.0000e-004	1.0000e-005	1.1000e-004	3.0000e-005	1.0000e-005	3.0000e-005	0.0000	0.4667	0.4667	2.0000e-005	0.0000	0.4671
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.4000e-004	1.8000e-004	1.8700e-003	1.0000e-005	6.1000e-004	0.0000	6.1000e-004	1.6000e-004	0.0000	1.7000e-004	0.0000	0.5216	0.5216	1.0000e-005	0.0000	0.5219
Total	2.9000e-004	1.8400e-003	2.1400e-003	1.0000e-005	7.1000e-004	1.0000e-005	7.2000e-004	1.9000e-004	1.0000e-005	2.0000e-004	0.0000	0.9883	0.9883	3.0000e-005	0.0000	0.9890

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	3.7100e-003	0.0399	0.0224	4.0000e-005		2.0800e-003	2.0800e-003		1.9100e-003	1.9100e-003	0.0000	3.8775	3.8775	1.2500e-003	0.0000	3.9089
Total	3.7100e-003	0.0399	0.0224	4.0000e-005		2.0800e-003	2.0800e-003		1.9100e-003	1.9100e-003	0.0000	3.8775	3.8775	1.2500e-003	0.0000	3.9089

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	5.0000e-005	1.6600e-003	2.7000e-004	0.0000	1.0000e-004	1.0000e-005	1.1000e-004	3.0000e-005	1.0000e-005	3.0000e-005	0.0000	0.4667	0.4667	2.0000e-005	0.0000	0.4671
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.4000e-004	1.8000e-004	1.8700e-003	1.0000e-005	6.1000e-004	0.0000	6.1000e-004	1.6000e-004	0.0000	1.7000e-004	0.0000	0.5216	0.5216	1.0000e-005	0.0000	0.5219
Total	2.9000e-004	1.8400e-003	2.1400e-003	1.0000e-005	7.1000e-004	1.0000e-005	7.2000e-004	1.9000e-004	1.0000e-005	2.0000e-004	0.0000	0.9883	0.9883	3.0000e-005	0.0000	0.9890

3.6 Paving - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	1.2000e-003	9.7400e-003	0.0102	2.0000e-005		5.5000e-004	5.5000e-004		5.5000e-004	5.5000e-004	0.0000	1.5276	1.5276	1.0000e-004	0.0000	1.5300
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	1.2000e-003	9.7400e-003	0.0102	2.0000e-005		5.5000e-004	5.5000e-004		5.5000e-004	5.5000e-004	0.0000	1.5276	1.5276	1.0000e-004	0.0000	1.5300

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	7.0000e-005	5.0000e-005	5.6000e-004	0.0000	1.8000e-004	0.0000	1.8000e-004	5.0000e-005	0.0000	5.0000e-005	0.0000	0.1565	0.1565	0.0000	0.0000	0.1566
Total	7.0000e-005	5.0000e-005	5.6000e-004	0.0000	1.8000e-004	0.0000	1.8000e-004	5.0000e-005	0.0000	5.0000e-005	0.0000	0.1565	0.1565	0.0000	0.0000	0.1566

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	1.2000e-003	9.7400e-003	0.0102	2.0000e-005		5.5000e-004	5.5000e-004		5.5000e-004	5.5000e-004	0.0000	1.5276	1.5276	1.0000e-004	0.0000	1.5300
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	1.2000e-003	9.7400e-003	0.0102	2.0000e-005		5.5000e-004	5.5000e-004		5.5000e-004	5.5000e-004	0.0000	1.5276	1.5276	1.0000e-004	0.0000	1.5300

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	7.0000e-005	5.0000e-005	5.6000e-004	0.0000	1.8000e-004	0.0000	1.8000e-004	5.0000e-005	0.0000	5.0000e-005	0.0000	0.1565	0.1565	0.0000	0.0000	0.1566
Total	7.0000e-005	5.0000e-005	5.6000e-004	0.0000	1.8000e-004	0.0000	1.8000e-004	5.0000e-005	0.0000	5.0000e-005	0.0000	0.1565	0.1565	0.0000	0.0000	0.1566

CalEEMod Version: CalEEMod.2016.3.2

Date: 9/5/2019 9:21 AM

Sierra College Football Stadium Project
Placer County APCD Air District, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Other Non-Asphalt Surfaces	0.01	Acre	0.01	435.60	0

1.2 Other Project Characteristics

Urbanization	Rural	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	74
Climate Zone	2			Operational Year	2021
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MW hr)	641.35	CH4 Intensity (lb/MW hr)	0.029	N2O Intensity (lb/MW hr)	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Sierra College Football Stadium. PCAPCD.

Land Use - Assumed an area of 0.01-acre area for lighting and related infrastructure.

Construction Phase - Revised construction schedule.

Off-road Equipment - Revised equipment.

Off-road Equipment - Revised equipment.

Off-road Equipment - Revised equipment.

Off-road Equipment - Revised equipment.

Off-road Equipment - Revised equipment.

Trips and VMT - Revised trip characteristics. Assumed 3 to 5 workers per day and 12 total delivery truck trips.

Sierra College Football Stadium Project - Placer County APCD Air District, Summer

Construction Off-road Equipment Mitigation - Water two times daily.

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	1.00	4.00
tblConstructionPhase	NumDays	2.00	20.00
tblConstructionPhase	NumDays	100.00	10.00
tblOffRoadEquipment	OffRoadEquipmentType		Concrete/Industrial Saws
tblOffRoadEquipment	OffRoadEquipmentType		Tractors/Loaders/Backhoes
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	PhaseName		Grading
tblOffRoadEquipment	PhaseName		Grading
tblOffRoadEquipment	PhaseName		Paving
tblOffRoadEquipment	PhaseName		Trenching
tblOffRoadEquipment	PhaseName		Grading
tblOffRoadEquipment	UsageHours	4.00	8.00
tblOffRoadEquipment	UsageHours	6.00	8.00
tblOffRoadEquipment	UsageHours	6.00	8.00
tblProjectCharacteristics	UrbanizationLevel	Urban	Rural
tblTripsAndVMT	HaulingTripNumber	0.00	12.00
tblTripsAndVMT	WorkerTripNumber	5.00	6.00
tblTripsAndVMT	WorkerTripNumber	10.00	6.00
tblTripsAndVMT	WorkerTripNumber	3.00	6.00
tblTripsAndVMT	WorkerTripNumber	0.00	10.00
tblTripsAndVMT	WorkerTripNumber	13.00	6.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2020	0.9367	8.9449	8.3069	0.0195	0.8294	0.4332	1.2626	0.4341	0.4144	0.8485	0.0000	1,878.8847	1,878.8847	0.4309	0.0000	1,889.6565
Maximum	0.9367	8.9449	8.3069	0.0195	0.8294	0.4332	1.2626	0.4341	0.4144	0.8485	0.0000	1,878.8847	1,878.8847	0.4309	0.0000	1,889.6565

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2020	0.9367	8.9449	8.3069	0.0195	0.4154	0.4332	0.8486	0.2065	0.4144	0.6209	0.0000	1,878.8847	1,878.8847	0.4309	0.0000	1,889.6565
Maximum	0.9367	8.9449	8.3069	0.0195	0.4154	0.4332	0.8486	0.2065	0.4144	0.6209	0.0000	1,878.8847	1,878.8847	0.4309	0.0000	1,889.6565

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	49.92	0.00	32.79	52.43	0.00	26.82	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	5/1/2020	5/6/2020	5	4	Site preparation
2	Grading	Grading	5/7/2020	6/3/2020	5	20	Foundation excavation
3	Trenching	Trenching	6/4/2020	6/24/2020	5	15	Trenching and conduit
4	Building Construction	Building Construction	6/25/2020	7/8/2020	5	10	Lighting installation/mounting
5	Paving	Paving	7/9/2020	7/15/2020	5	5	Foundation work/walkway

Acres of Grading (Site Preparation Phase): 2

Acres of Grading (Grading Phase): 0

Acres of Paving: 0.01

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Grading	Bore/Drill Rigs	1	8.00	221	0.50
Grading	Concrete/Industrial Saws	1	8.00	81	0.73
Trenching	Trenchers	1	8.00	78	0.50
Building Construction	Cranes	1	8.00	231	0.29
Building Construction	Forklifts	2	8.00	89	0.20
Paving	Cement and Mortar Mixers	1	8.00	9	0.56
Paving	Pumps	1	8.00	84	0.74
Grading	Tractors/Loaders/Backhoes	1	8.00	97	0.37

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	2	6.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Grading	4	6.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Trenching	1	6.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	5	10.00	0.00	12.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Paving	5	6.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

3.2 Site Preparation - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.5303	0.0000	0.5303	0.0573	0.0000	0.0573			0.0000			0.0000
Off-Road	0.2095	2.1052	2.2797	3.1100e-003		0.1331	0.1331		0.1225	0.1225		300.7685	300.7685	0.0973		303.2004
Total	0.2095	2.1052	2.2797	3.1100e-003	0.5303	0.1331	0.6634	0.0573	0.1225	0.1797		300.7685	300.7685	0.0973		303.2004

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0315	0.0189	0.2598	7.6000e-004	0.0766	4.7000e-004	0.0771	0.0203	4.3000e-004	0.0208		75.6447	75.6447	1.8000e-003		75.6898
Total	0.0315	0.0189	0.2598	7.6000e-004	0.0766	4.7000e-004	0.0771	0.0203	4.3000e-004	0.0208		75.6447	75.6447	1.8000e-003		75.6898

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.2386	0.0000	0.2386	0.0258	0.0000	0.0258			0.0000			0.0000
Off-Road	0.2095	2.1052	2.2797	3.1100e-003		0.1331	0.1331		0.1225	0.1225	0.0000	300.7685	300.7685	0.0973		303.2004
Total	0.2095	2.1052	2.2797	3.1100e-003	0.2386	0.1331	0.3717	0.0258	0.1225	0.1482	0.0000	300.7685	300.7685	0.0973		303.2004

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0315	0.0189	0.2598	7.6000e-004	0.0766	4.7000e-004	0.0771	0.0203	4.3000e-004	0.0208		75.6447	75.6447	1.8000e-003		75.6898
Total	0.0315	0.0189	0.2598	7.6000e-004	0.0766	4.7000e-004	0.0771	0.0203	4.3000e-004	0.0208		75.6447	75.6447	1.8000e-003		75.6898

3.3 Grading - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.7528	0.0000	0.7528	0.4138	0.0000	0.4138			0.0000			0.0000
Off-Road	0.9052	8.9260	8.0470	0.0188		0.4328	0.4328		0.4140	0.4140		1,803.240 0	1,803.240 0	0.4291		1,813.966 7
Total	0.9052	8.9260	8.0470	0.0188	0.7528	0.4328	1.1855	0.4138	0.4140	0.8278		1,803.240 0	1,803.240 0	0.4291		1,813.966 7

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0315	0.0189	0.2598	7.6000e-004	0.0766	4.7000e-004	0.0771	0.0203	4.3000e-004	0.0208		75.6447	75.6447	1.8000e-003		75.6898
Total	0.0315	0.0189	0.2598	7.6000e-004	0.0766	4.7000e-004	0.0771	0.0203	4.3000e-004	0.0208		75.6447	75.6447	1.8000e-003		75.6898

Sierra College Football Stadium Project - Placer County APCD Air District, Summer

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.3387	0.0000	0.3387	0.1862	0.0000	0.1862			0.0000			0.0000
Off-Road	0.9052	8.9260	8.0470	0.0188		0.4328	0.4328		0.4140	0.4140	0.0000	1,803.240 0	1,803.240 0	0.4291		1,813.966 7
Total	0.9052	8.9260	8.0470	0.0188	0.3387	0.4328	0.7715	0.1862	0.4140	0.6002	0.0000	1,803.240 0	1,803.240 0	0.4291		1,813.966 7

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0315	0.0189	0.2598	7.6000e-004	0.0766	4.7000e-004	0.0771	0.0203	4.3000e-004	0.0208		75.6447	75.6447	1.8000e-003		75.6898
Total	0.0315	0.0189	0.2598	7.6000e-004	0.0766	4.7000e-004	0.0771	0.0203	4.3000e-004	0.0208		75.6447	75.6447	1.8000e-003		75.6898

3.4 Trenching - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.4197	3.7966	2.6363	3.3700e-003		0.2843	0.2843		0.2615	0.2615		326.8121	326.8121	0.1057		329.4545
Total	0.4197	3.7966	2.6363	3.3700e-003		0.2843	0.2843		0.2615	0.2615		326.8121	326.8121	0.1057		329.4545

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0315	0.0189	0.2598	7.6000e-004	0.0766	4.7000e-004	0.0771	0.0203	4.3000e-004	0.0208		75.6447	75.6447	1.8000e-003		75.6898
Total	0.0315	0.0189	0.2598	7.6000e-004	0.0766	4.7000e-004	0.0771	0.0203	4.3000e-004	0.0208		75.6447	75.6447	1.8000e-003		75.6898

Sierra College Football Stadium Project - Placer County APCD Air District, Summer

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.4197	3.7966	2.6363	3.3700e-003		0.2843	0.2843		0.2615	0.2615	0.0000	326.8121	326.8121	0.1057		329.4545
Total	0.4197	3.7966	2.6363	3.3700e-003		0.2843	0.2843		0.2615	0.2615	0.0000	326.8121	326.8121	0.1057		329.4545

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0315	0.0189	0.2598	7.6000e-004	0.0766	4.7000e-004	0.0771	0.0203	4.3000e-004	0.0208		75.6447	75.6447	1.8000e-003		75.6898
Total	0.0315	0.0189	0.2598	7.6000e-004	0.0766	4.7000e-004	0.0771	0.0203	4.3000e-004	0.0208		75.6447	75.6447	1.8000e-003		75.6898

3.5 Building Construction - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.7414	7.9865	4.4759	8.8200e-003		0.4156	0.4156		0.3824	0.3824		854.8513	854.8513	0.2765		861.7632
Total	0.7414	7.9865	4.4759	8.8200e-003		0.4156	0.4156		0.3824	0.3824		854.8513	854.8513	0.2765		861.7632

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	9.5500e-003	0.3246	0.0512	9.9000e-004	0.0210	1.1400e-003	0.0221	5.7500e-003	1.0900e-003	6.8400e-003		103.9100	103.9100	3.2600e-003		103.9915
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0525	0.0315	0.4331	1.2700e-003	0.1277	7.8000e-004	0.1285	0.0339	7.2000e-004	0.0346		126.0744	126.0744	3.0100e-003		126.1496
Total	0.0621	0.3561	0.4843	2.2600e-003	0.1487	1.9200e-003	0.1506	0.0396	1.8100e-003	0.0414		229.9844	229.9844	6.2700e-003		230.1411

Sierra College Football Stadium Project - Placer County APCD Air District, Summer

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.7414	7.9865	4.4759	8.8200e-003		0.4156	0.4156		0.3824	0.3824	0.0000	854.8513	854.8513	0.2765		861.7632
Total	0.7414	7.9865	4.4759	8.8200e-003		0.4156	0.4156		0.3824	0.3824	0.0000	854.8513	854.8513	0.2765		861.7632

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	9.5500e-003	0.3246	0.0512	9.9000e-004	0.0210	1.1400e-003	0.0221	5.7500e-003	1.0900e-003	6.8400e-003		103.9100	103.9100	3.2600e-003		103.9915
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0525	0.0315	0.4331	1.2700e-003	0.1277	7.8000e-004	0.1285	0.0339	7.2000e-004	0.0346		126.0744	126.0744	3.0100e-003		126.1496
Total	0.0621	0.3561	0.4843	2.2600e-003	0.1487	1.9200e-003	0.1506	0.0396	1.8100e-003	0.0414		229.9844	229.9844	6.2700e-003		230.1411

3.6 Paving - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.4819	3.8972	4.0710	7.2900e-003		0.2215	0.2215		0.2215	0.2215		673.5509	673.5509	0.0425		674.6139
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	0.4819	3.8972	4.0710	7.2900e-003		0.2215	0.2215		0.2215	0.2215		673.5509	673.5509	0.0425		674.6139

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0315	0.0189	0.2598	7.6000e-004	0.0766	4.7000e-004	0.0771	0.0203	4.3000e-004	0.0208		75.6447	75.6447	1.8000e-003		75.6898
Total	0.0315	0.0189	0.2598	7.6000e-004	0.0766	4.7000e-004	0.0771	0.0203	4.3000e-004	0.0208		75.6447	75.6447	1.8000e-003		75.6898

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.4819	3.8972	4.0710	7.2900e-003		0.2215	0.2215		0.2215	0.2215	0.0000	673.5509	673.5509	0.0425		674.6139
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	0.4819	3.8972	4.0710	7.2900e-003		0.2215	0.2215		0.2215	0.2215	0.0000	673.5509	673.5509	0.0425		674.6139

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0315	0.0189	0.2598	7.6000e-004	0.0766	4.7000e-004	0.0771	0.0203	4.3000e-004	0.0208		75.6447	75.6447	1.8000e-003		75.6898
Total	0.0315	0.0189	0.2598	7.6000e-004	0.0766	4.7000e-004	0.0771	0.0203	4.3000e-004	0.0208		75.6447	75.6447	1.8000e-003		75.6898

CalEEMod Version: CalEEMod.2016.3.2

Date: 9/5/2019 9:23 AM

Sierra College Football Stadium Project
Placer County APCD Air District, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Other Non-Asphalt Surfaces	0.01	Acre	0.01	435.60	0

1.2 Other Project Characteristics

Urbanization	Rural	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	74
Climate Zone	2			Operational Year	2021
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MW hr)	641.35	CH4 Intensity (lb/MW hr)	0.029	N2O Intensity (lb/MW hr)	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Sierra College Football Stadium. PCAPCD.

Land Use - Assumed an area of 0.01-acre area for lighting and related infrastructure.

Construction Phase - Revised construction schedule.

Off-road Equipment - Revised equipment.

Off-road Equipment - Revised equipment.

Off-road Equipment - Revised equipment.

Off-road Equipment - Revised equipment.

Off-road Equipment - Revised equipment.

Trips and VMT - Revised trip characteristics. Assumed 3 to 5 workers per day and 12 total delivery truck trips.

Grading - Default earthwork movement assumed.

Construction Off-road Equipment Mitigation - Water two times daily.

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	1.00	4.00
tblConstructionPhase	NumDays	2.00	20.00
tblConstructionPhase	NumDays	100.00	10.00
tblOffRoadEquipment	OffRoadEquipmentType		Concrete/Industrial Saws
tblOffRoadEquipment	OffRoadEquipmentType		Tractors/Loaders/Backhoes
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	PhaseName		Grading
tblOffRoadEquipment	PhaseName		Grading
tblOffRoadEquipment	PhaseName		Paving
tblOffRoadEquipment	PhaseName		Trenching
tblOffRoadEquipment	PhaseName		Grading
tblOffRoadEquipment	UsageHours	4.00	8.00
tblOffRoadEquipment	UsageHours	6.00	8.00
tblOffRoadEquipment	UsageHours	6.00	8.00
tblProjectCharacteristics	UrbanizationLevel	Urban	Rural
tblTripsAndVMT	HaulingTripNumber	0.00	12.00
tblTripsAndVMT	WorkerTripNumber	5.00	6.00
tblTripsAndVMT	WorkerTripNumber	10.00	6.00
tblTripsAndVMT	WorkerTripNumber	3.00	6.00
tblTripsAndVMT	WorkerTripNumber	0.00	10.00
tblTripsAndVMT	WorkerTripNumber	13.00	6.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2020	0.9374	8.9497	8.2710	0.0194	0.8294	0.4332	1.2626	0.4341	0.4144	0.8485	0.0000	1,870.5273	1,870.5273	0.4307	0.0000	1,881.2941
Maximum	0.9374	8.9497	8.2710	0.0194	0.8294	0.4332	1.2626	0.4341	0.4144	0.8485	0.0000	1,870.5273	1,870.5273	0.4307	0.0000	1,881.2941

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2020	0.9374	8.9497	8.2710	0.0194	0.4154	0.4332	0.8486	0.2065	0.4144	0.6209	0.0000	1,870.5273	1,870.5273	0.4307	0.0000	1,881.2941
Maximum	0.9374	8.9497	8.2710	0.0194	0.4154	0.4332	0.8486	0.2065	0.4144	0.6209	0.0000	1,870.5273	1,870.5273	0.4307	0.0000	1,881.2941

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	49.92	0.00	32.79	52.43	0.00	26.82	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	5/1/2020	5/6/2020	5	4	Site preparation
2	Grading	Grading	5/7/2020	6/3/2020	5	20	Foundation excavation
3	Trenching	Trenching	6/4/2020	6/24/2020	5	15	Trenching and conduit
4	Building Construction	Building Construction	6/25/2020	7/8/2020	5	10	Lighting installation/mounting
5	Paving	Paving	7/9/2020	7/15/2020	5	5	Foundation work/walkway

Acres of Grading (Site Preparation Phase): 2

Acres of Grading (Grading Phase): 0

Acres of Paving: 0.01

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Grading	Bore/Drill Rigs	1	8.00	221	0.50
Grading	Concrete/Industrial Saws	1	8.00	81	0.73
Trenching	Trenchers	1	8.00	78	0.50
Building Construction	Cranes	1	8.00	231	0.29
Building Construction	Forklifts	2	8.00	89	0.20
Paving	Cement and Mortar Mixers	1	8.00	9	0.56
Paving	Pumps	1	8.00	84	0.74
Grading	Tractors/Loaders/Backhoes	1	8.00	97	0.37

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	2	6.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Grading	4	6.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Trenching	1	6.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	5	10.00	0.00	12.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Paving	5	6.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

3.2 Site Preparation - 2020**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.5303	0.0000	0.5303	0.0573	0.0000	0.0573			0.0000			0.0000
Off-Road	0.2095	2.1052	2.2797	3.1100e-003		0.1331	0.1331		0.1225	0.1225		300.7685	300.7685	0.0973		303.2004
Total	0.2095	2.1052	2.2797	3.1100e-003	0.5303	0.1331	0.6634	0.0573	0.1225	0.1797		300.7685	300.7685	0.0973		303.2004

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0322	0.0237	0.2240	6.8000e-004	0.0766	4.7000e-004	0.0771	0.0203	4.3000e-004	0.0208		67.2873	67.2873	1.6000e-003		67.3273
Total	0.0322	0.0237	0.2240	6.8000e-004	0.0766	4.7000e-004	0.0771	0.0203	4.3000e-004	0.0208		67.2873	67.2873	1.6000e-003		67.3273

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.2386	0.0000	0.2386	0.0258	0.0000	0.0258			0.0000			0.0000
Off-Road	0.2095	2.1052	2.2797	3.1100e-003		0.1331	0.1331		0.1225	0.1225	0.0000	300.7685	300.7685	0.0973		303.2004
Total	0.2095	2.1052	2.2797	3.1100e-003	0.2386	0.1331	0.3717	0.0258	0.1225	0.1482	0.0000	300.7685	300.7685	0.0973		303.2004

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0322	0.0237	0.2240	6.8000e-004	0.0766	4.7000e-004	0.0771	0.0203	4.3000e-004	0.0208		67.2873	67.2873	1.6000e-003		67.3273
Total	0.0322	0.0237	0.2240	6.8000e-004	0.0766	4.7000e-004	0.0771	0.0203	4.3000e-004	0.0208		67.2873	67.2873	1.6000e-003		67.3273

3.3 Grading - 2020**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.7528	0.0000	0.7528	0.4138	0.0000	0.4138			0.0000			0.0000
Off-Road	0.9052	8.9260	8.0470	0.0188		0.4328	0.4328		0.4140	0.4140		1,803.240 0	1,803.240 0	0.4291		1,813.966 7
Total	0.9052	8.9260	8.0470	0.0188	0.7528	0.4328	1.1855	0.4138	0.4140	0.8278		1,803.240 0	1,803.240 0	0.4291		1,813.966 7

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0322	0.0237	0.2240	6.8000e-004	0.0766	4.7000e-004	0.0771	0.0203	4.3000e-004	0.0208		67.2873	67.2873	1.6000e-003		67.3273
Total	0.0322	0.0237	0.2240	6.8000e-004	0.0766	4.7000e-004	0.0771	0.0203	4.3000e-004	0.0208		67.2873	67.2873	1.6000e-003		67.3273

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.3387	0.0000	0.3387	0.1862	0.0000	0.1862			0.0000			0.0000
Off-Road	0.9052	8.9260	8.0470	0.0188		0.4328	0.4328		0.4140	0.4140	0.0000	1,803.240 0	1,803.240 0	0.4291		1,813.966 7
Total	0.9052	8.9260	8.0470	0.0188	0.3387	0.4328	0.7715	0.1862	0.4140	0.6002	0.0000	1,803.240 0	1,803.240 0	0.4291		1,813.966 7

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0322	0.0237	0.2240	6.8000e-004	0.0766	4.7000e-004	0.0771	0.0203	4.3000e-004	0.0208		67.2873	67.2873	1.6000e-003		67.3273
Total	0.0322	0.0237	0.2240	6.8000e-004	0.0766	4.7000e-004	0.0771	0.0203	4.3000e-004	0.0208		67.2873	67.2873	1.6000e-003		67.3273

3.4 Trenching - 2020**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.4197	3.7966	2.6363	3.3700e-003		0.2843	0.2843		0.2615	0.2615		326.8121	326.8121	0.1057		329.4545
Total	0.4197	3.7966	2.6363	3.3700e-003		0.2843	0.2843		0.2615	0.2615		326.8121	326.8121	0.1057		329.4545

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0322	0.0237	0.2240	6.8000e-004	0.0766	4.7000e-004	0.0771	0.0203	4.3000e-004	0.0208		67.2873	67.2873	1.6000e-003		67.3273
Total	0.0322	0.0237	0.2240	6.8000e-004	0.0766	4.7000e-004	0.0771	0.0203	4.3000e-004	0.0208		67.2873	67.2873	1.6000e-003		67.3273

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.4197	3.7966	2.6363	3.3700e-003		0.2843	0.2843		0.2615	0.2615	0.0000	326.8121	326.8121	0.1057		329.4545
Total	0.4197	3.7966	2.6363	3.3700e-003		0.2843	0.2843		0.2615	0.2615	0.0000	326.8121	326.8121	0.1057		329.4545

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0322	0.0237	0.2240	6.8000e-004	0.0766	4.7000e-004	0.0771	0.0203	4.3000e-004	0.0208		67.2873	67.2873	1.6000e-003		67.3273
Total	0.0322	0.0237	0.2240	6.8000e-004	0.0766	4.7000e-004	0.0771	0.0203	4.3000e-004	0.0208		67.2873	67.2873	1.6000e-003		67.3273

3.5 Building Construction - 2020**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.7414	7.9865	4.4759	8.8200e-003		0.4156	0.4156		0.3824	0.3824		854.8513	854.8513	0.2765		861.7632
Total	0.7414	7.9865	4.4759	8.8200e-003		0.4156	0.4156		0.3824	0.3824		854.8513	854.8513	0.2765		861.7632

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	9.9200e-003	0.3328	0.0581	9.7000e-004	0.0210	1.1600e-003	0.0222	5.7500e-003	1.1100e-003	6.8700e-003		101.4950	101.4950	3.6700e-003		101.5867
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0536	0.0395	0.3733	1.1300e-003	0.1277	7.8000e-004	0.1285	0.0339	7.2000e-004	0.0346		112.1455	112.1455	2.6700e-003		112.2122
Total	0.0636	0.3723	0.4314	2.1000e-003	0.1487	1.9400e-003	0.1507	0.0396	1.8300e-003	0.0415		213.6405	213.6405	6.3400e-003		213.7989

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.7414	7.9865	4.4759	8.8200e-003		0.4156	0.4156		0.3824	0.3824	0.0000	854.8513	854.8513	0.2765		861.7632
Total	0.7414	7.9865	4.4759	8.8200e-003		0.4156	0.4156		0.3824	0.3824	0.0000	854.8513	854.8513	0.2765		861.7632

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	9.9200e-003	0.3328	0.0581	9.7000e-004	0.0210	1.1600e-003	0.0222	5.7500e-003	1.1100e-003	6.8700e-003		101.4950	101.4950	3.6700e-003		101.5867
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0536	0.0395	0.3733	1.1300e-003	0.1277	7.8000e-004	0.1285	0.0339	7.2000e-004	0.0346		112.1455	112.1455	2.6700e-003		112.2122
Total	0.0636	0.3723	0.4314	2.1000e-003	0.1487	1.9400e-003	0.1507	0.0396	1.8300e-003	0.0415		213.6405	213.6405	6.3400e-003		213.7989

3.6 Paving - 2020**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.4819	3.8972	4.0710	7.2900e-003		0.2215	0.2215		0.2215	0.2215		673.5509	673.5509	0.0425		674.6139
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	0.4819	3.8972	4.0710	7.2900e-003		0.2215	0.2215		0.2215	0.2215		673.5509	673.5509	0.0425		674.6139

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0322	0.0237	0.2240	6.8000e-004	0.0766	4.7000e-004	0.0771	0.0203	4.3000e-004	0.0208		67.2873	67.2873	1.6000e-003		67.3273
Total	0.0322	0.0237	0.2240	6.8000e-004	0.0766	4.7000e-004	0.0771	0.0203	4.3000e-004	0.0208		67.2873	67.2873	1.6000e-003		67.3273

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.4819	3.8972	4.0710	7.2900e-003		0.2215	0.2215		0.2215	0.2215	0.0000	673.5509	673.5509	0.0425		674.6139
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	0.4819	3.8972	4.0710	7.2900e-003		0.2215	0.2215		0.2215	0.2215	0.0000	673.5509	673.5509	0.0425		674.6139

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0322	0.0237	0.2240	6.8000e-004	0.0766	4.7000e-004	0.0771	0.0203	4.3000e-004	0.0208		67.2873	67.2873	1.6000e-003		67.3273
Total	0.0322	0.0237	0.2240	6.8000e-004	0.0766	4.7000e-004	0.0771	0.0203	4.3000e-004	0.0208		67.2873	67.2873	1.6000e-003		67.3273

Appendix B

Noise Analysis

TECHNICAL MEMORANDUM

To: Colin Irwin, Deputy Director Plant Operations, SJCCD
From: Brian Grattidge, AICP; Michael Carr, INCE
Subject: Sierra College Stadium Lighting – Noise Analysis
Date: September 21, 2019
cc: Type name here
Attachment(s): Appendices A through C

Sierra College is proposing to install an LED lighting system at the Sierra College Homer “Buzz” Ostrom Stadium and adjacent sports fields. This memorandum provides a summary of the potential noise impacts related to the proposed Sierra College Football Stadium Lighting Project (Project). Appendix A provides an introduction to acoustical fundamental and terminology used throughout this memorandum.

1 Project Information

Homer “Buss” Ostrom Stadium (Stadium) is located at the eastern boundary of the Sierra College campus, adjacent to Sierra College Boulevard. The Stadium as it currently is configured opened in 2007 with a seating capacity of 1,500 spectators; however, for graduation and special events, field seating is added increasing the capacity to approximately 3,000 attendees. The Stadium is comprised of a bisected U-shaped berm, with the opening to the south and bleacher seating along the western and eastern berms. A press box/announcer’s booth is located atop the western berm. The roof-deck of the announcer’s booth is home to a camera platform and the Stadium’s speaker system. The Stadium’s speaker system consists of four (4) Community R.5 loudspeakers, directed and splayed to provide basic announcement audio coverage throughout the Stadium.

This Project would install a stadium and sports field lighting system to facilitate evening and nighttime use of the Stadium.

2 Regulatory Setting

The City of Rocklin has developed and adopted goals and policies with the intent of controlling and diminish environmental noise and to protect its inhabitants from exposure to excessive noise levels. Local noise standards applicable to the proposed Project are contained in the City of Rocklin General Plan and Rocklin Municipal Code.

The City of Rocklin General Plan Noise Element

Applicable noise standards in the City of Rocklin General Plan are contained within Chapter IV, Element E of the General Plan (Noise Element). The Noise Element contains specific goals, policies and standards for use in planning and land compatibility determinations within the City of Rocklin. The following standards and policies of the Noise Element are relevant to the proposed Project.

Policy N-1 Determine noise compatibility between land uses, and to provide a basis for developing noise mitigation, an acoustical analysis shall be required as part of the environmental review process for all

noise-sensitive land uses which are proposed in areas exposed to existing or projected exterior noise levels exceeding the level standards contained within this Noise Element.

- Policy N-2** Emphasize site planning and project design to achieve the standards of this Noise Element. The use of noise barriers shall be considered a means of achieving the noise standards; however, the construction of aesthetically intrusive wall heights shall be discouraged.
- Policy N-3** Ensure that stationary noise sources do not interfere with sleep by applying an interior hourly maximum noise level design standard of 45 dBA in the enclosed sleeping areas of residences affected by stationary noise sources. This standard assumes doors and windows are closed.
- Policy N-4** Restrict development of noise-sensitive land uses where the noise levels due to existing or planned stationary noise sources will exceed the exterior stationary noise level design standards of the Noise Element, unless effective noise mitigation measures have been incorporated into the project.
- Policy N-5** Evaluate and mitigate as appropriate, noise created by proposed stationary noise sources so that the exterior stationary noise level design standards of the Noise Element are not exceeded.
- Policy N-6** Apply the noise level design standards contained within Table 2-1 of the Noise Element to Policies N-4 and N-5 of the Noise Element.

Table 1. (Table 2-1 of the General Plan) Exterior Noise Level Design Standards for New Projects Affected by or Including Stationary Noise Sources

Noise Level Descriptor	Daytime (7am to 10pm)	Nighttime (10pm to 7am)
Hourly Leq, dB	55 dBA	45 dBA

Notes:

The City can impose noise level standards that are more restrictive than those specified above based upon determination of existing low ambient noise levels.

“Fixed” noise sources which are typically of concern include, but are not limited to the following:

HVAC Systems	Cooling Towers/Evaporative Condensers
Pump Stations	Lift Stations
Emergency Generators	Boilers
Steam Valves	Steam Turbines
Generators	Fans
Air Compressors	Heavy Equipment
Conveyor Systems	Transformers
Pile Drivers	Grinders
Drill Rigs	Gas or Diesel Motors
Welders	Cutting Equipment
Outdoor Speakers	Blowers

The types of uses which may typically produce the noise sources described above include but are not limited to: industrial facilities including pump stations, trucking operations, tire shops, auto maintenance shops, metal fabricating shops, shopping centers, drive-up windows, businesses using amplified sound systems, car washes, loading docks, batch plants, bottling and canning plants, recycling centers, electric generating stations, race tracks, landfills, sand and gravel operations, schools, playgrounds, and athletic fields.

NOTE: The point of measurement for noise levels is at a location at least 5 feet inside the property line of the receiving land use and at a point 5 feet above ground level. In the case of lots where the noise-sensitive use has a reasonable outdoor activity area for outdoor enjoyment, the stationary noise source criteria can be applied at a designated outdoor activity area (at the discretion of the City)

Source: City of Rocklin, General Plan Noise Element, 2012

Policy N-7 Restrict development of noise-sensitive land uses in areas exposed to existing or projected levels of noise from transportation noise sources that exceed the noise level standards contained within the Noise Element, unless the project design includes effective mitigation that results in noise exposure which meets standards.

Policy N-8 Evaluate and mitigate as appropriate, noise created by new roadway noise sources (e.g., truck routes and new roadways) not contained within the General Plan, so as not to exceed the noise level standards of the Noise Element.

Policy N-9 Apply the noise level design criteria contained within Table 2-2 of the Noise Element to Policies N-7 and N-8 of the Noise Element.

Table 2. (Table 2-2 of the General Plan) Maximum Allowable Noise Levels Transportation Noise Sources

Land Use Category	Outdoor Activity ¹ Areas Ldn/CNEL, dB	Interior Spaces	
		Ldn/CNEL, dB	Leq, dB ²
Residential	65 ³	45	—
Transient Lodging	—	45	—
Hospitals, Nursing Homes	65 ³	45	—
Theaters, Auditoriums, Music Halls	—	—	35
Churches, Meeting Halls	65 ³	—	40
Office Buildings	—	—	45
Schools, Libraries, Museums	65 ³	—	45
Playgrounds, Neighborhood Parks	70	—	—

Notes:

¹ The outdoor activity area is generally considered to be the location where individuals may generally congregate for relaxation, or where individuals may require adequate speech intelligibility. Such places may include patios of residences, picnic facilities, or instructional areas.

Where it is not practical to mitigate exterior noise levels at patio or balconies of apartment complexes, a common area such as a pool or recreation area may be designated as the outdoor activity area.

At the discretion of the City, where no outdoor activity areas are provided or known, only the interior noise level criteria can be applied to the project.

² As determined for a typical worst-case hour during periods of use.

³ Where it is not possible to reduce noise in outdoor activity areas to 60 dB Ldn/CNEL or less using a practical application of the best-available noise reduction measures, an exterior noise level of up to 65 dB Ldn/CNEL may be allowed provided that available exterior noise level reduction measures have been implemented and interior noise levels are in compliance with this table.

Note: Existing dwellings and new single-family dwellings on existing lots are not subject to further City review with respect to compliance with the standards of the Noise Element. As a consequence, such dwellings may be constructed in areas where noise levels exceed the standards of the Noise Element.

Source: City of Rocklin, General Plan Noise Element, 2012

The City of Rocklin Municipal Code

The City of Rocklin Municipal Code include provisions for noise enforcement throughout the Code of Ordinances. However, the municipal code does not contain any quantitative limits. Therefore, this analysis will use the noise criteria contained within the General Plan Noise Element to evaluate compliance and impact significance.

The City of Rocklin Construction Noise Guidelines

The City of Rocklin has established a noise policy for use all construction projects within or near residential areas. The policy prohibits noise generated by construction activity on weekdays between 7:00 PM and 7:00 AM, and on weekends from 7:00 PM and 8:00 AM.

Ambient Community Noise Environment Degradation

In addition to the criteria discussed above, another consideration in defining impact criteria is based on the degradation of the existing ambient noise environment. In community noise assessments, it is “generally not significant” if no noise-sensitive sites are located within the study area, or if increases in community noise levels associated with implementation of the Project would not exceed +3 dB at noise-sensitive locations in the project vicinity (Caltrans 1998).

3 Existing Conditions

An ambient noise survey was conducted by Dudek from August 7th, 2019 through August 9th, 2019 to document the existing ambient noise in the vicinity of the proposed Project. Long-term unattended ambient noise monitoring was performed at two (2) locations in the Project vicinity with concurrent short-term noise level monitoring performed at two (2) locations in the Project vicinity on August 9th, 2019. Locations of the noise monitoring sites are presented on an aerial photograph of the area on Figure 1, with long-term noise measurement sites represented as LT-1 through LT-2 and short-term measurement locations shown as ST-1 through ST-2. The following sections discuss the overall monitoring results for the long-term and short-term measurements.

Additional event noise monitoring was performed on September 7th, 2019 to characterize the sound levels at a typical sporting event. During the monitoring period significant sources associated with the event were documented and their contribution to the overall noise level was noted. Event noise monitoring location is represented on Figure 1 as ST-3.

Noise measurements were performed using Larson Davis Laboratories (LDL) Model 831 precision integrating sound level meters (SLMs). Field calibrations were performed on the SLM with an acoustic calibrator before and after the measurements. Equipment meets all pertinent specifications of ANSI S1.4-1983 (R2006) for Type 1 SLMs. All instrumentation components, including microphones, preamplifiers and field calibrators have laboratory certified calibrations traceable to the National Institute of Standards and Technology (NIST). The microphones were located at a minimum height of 5-6 ft. above the ground, an average height for a person standing, and located a sufficient distance away from reflective surfaces in the monitoring area. Noise measurements were performed in accordance with American National Standards Institute (ANSI) and American Standards for Testing and Measurement (ASTM) guidelines.

The noise monitoring equipment was configured to catalog all noise metrics pertinent to identification and evaluation of noise levels (i.e., Leq, Lmax, Ln, etc.) in the study area. Monitoring data was collected for the overall measurement period and each hourly period.

Meteorological conditions during the ambient monitoring periods were stable with temperatures ranging from 59 to 81 degrees Fahrenheit (F), light winds from 0 mph to 6 mph during most of the period with occasional gusts up to 14 mph, and cloudy skies. No precipitation was experienced during the monitoring period.

3.1 Ambient Monitoring

3.1.1 Long-Term Monitoring

Long-term noise monitoring data collected during the noise monitoring program serves to establish a baseline for ambient noise levels in the project vicinity. Additionally, the noise levels cataloged illustrate the diurnal pattern experienced at the site; and allow for correlation of hourly noise levels collected at the short-term monitoring locations with the 24-hour day-night noise levels. Long-term noise monitoring data is presented below for the monitoring period beginning on Wednesday, August 7th, 2019.

During the long-term monitoring, the primary background noise source affecting the monitoring location was vehicular traffic on the local roadway network (Sierra College Blvd. and Rocklin Road). Additional noise sources experienced during the long-term noise monitoring period included emergency vehicle pass-bys and general community noise. Ambient noise level exposure at the monitoring location was dependent on the relative exposure to nearby transportation noise sources.

Noise monitoring data is summarized below Table 3 for the long-term noise monitoring location in; with detailed noise level data provided in tabular and graph form in Appendix B. The average day-night (Ldn) noise level measured during the long-term ambient noise monitoring survey was approximately 65 dBA Ldn at the long-term monitoring location. Maximum hourly noise levels (Lmax) documented during the long-term monitoring ranged from approximately 69 to 96 dBA Lmax, with average maximum noise levels from approximately 76 to 85 dBA Lmax.

3.1.2 Short-Term Monitoring

Short-term attended monitoring was performed by Dudek staff at two (2) locations in the Project vicinity on August 9th, 2019. Detailed observations about the measurement environment, existing noise sources, and other elements with the potential to affect the measurement or the project analysis were documented throughout the monitoring program. The short-term monitoring locations ST-1 and 2 were intended to characterize traffic noise levels; ST-1 also provides insight into noise level exposure at the residential land uses to the south of the Project. As such, noise experienced at the short-term monitoring locations was predominately due to vehicular traffic on the local roadway network.

Overall noise levels measured at the short-term monitoring locations ranged from approximately 45 to 78 dBA Leq; with average noise levels of 65 and 63 dBA Leq respectively. Maximum noise levels documented during the monitoring survey were approximately 78 dBA Lmax at ST-1 and 74 dBA Lmax at ST-2. Table 3 presents the overall monitoring results for each of the short-term monitoring locations.

Table 3. Summary of Ambient Noise Measurements

Site	Location	Dates	CNEL	Average Noise Levels, dBA								
				Daytime (7am to 7pm)			Evening (7pm to 10 pm)			Nighttime (10pm to 7am)		
				Leq	Lmax	L90	Leq	Lmax	L90	Leq	Lmax	L90
Long-Term Monitoring												
LT-1	5385 Sierra College Blvd	08/07/19 to 08/08/19	63.5	60.1	74.5	50.8	59.4	80.7	48.5	55.7	71.9	41.9
		08/08/19 to 08/09/19	62.8	58.4	77.6	50.9	58.3	71.6	48.6	55.4	71.0	41.1
LT-2	Rocklin Manor Apartments	08/07/19 to 08/08/19	64.1	62.0	81.6	51.0	60.8	86.4	49.6	55.4	75.5	43.2
		08/08/19 to 08/09/19	63.0	59.5	84.0	51.2	59.1	75.0	48.9	55.3	71.9	41.5
Short-Term Monitoring												
ST-1	Rocklin Road at Schatz Lane	08/09/19 10:45 AM	-	65.0	77.6	60.2	-	-	-	-	-	-
ST-2	Sierra College at Campus Drive	08/09/19 10:45 AM	-	63.2	74.4	59.4	-	-	-	-	-	-

Notes:

dBA = A-weighted decibels; Ldn = Day Night noise level; Leq = average equivalent noise level; Lmax = maximum noise level; L90 = sound level exceeded 90 percent of the period.

Locations of noise monitoring sites are shown on Figure 1.

3.2 Event Noise Monitoring

Dudek performed additional noise monitoring at the September 7th, 2019 sporting event being held at the Stadium. The September 7th sporting event was a Sierra College football game versus San Francisco. The game was scheduled to begin at 1:00 PM and had 1,200 in attendance. Event noise monitoring was performed one (1) location at the southern edge of the football stadium. Monitoring was performed to adequately document the different sound generating portions of the event. The monitoring period began prior to half-time at 2:20 PM and was concluded at 3:20 PM, when the game concluded.

During the monitoring period, detailed observations and recordings were cataloged for the predominant noise sources contributing to the overall event noise. Predominant noise sources noted during the monitoring period included cheers from the crowd, announcing, music playback, and gameplay itself.

Data from the event noise monitoring was post-processed to identify noise level directly attributable to the sound-generating elements of the event and exclude extraneous noise levels present in the ambient environment. Sound levels for each predominant noise source were compiled from the events representing each of the noise sources.

Table 4. Summary of Event Noise Levels

Noise Source	Duration of Isolated Events in One Hour	Average Noise Levels, Leq _{1-sec.} dBA			
		Minimum	Average	Maximum	SEL
Announcing	249 seconds	56	67	76	91.3
Crowds Cheering	131 seconds	54	70	83	90.7
Music Playback	367 seconds	53	65	73	90.4
Referee Whistle	4 seconds	68	72	77	77.8

Notes:

dBA = A-weighted decibels; Leq = average equivalent noise level, SEL = Sound Exposure Level.

Locations of noise monitoring sites are shown on Figure 1.

3.3 Existing Traffic Noise Levels

The City of Rocklin General Plan Noise Element contains existing Roadway Noise Levels and Future Traffic Noise Levels for the City of Rocklin. Existing roadway noise levels presented in the City of Rocklin Noise Element were prepared for the 2008 condition; with Future Traffic Noise Levels representing projected traffic noise for the year of 2030.

The roadway traffic noise analysis presented in the Noise Element utilized the Federal Highway Administration (FHWA) Traffic Noise Prediction Model (RD-77-108) with inclusion of the California Department of Transportation (Caltrans) CALVENO reference noise emission factors. The FHWA Traffic Noise Prediction Model gives consideration for vehicle volume, mix of vehicle types (automobile, medium trucks, and heavy trucks), speed, roadway configuration, distance to the receptor and other site characteristics that effect site acoustics. Traffic volume inputs to the noise prediction model were based on traffic volume information prepared by DKS Associates and Caltrans file data. The City of Rocklin General Plan Noise Levels are presented below in Table 5.

Table 5. Summary of Event Noise Levels

Roadway	Segment	CNEL at 50 feet from Near Travel-Lane Centerline, dB	Distance (feet) from roadway centerline to CNEL Contour	
			60 dB	65 dB
Existing – 2008 (Noise Element Table 4-11)				
Sierra College	I-80 EB ramps. to Rocklin Rd.	67.08	209	99
	Rocklin Rd. to Scarborough Dr.	69.86	319	149
Rocklin Road	Sierra College Blvd. to El Don Dr.	64.99	319	149
Future – 2030 (Noise Element Table 4-12)				
Sierra College	North of Rocklin Road	73.16	528	246
	South of Rocklin Road	73.50	556	259
Rocklin Road	Sierra College Blvd. to El Don Dr.	67.22	213	101

Notes:

dBA = A-weighted decibels; Leq = average equivalent noise level, CNEL = Community Noise Equivalent Level.

Source: City of Rocklin General Plan Noise Element, 2012

As part of the August ambient noise measurement survey, traffic noise levels and concurrent measurements and manual vehicle classification counts were documented at short-term monitoring locations ST-1 and ST-2. Traffic noise measurement and vehicle classification counts were performed for Rocklin Road and Sierra College Blvd. Traffic volumes and vehicle classification counts were used as inputs to the FHWA traffic noise prediction model.

The calculated FHWA traffic noise prediction model results were compared to the correlating measured noise levels. Modeled traffic noise levels were found to be reasonably consistent with the measured traffic noise levels, which would indicate that FHWA traffic noise predication modeled noise level calculations are accurate and representative of the acoustic environment in the vicinity. Given that the traffic noise levels presented in the City of Rocklin General Plan were calculated in a similar manner, it is reasonable to assume that the predicted General Plan existing and future traffic noise levels are representative of traffic noise levels in the Project area.

4 Project Analysis

The proposed Sierra College Stadium Lighting Project would install a lighting system at the stadium to facilitate sporting events and events such as graduation. The stadium lighting system itself does not incorporate any significant sound generating sources; and is therefore not discussed further in this analysis. Elements of the proposed Project that would have the potential to impact the existing noise environment would include construction noise and noise from the evening events themselves.

Construction Noise

Construction noise and vibration are temporary phenomena. Construction noise and vibration levels vary from hour to hour and day to day, depending on the equipment in use, the operations performed, and the distance between the source and receptor. The City of Rocklin has not established quantifiable construction noise level standards; rather, the City of Rocklin prohibits noise generated by construction activities between 7 PM and 7 AM on weekdays, and between 7 PM and 8 AM on weekends. Due to the scale of this Project, it is assumed that all construction activity will be performed during daytime hours and not conflict with the City of Rocklin policy on construction noise generation. However, the following construction noise analysis is provided for context and completeness.

Equipment that would be in use during construction of the proposed Project would likely include, in part, backhoes, loaders, cranes, forklifts, cement mixers, air compressors and hand tools. The typical maximum noise levels for various pieces of construction equipment at a distance of 50 feet are presented in Table 3. Note that the equipment noise levels presented in Table 6 are maximum noise levels. Usually, construction equipment operates in alternating cycles of full power and low power, producing average noise levels over time that are less than the maximum noise level. The average sound level of construction activity also depends on the amount of time that the equipment operates and the intensity of construction activities during that time.

Table 6. Typical Construction Equipment Maximum Noise Levels

Equipment Type	Typical Equipment (Lmax, dBA at 50 feet)
All Other Equipment > 5 HP	85
Backhoe	78
Compressor (air)	78
Concrete Saw	90
Crane	81
Dozer	82
Excavator	81
Front End Loader	79
Generator	72
Grader	85
Man Lift	75
Paver	77
Roller	80
Scraper	84
Tractor	84
Welder / Torch	73

Notes:

dBA = A-weighted decibels; Lmax = maximum noise level.

Source: DOT 2006.

Aggregate noise emission from proposed Project construction activities, broken down by sequential phase, was propagated from the geographic center of the construction site to the nearest noise-sensitive residential receptor, an approximate distance of 550 feet. The geographic center of construction operations serves as the time-averaged location or acoustical centroid of active construction equipment for the phase under study. This distance is used in a manner similar to the general assessment technique as described in the Federal Transit Administration (FTA) guidance for construction noise assessment, when the location of individual equipment for a given construction phase is uncertain, and assumed to operate over some extent of (or the entirety of) the construction site area.

A construction noise prediction model employing the calculation algorithms and reference data from the Federal Highway Administration Roadway Construction Noise Model (RCNM) (FHWA 2008) and FTA was used to estimate construction noise levels at the nearest occupied noise-sensitive land use. While the RCNM was funded and promulgated by the Federal Highway Administration for use on roadway construction projects, it is often used for non-roadway projects, as the same types of construction equipment used for roadway projects are often used for other types of construction. Input variables for the predictive modeling consist of the equipment type and number of each (e.g., two graders, a loader, a tractor), the duty cycle for each piece of equipment (e.g., percentage of time within a specific time period, such as an hour, when the equipment is expected to operate at full power or capacity and thus make noise at a level comparable to what is presented in Table 3), and the distance from the noise-sensitive receiver. The predictive model also considers how many hours that equipment may be on site and operating (or idling) within an established work shift. Conservatively, no topographical or structural shielding was assumed in the modeling. The RCNM has default duty-cycle values for the various pieces of equipment, which were derived from an extensive study of typical construction activity patterns. The default duty-cycle values were used

for this noise analysis, which is detailed in Appendix B, Construction Noise Modeling Input and Output. The predicted Project-related construction noise levels at the nearest noise-sensitive receptor are displayed in Table 7.

Table 7. Predicted Construction Noise Levels per Activity Phase

Construction Phase (and Equipment Types Involved)	Leq at Nearest Noise-Sensitive Receptor to Acoustical Centroid of Site (dBA)
Site preparation (backhoe, dump truck)	54.6
Grading/Drilling (backhoe, drill rig truck, dump truck)	55.9
Trenching (backhoe, dump truck)	54.6
Construction (crane, concrete mixer truck, forklift)	57.9

Notes:

dBA = A-weighted decibels; Leq = equivalent noise level.

As presented in Table 7, the estimated construction noise levels are predicted to be as high as 58 dBA Leq over at the nearest noise-sensitive residential receptor. While nearby off-site residences may be exposed to construction noise levels marginally above the City of Rocklin stationary noise source standard, the increased noise levels would be relatively short-term and sporadic. Additionally, it is anticipated that construction activities associated with the proposed Project would not take place during the hours of 7:00 p.m. through 8:00 a.m., during which time the City of Rocklin Construction Noise Policy prohibits excessive construction noise. Therefore, construction of the proposed Project would comply with the City of Rocklin construction noise criteria and would be considered a less-than-significant impact.

Event Noise

Noise related to the events being supported by the new stadium lighting system is anticipated to include sporting events and events such as graduation ceremonies. The aforementioned event noise measurement, carried out by Dudek, quantified sound levels generated at a recent sporting event. Sound sources documented and recorded during the sporting event included cheering from the crowd in attendance at the game, announcements over the stadium sound system, music playback over the stadium sound system and the gameplay itself. The September 7th, 2019 football game had 1,200 in attendance. With an average attendance reported as approximately 800 people and a maximum bleacher seating capacity of 1,500, the recorded event noise levels are considered to be representative of potential evening events that may be facilitated by the Project.

Events such as graduation ceremonies would be configured to allow additional on-field seating, which would provide an additional 1,500 seats, for a total capacity of approximately 3,000. The predominant sound source during graduation ceremonies would be speech over the stadium sound system. Cheering from the audience in attendance at the graduation ceremonies is likely to occur, but is not typically coordinated corporate cheering as experienced during sporting events, and is not expected to significantly affect the ambient noise environment.

The findings of the event noise monitoring, as presented in Table 4, were used as inputs to a computerized noise simulation model of the Project study area. To provide a conservative analysis of proposed project noise levels, it was assumed that all of the sound sources associated with an event were occurring simultaneously. The stadium speaker system consists of four (4) Community Loudspeaker R.5 loudspeakers, positioned on the rooftop of the announcing booth and splayed to cover the endzones and bleachers. Loudspeaker performance data provided by the manufacturer was incorporated into the source elements representing the loudspeakers and the source sound

levels calibrated to the sound levels experienced during the event noise monitoring survey. The model accounts for elements in the environment and Project that can have an effect on the acoustical characteristics of the study area, such as, topography, ground type, elevation, sound source configuration and intervening man-made structures. The propagation algorithms employed to calculate the event noise levels are those of the international standard ISO 9613 (2006), which is one the most widely used and accepted propagation algorithms. The ISO 9613 (2006) standard allows for the conservative prediction of downwind conditions in all directions. Prediction receivers were placed within the noise prediction model to represent the nearby noise-sensitive receptors in the immediate vicinity of the proposed Project. Predicted event noise levels at prediction receivers, representing noise-sensitive receptors in the Project vicinity are presented below in Table 8.

Table 8. Predicted Event Noise Levels

Prediction Receiver		Modeled Noise Level, dBA Leq		
Number	Description	Sporting Event	Graduation	Existing Traffic ¹
1	5385 Sierra College Blvd	48	42	58 (60) ²
2	Rocklin Manor Apartments	38	33	59 (62) ²
3	Cresleigh Sierra neighborhood	47	41	57 (59) ²

Notes:

dBA = A-weighted decibels; Leq = equivalent noise level.

1 – Based on City of Rocklin General Plan EIR existing traffic noise levels.

2 – Average day/night noise level contained in parentheses.

As shown in Table 8, based on the source noise levels quantified during the event noise monitoring survey, modeled noise levels generated by sporting events would range from 38 to 48 dBA Leq at nearby noise-sensitive receptors. Events such as graduation are predicted to result in noise levels ranging from 33 to 42 dBA Leq at nearby noise-sensitive receptors. As such, evening events facilitated by the proposed Project are predicted to comply with the City of Rocklin General Plan stationary noise source standard of 55 dBA Leq during daytime (7 AM to 10 PM) hours.

Effect on Ambient Noise Environment

Based on existing General Plan EIR traffic noise levels, the existing ambient environment at the nearby noise-sensitive receptors experience average daytime traffic noise levels of 57 to 59 dBA Leq (59 to 62 dBA Ldn). With proposed Project event noise levels ranging from 33 to 48 dBA Leq, event noise levels would be greater than 10 dB below the background noise levels experienced at the receptors. Therefore, event noise levels are expected to result in a change of less than 1 dB at nearby noise-sensitive receptors.



SOURCE: DigitalGlobe 2016



Appendix A

Acoustic Fundamental and Terminology

Ambient Noise Level	The composite of noise from all sources near and far. The normal or existing level of environmental noise at a given location.
A-Weighted Sound Level (dBA)	The sound pressure level (SPL) in decibels as measured on a sound level meter (SLM) using the A-weighted filter network, which de-emphasizes the very low and very high frequency components of the measured sound in a manner similar to the frequency response of the average healthy human ear.
Day-night Sound Level (L_{dn})	The A-weighted equivalent continuous sound level over a 24-hour period with a 10 dB adjustment added to sound levels occurring during the nighttime hours (10 p.m. to 7 a.m.).
Decibel (dB)	The unit for expressing SPL and is equal to 10 times the logarithm (to the base 10) of the ratio of the measured sound pressure squared to a reference pressure, which is 20 micropascals.
Equivalent Sound Level ($L_{eq[xh]}$)	The value corresponding to a steady-state sound level containing the same total energy as a time-varying signal over a given sample period. The L_{eq} may feature notation in its subscript indicating the time period (e.g., eight hours as “8h” to populate “[Xh]”) of energy averaging.
Maximum Sound Level (L_{max})	The highest value measured by an SLM over a given sample period, based on a time-weighted sound level in dB using a “fast” or “slow” time constant.
Statistical Sound Level (L_{xx})	The SPL exceeded a cumulative XX percent (%) of the measured time period. By way of example, L_{50} is also referred to as a “median” sound level. The L_{90} value is often considered akin to a “background” sound level of indistinct contribution to the outdoor sound environment or an approximation of continuous or steady-state sources of noise such as mechanical equipment.
Peak Particle Velocity (PPV)	The maximum instantaneous positive or negative peak of a vibration wave. (In this document, a PPV descriptor with units of mm/sec or in/sec is used to evaluate construction-generated vibration for building damage risk and human annoyance.
Vibration Velocity Decibel (VdB)	Ten times the common logarithm of the ratio of the square of the amplitude of the RMS vibration velocity to the square of the amplitude of the reference RMS vibration velocity. The reference velocity in the United States is one micro-inch per second.



Appendix B

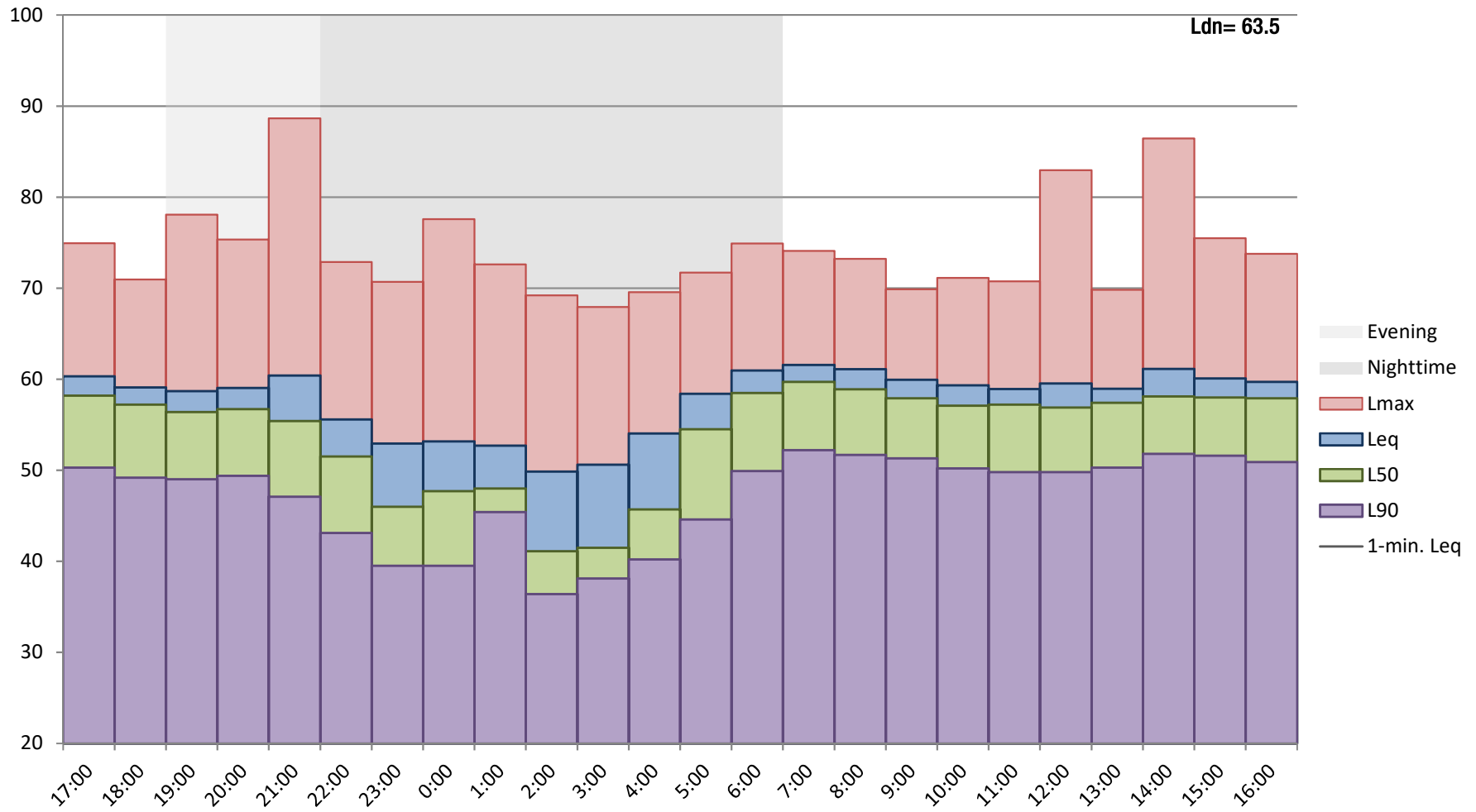
Monitoring Data

Appendix B-1 Long-Term 24 Hour Continuous Noise Monitoring

Project: Sierra College Stadium Lighting
Date: August 07, 2019 to August 08, 2019
Site: LT-01 5385 Sierra College Blvd

Hour	Leq	Lmax	L50	L90		Lowermost Level			
17:00	60.3	74.9	58.2	50.3		Leq	Lmax	L50	L90
18:00	59.1	71.0	57.2	49.2	Daytime (7 a.m. - 7 p.m.)	58.9	69.8	56.9	49.2
19:00	58.7	78.1	56.4	49.0	Evening (7 p.m. - 10 p.m.)	58.7	75.3	55.4	47.1
20:00	59.0	75.3	56.7	49.4	Nighttime (10 p.m. - 7 a.m.)	49.9	67.9	41.1	36.4
21:00	60.4	88.6	55.4	47.1					
22:00	55.6	72.9	51.5	43.1		Average Level			
23:00	52.9	70.7	46.0	39.5		Leq	Lmax	L50	L90
0:00	53.2	77.6	47.7	39.5	Daytime (7 a.m. - 7 p.m.)	60.1	74.5	57.9	50.8
1:00	52.7	72.6	48.0	45.4	Evening (7 p.m. - 10 p.m.)	59.4	80.7	56.2	48.5
2:00	49.9	69.2	41.1	36.4	Nighttime (10 p.m. - 7 a.m.)	55.7	71.9	48.3	41.9
3:00	50.6	67.9	41.5	38.1					
4:00	54.0	69.6	45.7	40.2		Uppermost-Level			
5:00	58.4	71.7	54.5	44.6		Leq	Lmax	L50	L90
6:00	61.0	74.9	58.5	49.9	Daytime (7 a.m. - 7 p.m.)	61.6	86.4	59.7	52.2
7:00	61.6	74.1	59.7	52.2	Evening (7 p.m. - 10 p.m.)	60.4	88.6	56.7	49.4
8:00	61.1	73.2	58.9	51.7	Nighttime (10 p.m. - 7 a.m.)	61.0	77.6	58.5	49.9
9:00	59.9	69.9	57.9	51.3					
10:00	59.3	71.1	57.1	50.2		Energy Distribution			
11:00	58.9	70.7	57.2	49.8		Daytime	67%		
12:00	59.5	83.0	56.9	49.8		Evening	15%		
13:00	58.9	69.8	57.4	50.3		Nighttime	18%		
14:00	61.1	86.4	58.1	51.8					
15:00	60.1	75.5	58.0	51.6		Calculated CNEL, dBA			
16:00	59.7	73.8	57.9	50.9		63.5			

Appendix B-1
Sierra College Stadium Lighting - LT-01
August 07, 2019 to August 08, 2019



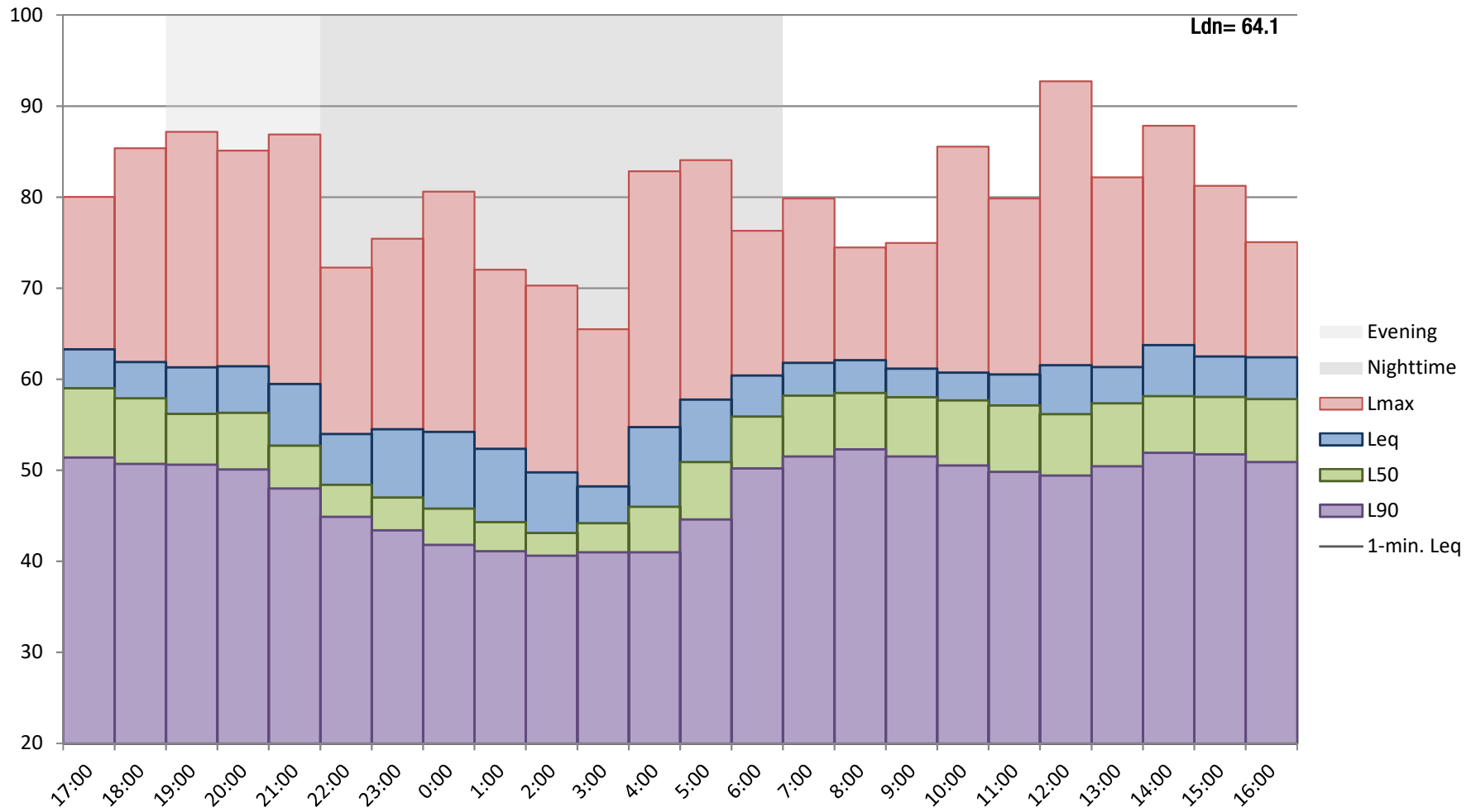
Appendix B-2

Long-Term 24 Hour Continuous Noise Monitoring

Project: Sierra College Stadium Lighting
Date: August 07, 2019 to August 08, 2019
Site: LT-02 Rocklin Manor Apartments

Hour	Leq	Lmax	L50	L90		Lowermost Level			
17:00	63.3	80.0	59.0	51.4		Leq	Lmax	L50	L90
18:00	61.9	85.4	57.9	50.7	Daytime (7 a.m. - 7 p.m.)	60.5	74.5	56.2	49.4
19:00	61.3	87.2	56.2	50.6	Evening (7 p.m. - 10 p.m.)	59.5	85.1	52.7	48.0
20:00	61.4	85.1	56.3	50.1	Nighttime (10 p.m. - 7 a.m.)	48.2	65.5	43.1	40.6
21:00	59.5	86.9	52.7	48.0		Average Level			
22:00	54.0	72.3	48.4	44.9		Leq	Lmax	L50	L90
23:00	54.5	75.4	47.0	43.4	Daytime (7 a.m. - 7 p.m.)	62.0	81.6	57.8	51.0
0:00	54.2	80.6	45.8	41.8	Evening (7 p.m. - 10 p.m.)	60.8	86.4	55.1	49.6
1:00	52.4	72.0	44.3	41.1	Nighttime (10 p.m. - 7 a.m.)	55.4	75.5	47.3	43.2
2:00	49.8	70.3	43.1	40.6		Uppermost-Level			
3:00	48.2	65.5	44.2	41.0		Leq	Lmax	L50	L90
4:00	54.7	82.8	46.0	41.0	Daytime (7 a.m. - 7 p.m.)	63.7	92.7	59.0	52.3
5:00	57.8	84.1	50.9	44.6	Evening (7 p.m. - 10 p.m.)	61.4	87.2	56.3	50.6
6:00	60.4	76.3	55.9	50.2	Nighttime (10 p.m. - 7 a.m.)	60.4	84.1	55.9	50.2
7:00	61.8	79.9	58.2	51.5		Energy Distribution			
8:00	62.1	74.5	58.5	52.3		Daytime		74%	
9:00	61.1	75.0	58.0	51.5		Evening		14%	
10:00	60.7	85.5	57.7	50.5		Nighttime		12%	
11:00	60.5	79.9	57.1	49.8		Calculated CNEL, dBA			
12:00	61.5	92.7	56.2	49.4		64.1			
13:00	61.3	82.2	57.4	50.4					
14:00	63.7	87.8	58.1	51.9					
15:00	62.5	81.2	58.1	51.7					
16:00	62.4	75.0	57.8	50.9					

Appendix B-2
Sierra College Stadium Lighting - LT-02
August 07, 2019 to August 08, 2019





Appendix C

Construction Noise Calculation

Appendix C
Project-Generated Construction Source Noise Prediction Model
Sierra College Stadium Lighting - Site Preparation

Location	Distance to Nearest Receiver in feet	Combined Predicted Noise Level (L _{eq} dBA)	Equipment Assumptions	Qty.	Reference Emission Noise Levels (L _{max}) at 50 feet ¹	Usage Factor ¹
Nearest Receptor	550	54.6	Backhoe	1	80	0.4
	50	81.5	Dump Truck	1	84	0.4
	100	73.7				
	150	69.2				
	200	65.9				
	250	63.4				
	300	61.4				
	350	59.7	Ground Type		Soft	
	400	58.2	Source Height		5	
	450	56.8	Receiver Height		5	
	500	55.7	Ground Factor		0.58	
	550	54.6				
			Predicted Noise Level ²			
			L _{eq} dBA at 50 feet ²			
			Backhoe			
			76.0			
			Dump Truck			
			80.0			
			Predicted Combined Noise Level (L _{eq} dBA at 50 feet)			
			81.5			

Sources:

1 - Obtained from the FHWA Roadway Construction Noise Model, January 2006.

2 - Based on the following from the Federal Transit Noise and Vibration Impact Assessment, 2006.

$$L_{eq}(\text{equip}) = E.L. + 10 \log (U.F.) - 20 \log (D/50) - 10 \log (D/50)$$

Where: E.L. = Emission Level;

U.F. = Usage Factor;

G = Constant that accounts for topography and ground effects; and

D = Distance from source to receiver.

*Project specific threshold

Appendix C
Project-Generated Construction Source Noise Prediction Model
Sierra College Stadium Lighting - Grading/Drilling

Location	Distance to Nearest Receiver in feet	Combined Predicted Noise Level (L _{eq} dBA)	Equipment Assumptions	Qty.	Reference Emission Noise Levels (L _{max}) at 50 feet ¹	Usage Factor ¹
Nearest Receptor	550	55.9	Backhoe	1	80	0.4
	50	82.8	Drill Rig Truck	1	84	0.2
	100	75.0	Dump Truck	1	84	0.4
	150	70.5				
	200	67.3				
	250	64.8				
	300	62.7				
	350	61.0	Ground Type		Soft	
	400	59.5	Source Height		5	
	450	58.2	Receiver Height		5	
	500	57.0	Ground Factor		0.58	
	550	55.9				
			Predicted Noise Level ²			
			L _{eq} dBA at 50 feet ²			
			Backhoe			
			76.0			
			Drill Rig Truck			
			77.0			
			Dump Truck			
			80.0			
			Predicted Combined Noise Level (L _{eq} dBA at 50 feet)			
			82.8			

Sources:

1 - Obtained from the FHWA Roadway Construction Noise Model, January 2006.

2 - Based on the following from the Federal Transit Noise and Vibration Impact Assessment, 2006.

$$L_{eq}(\text{equip}) = E.L. + 10 \log (U.F.) - 20 \log (D/50) - 10 \log (G/50)$$

Where: E.L. = Emission Level;

U.F. = Usage Factor;

G = Constant that accounts for topography and ground effects; and

D = Distance from source to receiver.

*Project specific threshold

Appendix C
Project-Generated Construction Source Noise Prediction Model
Sierra College Stadium Lighting - Trenching

Location	Distance to Nearest Receiver in feet	Combined Predicted Noise Level (L _{eq} dBA)	Equipment Assumptions	Qty.	Reference Emission Noise Levels (L _{max}) at 50 feet ¹	Usage Factor ¹
Nearest Receptor	550	54.6	Backhoe	1	80	0.4
	50	81.5	Dump Truck	1	84	0.4
	100	73.7				
	150	69.2				
	200	65.9				
	250	63.4				
	300	61.4				
	350	59.7	Ground Type		Soft	
	400	58.2	Source Height		5	
	450	56.8	Receiver Height		5	
	500	55.7	Ground Factor		0.58	
	550	54.6				
			Predicted Noise Level ²			
			L _{eq} dBA at 50 feet ²			
			Backhoe			
			76.0			
			Dump Truck			
			80.0			
			Predicted Combined Noise Level (L _{eq} dBA at 50 feet)			
			81.5			

Sources:

1 - Obtained from the FHWA Roadway Construction Noise Model, January 2006.

2 - Based on the following from the Federal Transit Noise and Vibration Impact Assessment, 2006.

$$L_{eq}(\text{equip}) = E.L. + 10 \log (U.F.) - 20 \log (D/50) - 10 \log (G/50)$$

Where: E.L. = Emission Level;

U.F. = Usage Factor;

G = Constant that accounts for topography and ground effects; and

D = Distance from source to receiver.

*Project specific threshold

Appendix C
Project-Generated Construction Source Noise Prediction Model
Sierra College Stadium Lighting - Construction

Location	Distance to Nearest Receiver in feet	Combined Predicted Noise Level (L _{eq} dBA)	Equipment Assumptions	Qty.	Reference Emission Noise Levels (L _{max}) at 50 feet ¹	Usage Factor ¹
Nearest Receptor	550	57.9	Crane	1	85	0.16
	50	84.8	Concrete Mixer Truck	1	85	0.4
	100	77.1	Gradall	1	85	0.4
	150	72.5				
	200	69.3				
	250	66.8				
	300	64.7				
	350	63.0	Ground Type		Soft	
	400	61.5	Source Height		5	
	450	60.2	Receiver Height		5	
	500	59.0	Ground Factor		0.58	
	550	57.9				
			Predicted Noise Level ²		L _{eq} dBA at 50 feet ²	
			Crane		77.0	
			Concrete Mixer Truck		81.0	
			Gradall		81.0	
			Predicted Combined Noise Level (L _{eq} dBA at 50 feet)			
			84.8			

Sources:

1 - Obtained from the FHWA Roadway Construction Noise Model, January 2006.

2 - Based on the following from the Federal Transit Noise and Vibration Impact Assessment, 2006.

$$L_{eq}(\text{equip}) = E.L. + 10 \log (U.F.) - 20 \log (D/50) - 10 \log (G/50)$$

Where: E.L. = Emission Level;

U.F. = Usage Factor;

G = Constant that accounts for topography and ground effects; and

D = Distance from source to receiver.

*Project specific threshold